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Undergraduate  
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<a href="#">English</a>	<a href="#">Speech Communication</a>
<a href="#">Geography</a>	<a href="#">Speech Pathology and Audiology</a>
<a href="#">Geology</a>	<a href="#">Statistics</a>
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## California State University, Hayward

Hayward Campus  
 25800 Carlos Bee Blvd.  
 Hayward, CA 94542-3000  
 (510) 885-3000

Contra Costa Campus  
 4700 Ygnacio Valley Road  
 Concord, CA 94521-4525  
 (925) 602-6700

Effective Dates:  
Fall Quarter 2000 through Summer Quarter 2001



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## The World Wide Web

## Help

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If you've gotten this far, you probably know a bit about the World Wide Web, but here are a few basic guidelines:

The program you are using to view Web pages is called a browser. To make sure you're seeing the Online Catalog correctly, you should be using a browser made by Netscape (version 2.0 or newer) or Microsoft Internet Explorer (version 3.0 or newer).

Throughout the Catalog, you will find words that are underlined and in blue, like [this](#). These are called links. Clicking on a link will take you to another page, or another section of the page you're reading.

If you find yourself lost after doing a lot of clicking, you can always hit the browser's Back button to return to your previous location. This button is usually located in the top left of the browser window, just below the File menu. The button will say "Back," or it will look like a left arrow, or both. You can keep hitting the Back button as many times as you need to return to your desired location.

Clicking the Catalog's Home button from anywhere in the Catalog will return you to the Table of Contents. This is the red Home button located on the top left of any Catalog page, just below the CSU Hayward Catalog logo.

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## Catalog Buttons

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You'll find four buttons on the top left (and bottom left) of every page of the Catalog. These buttons are:

### Home

Clicking this button returns you to the Table of Contents. If you're already at the Table of Contents, clicking this button will return you to the front page of the CSU Hayward site.

### Find

Clicking this button takes you to the Find page, where you can search the Catalog for text.

### Mail

Clicking this button takes you to an information request form where you can send comments and questions.

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## Finding Information

### Help

Clicking this button takes you to the Help page, which you are currently reading.

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To find a certain Catalog page, use the Table of Contents, which lists every page in the Catalog. (To get to the Table of Contents, click the Home button just below the CSU Hayward Catalog logo.) Look through the list and click on the name of the page you want.

You will find a section list at the top of most pages. This is a list of all the section headings featured in a given page. Clicking on any section name in this list takes you directly to that section.

If you don't know what page you want - for example, if you have a professor's name or a course title in mind, but you don't know what department they're in - you can use the Catalog's Find page. (To get to the Find page, click the Find button just below the CSU Hayward Catalog logo.)

To use the Find page simply type the words or phrases you want to find, and hit the Do It button. A list of pages containing your search words comes up. (This may take a little while.) Click on any of the pages in the list. You will be taken to that page.

Once you are at a page containing your search words, you can use the browser's Find feature to find those words in the page. Choose Find from your browser's Edit menu, type your search words, and hit Enter. You will be taken to the next occurrence of your search words in the page.

If the page you chose is not the one you want, you can hit the browser's Back button to go back to the list of Find results.

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Clicking on the Mail Button just below the CSU Hayward Catalog logo on any page will take you to a page to fill out an [information request form](#).

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## President's Message

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Welcome to California State University, Hayward. This catalog was prepared to inform you about the University and its academic programs and is a reference to which you will refer continually.

A catalog, however comprehensive, cannot fully describe the experiences you will have here at Cal State Hayward and the University's commitment to its students. We are very proud of our mission of excellence in education for a diverse society, and believe that our students, faculty, and staff together form the team that lives that mission each and every day.

Our student body is a diverse one in age, ethnicity, and culture. It matches the diversity of our geographical service area. Our faculty are outstanding teachers and scholars.

Cal State Hayward is a quality university committed to student success. Excellence in teaching and a wide range of support services are the means through which we address that goal. We also believe that the University can learn from its students.

It is with great pleasure that I welcome you to our beautiful campus and wish you every success as a Cal State Hayward student.

Norma S. Rees  
President



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# Academic Calendar 2000-2002

Please check the current [Class Schedule](#) for any calendar updates. This calendar is not an employee work calendar. Note: the final examination period extends through the final weekend of the quarter for classes meeting only on weekends.

## Fall Quarter 2000

- Sept. 19-20 Opening of Fall quarter, faculty meetings, late advising
- Sept. 21 Classes begin
- Nov. 8 Last day to withdraw without administrative approval
- Nov. 10 Last day to submit thesis to Graduate Programs Office
- Nov. 23-26 Thanksgiving recess (University closed)
- Dec. 1 Last day of classes.
- Dec. 4-8 Final examinations
- Dec. 8 End of Quarter
- Dec. 9 - Jan. 1 Academic recess

## Winter Quarter 2001

- Jan. 2 Classes begin
- Jan. 15 Martin Luther King, Jr. Day (University closed)
- Feb. 16 Last day to submit thesis to Graduate Programs Office
- Feb. 20 Last day to withdraw without administrative approval
- Mar. 9 Last day of classes
- Mar. 12-16 Final examinations
- Mar. 16 End of quarter
- Mar. 17-25 Academic recess

August 2000							September 2000							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
		1	2	3	4	5						1	2	
6	7	8	9	10	11	12	3	4	5	6	7	8	9	
13	14	15	16	17	18	19	10	11	12	13	14	15	16	
20	21	22	23	24	25	26	17	18	19	20	21	22	23	
27	28	29	30	31			24	25	26	27	28	29	30	
October 2000							November 2000							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
1	2	3	4	5	6	7					1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11	
15	16	17	18	19	20	21	12	13	14	15	16	17	18	
22	23	24	25	26	27	28	19	20	21	22	23	24	25	
29	30	31					26	27	28	29	30			
December 2000							January 2001							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
					1	2		1	2	3	4	5	6	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	
24	25	26	27	28	29	30	28	29	30	31				
31														
February 2001							March 2001							
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	

				1	2	3					1	2	3
4	5	6	7	8	9	10	4	5	6	7	8	9	10
11	12	13	14	15	16	17	11	12	13	14	15	16	17
18	19	20	21	22	23	24	18	19	20	21	22	23	24
25	26	27	28				25	26	27	28	29	30	31

## Spring Quarter 2001

Mar. 26	Opening of Spring quarter; Classes begin
May 11	Last day to submit thesis to Graduate Programs Office
May 11	Last day to withdraw without administrative approval
May 28	Memorial Day observed (University closed)
June 1	Last day of classes
June 4-8	Final examinations
June 9	End of quarter; Commencement
June 10-17	Academic recess

## Summer Quarter 2001

June 18	Opening of Summer quarter; Classes begin
July 4	Independence Day celebrated (University closed)
Aug. 3	Last day to submit thesis to Graduate Programs Office
Aug. 6	Last day to withdraw without administrative approval
Aug. 24	Last day of classes
Aug. 27-31	Final examinations
Aug. 31	End of quarter
Sept. 1-24	Academic recess

April 2001							May 2001						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7			1	2	3	4	5
8	9	10	11	12	13	14	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26
29	30						27	28	29	30	31		
June 2001							July 2001						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2	1	2	3	4	5	6	7
3	4	5	6	7	8	9	8	9	10	11	12	13	14
10	11	12	13	14	15	16	15	16	17	18	19	20	21
17	18	19	20	21	22	23	22	23	24	25	26	27	28
24	25	26	27	28	29	30	29	30	31				
August 2001							September 2001						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	29
							30						

## Fall Quarter 2001

Sept. 25-26	Opening of Fall quarter; faculty meetings, late advising
Sept. 27	Classes begin
Nov. 14	Last day to withdraw without administrative approval



Nov. 16 Last day to submit thesis to Graduate Programs Office  
 Nov. 22-25 Thanksgiving recess (University closed)  
 Dec. 7 Last day of classes  
 Dec. 10-14 Final examinations  
 Dec. 14 End of Quarter  
 Dec. 15-Jan. 6 Academic recess

### Winter Quarter 2002

Jan. 7 Classes begin  
 Jan. 21 Martin Luther King, Jr. Day (University closed)  
 Feb. 22 Last day to submit thesis to Graduate Programs Office  
 Feb. 25 Last day to withdraw without administrative approval  
 Mar. 15 Last day of classes  
 Mar. 18-22 Final examinations  
 Mar. 22 End of quarter  
 Mar. 23-31 Academic recess

October 2001							November 2001						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29	30	
December 2001							January 2002						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1			1	2	3	4	5
2	3	4	5	6	7	8	6	7	8	9	10	11	12
9	10	11	12	13	14	15	13	14	15	16	17	18	19
16	17	18	19	20	21	22	20	21	22	23	24	25	26
23	24	25	26	27	28	29	27	28	29	30	31		
30	31												
February 2002							March 2002						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1							1
						2							2
3	4	5	6	7	8	9	3	4	5	6	7	8	9
10	11	12	13	14	15	16	10	11	12	13	14	15	16
17	18	19	20	21	22	23	17	18	19	20	21	22	23
24	25	26	27	28			24	25	26	27	28	29	30
													31
April 2002							May 2002						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6				1	2	3	4
7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30					26	27	28	29	30	31	

### Spring Quarter 2002

April 1 Cesar Chavez Day (University closed)  
 April 2 Opening of Spring quarter; Classes begin  
 May 17 Last day to submit thesis to Graduate Programs Office  
 May 17 Last day to withdraw without administrative approval  
 May 27 Memorial Day observed (University closed)  
 June 7 Last day of classes  
 June 10-14 Final examinations  
 June 15 End of quarter; Commencement  
 June 16-23 Academic recess

## Summer Quarter 2002

June 24	Opening of Summer quarter; Classes begin
July 4	Independence Day celebrated (University closed)
Aug. 9	Last day to submit thesis to Graduate Programs Office
Aug. 12	Last day to withdraw without administrative approval
Aug. 30	Last day of classes
Sept. 3-6	Final examinations
Sept. 6	End of quarter
Sept. 7-23	Academic recess

June 2002							July 2002						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1		1	2	3	4	5	6
2	3	4	5	6	7	8	7	8	9	10	11	12	13
9	10	11	12	13	14	15	14	15	16	17	18	19	20
16	17	18	19	20	21	22	21	22	23	24	25	26	27
23	24	25	26	27	28	29	28	29	30	31			
30													

August 2002							September 2002						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28
25	26	27	28	29	30	31	29	30					



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## Welcome to Cal State Hayward

- ▶ [A Bay Area Campus](#)
- ▶ [Contra Costa Campus](#)

### A Bay Area Campus

California State University, Hayward is a four-year institution which enrolls approximately 13,000 students, and offers undergraduate and graduate programs in a wide range of disciplines. Perched upon 342 park-like acres in the Hayward hills, Cal State Hayward boasts a panoramic view of almost the entire San Francisco Bay Area. The campus, with its wide expanses of well-kept lawns, clean, tree-lined walkways, fountains, and beds of native California plants is one of the most beautiful in the CSU system.

### Facilities

Outstanding instructional facilities include 150 classrooms and teaching laboratories and 177 specialized instruction rooms.

Discipline-specific computer labs and

seven general access labs with IBM compatible PC's and Macintosh computers are available for student use. The University Library has a collection of over one million items accessible through its on-line catalog. The Library also provides numerous individual and group study areas.



The University Union, a popular student gathering-place, includes food services, lounges, and meeting rooms. It also offers specialized services such as photoprocessing and an automatic teller machine.

Other campus facilities include a 500-seat state-of-the-art theater with computerized lighting and sound equipment, a 8,400 square-foot television studio complex which is one of the largest on the West Coast, a bookstore, a student health center, and Pioneer Heights, a large 404-student apartment complex.

Cal State Hayward also operates the Contra Costa Campus, in Concord, which provides full instructional and student-life support for over 1,500 upper division and graduate students.

In addition, the university maintains the Hayward marsh field station as well as access to marine laboratories on Monterey Bay.

## Location

- San Francisco Bay--campus overlooks the Bay Area from the East Bay hills
- Pacific Coast--45 minutes west
- San Francisco, Berkeley, Oakland, Walnut Creek, and Concord--30 to 45 minutes northeast and northwest via BART (Bay Area Rapid Transit) trains and freeways
- Lake Tahoe and Yosemite Valley--four hours northeast and east
- Napa and Sonoma Valleys--one hour north
- Sacramento, the State capital--one and one-half hours northeast
- Santa Cruz beaches and Monterey Peninsula--two hours south
- San Jose and the Silicon Valley--30 to 45 minutes south via freeways

## Recreation

On-campus recreational facilities include a 20,000 foot main gymnasium, auxiliary gyms, a dance studio, weight room, swimming pools, racquetball/tennis/volleyball courts, several playing fields, a full-size track, and a par course.

In addition to its own facilities and activities, Cal State Hayward's proximity to San Francisco and other Bay Area cities provides unique cultural opportunities including museums, libraries, art galleries, aquariums, planetariums, theater, sports events, and concerts.

Hiking trails are nearby, and the extensive Garin and Dry Creek-Pioneer East Bay Regional Parks are located immediately southeast of the campus. In addition, proximity to the Pacific Ocean and Sierra Nevada mountains offers recreational diversion as well as excellent laboratories for educational studies.

## Transportation

Commuting is convenient with three nearby BART (Bay Area Rapid Transit) train stations.

The Hayward and South Hayward stations are within three miles of campus, and the Castro Valley station is four

miles away. The university provides free shuttle buses from the Hayward and Castro Valley stations to the campus. The AC Transit bus #92 runs between campus and the Hayward BART station. Fares are \$1.35 each way and monthly passes are available. The university is a short distance from Interstate 880 (via Santa Clara St. and Harder Road) and Interstate 580 (via Foothill and Mission Boulevards).



## The University's History

During the mid-1950's, Assemblyman Carlos Bee of Hayward and the people of Southern Alameda County worked to establish a public college for people in the East Bay. Thanks to their efforts, the State College of Alameda was authorized by the state in

1957. Two years later, the college opened its doors in a local high school.

The search for a permanent site for the campus proceeded slowly, as various cities vied for the distinction of being the college's home. After considering at least 20 sites, the California State Public Works Board selected the Hauschildt Ranch in the Hayward hills. The first shovelful of soil was turned for the construction of the permanent campus in February 1961. Six months later, founding President Fred F. Harclerod presented diplomas to the college's first graduating class. The graduates were primarily students in their late twenties and early thirties who were pursuing teaching credentials. They met in rented classrooms in downtown Hayward, as did the members of the next two graduating classes.

The college moved to its present hilltop location in the summer of 1963. Some faculty and staff at Cal State Hayward today can still remember when the pine trees that add such beauty to the campus were only seedlings or when a particular building was under construction.

In 1972, the college was awarded university status and renamed California State University, Hayward. Nine years later, a branch campus of the university was opened in Pleasant Hill to serve the people of Contra Costa County. In the Fall 1992, the branch campus moved to its permanent location on the former Cowell Ranch in Concord.

### Entering a New Century

The campus continues to change. In 1987, Pioneer Heights, the student apartment complex, was completed and in Winter 1996, the new 27,500 square foot University Bookstore opened its doors. New communications technology is also having an impact on campus facilities. Rooms in several buildings have been converted to accommodate distance learning and interactive video.

As Cal State Hayward enters its fourth decade, faculty and students alike are involved in research and study in an increasingly multicultural and multinational environment. The university has moved to establish or expand research and exchange programs with the countries of the Pacific Rim, Europe, Asia, and the former Soviet Union. The diversity of the Bay Area and the state of California is reflected in the makeup of the student population. Over half of Cal State Hayward's students are of African, Asian, Hispanic, or Native American heritage. International students from over 60 countries also study on the campus.

With Cal State Hayward's growth into a multifaceted four-year university, the qualities graduates treasure from its opening years have not been left behind. Small classes, the opportunity for hands-on learning, a caring and involved faculty, a solid curriculum, and a sensitivity to the educational needs of each generation of students are still the hallmarks of a Cal State Hayward education.

The

## University's Mission

Cal State Hayward is committed to educational excellence for a diverse society. Encouraging and advancing learning is our primary mission.



This purpose is achieved mainly by providing instruction for undergraduate and graduate students in the liberal arts and sciences and the professions, including business and teacher education. The university is also a social and cultural center for public enrichment. In partnership with surrounding communities, the university helps identify and address issues of importance to the region.

To further its educational objectives, the university fosters excellence in instruction. It also encourages pursuits to stimulate among its students, alumni, staff, and faculty a lifelong enthusiasm for intellectual activity, including basic research, artistic creation, the integration of knowledge, and the application of scholarship to practical problems.

The Hayward campus serves the higher education needs of the people of California, especially those in Alameda and Contra Costa counties. Upper division and graduate instruction is also offered at the university's Concord campus. Students at Cal State Hayward increasingly reflect the ethnic and cultural diversity of California and the Bay Area. Many students enroll part-time and most are employed. Many transfer from other institutions or resume their education after lengthy interruptions. The university also serves international students, who add to the heterogeneity of the Hayward campus' growing number of resident students, and contribute to education for the global society.

We welcome the great variety of students on our campuses both as a strength and an opportunity. The university is dedicated to providing an equitable education within a nurturing environment for all its students. Flexible scheduling, advising, and support programs help fulfill this objective. Respecting and learning from each other's distinctive experiences and traditions, students, faculty, and staff form a community dedicated to free inquiry and the unfettered exchange of ideas and criticism, as well as to practical accomplishment. Cal State Hayward provides an education that is rigorous, stimulating, and empowering. Because our students must apply their learning to real-life problems, the university's programs foster active and capable participation in public life. The university is committed to relatively small class size and year-round operation. Its students benefit from close contact with faculty and staff and convenient access to current technology, services, and library materials.

Holding itself to high standards of achievement, the university pledges to help its students meet these standards. The university also seeks to arouse a broad range of curiosity in its students and to prepare them for a lifetime of critical inquiry and learning. The educational experience at Cal State Hayward, therefore extends beyond the classroom to include a rich assortment of

extracurricular, research, and service activities that complement effective instruction and help make the university vibrant and welcoming.

## Quarter System

Cal State Hayward operates on the quarter system. Each quarter (Fall, Winter, Spring, Summer) is approximately 11 weeks in length (10 weeks of instruction, plus 1 week of final exams). Enrollment in a quarter after admission to the university constitutes matriculation. Enrollment in Extension Division courses, Open University, or in Special Session (groups of Extension courses which have been approved to confer residence credit) does not constitute matriculation.

The four quarters, including Summer, are largely supported by state funds, while Extension Division, Open University, and Special Session are supported by student fees.

One (1) semester unit is equivalent to one and one-half (1 1/2) quarter units of credit. One (1) quarter unit is equivalent to two-thirds (2/3) of a semester unit.

## Accreditation

Cal State Hayward is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC), 985 Atlantic Avenue, Suite 100, Alameda, CA 94501; phone: (510) 748-9001. The Accrediting Commission is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.

The Department of Art has accredited membership in the National Association of Schools of Art and Design.

The B.A. and M.A. in Music are accredited by the National Association of Schools of Music.

The Master of Public Administration degree is accredited by the National Association of Schools of Public Affairs and Administration.

The programs in Speech Pathology and Audiology are accredited by the American Speech-Language-Hearing Association.

The undergraduate and graduate programs in the School of Business and Economics are accredited by the American Assembly of Collegiate Schools of Business.

All of the university's programs for teaching and services credentials are approved by the California State Commission for Teacher Credentialing.

The professional preparation programs of the School of Education are accredited by the National Council for Accreditation of Teacher Education.

The School Psychology Credential Program has received Conditional Approval from the National Association of School Psychologists.



The B.S. in Chemistry is accredited by the American Chemical Society.

The B.S. in Nursing is accredited by the National League for Nursing Accrediting Commission and the California State Board of Registered Nursing. The address and phone number of the National League for Nursing Accrediting Commission are: 61 Broadway, New York, N.Y., 1006; (212) 363-5555.

The Extension Certificate Program in Paralegal Studies is accredited by the American Bar Association.

## Division of Extended and Continuing Education

Cal State Hayward's Division of Extended and Continuing Education sponsors a broad spectrum of courses and programs. The educational opportunities provided by Extended and Continuing Education complement the university's degree programs for matriculated students.

### Programs

The Division of Extended and Continuing Education offers a variety of programs to meet the educational demands of a broad audience. You will find professional development programs for teachers, educators, administrators, and others interested in strengthening their professional preparation. If you are interested in investigating or pursuing a new career, career exploration and certificate programs are available. Personal enrichment courses are also offered which develop skills and behaviors which may contribute to success at work or at home.

The programs of Extended and Continuing Education are designed to meet your educational needs. You may take one or more courses, enroll in a certificate program, or choose to attend a seminar or conference. In some cases, academic credit is awarded, while in others, Continuing Education Units (CEU) are available. In programs designed specifically for personal enrichment, no credit is awarded.

### American Language Program

The university's American Language Program provides instruction for international students in English speaking and writing skills and introduces them to American culture. Each year, students from more than 25 countries enroll in the program. After graduating from the American Language Program, international students often enroll as matriculated students in the university.

### Open University Concurrent Enrollment

The "Open University" program allows members of the community to enroll in regular university classes without being formally admitted to the university. For a nominal fee, anyone who has completed the course prerequisites may enroll in the course if space is available (see [Fees and Expenses](#) chapter).

Please note that you will be granted extension credit for "Open University" coursework; therefore, it will not count towards the coursework which must be completed in residence for regular university degrees. There are limits on the number of extension units that may be applied toward university degrees. These limits



are 36 extension units for a baccalaureate degree and 13 extension units for a master's degree.

#### Restrictions

Registration in most courses or programs sponsored by the Division of Extended and Continuing Education does not require formal admission to the university. For some programs, however, students may be required to meet certain requirements prior to being eligible to register. Registration in Extended and Continuing Education classes does not provide "continuing student" status to returning campus students, nor does it imply admission as a matriculated student.

#### General Information

Information on courses, programs, and enrollment procedures is available through the Division's quarterly bulletin, by mail, or by phone (510-885-3605).

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## Contra Costa Campus

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The Contra Costa Campus is a branch campus of Cal State Hayward located in the heart of Contra Costa County. It is one of the largest branch campuses within the CSU system and was the first with a permanent location. At 4700 Ygnacio Valley Road, in the foothills adjacent to Mt. Diablo State Park, the campus is situated to serve the current and future educational needs of county residents. Founded in 1981, the Contra Costa Campus has provided quality education and services for nearly two decades. Many residents have benefited from Cal State Hayward's educational presence and have enjoyed the small class size and intimate educational experience that the Contra Costa Campus provides. The varied curriculum is taught by Cal State Hayward faculty and provides Contra Costa students with all the educational advantages a four-year university offers, but in a small campus environment.

### Degree Programs

Functioning as an upper division and graduate campus in a thriving, suburban region, the Contra Costa campus makes extensive use of modern educational technologies to deliver state-of-the-art educational programs.

Academic degree and credential programs currently offered at the Contra Costa Campus are:

#### Bachelor's Degree Majors

Biology, B.A.  
Business Administration, B.S.  
Criminal Justice Administration, B.S.  
English, B.A.  
Human Development, B.A.  
Liberal Studies, B.A.  
Nursing, B.S. (Advanced Placement Track)  
Psychology, B.S.

#### Master's Degrees

Business Administration, M.B.A.  
Counseling, M.S.  
Education, M.S.  
Public Administration, M.P.A.

Credentials  
Administrative Services  
Multiple Subject  
Single Subject

Application and/or registration through the main Hayward campus or Contra Costa Campus qualifies a student to enroll in courses at both sites. Academic expectations and standards, as well as university policies, are the same at both locations.

Credit earned at the Contra Costa Campus, including that for Extended and Continuing Education courses designated as Special Session, is residence credit for undergraduate students. It is also residence credit for graduate students who have been admitted to graduate programs. Extended and Continuing Education courses not designated as Special Session and courses taken through Open University do not generate residence credit.

### Services and Facilities

The Contra Costa Campus provides the necessary services to promote student success. These include complete academic advising for programs offered at the campus, as well as administrative and instructional support services. Instructional support services include advanced computer laboratories, distance learning classrooms, and a branch of the university's central library. There is also an on-site University Union containing a cafeteria, student lounge, and bookstore.



HOME



HELP



## Student Services

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Cal State Hayward provides a variety of services to students under the direction of the Vice President for Student Affairs, the Assistant Vice President for Enrollment Services, and the Associated Students. These services offer a number of special programs which help students derive the maximum benefit from their university experience.

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### Academic Assistance

Several sources for advising services exist on campus. For detailed information, see ["Advising"](#) in the Orientation and Advising chapter. The quarterly Class Schedule (available at the Bookstore) also includes information regarding advisement services.

## Academic Enhancement Services

The Office of [Academic Enhancement Services](#) (AES) provides support services for undergraduate students with a declared major who are experiencing academic difficulties. Individual and group advising are available to students on academic probation and to those who have recently been disqualified from the university.

Students on academic probation may meet with an AES staff member to discuss academic renewal and strategies to help them improve their grades. Academically disqualified students can make an appointment to review their academic record and to develop a plan for their academic success. Additionally, they may receive help in constructing their appeal for reinstatement to the university.

AES is located in the Library Complex, Room 2174. For more information and current hours, call (510) 885-4707.

## Disability Services for Students

The Student Disability Resource Center (SDRC) Student provides a variety of academic accommodations and support services to address the individual needs of students with temporary or permanent disabilities. Students with a hearing, visual, or mobility impairment; endurance limitation; or learning or other disability are eligible for services designed to integrate them into general campus programs and activities.

Services include readers; manual or oral interpreters; note taking assistance; academic, personal and vocational advising and referral; on-campus transportation; mobility orientation; registration assistance; alternative test-taking arrangements; and disabled parking information. Adaptive equipment (such as tape recorders, visual enlargers, brailers, and specialized computer equipment) is also available for student use. The SDRC also offers campus and community referrals for advising, counseling, transportation, and employment needs.

The Student Disability Resource Center is located in Library 2177 and provides a place for students to meet, arrange and receive services, borrow equipment, or store materials between classes. The office also houses a small resource library of books and periodicals pertaining to disabilities and disability-related issues. A university-wide SDRC Advisory Committee brings together students, faculty, and community members to study and recommend program changes and additions as well as service modifications. The university encourages applications from any academically able students wishing to begin or continue their higher education.

Cal State Hayward is committed to ensuring that all classes are accessible to students with disabilities. Should you have concerns about the accessibility of a location in which a class is scheduled, please contact the Student Disability Resource Center (SDRC). If SDRC determines that the location is in fact inaccessible to you, the University will relocate the class, as quickly as is reasonably possible, to a location which is accessible. For further information regarding the SDRC, please call (510) 885-3868 (voice or TDD).

## Educational Opportunity Program

The [Educational Opportunity Program](#) (EOP) provides admission

and retention support services to low-income and educationally disadvantaged undergraduate students. Through its special admission program, EOP assists applicants who may not meet regular university admission requirements. EOP also provides academic support services to a limited number of regularly admissible students who meet program guidelines.

EOP students receive proactive and personalized support services: new student orientation, academic planning and advising, personal counseling, tutoring, skills enhancement workshops, career guidance, and peer support. Additionally, students who are eligible for federal student financial aid may qualify for an EOP grant.

To apply for EOP: 1) submit the Undergraduate CSU Application (please be sure to complete #12 of the application); 2) complete the EOP Application Forms; 3) apply for federal student financial aid. For application deadlines and additional information, contact [Student Academic Services](#) in LI 2191, or call (510) 885-4683.

### The EXCEL Program

The EXCEL program is a federally funded TRIO program which provides a variety of educational services for Cal State Hayward undergraduates who are low-income and first-generation college or disabled. The major goals of the program are to increase the retention and graduation rates of program participants and to create a supportive environment that encourages academic success.

EXCEL academic/life planning counselors assist students in developing academic plans to complete their undergraduate degrees and solve academically related problems. They also provide advising in the areas of general education requirements, career development, and graduate school admission.

Learning skills improvement is provided by the Learning Resources Counselor. Assistance includes diagnosing academic weaknesses in learning and language skills and providing support in test-taking, reading textbooks, taking lecture notes, study skills, time management, and offering tutoring in basic academic subjects.

EXCEL students also have access to a variety of scholarship reference books listing non-federal financial assistance available to women, minorities, and people with disabilities in California and throughout the United States. Information about summer programs and internships is also available.

To apply to EXCEL or to find out more about its services, visit the main office in the Library Complex, Room 2193, or call (510) 885-3722.

### Learning Resource Center

The [Learning Resource Center](#) (LRC) provides learning and tutorial assistance to regularly enrolled students of the university. Appointments can be made for tutorial assistance relating to a specific class or for general study skills improvement. In addition, workshops are conducted each quarter in a variety of subjects including: avoiding plagiarism, effective textbook reading and study skills, improving math skills, listening and note taking skills,

test taking skills, and time management. Cal State Hayward students are encouraged to use the Learning Resource Center regularly to improve their academic performance and to become proficient learners.

The LRC is located in the Student Services Hub 1141, and is open 8:00 a.m. - 6:00 p.m., Monday through Friday. You should, however, call for specific tutoring times and workshop dates as this information changes each quarter. Call (510) 885-3674 for additional information or to schedule an appointment.

### Probation/Disqualification

See "Academic Enhancement Services" under Academic Assistance in this chapter.

### Student Center for Academic Achievement

In the academic year 2000-2001, the university plans to open a Student Center for Academic Achievement to provide assistance in improving English composition and mathematical skills. Notices will be prominently displayed on campus when the Center opens.

### Summer Bridge

[Summer Bridge](#) is a six-week program for a select group of newly admitted freshmen students. The Summer Bridge program combines academic coursework with an introduction to the campus community. Students become acquainted with university life, improve their academic skills, and make new friends. The curriculum includes mathematics, English, collegiate skills, and a computer laboratory.

Summer Bridge students are provided with tutoring, academic advising, and extracurricular activities. There are no direct costs to eligible students or to their families. Summer Bridge is fun and gives new students a definite advantage as they begin their university career. The program is held annually during the months of July and August. For additional information, contact [Student Academic Services](#) in the Library Complex 2191, or call (510) 885-3751.

### University Advisement Center

The University Advisement Center (UAC), located in the Student Services Hub 1131, was established to provide academic advisement, campus information, referral service, and general education evaluation services to aid students in their transition to Cal State Hayward. The primary focus of the UAC is to help undeclared majors set realistic, attainable educational goals and identify pertinent academic major/minor study programs. Undeclared students meet individually with an academic advisor to assess their interests and choose appropriate fields of study.

In addition, the UAC provides new and continuing students with information on General Education and other non-major graduation requirements. Specialized assistance is provided to all (non-EOP) undeclared majors experiencing academic difficulties.

For additional information about services and current hours call (510) 885-4682.

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## Admission

The Office of Admissions receives admission applications and coordinates the evaluation and acceptance process. Services available to Cal State Hayward students include the STATUS LINE phone number, (510) 885-3828, which you can call to check on the status of your application. Admissions also processes forms for change of residency, dual matriculation, concurrent enrollment, and dual admission. In addition, Admissions provides information on residency, foreign/international student admission, and advanced placement. For complete information, see the [Admissions chapter](#).

### International Student Information

Students from other countries should consult with the Office of Admissions regarding their visas, eligibility for employment, and any special academic requirements. Admissions can be reached at (510) 885-2624.

All matters pertaining to applications and admissions for international students are handled by Admissions. (See "[Are there special admission and eligibility requirements for international students?](#)" in the Admissions chapter.) International students interested in attending Cal State Hayward are also urged to contact the Center for International Education (see the "International Education" section later in this chapter).

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## Career Preparation

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### Career Development Center

The Career Development Center (CDC) in WA 509 provides counseling, information and employment services to assist in the transition from the university to the professional workplace. These services include career advising, vocational assessments, occupational information, job search assistance, employer research materials, and direct employment information and referral. The office maintains the Eugene W. Clark Career Library with many books, periodicals, and videos pertaining to job search and career guidance and current information on job trends, job descriptions, and salaries.

The CDC offers drop-in hours to assist you with career decisions and can provide general as well as specific information about career development and the world of work. The professional staff can assist with questions ranging from "What kinds of careers are compatible with my interests, abilities, and values?," "What can I do with my major?" or "What are employers looking for in today's candidates?"

Computerized career guidance systems (CareerPath and FOCUS) are available to provide personal assessment and occupation information.

The Center offers workshops throughout the year, at both the Hayward and Contra Costa Campuses. Subjects include resume writing, interview techniques, using the Internet in a job search, finding the best employer match, and personal skill assessments. Newsletters, which include the workshop schedules, are posted on campus bulletin boards and are also available in the CDC.

Employers conduct on-campus interviews for graduating seniors



and alumni in the Fall, Winter, and Spring quarters. Participants are required to attend one of several free orientation sessions.

Career Expo, hosted annually by the Center during the Spring quarter, allows freshmen through graduates to explore the diversity of career options and focus on potential or immediate employment opportunities. Over 100 employers, local, national, and even worldwide, participate in this event. CDC also sponsors targeted fairs with a specific career or employment focus.

The Student Employment Office (SEO) is located in the "Jobs Annex" in WA 509. This office serves as a link between the employment community and currently enrolled students and alumni. Here you will find part-time, full time, temporary, and seasonal opportunities. The SEO also maintains information on internships and cooperative education opportunities.

The CDC offers drop-in hours every day for resume critiques and quick questions (typically about 10 minutes). Appointments are also available for longer sessions.

Cal State Hayward alumni and other working professionals in a variety of career fields provide our students with valuable career exploration information (no job referrals!) either by telephone or in person. They can give you information on their career fields and experiences. To contact them, check the Career Network file in the Career Resource Center at the CDC. They'll be happy to give you a referral.

The Career Development Center can also be found on the World Wide Web. Take the time to read about all the CDC's services and events in much greater detail. You can get there by clicking on the Career Development link on the CSUH Student Services web page found at <http://www.csuhayward.edu>.

## Cooperative Education

Cooperative Education is a program in which eligible students are interviewed for jobs related to their majors. The aim is to enrich educational experience by demonstrating the relevance of university study to the world of work and by providing on-the-job experience that will make interns attractive to future employers after the degree is completed.

Students have been placed in private businesses and public and non-profit agencies, including IBM, Nortel, Lam Research, Enterprise Rent-a-Car, Target, New United Motors Manufacturing Inc., and many more.

Normally, a co-op experience should begin during the sophomore year or later. The work schedule varies depending on the needs of the employer. Some students are offered permanent employment with their co-op employer when they graduate.

To participate in the program, you must have at least a 2.0 GPA, be in good academic standing, and be enrolled as a regular student in the university. To register in a Co-op Ed course, you must meet the requirements of the particular department. The courses are numbered 3898 for undergraduate students and 6898 for graduate students. Check the *Class Schedule* to determine if a Co-Op Ed course is available. Sign up in the CDC, WA 509.



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## Contra Costa Campus Student Services

In addition to Co-op Ed courses, many departments offer regular courses in internships or field practice in which students may enroll to receive academic credit for their work.

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The Contra Costa Campus offers a full range of supportive services designed to enhance students' abilities to succeed in their academic endeavors.

The Academic Services Office provides comprehensive advising on major degree requirements, non-major degree requirements, general education, and course selection for registration. Financial aid services are provided by the Financial Aid Office in coordination with the Academic Services staff. For further information or assistance, students should inquire at the Academic Services Lobby or call (925) 602-6770.

The Division of Student Affairs coordinates services involving the Career Development Center, Student Disability Resource Center, Student Life programs, and Student Health Services. Student Affairs can also help you use the services of the Housing Office and EXCEL program. For assistance or information on any of these services, call (925) 602-6712 or 6713, or ask in the Academic Services Lobby to see the Student Affairs Coordinator located in AS 111.

In addition, the University Union provides a lounge area for students and daily food service offering both hot and cold menu items.

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## Counseling

### Counseling and Psychological Services

As a service of the Division of Student Affairs, in partnership with faculty of the Department of Educational Psychology, Counseling and Psychological Services (CaPS) offers no cost, short-term counseling to every enrolled full-time or part-time Cal State Hayward student.

Services are provided by interns who have master's degrees and who are completing hours of licensure as marriage, family and child counselors. Each counselor is supervised by a licensed MFCC and has been chosen for his or her experience, competence, and compassion. Confidentiality is strictly observed.

Counseling and Psychological Services provides individual counseling for students who are having difficulties which interfere with their academic pursuits or personal lives. Group counseling is offered for students seeking a supportive environment in which to explore specific issues. Support groups for reentry students and for students experiencing test anxiety and family and relationship issues may be offered when there is sufficient interest. For students whose particular need is not addressed by Counseling and Psychological Services, an extensive referral list of community resources is available.

To schedule an appointment call (510) 885-3690 or stop by

Counseling and Psychological Services located in the Student Services Health Center.

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## Evening Offices

The evening office of Admissions and Records (Enrollment Services) is located in the Lobby of Warren Hall. It provides general information and forms related to admission, registration, refunds, transcript requests, and records discrepancies. The office is open Monday through Thursday evenings until 7:00 p.m. The phone number is 885-2624. The Contra Costa Campus Academic Services Lobby provides the same services and hours. The telephone number is (925) 602-6700. The Cashier's office is open three nights during the first two weeks of every quarter until 6:30 p.m. (see the quarterly Class Schedule). Students seeking service from departments should contact those offices for their hours.

The University Advisement Center (UAC) is open until 6:00 p.m. Monday through Thursday for general campus information and to schedule advising appointments. Academic advising is available on some evenings on a drop-in basis for students seeking information on their status with regard to non-major degree requirements. Please call ahead (885-4682) for the current evening advising hours. The UAC is located in the Student Services Hub 1131. The Contra Costa Campus Academic Services Office provides academic advising on a drop-in basis Monday through Thursday, 9:00 a.m. - 6:30 p.m. The telephone number is (925) 602-6770.

All Division of Student Affairs' offices are open from 8:00 a.m. to 7:00 p.m., Monday through Thursday and from 8:00 a.m. to 5:00 p.m., on Friday. Please refer to the [University Administration chapter](#) in this catalog for the list of Student Affairs' offices.

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## Financial Aid Services

The Student Financial Aid Office, WA 545, (510) 885-3616, coordinates all university-administered financial aid programs. Students may obtain applications and general assistance in the Warren Hall Lobby (1st Floor).

**Loans and Grants:** If you have demonstrated financial aid eligibility, you may be considered for one or more of the following aid programs: Federal Perkins Loan, Federal Stafford Loan, Federal Supplemental Educational Opportunity Grant, Educational Opportunity Program Grant, State University Grant, or Federal Pell Grant. In addition, if you do not demonstrate financial aid eligibility, you may be considered for the Federal Parent Loans for Undergraduate Students and/or the Federal Unsubsidized Stafford Loan Program.

**Work-Study Program:** If you have demonstrated financial aid eligibility as determined by the Financial Aid Office, you may be eligible to participate in the Federal Work-Study Program. Work-Study funds are earned through part-time employment, on or off campus (in approved agencies), and enable you to meet your educational expenses without incurring an unduly heavy burden of indebtedness.

**Financial Aid Applications:** Information and applications for

financial aid (loans, grants, and work-study) may be obtained from the Financial Aid Office, WA 545. You are advised to file for financial assistance early as funding for some programs is limited. (Applications for the following academic year are available during the month of January.)

*Note:* The federal Military Selective Service Act (the "Act") requires that most males between the ages of 18 and 25 who reside in the United States to register with the Selective Service system. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution. See "Military Selective Service Act" in the Appendix for additional information.

**Scholarships:** You may obtain information on scholarship opportunities and scholarship applications from the Financial Aid Office, WA 545. Many scholarships have specific criteria which limit eligibility so be certain you read the materials before applying.

The Financial Aid Office also administers the university's short-term (30 day) emergency loans and intermediate term (9 month) foreign student loans. A maximum of \$300 may be awarded from the emergency loan fund with repayment within 30 days with no interest charges. A maximum of \$200 may be awarded from the Foreign Student Loan Fund with repayment within 9 months with no interest charges.

(Also see "[Fee Waivers for Senior Citizens](#)" in the Fees and Expenses chapter.)

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## Graduation Check

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Seniors who have 150 units can apply for graduation, which automatically triggers a graduation check. Contact your major department (or Curriculum and Academic Programs if a Special Major) for information about procedures and forms. After all supporting documents and the graduation filing fee have been submitted, you are notified by mail regarding remaining degree requirements. You must apply for graduation by the end of the Add/Drop period of the quarter prior to your final quarter. (Late filing causes graduation to be delayed.) For complete information see the [B.A./B.S. Degree Requirements chapter](#).

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## Health Services

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Student Health Services (SHS) offers affordable, convenient, high-quality health care to all Cal State Hayward students. Its goal is to assist you in achieving and maintaining optimal health while pursuing your academic and career goals. The SHS staff is committed to the promotion of healthy behaviors and the prevention of illnesses within the campus community.

Student Health Services is located between the Library and the P.E. Building and is open five days a week to serve you. The current hours are Monday and Thursday from 8:30 a.m. - 6:30 p.m.; Tuesday, Wednesday, and Friday from 8:30 a.m. - 4:30 p.m.; while classes are in session. Limited services are also

offered during quarter breaks. Appointments are encouraged, but if you have an urgent need, you may also walk in. Some services are available at the Contra Costa Campus, Mondays and Thursdays from 3:00 p.m. - 6:00 p.m.

Funded in part by a student health fee, SHS provides an extensive array of outpatient health care services at no or low cost to students. These services include appointments with a physician, nurse practitioner, or nurse; routine x-ray procedures; allergy injections; EKG's; immunizations; and physical exams. Specialty services are also provided such as physical therapy, dermatology, sports medicine, podiatry, optometry, and internal medicine. SHS houses a full-service pharmacy where registered students may purchase a wide variety of prescription and non-prescription medications at much reduced prices.

To cover health services not provided by Student Health Services, all students are encouraged to purchase their own supplemental health insurance available through Associated Students.

The Student Health Services is fully accredited by the Accreditation Association for Ambulatory Health Care, Inc. (AAAHC) and by the California Medical Association (CMA).

#### How Can I Get Involved?

Student Health Services has an active Student Health Advisory Committee (SHAC) which is made up of Cal State Hayward students, staff, and faculty. If you are interested in becoming a member, contact Cathleen Coulman, M.D., Director, Student Health Services, at 885-3639. There are many other exciting opportunities available for you at SHS. Come in and get to know the staff! If you would like more information about SHS services or about getting involved, please call 885-3735.

#### Important Telephone Numbers

Appointments and information: 885-3735. On-campus medical emergency: dial 911 and Public Safety will notify Student Health Services. Information concerning the prevention of drug and alcohol abuse may be obtained from the Health Educator (Sang Trieu) in Student Health Services at 885-3733.

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## Housing And Residential Life

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As a student at Cal State Hayward, you have the option of living on campus at the Cal State Hayward Student Apartments. You may also choose to make use of the off-campus listing service, located in the Housing and Residential Life Office, to locate off campus housing.

#### On-Campus Housing (Pioneer Heights)

Located conveniently on campus, the Cal State Hayward Student Apartments are comfortable and affordable. Living in a community designed to meet the needs of students can help you in gaining the most from your university experience.

Each fully furnished and carpeted two-bedroom apartment accommodates four students and includes a full sized kitchen with major appliances, dining area, living room, bathroom and storage area. Computer jacks in each apartment provide access to the campus computing system and the internet.

The Housing and Residential Office is located in El Dorado Hall along with a laundry and study room, a community room with a T.V., billiards table, ping-pong table, and kitchen. Barbecue and picnic areas are located on the grounds along with volleyball and basketball courts.

The Residential Life Program was developed as an integral part of your educational experience and provides a climate where the living atmosphere complements the educational mission of the university. Professional staff and trained student assistants work together to develop educational, cultural, social, leisure, and personal development programs that serve to enhance academic learning.

While housing applications are accepted year-round, space reservations, based upon receipt of the housing license and initial payment, are given on a first come, first served basis. Requests for specific roommates will be honored provided applicants have mutually requested each other and completed the application process in a timely manner. If no roommate is requested, assignments are made based on the information provided on the housing application.

It is important to note that the university's admission application is separate from the housing application.

Additional information regarding housing costs, installment payment plans, and financial aid assistance is provided in the Student Housing Information Packet.

### Off-Campus Housing

The Housing Office maintains a listing of places to rent and students looking for roommates. The rental listings include apartments, houses, and rooms. It is necessary that you visit the Housing Office to view the listings. There is also a private dormitory, Carlos Bee, adjacent to campus.

To tour the Cal State Hayward Student Apartments or receive more information regarding on- or off-campus housing, call Housing and Residential Life at (510) 885-7444.

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## International Education

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### Center for International Education

The Center for International Education (CIE) provides a range of services to international students and scholars that is designed to facilitate their transition to a new environment and to optimize their educational opportunities while at Cal State Hayward. These services include: pre-departure advising; orientation program for new students; assistance in understanding and complying with university rules and regulations; counseling designed to help students adjust to life in the USA; advice on relevant Immigration and Naturalization Service (INS) regulations; guidance to students regarding legal employment while in student status; referrals for on-campus support services; and workshops on topics of special interest to international students.

For additional information, stop by the Center for International Education in the Student Services Hub 1325 or call the Center at

885-2880. You may also send an e-mail to the Center at: [cie@csuhayward.edu](mailto:cie@csuhayward.edu). (Internet: <http://www.extension.csuhayward.edu/cie/index.htm>; FAX: (510) 885-2787)

### Study Abroad

Cal State Hayward offers three options for study abroad: (1) the CSU-sponsored International Programs which are based on an academic year of study at a distinguished foreign university or special program center (see the "[Student Exchange Programs](#)" section in this chapter and the [International Programs of the CSU](#) chapter in the undergraduate programs section of this catalog); (2) the Summer Quarter Abroad, an intensive term at an international site (e.g., Mexico) which is equivalent to the regular summer quarter with Hayward faculty and courses; and (3) the Bilateral Exchange Program, which is either a semester or a yearlong exchange with students from universities in Dresden, London, Manila, and Okayama. Additional information on all these options can be obtained from the Center for International Education in the Student Services Hub 1325.

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### Media Services

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See "[Computing, Communication, and Media Support](#)" in the Facilities chapter.

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### Faculty/Student Mentoring Program

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This program, offered through Instructional Services (WA 755, 510-885-4637), provides faculty, staff, student, and administrative mentors to Cal State Hayward students. This program is designed to support under-represented students, but any Cal State Hayward student is eligible to participate in the program. For additional information, call 885-7476 or 885-4637.

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### Mission Possible

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Through the Mission Possible program, Cal State Hayward faculty offer college courses to students in local high schools. Contact the director at (510) 885-3138 or the Office of Curriculum and Academic Programs at (510) 885-3716.

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### Orientation

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Orientation and advisement programs offered prior to registration each quarter insure that entering students are provided with the information and resources needed to promote their successful transition into, and success at, Cal State Hayward. Orientation provides you with essential information about academic requirements, campus services, registration procedures, and academic advising. The Student Life Programs Office recognizes that students enter the university from a variety of backgrounds. As a result, special orientation activities are offered to address the concerns of freshmen, transfer, reentry, and graduate students. First time freshmen who attend Orientation for Fall quarter are allowed to register ahead of all other students.

Specific information about Orientation is mailed directly to all new students and is included in the quarterly Class Schedule.

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## Outreach

Additional information about orientation programs is available through Student Life Programs, Student Services Hub 1351, (510) 885-3657. Also see the [Orientation and Advising](#) chapter in this catalog.

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Student recruitment and outreach services to middle schools, high schools, community colleges, and community educational support agencies are provided through the Office of Recruitment and Pre-admission Advising (RPA).

The following is a partial list of programs coordinated through RPA: College Readiness Program, General Recruitment Intern Program, Middle School Outreach Program, Admission in the Field, Educational Opportunity Program outreach, California Recruitment Plan, Project BEACON, Faculty in Recruitment and Marketing, Presidential Scholars Program, Dual Admission Program, and Project Correspondence.

RPA coordinates recruitment activities throughout California, but focuses attention in Alameda and Contra Costa counties and the San Francisco Bay Area. Its most visible programs include outreach and collegiate preparation advising at middle schools, high schools, and community colleges. It also participates in regional, statewide, and national college fairs. The prospective student database allows the unit to stay in contact with any student who makes contact with RPA via mail, telephone, e-mail, or in person.

All programs and activities are designed to promote interest in Cal State, Hayward and to encourage application and matriculation to the university. For more information about the Office of Recruitment and Pre-admission Advising and its programs, call (510) 885-3982 or stop by the office in the Student Services Hub 1336. (E-mail: [adminfo@csuhayward.edu](mailto:adminfo@csuhayward.edu); FAX: (510) 885-4751).

### Dual Admission Program

The Dual Admission Program is operational in all ten of the California Community Colleges in Alameda and Contra Costa counties. The program is intended for first-time freshmen who wish to begin their baccalaureate degree at a community college, and upon completion of the requirements for transfer, enroll at California State University, Hayward.

To participate, students must enroll in the Dual Admission Program before the end of the first quarter or semester of enrollment at the community college. Program benefits include a waiver of the CSU admission application fee, the use of CSU Hayward facilities, and the opportunity to obtain a CSU Hayward Photo Identification Card. For more information, contact the Transfer Center director at your community college campus or the Office of Admissions at (510) 885-3828.

### Upward Bound

Upward Bound is a federally funded program designed to assist high school students of low-income backgrounds who are potential first-generation college students to gain access to a college education. The central idea behind Upward Bound is that high school students from traditionally under-represented groups



can be prepared to successfully compete in post-secondary institutions if they are provided with a simulated college experience rich in academic and motivational support.

By providing tutoring, counseling, and individualized instruction during the academic year and summer, Upward Bound helps students bridge the gap between their performance and their potential, thus increasing the likelihood of being admitted to college.

Students are selected from the Hayward, San Lorenzo, and New Haven Unified School Districts. To qualify, a student must be in the process of completing the eighth or ninth grade at entry, come from a low-income or first-generation college family, and have the desire and commitment to pursue a college education.

Upward Bound at Cal State Hayward is made possible by a grant from the U.S. Department of Education. For more information contact Upward Bound at (510) 885-2960 or stop by the Student Services Hub 1161.

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## Registration Assistance

Students at Cal State Hayward register for classes prior to each quarter using a touchtone telephone. The telephone registration system is known as SAILOR (Student Administrative Information Link On-Line Registration). Complete, easy-to-follow SAILOR instructions are included in each quarterly Class Schedule (available at the Bookstore), and can also be found on the World Wide Web. The Registration Assistance Center in the Lobby of Warren Hall (1st Floor) helps students who encounter SAILOR registration problems or who need assistance. The Center is open 9 a.m. through 5 p.m., one week prior to SAILOR registration and 9 a.m. to 5 p.m. during SAILOR registration. The Registration Assistance Center's number is (510) 885-2200. Contra Costa Campus students can call (925) 602-6700. For registration information, see the [Registration chapter](#) in this catalog.

The university also plans to begin an on-line registration system during the effective years of this catalog. Watch for information on the new system.

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## Safety Programs

Cal State Hayward enjoys low crime statistics due to an on-campus, professionally trained police department which delivers public safety services to the campus community. Department of Public Safety programs such as the Bicycle Patrol and Escort Service provide Cal State Hayward with a community-oriented form of police services, which allows for personal interaction between public safety officers and members of the university community while providing an increased level of crime prevention patrol on campus grounds.

The department also has parking officers who, in addition to enforcing state and campus parking regulations, assist in emergency situations (such as traffic control), and provide general information and assistance to all members of the campus community upon request.



The department offers several on-going programs available to staff, faculty, and students on the following topics: alcohol and drug awareness, acquaintance rape and awareness, and self-protection for women. The department also distributes a wide variety of crime prevention materials and offers vehicle lockout, battery failure, fingerprinting, and lost and found assistance.

The following information may be obtained from the Department of Public Safety, (510) 885-3791:

- Information concerning Cal State Hayward policies, procedures, and facilities for students and others to report criminal actions or other emergencies occurring on campus.
- Information concerning Cal State Hayward's annual campus security report.
- Information concerning the prevention of drug and alcohol abuse.

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Cal State Hayward is a Servicemember's Opportunity College (SOC) and provides educational assistance for active duty servicemembers. SOC institutions offer the following benefits to servicemembers:

1. Admission procedures which insure access to higher education for academically qualified military personnel;
2. Credit awarded for knowledge acquired through military experiences, if applicable to the servicemember's program of study;
3. Credit awarded for non-traditional learning, if applicable to the servicemember's program of study;
4. Acceptance of inter-institutional transfer credits, if they are appropriate for the servicemember's program and are consistent with the university's curriculum;
5. Residence requirements may be adjusted for military students who transfer, when there are other assurances of program balance;
6. Personnel with appropriate academic qualifications and experience administer and supervise SOC-related activities;
7. Educational services for veterans.

For information about the SOC program, contact Cal State Hayward's Admissions Office.

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### Cashier Services

The Cashier in the Lobby of Warren Hall (1st floor) accepts in-person cash, credit card, or check payments for all fees due to the university, such as registration fees, lab fees, encumbrances,

and parking fees. (Most payments can also be mailed.)

## Commuter Services

Cal State Hayward offers several commuter services via the Alternative Transportation Office, (510) 885-4638.

A free shuttle service is available between the Hayward campus and the Hayward BART station for students, staff, and faculty. The university also provides shuttle service between the Castro Valley BART station and the campus, particularly for students from the Castro Valley, Dublin, Pleasanton and Livermore areas. Call the Alternative Transportation Office for detailed schedules on the current service or for more information on the possible shuttle expansion.

If you are interested in sharing your ride to Cal State Hayward, a student carpool database and a staff/faculty carpool database are available. Free carpool matching is available by picking up a "Carpool-to-School" application at the Commute Information Center, UU 314 or by calling the Alternative Transportation Office. (Home addresses are kept confidential and all other information will be used for carpool purposes only.) Carpool matching is available for both Hayward and Contra Costa campuses.

The Commute Information Center (CIC) sells passes for BART and AC Transit and has "Carpool-to-School" applications, as well as detailed schedules of the campus shuttle, BART, and AC Transit bus #92. The CIC is sponsored by the Associated Students and the Alternative Transportation Office.

## Legal Referral Service

Although no on-campus legal assistance is available, there is a legal service that can refer Cal State Hayward students to a practicing attorney in the local area. You may seek advice or assistance without any charge for the first visit. For most legal issues, one visit is enough; however, if legal representation or other legal assistance is needed beyond the first visit, there will be a minimum charge for the service. The attorneys participating in this program have agreed to charge you a fee that is substantially less than the going rate. Further, there is no obligation on your part to employ the attorney first contacted. For more information and/or referral assistance, contact Student Judicial Services, WA 465 or call (510) 885-3741.

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## Student Exchange Programs

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Student Exchange programs add a unique dimension to education by exposing you to different educational systems, often in an unfamiliar cultural setting. Cal State students have a choice of several study abroad programs, as well as the National Student Exchange (NSE). The NSE is a consortium of more than 140 U.S. universities that have agreed to the exchange of their students for a semester or a year. The list includes schools from almost every state in the union together with Guam, Puerto Rico, and the Virgin Islands. Short term exchanges are also possible within the California State University system through intrasystem visitor enrollment. (For additional information see "International Education" in this chapter, and "Intrasystem Visitor Enrollment" in the Admission chapter.) You may also contact the Center for International Education in the Student Services Hub 1325 for

## Testing Services

information on study abroad programs or Sterling Sakai in Enrollment Services, WA 200, for information on the National Student Exchange.

Assessment and Testing is located in WA 438, (510) 885-3661, and provides standardized testing, scoring, and consultation on research and assessment projects for students, faculty, and administration. The office administers a variety of tests including placement and proficiency tests for Cal State Hayward and other CSU campuses and national admission and matriculation tests for undergraduates and graduates.

There are two test requirements of which all students should be aware:

1. *The EPT and ELM (English Placement Test and Entry Level Math Test) are required of all new undergraduates before enrollment except for a few categories of exemptions. You may be exempt from the EPT/ELM requirements if you can meet the waiver requirements. (See "[Which undergraduate placement examinations do I need to take?](#)" in the Registration chapter.)* You will be mailed an EPT/ELM test application upon admission to Cal State Hayward. Contact the Admissions Office, the University Advisement Center, or Assessment and Testing for further information regarding the EPT/ELM.
2. The Writing Skills Test (WST) must be taken by all undergraduate students at the beginning of the junior year, and by all graduate students upon admission to a program. Contact Assessment and Testing for test dates and registration information. (See "[What is the University Writing Skills Requirement?](#)" in the B.A./B.S. Degree Requirements chapter, and in the [Graduate and Post-baccalaureate Studies](#) chapter).

Other tests for Cal State Hayward students to be aware of include the following:

The MPT (Math Placement Test), in conjunction with the ELM, helps place students in appropriate college level mathematics classes. The MPT is given on an appointment basis; contact Assessment and Testing for details.

The SBPT (School of Business Proficiency Tests) in mathematics and statistics may be taken by students admitted to Business Administration graduate (MBA) programs. See the [Business Administration](#) department chapters for detailed information on these requirements. Contact Assessment and Testing for test dates and registration information.

The State Education Code State Education requirements in U.S. History, the U.S. Constitution, and California State and Local Government in may be met by coursework or a special set of tests developed by Cal State Hayward academic departments. See the [B.A./B.S. Degree Requirements chapter](#) for detailed information regarding Code requirements. Code examinations are given once each quarter; contact Assessment and Testing for additional information and registration.

Other tests administered by Assessment and Testing:

The ACT (American College Test) and the SAT (Scholastic Aptitude Test), one of which is required for entering freshmen and transfer students with less than 84 acceptable quarter units. Test results are not required of students earning high school grade point averages above 3.00.

The MAT (Miller Analogies Test) is required by some graduate departments. See graduate program chapters in this catalog for further information. The MAT is administered by Assessment and Testing at least once per month. Students may contact the office for exam dates and registration information.

For information about the CBEST (California Basic Educational Skills Test), CLEP (College-Level Examination Program), GMAT (Graduate Management Admissions Test), GRE (Graduate Record Exam), LSAT (Law School Admissions Test), TOEFL (Test of English as a Foreign Language), and PRAXIS (Professional Assessments for Beginning Teachers), inquire at the Assessment and Testing Office, WA 438.

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## Transcripts

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Students may obtain official transcripts of coursework taken at Cal State Hayward (including extension and special session) from the Records Office. You may request transcripts by mail or in person as described below. Federal law prohibits the issuance of a transcript without the student's written consent.

There is a charge of \$4 for a single transcript, \$2 each for up to nine additional transcripts prepared at the same time, and \$1 each for transcripts prepared at the same time in excess of ten.

All transcripts issued to students must be marked "Issued to Student." Transcripts bearing the embossed University Seal are official even though they bear this notation.

### Mailed Requests:

Information provided with a mailed request should include: name, other name(s) which may appear on records, social security number, address, dates of attendance, and the complete address to which the transcript is to be sent. The university cannot be responsible for the consequences resulting from the failure to supply any of the above information. Mailed requests must also include a check (made out to Cal State Hayward) according to the above charges. Please do not send cash with mailed requests. Address the request to the Records Office.

### In Person Requests:

You may submit transcript requests and payment in person to the Admissions and Records Information Counter and Cashier in the Lobby of Warren Hall. If you send someone to order transcripts for you, you must provide that person with a written authorization.

An official transcript is typically sent within 5-7 working days after receipt of the mailed or in person request. Transcripts which include coursework from a recently completed quarter are generally available 14 days after the last day of final exam week.

Students with financial holds placed by the university or with academic, document, library, equipment, or other obligations to

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## Transfer Information

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## Veterans' Services

Cal State Hayward, are not permitted to receive transcripts or to request transcripts to be sent to other institutions.

Unofficial copies of Cal State Hayward transcripts for personal use are available to students who complete the request form and pay a charge of \$2 per copy.

For more information on obtaining transcripts, call (510) 885-4251.

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See "Academic Assistance" and "Orientation," and "University Advisement Center" sections in this chapter. Also see the chapters on [Orientation and Advising](#), and [Admission/Undergraduate](#).

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Educational allowances, benefit counseling, advocacy, discharge upgrading assistance, tutorial assistance, and social service referrals are available to veterans attending Cal State Hayward under the Veterans' Administration or Cal-Vet programs and to dependents of service-connected disabled and deceased veterans.

A permanent GI bill providing college educational allowances and other benefits for veterans is now in effect. For information on eligibility and procedures, contact the Veterans' Administration by calling 1-800-827-1000 or the Veterans' Services Clerk, Record's Office, California State University, Hayward (510-885-3669). You may also visit the Cal State Hayward Veterans' Services desk in Warren Hall (WA 245).

Each quarter veterans and eligible dependents should come to the Veterans' Services desk in the Record's Office (WA 245) before the first day of classes and submit their forms requesting certification of enrollment for V.A. benefits. You are also responsible for reporting any changes in enrollment to the Veterans' Services desk and the V.A. as they occur. See "[What Determines My Classification at Cal State Hayward?](#)" in the Registration chapter for additional information. information.



HOME



HELP



## Facilities

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### Art Galleries

The Hayward campus enjoys two exhibition spaces--the University Art Gallery and the Student Gallery--which make it possible to mount shows of varying size and significance.

The University Art Gallery is 2500 square feet of exhibition space. Located in AE 106, the Gallery has one person shows, group shows and student shows in a variety of media. An adjoining courtyard is available to display outdoor sculpture. The University Art Gallery is admission free and open Tuesday through Thursday. The student gallery, located in AE 274, is a more intimate space. Throughout the year, students present their works for short exhibitions. The days and hours of these shows vary and are also admission free.

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### Bookstore

The Cal State Hayward Pioneer Bookstore is located between the Library and University Union. It offers students a complete selection of books and school supplies as well as Apple Computers, computer software, and other electronic supplies. A special order service is available for any book in print and for many types of supply items.

In addition, the Bookstore sells the University Catalog, the quarterly Class Schedule, art and lab supplies, "Blue Book" test booklets, Scantron test forms, gift items, greeting cards, office supplies, personal and health care products, and a variety of Cal State Hayward imprinted sportswear, mugs, pennants, and other related merchandise. The Pioneer Express offers a variety of food and convenience items and is open for extended hours.

Pioneer Bookstore services include a U.S. Post Office Contract Station and the sale of commencement items such as announcements, rings, caps, and gowns. A branch of the Cal State 9 Credit Union is also located inside the Bookstore. For

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## Business And Economics Special Facilities

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current hours and further information, call (510) 885-3507.

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The School of Business and Economics offers tutorial assistance for Accounting classes. There is also a Student Learning Center and Video Lab in MB 2505, a Student Computer Center in MB 2515, and an administrative Student Service Center in MB 2525.

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## Early Childhood Education Center

The Early Childhood Education Center (ECEC) is located on-campus, next to the Art and Education Building, and provides child care for infants, toddlers, and preschool children of students, faculty, staff, and the community. The ECEC is funded through a partnership between the Associated Students, Inc. (a non-profit auxiliary of Cal State Hayward); Child, Family and Community Services, Inc. (the grantee agency for the Southern Alameda Head Start program); and Cal State Hayward's School of Education and Allied Studies.

The ECEC is a state-of-the-art facility with high quality innovative programs and developmentally appropriate activities provided in a safe, nurturing, and supportive environment. This State-licensed center offers both a relaxed family atmosphere and a stimulating educational program under the supervision of a paid professional staff supplemented by volunteers from many departments on campus. Some parental participation is required.

Services provided by the ECEC are free to children and parents who meet the eligibility criteria established by Head Start and State Preschool regulations. A current fee schedule is available for parents who do not meet federal or state eligibility requirements.

For additional information and registration procedures, call the Early Childhood Education Center at (510) 885-2480. Space is limited and early inquiry is recommended.

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## Computing, Communication, and Media Support

The university provides support for the technology needs of the campus community primarily through the Media and Technology Services Division (MATS) of Information and Computing Services (ICS). This unit provides support and facilities to faculty, staff, and students through specific Service Centers.

The *Administrative Service Center (ATSC)*, located in Warren Hall 363, provides desktop support and workshops and/or training for staff and administrators in commercial software applications and university-specific software systems.

The *Classroom Service Center (CSC)*, located in the Library, room 1105, provides support for faculty classroom presentation needs and includes: two-way compressed video distance learning support; classroom equipment delivery and maintenance; media and computing facilities design, engineering and installation; analog and digital video distribution systems; consultation on



equipment purchases and facility design; satellite teleconferencing; and Smart Classroom and multimedia classroom design and maintenance.

The *Instructional Technology Service Center (ITSC)*, in the Library, room 2196, provides support for faculty presentation needs and facilitates their use of all forms of instructional technology in the classroom and on the Internet. Some of the services provided by the ITSC are multimedia production, web site production, consultation with individual faculty on computer applications and presentation equipment, coordination of campus-wide technology funding initiatives and software distribution programs, online education and internet delivered instruction, curriculum server and streaming media technologies, and digital video and television editing and production.

The *Student Technology Service Center (STSC)*, located in the basement of Warren Hall, B53, provides and maintains student accessed central computing labs, media production facilities, and a laptop loaner program for financially eligible students.

A central *Help Desk* is available to all members of the campus community who have questions regarding computing software, hardware and network communications and can be reached by calling 885-H-E-L-P (4357).

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## Language Laboratory

The Language Laboratory is a facility of the Department of Modern Languages and Literatures. The lab is also used extensively by the American Language Program (Extended and Continuing Education). It has two rooms, each of which has 48 student carrels. Lab 1 is used by students for individual work with audiotapes and videocassettes; Lab 2 is reserved for class use. The latter has the Tandberg 1S-10 system, which has a programmable remote control console that allows faculty to run as many as four programs simultaneously and to monitor and intercommunicate with individual students. The system can duplicate programs on student recorders at real or high speed, transferring a program onto the master track of the student's cassette tape. This permits students to interact with the audiotape, recording their responses on the student track and playing it back for comparison and correction. Lab 2 also has four 25-inch wall-mounted TV monitors for viewing video programs.

The Language Laboratory has audio and videotape collections of instructional programs in several languages, including American Sign Language. In addition, the Language Laboratory has the equipment to receive foreign television transmissions via satellite-cable hookup. The Language Laboratory is located in LI 2154 near the Instructional Media Center.

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## Library

The University Library is housed in a spacious building located east of Warren Hall. The 248,300-square foot building currently houses a collection of over 850,000 volumes (including bound periodicals), federal and state documents, electronic resources,



compact discs, sound and video recordings, maps, microforms, and serial publications. The university also maintains a branch library at its Contra Costa Campus. The branch has full access to the main library's resources.

All library materials are arranged on open shelves, except in the following areas which have closed stacks: Special Collections, Archives, the Reserve Room, and the Media Library. A variety of study facilities including individual carrels, tables, lounge furniture, and group study rooms is available.



Special facilities include a photocopy center, the library/GIS laboratory classroom, a computer lab, a map and atlas room, and several rooms for the use of students with disabilities which contain special equipment for those with visual impairments. The Media and Music Center houses group and individual listening and viewing stations along with videos, music books, scores, and sound recordings. In the Reference area, microcomputer workstations provide free electronic access to over 80 bibliographic, statistical, and full-text databases in business, psychology, medicine, education, public affairs, science, ethnic studies, current news and events, and the humanities and social sciences.

HAYSTAC, the Hayward State Automated Catalog, is the catalog for the library's collection and is available on terminals throughout the library. HAYSTAC also serves as a gateway to a number of remote electronic resources, including MELVYL, the UC system union catalog; several periodical databases; and other electronic catalogs. HAYSTAC is available remotely and instructions for connecting may be obtained in the Reference area. The library also has its own Web page at: <http://www.library.csuhayward.edu>, with links to HAYSTAC and to numerous Web-based periodicals and full-text databases. These are also available from off-campus to currently registered students, faculty, and staff members of the university.

To check out library materials, you must present a currently validated Cal State Hayward photo ID at the Circulation Desk for appropriate processing. The photo ID then serves as your library card and is non-transferable.

Information, reference assistance, and instruction in the use of library resources and services are available from the library faculty at the Reference/Information Desk in the lower mall lobby. All librarians are also available by appointment and during scheduled office hours if you need individual help with library research.

To acquaint you with the library, a self-guided walking tour brochure is available at the Circulation Desk. The library also offers LIBY 1010 "Fundamentals of Information Literacy," a course

which satisfies the General Education Information Literacy requirement. In addition, the library offers LIBY 1551 "Information Skills in the Electronic Age," LIBY 2000 "Interdisciplinary Applications of Geographic Information Systems," and LIBY 3200 "Discipline Based Information Research." (See the [Library chapter](#) in the undergraduate programs section of this catalog for course descriptions and further information.) Subject-oriented lectures and demonstrations are given to classes at faculty request, and Internet and research skills workshops are scheduled every quarter. The library's website also lists a full range of services for students enrolled in online/distance education classes.

A mutual use agreement covering all the CSU libraries enable Cal State Hayward students to borrow materials from any of the libraries within the CSU system by using their current Cal State Hayward ID card. You may also use the library's interlibrary loan and document delivery services (ILL) to obtain materials which are not owned by the Cal State Hayward library.

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## Marine Laboratories

Instruction in marine biology, geology, oceanography, and other marine sciences is offered at the Moss Landing Marine Laboratories in conjunction with five other cooperating California State Universities. Full-time course offerings are available for resident credit and the facilities are used to supplement courses taught on the Cal State Hayward campus. The laboratories are located 82 miles south of Hayward on Monterey Bay, and some classes are taught in Salinas. See [Marine Sciences](#) for further details and for courses offered at Moss Landing, as well as information on the [M.S. program in Marine Science](#).

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## Museum of Anthropology

The Clarence E. Smith Museum of Anthropology was established in 1974 and opened its exhibition gallery in 1979. Chartered as a teaching museum for the instruction of museology in an anthropological context, the Museum is named in honor of the late Professor Clarence Smith of the Department of Anthropology. Professor Smith recognized the advantage of demonstrating tangibly, in art and artifact, both human diversity and the range of human achievement throughout the world. Efforts are made to represent both traditional cultural forms and their contemporary expressions and influences. In the forefront of the Museum's repertory are exhibits designed to illustrate all aspects of human culture from around the world, features of culture change, and technological as well as biological evolution.

The exhibition galleries of the Museum are located in the southeast corner of the fourth floor of Meiklejohn Hall on the Cal State Hayward campus. They are open to the public, Monday through Friday, and by appointment; admission is free. Access to the collections is limited to qualified professionals and students whose scholarly research requires direct examination of the Museum's holdings. Consult with the Museum's collection manager for a current list of artifacts held. The staff and director's office is located on the first floor (1017) of Meiklejohn Hall. Consultations are given by appointment. For information on exhibits and appointments, call the Museum at (510) 885-3104 or (510) 885-3168, Monday through Friday, 8:00 a.m. to 5:00 p.m.

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## Parking Facilities

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Campus parking facilities are available to students who have purchased parking permits. Quarterly permits may be purchased by mail during the registration process, on-campus at the Cashier's Office in the lobby of Warren Hall, and in the Contra Costa Campus Academic Services lobby. Several parking lots contain parking permit dispensers from which a "Day Permit" may be purchased. In addition, there are a several metered spaces available on campus. See [campus map](#) inside back cover for location of parking facilities.

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## Science Facilities

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The School of Science is housed in a modern 201,000-square-foot science building which includes many specialized teaching laboratories, general purpose personal computers, and specialized computing facilities.

The Departments of Biological Sciences, Chemistry, Geological Sciences, Physics, and Psychology each maintain a number of well-equipped laboratories for undergraduate instruction. Laboratory classes are limited to 24, 20, 16, or 12 students, depending on the subject matter.

In addition to the normal complement of laboratory equipment, students in the Biological Sciences have access to a tissue culture lab, light and electron microscopes equipped with digital image capture, an array of electronic equipment for recording quantitative data, microcomputers, and field equipment, including boats. Other special facilities include a radiation lab; temperature controlled plant growth chambers; an herbarium; a greenhouse; an insectory; two animal rooms for housing animals; an aquatic animal room for keeping live fish, amphibians, and invertebrates; and museums of vertebrate, invertebrate, and entomological specimens. The wetlands field station is located on southern San Francisco Bay on part of the National Wildlife Refuge.

The Department of Chemistry maintains laboratory equipment and instruments typical of comparable schools. These include: infrared, visible, atomic absorption, and flame spectrophotometers; PC-controlled and conventional gas, ion, and high performance liquid chromatographs; NMR and FTIR spectrometers; a computer-controlled capillary gas chromatograph/mass spectrometer; and other specialized equipment including a fluorometer, an absorptometer, research-grade dry box, and environmental field sampling equipment.

The Department of Geological Sciences is equipped with modern research and field instruments including an atomic absorption spectrophotometer; gas chromatograph; X-ray fluorescence spectroscope; cathodoluminescence; X-ray diffractometer; petrographic and ore microscopes; geophysical apparatus for seismic refraction, resistivity, magnetic, and gravity surveys; and microcomputers. Field equipment includes a portable kitchen and other supplies necessary for the summer field camp and a small power boat with sampling equipment for shallow water studies. Laboratories are equipped for sediment analysis, thin-section

preparation, and photomicrography. The department also has large collections of minerals, rocks, fossils, and maps.

Students in the Department of Mathematics and Computer Science have access to a wide variety of modern computing equipment, including a network of Unix workstations (mostly Sun SPARC stations) and three classrooms equipped for computerized demonstrations. In addition to departmental resources, the university provides a network backbone, including connection to the Internet, and hundreds of personal computers. Several computer labs on campus offer access and assistance with problems.

In the Nursing Skills Lab, nursing students practice in a simulated health care setting under the guidance of a registered nurse with a B.S. degree. This prepares them to move into local hospitals and community health agencies for their clinical patient/client experience.

Students in Physics have access to instruments appropriate to the discipline, including a 2m-Ebert mound spectrograph, electron-spin-resonance apparatus, a multi-channel analyzer for nuclear radiation studies, equipment for projects that require lasers or holography, a very high resolution Doppler-free saturated absorption spectrometer, and an optic fiber transmission line. Instruments can be fabricated for students with other areas of interest.

The Department of Psychology maintains laboratories and equipment for conducting student research in development, personality, social psychology, industrial psychology, physiological psychology, perception, conditioning, and cognition. These laboratories include facilities for the study of humans and small animals. The Psychology department also maintains a computer lab for use by students and faculty.

A computer lab, funded originally by the National Science Foundation, is equipped primarily for instruction of Statistics majors and minors, but is available for use by students in other areas as well. The laboratory has 20 personal computers networked to servers with professional statistical software and data sets. Both hardware and software are state-of-the-art. Applied and theoretical statistics classes use the lab for demonstrations of statistical computing and for class projects in which students learn practical data analytic skills that aid them in the transition from school to work.

Some rooms in the science building have also been set aside to function as tutorial centers and student lounges. The Science Computer Lab is a 36 station lab with all the software needed by science students to do their homework. The flex classroom, Science South 149, is wired for students to bring laptops to use in the classroom.

Campus food service, a game room, lounges, Automatic Teller Machine (ATM) service, meeting rooms, a television lounge, a Sundries/Information center, The Pulse Copy Center, UU Exhibit Area, multipurpose rooms, and offices of the student government (Associated Students) are some of the service facilities housed in the modern and fully-furnished building. Other services on campus include the Pioneer Chuckwagon (located at the PE Building Snack Bar) and a mobile food cart. Food service and a student lounge are provided at the Contra Costa Campus.

A variety of programs is planned by the AS/UU Programs Department throughout the year to meet the cultural, social, and entertainment needs of the Cal State Hayward community.

All policies and procedures of the University Union are determined by a 10-member board of directors.

### Reservation Procedures

Reservations may be made by telephone (510-885-3902) or in person at the University Union Office, Monday through Friday, 8 a.m. to 5 p.m. Organizations that have access to the University Union facilities include university-recognized student organizations, academic and administrative departments, Cal State Hayward-affiliated groups, and off-campus groups.

All recognized Cal State Hayward student organizations may make tentative reservations directly, with confirmation pending approval obtained through the Student Life Programs Office. Academic/administrative/service departments can make reservations directly. The Union facilities shall not be used for regular academic classes. Deviation from this policy requires approval from the dean of the school concerned and the University Union Board of Directors.

Groups not directly affiliated with the university should make reservations directly with the Scheduling Coordinator and will be required to pay all charges and fees associated with their planned event prior to the event.

### Room Rental Fees

Rental fees will be levied according to the University Union room rental fee structure. If special services (i.e., technical support, catering, special equipment) are requested, the University Union will levy the charge appropriate for the service requested. Set-up fees may be assessed for use of the University Union when the sponsor requires set-ups beyond those normally provided.

### A-V Equipment

Audio-visual equipment is available upon request at the time of reservation. Slide projectors, screens, overhead projectors, a cassette player, P.A. systems, and VCR monitors are available.

### Catering

All food and beverages served in the University Union must be provided through the University Union Food Service. Catering arrangements can be made directly through the Food Service Office (510-885-4008). Refer to a catering brochure for menu selection, prices, and procedures. Menus and estimated group size must be submitted within two weeks of the event with final

guest count within 48 hours of the event.

## Cancellations

The policy of notifying the University Union Scheduling Coordinator of cancellations enables the Union to meet the growing demand for space. Organizations are encouraged to make reservations as early as possible. Groups that frequently violate the cancellation policy will not have the opportunity to continue reserving space. Appeals can be directed to the University Union Executive Director.

## Distribution Tables

Four tables are available for organizations to distribute information or materials. Student organizations can reserve space through the UU Scheduling Coordinator. Each group must staff the area during the reserved time.

## Banners/Posters

Recognized Student Organizations, Associated Students, and university departments may place banners announcing events on one of four (4) designated banner spaces on the South balcony. Banner space is available for a maximum of one week on a first-come, first-served basis and must be reserved through the University Union Scheduling Coordinator at 885-3902.

Posting flyers and posters is limited to bulletin board space. For specific poster policy, contact the University Union Administrative Office at University Union 301.



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## Organizations/Activities

- ▶ [Activities](#)
- ▶ [Student Organizations](#)

### Activities

#### Cultural Activities

Lectures, music, drama, art, and recreation are natural outgrowths of the educational mission of the university. The university's calendar includes visits by professional performers, artists and speakers of note; performances and exhibits by our distinguished faculty; and student productions and events.

For a copy of Cal State Hayward's music or theatre calendars, contact the university's Arts Marketing Coordinator at 885-4299.

#### Intercollegiate Athletics, Instructional and Recreational Programs

Cal State Hayward sponsors intercollegiate athletic programs for both men and women. The university is a member of the California Pacific Conference (NAIA) and competes on the varsity level in basketball, soccer, and softball. Baseball, cross-country, swimming, volleyball, and waterpolo compete as NCAA Division III independents.

The university encourages you to participate in some form of physical activity. In addition to the program of intercollegiate athletics, opportunities exist for you to participate in instructional and recreational programs. The Department of Kinesiology and Physical Education offers for credit numerous instructional programs in sports, games, and exercise. The Department of Recreation and Community Services offers instructional programs in outdoor activities. The Recreational Activities Program, sponsored by the Associated Students, provides competitive opportunities during Fall, Winter, Spring, and Summer quarters. The Recreational Activities Office is located in PE 133 (885-3064 or 885-4843).

If you are interested in recreational opportunities, the university makes its outdoor and indoor facilities available for use as frequently as possible. It has two swimming pools, two racquetball courts, a martial arts facility, a basketball/multipurpose gymnasium, a dance studio, a stadium, a track, a baseball diamond, a softball diamond, a soccer field, and a multipurpose practice field. Information regarding programs should be obtained from the Department of Kinesiology and Physical Education (885-3061) or the Athletic Office (885-3038). Groups interested in renting the facilities should contact the Office of Facility Reservations (885-3548). Student clubs or organizations interested in reserving facilities should contact the office of



## Student Organizations

Student Life (885-3657).

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics. Information concerning athletic opportunities available to male and female students and the financial resources and personnel that Cal State Hayward dedicates to the men's and women's teams may be obtained from Doug Weiss, Athletic Director, Department of Kinesiology and Physical Education, PE 130, 885-3038.

For additional information, contact the Department of Kinesiology and Physical Education, PE 130, 885-3061, or the Athletic Office, PE 130, 885-3038.

### Volunteer Services

Through the Office of Instructional Services (Volunteer Services Programs), the university makes available to Cal State Hayward students a wide variety of volunteer service opportunities. Among the new opportunities available are the America Reads Challenge Literacy Corps, the Precollegiate Academic Development Program, and several programs that promote Service Learning and leadership development. If you are interested in any of these opportunities, please contact the office at (510) 885-4637.

More than 90 student organizations are active at Cal State Hayward. They encompass a broad range, including academic, cultural, professional, recreational, community service, religious, and political interests. They also offer you important opportunities for personal growth and friendship, as well as valuable educational experiences beyond the traditional classroom setting. Student organizations sponsor many special events-lectures, films, music, and dance events each quarter.

The Student Life Programs staff provides support and consultation to student organizations in planning programs and events; fund raising, publicity and promotion; and developing service projects and cultural programs. The staff also assists students interested in forming new student organizations.

Fraternities and sororities are also active at Cal State Hayward. The Greek system includes seven sororities and six fraternities. In addition to offering friendship and social activities, fraternities and sororities encourage scholarship, leadership and community service, and affiliation to national organizations that last a lifetime. Student Life Programs provides support and assistance to individual chapters, as well as to the Greek governing councils.

Getting involved in student organizations is an excellent way to meet other students, develop leadership skills, and pursue special interests. The university encourages you to become active and involved in student organizations. More information is available from Student Life Programs in the Student Services Hub 1351, (510) 885-3657.

### Alumni Association

"Keeping the Link: You, the Alumni Association, and the University" is the theme of Cal State Hayward's Alumni

Association. In existence since 1961, the Association's purpose is to reach out, connect with, and engage the more than 65,000 alumni who remain an active and vital part of the university's growth. Building on more than thirty years of participation in campus activities, the Association continues to play an important and increasing role in the present and future viability of the university. It has broadened its membership by adding two international chapters in Moscow and Hong Kong with others soon to follow.

In addition to promoting the reputation of Cal State Hayward, the Association has endowed funds-derived from alumni memberships-which support scholarships, student programs, the university library, cultural events, and special campus programs. The Association works closely with the Office of University Advancement and the Office of the President to increase alumni awareness.

Efforts to strengthen bonds among alumni include the publication of the Association's newsletter (the Haywire), support of alumni chapter social or career-oriented events, co-hosting an annual golf tournament in the fall, and an annual meeting each spring to honor the "Alum of the Year."

Anyone who has attended the university, and who is no longer registered as an undergraduate student is eligible for membership in the Alumni Association. If you are interested in joining, membership applications are available in the University Advancement Office, Warren Hall 908, or by calling (510) 885-3724.

### Leadership Institute

The Leadership Institute, sponsored by the Division of Student Affairs, offers students the opportunity to enhance their leadership skills through workshops presented by campus and community leaders. Through the Leadership Institute, students gain the insight and skill to assume a leadership role on campus, in their career or in the community; build alliances with faculty, staff, alumni and community leaders; and enhance their future leadership potential. Participants can earn a Leadership Institute Certificate upon completion of a series of workshops in the areas of Communication, Diversity, and Leadership Skills/Styles.

A variety of workshops is offered Fall, Winter, and Spring quarters. The Leadership Institute is open and free of charge to all Cal State Hayward students. For additional information, contact Student Life Programs in the Student Services Hub 1351, (510) 885-3657.

### Student Government

Associated Students (A.S.): The Associated Students, Inc., is a non-profit corporation whose membership consists of all students enrolled at Cal State Hayward. Members are entitled to, and encouraged to participate in A.S. activities, and to vote in all student elections.

Board of Directors: The A.S. Board of Directors is composed of fifteen members: five directors-at-large, two directors from each of the academic schools, and two directors from the Contra Costa Campus. The Chair and Vice Chair are elected by, and from, the

Board of Directors. The Board establishes student government policies, appoints members of all committees, prepares and supervises the budget of the Associated Students, and works with the university in the planning, execution, and evaluation of many programs and projects.

The Board also appoints student members to university boards which include administrative, faculty, and student representation. These include the Cal State Hayward Foundation Board and the Instructionally Related Activities Board. All vacant student government positions, including committees, are appointed by the Board of Directors.

A.S. Committees: The Associated Students' structure includes several standing and ad hoc committees. Membership in these committees offers experience in organizational and decision-making processes. The standing committees include executive, finance/personnel, schools, and elections. The regular ad hoc committees include student organizations, program advisory, and Children's Center Advisory Roundtable.

Schools Committee: The Schools committee plans and sponsors activities of interest to undergraduate and graduate students in each academic school at Cal State Hayward and at the Contra Costa Campus. Sponsored programs may be educational, social, professional, and cultural in nature, and must always be open to all students.

#### Academic Senate/Committees-Student

Representatives: Student senators are elected in the Spring quarter and may serve on senate committees except the Faculty Affairs and Promotion and Tenure Committees. Contact the Chair of Associated Students at (510) 885-4843 for more information.

Administrative Offices: The administrative offices for the Associated Students and University Union, located on the third floor of the University Union, house the management and staff for both organizations. These offices offer many services to the campus community including University Union room reservations, check cashing, and fax services. Students may purchase health insurance, AC Transit and BART passes, discounted movie tickets, postage stamps, and copy cards. Associated Students provides banking services for clubs and organizations as well as mailboxes. For more information, call (510) 885-4843.

Recreational Activities: The Associated Students Recreational Activities Program offers activities designed for personal recreation and fitness. Activities include sports leagues and tournaments, fitness classes, and outdoor recreation adventures. All activities which are discounted for students are open to the public. For a current schedule of events, call (510) 885-4843 or stop by the University Union Room 314.

Programs: The Associated Students/University Union joint Program Advisory Council coordinates a wide variety of cocurricular activities designed to enhance the college experience. Programs are divided into four areas: social, recreational, cultural, and educational. They include films, comedy shows, musical performances, lecture programs, and special events. For more information on upcoming events or how to join the program board,

call (510) 885-4843.

## Student Media

The university newspaper, *The Pioneer*, and the university magazine, *Escape*, are produced in the Department of Mass Communication. Student involvement in production of these publications includes writing, editing, graphics, photography, and advertising. *The Pioneer* and *Escape* are also published on the Internet. For more information about *Escape*, call the department office at (510) 885-3292. For more information about *The Pioneer*, call *The Pioneer* office at (510) 885-3175. For more information about the advertising agency, which sells ads in these publications, call the agency office at (510) 885-3526.

Student broadcast media, KSUH Radio and KSUH-TV, operate under the Department of Mass Communication. Students are involved in both programming and production. For more information on KSUH Radio, call KSUH Radio at (510) 885-3907. For KSUH-TV, call (510) 885-3292.



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## Admission/Undergraduate

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- ▶ [How is residence for tuition purposes determined?](#)

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Cal State Hayward welcomes your application to study at our university. There are three steps to the application process:

1. You send a completed application to the Admissions Office at Cal State Hayward.
2. We determine your eligibility based on criteria discussed in this chapter.
3. We notify you of the university's decision.

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### 1. How do I become a Cal State Hayward student?

- Prospective students, applying for part-time or full-time undergraduate programs of study, in day or evening classes,

must file a complete CSU application as described in the admission booklet and pay a \$55 application fee. The \$55 nonrefundable application fee should be in the form of a check or money order payable to "The California State University" and may not be transferred or used to apply to another term. An alternate campus and major may be indicated on the application, but all applicants should list as an alternate campus only a CSU campus that also offers the major. Generally, an alternate major will be considered at the first choice campus before an application is redirected to an alternate choice campus.

- Application packets are available at most high schools and community college counseling offices. In addition, packets are available at Cal State Hayward in the 1st floor Lobby of Warren Hall and by calling the application telephone line (510) 885-4827. An electronic version of the California State University Application is available on the World Wide Web at: <http://www.csumentor.edu>, or you can send an e-mail request for an application to the Cal State Hayward Admissions Office at: [adminfo@csuhayward.edu](mailto:adminfo@csuhayward.edu).
- There are separate applications for baccalaureate degrees and master's degrees/post-baccalaureate programs. Be sure you obtain the correct one.
- Designate Cal State Hayward campus on your application as your first choice.
- Fill in all the required information, including your social security number. The university uses this number to identify student records and evaluate financial aid applications. Because evaluating applications requires time, incorrect information will delay or invalidate your application.
- After you have sent all application materials and fees, you can phone Admissions' STATUS LINE to check the status of your Cal State Hayward application. The STATUS LINE number is (510) 885-3828.
- Cal State Hayward corresponds with each student by mail--so be sure the address on your application is complete and accurate.
- The B.S. degree major in Nursing also requires a departmental application. If you want to pursue a major in nursing, see the [Nursing chapter](#) for special admission requirements.
- Take time to read this catalog and become familiar with the specific policies and procedures of Cal State Hayward and the CSU system. This will help you to understand your rights and responsibilities, as well as the rights and responsibilities of the university.

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## 2.

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### Who must complete an application?

All students in the following categories must complete an undergraduate admission application:

High school graduates

Community college transfer students

Cal State Hayward students who have not been enrolled for three consecutive quarters

Students who have a degree from a college or university and want a second baccalaureate degree

Students who have been enrolled only in Special Sessions, Extension, and Open University

Students who have attended Cal State Hayward as visiting students from another university

Students who want to audit classes<sup>1</sup>

Students who were admitted to Cal State Hayward for a particular quarter but did not enroll

*If you are uncertain whether you are required to apply, you can contact the Admissions and Records Information Counter at (510) 885-2624.*

If you have a baccalaureate degree and wish to pursue post-baccalaureate study or a graduate degree, you must submit an application and application fee, even if you are a Cal State Hayward graduate.

Electronic versions of the CSU undergraduate and graduate applications are accessible on the World Wide Web at <http://www.csumentor.edu/>. The CSUMentor system allows students to browse through general information about CSU's twenty-two campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid.

The following regulations and procedures govern admission to both the Hayward and Contra Costa campuses. They are subject to change without prior notice if necessary so that university policies are consistent with those established by the Trustees of The California State University.

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3.

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### What are Cal State Hayward's admission procedures and policies?

Requirements for admission to California State University, Hayward are in accordance with Title 5, Chapter 1, Subchapter 3, of *The California Code of Regulations*. For information on Cal State Hayward admission requirements, contact your high school or community college counselor or the Cal State Hayward Admissions Office at (510) 885-2624.

We advise all prospective students to supply complete and accurate information on the admission application, residence



questionnaire, and financial aid forms. In addition, you must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate, and authentic application documents may result in denial of admission, cancellation of academic credit, suspension, or expulsion (Section 41301, Article 1.1 of Title 5, *The California Code of Regulations*).

#### Declaration of Objective

When you apply for undergraduate admission you can state an objective (major and degree) to be pursued. You may also be admitted as an "Undeclared Student." In addition, once you have been enrolled at the university, faculty and staff of the University Advisement Center (UAC) are available to assist you in selecting a major and degree program. The responsibility for meeting the specific requirements of a program or major rests with you, but your advisor or the department chair of your selected major will help you determine the courses remaining for completion of major requirements. The University Advisement Center may also assist you in determining your General Education requirements.

#### Impacted Programs

The California State University system will announce, before the opening of the Fall filing period, which programs are impacted (programs which receive more applications in the first month of the filing period than can be accommodated) and the supplementary criteria campuses will use. (You must meet supplementary admission criteria if applying for admission to an impacted program.) That announcement will be published in the *CSU Review*, distributed to high school and college counselors. Information about the supplementary criteria is also sent to program applicants. Some programs are impacted at every campus where they are offered; others are impacted only at some campuses. If you are applying for admission to an impacted program you must file your application during the first month of the filing period. Also, if you wish to be considered for admission to impacted programs at two or more campuses, you must file an application at each campus.

The Nursing major (Clinical portion) is the only impacted program at Cal State Hayward. Supplementary admission criteria are listed in the undergraduate Nursing chapter.

#### *Supplementary Admission Criteria*

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman Eligibility Index Table (see "Eligibility Index" later in this chapter), the overall transfer grade point average, and a combination of campus-developed criteria. If you are required to submit scores on either the SAT I or the ACT, you should take the test no later than December if applying for fall admission.

The supplementary admission criteria used by the individual campuses to screen applicants to impacted programs appear periodically in the *CSU Review* and are sent by the campuses to all applicants seeking admission to an impacted program.

If you cannot be accommodated in a locally impacted program, you may be redirected to another campus in the same major.

Unaccommodated applicants to system-wide impacted programs may not be redirected to another campus in the same major, but may be requested to choose an alternate major either at the first choice campus or another campus.

#### *Use of Social Security Number*

You are required to include your correct social security number (individual taxpayer identification number) in designated places on your application for admission pursuant to the authority contained in Section 41201, Title 5, *California Code of Regulations*, and Section 6109 of the Internal Revenue Code. The university uses your social security number to identify your records as well as to identify you for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the university to file information returns that include your social security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. That information is used by the IRS to help determine whether you, or a person claiming you as a dependent, may take a credit or deduction to reduce federal income taxes.

If you are a taxpayer who claims Hope Scholarship or Lifetime Learning tax credit, you are required to provide Cal State Hayward with the name, address, and Taxpayer Identification Number.

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## 4. When should I apply?

Applications postmarked or received during the first month of the application filing period (the "initial filing period") will be given equal consideration within established enrollment categories and limits. There is no advantage in filing before the initial filing period.

### Application Filing Periods

Terms in 2000-2001	Applications First Accepted	Student Notification Begins
SUM - 2000	Feb. 1, 2000	Feb. 2000
FALL - 2000	Nov. 1, 1999	Nov. 1999
WIN - 2001	June 1, 2000	June 2000
SPR - 2001	Aug. 1, 2000	Aug. 2000

Cal State Hayward accepts applications until its capacity is reached. (Many campuses, but not Cal State Hayward, limit undergraduate admissions in an enrollment category because of overall enrollment limits. If applying after the initial filing period, consult those campus admissions offices for current information.)

Undergraduate applications for regular registration are accepted until three to four weeks before the start of the quarter. Graduate and credential program application periods end earlier. Contact the Admissions and Records Information Counter (510) 885-2624 for current deadlines.

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## 5. Does the university have any special provisions for enrollment and admission?

### High School Students

If you are a high school student, you can be considered for admission in certain special university programs if you are recommended by your high school principal and the appropriate campus department chair. You can be considered only if your preparation is equivalent to that required of eligible California high school graduates. Admission to a special program is valid for the program only; it does not allow continued enrollment.

### Non-Matriculated Enrollment

If you wish to enroll only for Special Session, Extension, or regular quarter courses available through the Open University Program of Extended and Continuing Education, you are not required to file a formal application for admission to the university or to file transcripts. You must register through the Division of Extended and Continuing Education.

### Hardship Petitions

Cal State Hayward has established procedures for consideration of qualified applicants who would be faced with extreme hardship if not admitted. Contact the Admissions Office for information on policies governing hardship admission. See also the "Denial Review" section under "How will I be informed of the admission decision?" in this chapter.

### Educational Opportunity Program

The [Educational Opportunity Program](#) (EOP) provides admission and retention support services to low income undergraduate students from ethnically diverse backgrounds. The EOP assists students who may not meet regular university admission requirements to enter the university via its special admission program.

If you are interested in admission to the university through the EOP, you must complete the "CSU Undergraduate Admission Application." In addition, you are required to apply for financial aid and to submit EOP supplemental documents. You will receive personal assistance and advising throughout the admission process from the EOP.

Freshmen receiving special admission for the Fall quarter may be required to participate in the [Summer Bridge Program](#). Once enrolled at the university as an EOP student, you are eligible for EOP support services.

### Veterans

Veterans who meet the admission requirements may attend under

full veterans' benefits. Information concerning veterans' programs can be obtained from the Veterans' Services desk in the Records Office, Warren Hall 245.

First-time freshmen and lower division applicants who are California resident veterans of the U.S. Armed Forces, but who do not meet regular entrance requirements may be considered for undergraduate admission if, in our judgment, the veteran has the potential to perform satisfactorily on the collegiate level. To be considered under this provision, you must have served 181 days active duty since 1955 with a discharge or separation under conditions other than dishonorable.

If you wish to be considered under this provision, your application for admission must include supporting documents, including separation papers (DD 214), and a letter petitioning special consideration. Transcripts and test scores are also required.

#### Adult Students

If you are twenty-five years of age or older, you *may* also be considered for admission as an adult student if you meet the following conditions:

1. Possess a high school diploma (or the equivalent as demonstrated on the Tests of General Educational Development or The California High School Proficiency Examination).
2. Have not enrolled in college as a full-time student for more than one term during the past five years. Part-time enrollment is permissible.
3. Have earned a "C" or better average in college courses taken within the last five years.

Your admission will be based upon a judgment as to whether or not you are as likely to succeed as a regularly admitted freshman or transfer student. An assessment of basic skills in the English language and mathematical computation will also be considered in the admission decision. If you are seeking enrollment as an adult student, you must submit a statement to the Admissions Office outlining the factors and experiences which you feel indicate your probable academic success.

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6.

## How will I be notified that my application has been received?

Cal State Hayward will notify you by mail that your application has been received within two weeks after you file the application. This notice will also include a request that you submit the records necessary for the campus to evaluate your qualifications. You are guaranteed admission if the evaluation of your qualifications indicates that you meet CSU admission requirements, and campus requirements for admission to an impacted program. Such a notice is not transferable to another term or to another campus.

## What information is necessary for evaluation of admission eligibility?

Once you receive an acknowledgment from Cal State Hayward that your application has been received, you will be requested to submit required documents (i.e., transcripts, test scores, etc.), if you have not previously done so. It is your responsibility to see that all official transcripts are sent directly to the Cal State Hayward Admissions Office from each previous institution attended. Neither evaluation nor determination of eligibility is possible until all required documents have been received.

1. First-time freshmen must submit transcripts of high school work (grades 9-12). Scores from the ACT or SAT examinations are required, unless exempt (see next paragraph). If you are still in high school you must submit transcripts of work as instructed and a final transcript after graduation.

First-time freshmen or lower division transfer applicants, whose high school grade point average is at least 3.00 (3.61 for nonresidents) have the test score requirement waived. Your GPA must be calculated using all subjects except physical education and military science from 10th grade through the 12th grade. If you are eligible for regular admission, you may request an early decision during the Fall of your senior year under the provisional admission program.

2. If you are applying for undergraduate transfer, graduate, or post-baccalaureate admission, you must submit two official transcripts from each college or university previously attended, regardless of length of attendance, even if no work was completed.
3. If you are a transfer student with fewer than 84 transferable quarter units (56 semester units) you must, in addition to item 2, file one official transcript showing courses and grades earned during high school (grades 9-12), as well as scores from the ACT or SAT examinations. If your high school grade point average is at least 3.00 (3.60 for nonresidents) the test score requirement will be waived.
4. If you are an international student or non-U.S. citizen, you may be required to submit additional records. See "[Are There Special Admission and Eligibility Requirements for International Students?](#)" in this chapter.

*Note:* The university has the obligation to determine whether a transcript will be accepted as official. All transcripts and records submitted for admission or readmission become the property of the university. Students may access their academic records according to policies and procedures established by the campus. You must submit transcripts from all colleges and universities you have attended so that your entire academic experience can be evaluated. Failure to do so will be grounds for denial of admission or readmission or for dismissal from the university.

8.

## How will I be informed of the admission decision?

After eligibility has been established, you will receive a letter of admission to the university for the term indicated. This notice will inform you of residence status. It will also contain information on advising, orientation, and registration.

### Redirection

If you cannot be accommodated at Cal State Hayward, your application will be automatically redirected to your second choice unless you are seeking admission to a system-wide impacted program or the alternate campus has reached its capacity in your chosen program of study.

### Denial Review

If you do not meet published admission eligibility standards, you may petition the Admissions Review Committee for reconsideration. The petition may be by form or letter and must include a statement of extenuating factors which includes the potential hardship to be incurred if admission is denied, as well as the reason your past record is not indicative of present capabilities. There is a limit on the number of exceptions to published admission criteria which the campus may grant. The Committee, therefore, considers a number of factors, normally favoring applicants who are close to qualifying and upper division students. Freshmen and lower division students receiving special admission may be required to attend a four- to five-week residential program emphasizing enhancement of academic skills as a condition of admission.

If you come from a disadvantaged background or are a veteran, you may be considered under other criteria.

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9.

## What are the minimum admission requirements for freshmen?

You will qualify for regular admission as a first-time freshman if you-

- are a high school graduate,
- have a qualifiable eligibility index (see the Eligibility Index Table in this section), and
- have completed, with grades of "C" or better, each of the courses in the comprehensive pattern of college preparatory subject requirements. (See "Subject Requirements" later in this section.) Courses must be completed prior to your enrollment in The California State University (special high school programs are exempted from this rule).

### Eligibility Index

The eligibility index is the combination of your high school grade point average and your score on either the American College Test (ACT) or the SAT. Your grade point average is based on grades

earned during your final three years of high school (excluding physical education and military science) and bonus points for approved honors courses. Up to eight semesters of honors courses taken in the last two years of high school can be accepted. Each unit of "A" in an honors course will receive a total of 5 points; "B," 4 points; and "C," 3 points.

You can calculate the index by multiplying your grade point average by 800 and adding your total score on the SAT I. Or, if you took the ACT, multiplying your grade point average by 200 and add ten times the ACT composite score. If you are a California high school graduate (or a resident of California for tuition purposes), you need a minimum index of 2900 using the SAT I or 694 using the ACT. The Eligibility Index Table illustrates several combinations of required test scores and averages. If you apply for admission before you graduate from high school, you should compute your GPA using grades earned in courses completed after the 9th grade. Do not include grades you expect to earn in courses during the remainder of the 12th grade.

If you neither graduated from a California high school nor are a resident of California for tuition purposes, you need a minimum index of 3502 (SAT I) or 842 (ACT).

If your grade point average is 3.00 or above (3.61 for nonresidents), you do not have to submit test scores. However, you are urged to take the SAT I or ACT since Cal State Hayward uses test results for advising and placement purposes.

You are qualified for regular admission when the university verifies that you have a qualifiable eligibility index and have completed the comprehensive pattern of college preparatory subjects. If you are applying to an impacted program, you must also meet the supplementary criteria.

Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section. (See "Are there special admission and eligibility requirements for international students?" in this chapter.)

### Eligibility Index Table for California High School Graduates or Residents of California



GPA	ACT Score	SAT I Score
2.99	10	510
2.98	10	520
2.97	10	530
2.96	11	540
2.95	11	540
2.94	11	550
2.93	11	560
2.92	11	570
2.91	12	580
2.90	12	580
2.89	12	590



2.88	12	600
2.87	12	610
2.86	13	620
2.85	13	620
2.84	13	630
2.83	13	640
2.82	13	650
2.81	14	660
2.80	14	660
2.79	14	670
2.78	14	680
2.77	14	690
2.76	15	700
2.75	15	700
2.74	15	710
2.73	15	720
2.72	15	730
2.71	16	740
2.70	16	740
2.69	16	750
2.68	16	760
2.67	16	770
2.66	17	780
2.65	17	780
2.64	17	790
2.63	17	800
2.62	17	810
2.61	18	820
2.60	18	820
2.59	18	830
2.58	18	840
2.57	18	850
2.56	19	860
2.55	19	860
2.54	19	870
2.53	19	880
2.52	19	890
2.51	20	900
2.50	20	900
2.49	20	910
2.48	20	920
2.47	20	930
2.46	21	940
2.45	21	940
2.44	21	950
2.43	21	960
2.42	21	970
2.41	22	980
2.40	22	980
2.39	22	990
2.38	22	1000
2.37	22	1010
2.36	23	1020
2.35	23	1020
2.34	23	1030
2.33	23	1040
2.32	23	1050
2.31	24	1060
2.30	24	1060
2.29	24	1070

2.28	24	1080
2.27	24	1090
2.26	25	1100
2.25	25	1100
2.24	25	1110
2.23	25	1120
2.22	25	1130
2.21	26	1140
2.20	26	1140
2.19	26	1150
2.18	26	1160
2.17	26	1170
2.16	27	1180
2.15	27	1180
2.14	27	1190
2.13	27	1200
2.12	27	1210
2.11	28	1220
2.10	28	1220
2.09	28	1230
2.08	28	1240
2.07	28	1250
2.06	29	1260
2.05	29	1260
2.04	29	1270
2.03	29	1280
2.02	29	1290
2.01	30	1300
2.00	30	1300

Below 2.00 does not qualify for regular admission

### Subject Requirements

The California State University requires that first-time freshmen applicants complete, with grades of "C" or better, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school. Within the 15 units completed, up to one unit (one year) in visual and performing arts or foreign language may be missing and offset by a college preparatory course(s) in other areas. The missing unit of visual and performing arts or foreign language must be completed either prior to, or by the end of, the first year of CSU enrollment. This provision is effective through the 2002-2003 academic year.

- English: four years
- Mathematics: three years (algebra, geometry, and intermediate algebra)
- U.S. History or U.S. History and Government: one year
- Science: one year with laboratory (biology, chemistry, physics, or other acceptable laboratory science)
- Foreign language: two years in the same language (subject to waiver for applicants demonstrating equivalent competence)
- Visual and performing arts: one year (art, dance, drama/theater, or music)

- Electives: three years (selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts, and agriculture)

Applicants seeking admission as first-time freshmen for the Fall 2003 or later terms will have the same preparatory course requirements for admission to both the California State University and the University of California. The preparatory course admission requirements for both systems will be the completion of the following courses with a grade of "C" or better: four years of English, three years of math (algebra, geometry, and intermediate algebra), two years of U.S. history or social science, two years of laboratory science, two years of foreign language, one year of visual or performing arts, and one year of electives chosen from one of the areas above.

#### Subject Requirement Substitution for Students with Disabilities

If you are an applicant with a disability, you are encouraged to complete college preparatory course requirements if at all possible. If you are judged unable to fulfill a specific course requirement because of your disability, alternative college preparatory courses may be substituted for specific subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by your academic advisor or guidance counselor, in consultation with the director of Cal State Hayward's Student Disability Resource Center. Although the distribution of courses may be slightly different from the course pattern required of other students, students qualifying for substitutions must still complete 15 units of college preparatory study. You should be aware that failure to complete courses required for admission may limit your later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, call the Student Disability Resource Center (510) 885-3868.

#### Foreign Language Subject Requirement

The foreign language subject requirement may be satisfied by demonstrating competence in a language other than English at a level equivalent to, or higher than, that expected of students who complete two years of foreign language study. Consult your school counselor, or Cal State Hayward's Admissions Office for further information.

#### Test Requirements

Prospective freshman and transfer students who have fewer than 56 semester or 84 quarter units of transferable college credit must submit scores, unless exempt, (see Eligibility Index Table) from either the SAT I of the College Board or the ACT. If you are required to submit test scores, you should take the test no later than early December if applying for fall admission. If you are applying to our impacted program (Nursing, Clinical portion), check with the department for further requirements. Test scores are also used for advising and placement purposes. Registration forms and dates for the SAT or ACT are available from school or college counselors, or from Cal State Hayward's Assessment and Testing Office (510) 885-3661. You may also write or call:

The College Board (SAT I)

Registration Unit, Box 6200  
Princeton, New Jersey 08541  
(609) 771-7588

ACT  
Registration Unit, P.O. Box 414  
Iowa City, Iowa 52243  
(319) 337-1270

#### Honors Courses

Grades, in up to eight semester courses designated as honors courses in approved subjects (taken in the last two years of high school), receive additional points in grade point average calculations. Each unit of "A" in approved courses will receive a total of 5 points; "B," 4 points; "C," 3 points; "D," 1 point; and none for "F" grades.

#### Provisional Admission

Cal State Hayward may provisionally admit first-time freshmen applicants based on their academic preparation as demonstrated by their work through the junior year of high school and their planned academic program for the senior year. The university will monitor the senior year of study to ensure that those admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects and graduation from high school.

#### Admission with Honors

To qualify for admission with Honors, you must also fully satisfy the Subject Requirements for admission to Cal State Hayward. Students admitted with Honors are eligible for the CSUH Honors Program (see the Honors chapter in the undergraduate programs section of this catalog).

**First-Time Freshmen.** Admission with Honors is conferred on a student whose high school GPA is at least 3.50, counting all subjects used to determine admissibility beginning with the tenth grade.

**Lower Division Transfers.** Admission with Honors is conferred on a student whose high school record is at least equivalent to that of a first-time freshman receiving honors. In addition, the student must have a combined all-college GPA in transferable courses of at least 3.50, based on work completed.

**Upper Division Transfers.** Admission with Honors is conferred on a student whose combined all-college GPA is at least 3.50 based on transferable work completed.

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## What are the minimum admission standards for transfer students?

#### Grade Point Average and Subject Requirements

You will qualify for admission as a transfer student if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet any of the following standards:

1. You meet the freshman admission requirements in effect for the term for which you are applying (see the previous section, "What are the minimum admission requirements for freshmen?").
2. You were eligible as a freshman at the time of high school graduation, except for the subject requirements, and have made up the missing subjects. You have also been in continuous attendance at an accredited college or university since high school graduation.
3. You have completed at least 56 transferable semester (84 quarter) units, and have made up any missing subject requirements (see the following section, "Making Up Missing College Preparatory Subjects"). Nonresidents must have a 2.4 grade point average or better.

*Note:* Transferable courses are those designated for baccalaureate credit by the college or university offering the courses.

*Applicants who graduated from high school 1988 or later:*

- You have completed all subject requirements in effect when you graduated from high school. (You can use both high school and college coursework.) *Note:* for upper division transfer students seeking admission to Fall term 2000 or later, all applicants with 56 or more transferable semester (84 quarter) units will be required to have completed at least 30 semester units (45 quarter units) of courses at a level equivalent to courses that meet general education requirements. The 30 semester units must include all of the general education requirements in communication in English language (3 courses) and at least the three semester (four quarter) units (typically 1 course) required in mathematics.

*or*

- You have completed at least 30 semester units (45 quarter units) of college coursework with a grade of "C" or better in each course. Courses must be in English, arts and humanities, social science, science, and mathematics at a level at least equivalent to courses that meet general education requirements. The 30 units must include the following:

All of the general education requirements in communication in the English language and critical thinking (at least nine semester/12 quarter units) and the requirement in mathematics/quantitative reasoning (usually three semester/four quarter units) or

The Intersegmental General Education Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning.

*Applicants who graduated from high school prior to 1988:*

- You should contact the Admissions Office to inquire about alternative admission programs.

#### Making Up Missing College Preparatory Subject Requirements

Undergraduate applicants who did not complete the subject requirements while in high school may make up missing subjects in any of the following ways.

1. You may complete appropriate courses with a "C" or better in adult school or high school summer sessions.
2. You may complete appropriate college courses with a "C" or better. (One college course of at least three semester or four quarter units is considered equivalent to one year of high school study.)
3. You may earn acceptable scores on specified examinations.

Contact the Admissions Office for further information about alternative ways to satisfy the subject requirements.

#### Provisional Admission

Cal State Hayward may provisionally admit transfer applicants based on their academic preparation and courses planned for completion. The campus will monitor the final terms to ensure that those admitted complete all required courses satisfactorily.

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## How will my transfer units be evaluated?

Credits earned in accredited community colleges will be evaluated by the Admissions Office in accordance with the following provisions:

1. Not more than 105 quarter (70 semester) units of credit may be allowed for community college work; community college credit earned after the student has earned 105 quarter units at one or more community colleges will be used for determining grade point averages and may be used to satisfy subject requirements, but may not be applied toward the total units required for the bachelor's degree.
2. No credit may be allowed for professional courses in education taken in a community college, other than an introduction to education course.
3. Cal State Hayward and California community colleges have articulation agreements regarding course equivalencies. If you are planning to transfer to Cal State Hayward you should consult with your community college counselors as to whether or not particular courses meet specific requirements.
4. Certification of part or all of the lower division General Education-Breadth Requirements completed may be submitted by the California community college from which the student is transferring. You should request a G.E. certification at the time

you request a transcript to be sent to Cal State Hayward. If you complete the A.A. degree in University Studies from Chabot or Ohlone Colleges, you will have automatic certification of all the 60-unit lower division General Education-Breadth Requirements. Twelve upper division G.E. units must be completed at Cal State Hayward.

5. Certification of the completion of the Cal State Hayward requirements in U.S. History and Institutions will also be accepted from your community college.

Credit from institutions not regionally accredited will not be used in determining admission eligibility, nor will it normally be used to meet graduation requirements. However, after completing 30 quarter units in residence, you may petition to have such units accepted for baccalaureate credit. Course content, the quality of performance, the nature of the institution, and the appropriateness of the courses to the Cal State Hayward curriculum will be considered in evaluating your petition.

*Note:* Not more than 141<sup>6</sup> quarter units of transfer credit may be applied toward a baccalaureate degree.

#### University Advisement Center (UAC)

The UAC is located in the Student Services Hub 1131. An advisor will evaluate your status with respect to the General Education requirements for the baccalaureate degree. An official evaluation or an update of a prior evaluation is available by (1) appointment, or (2) on a walk-in basis. (See the [Student Services chapter](#) in this catalog for additional information on the UAC.)

#### Credit for Extension and Correspondence School Work

You may count a maximum of 36 quarter (24 semester) units of extension and correspondence school work toward a baccalaureate degree at Cal State Hayward. Any such units not earned at Cal State Hayward must be earned in courses which would be acceptable for Cal State Hayward degrees and must come from accredited institutions which would accept the units toward their own degrees.

No extension or correspondence school credit may be applied toward the residency requirement for undergraduates or graduates. All transferable extension and correspondence work will be used for determination of the undergraduate grade point average.

#### Credit for Experience and Prior Learning

No unit credit is allowed toward the bachelor's or master's degrees for practical experience. An exemption allowed for experience will not carry units of advanced standing or diminish the number of units required for graduation.

#### Credit for Military Training and USAFI

Cal State Hayward grants credit for military training in accordance with the recommendation of the American Council on Education. If you entered military service before meeting the usual requirements for graduation, you may receive nine units of elective credit toward the baccalaureate degree based upon the completion of a minimum of one year of uninterrupted active service. Commissioned officers may receive an additional nine



units, which may be considered upper division credit. In order to receive such credit you must present written certification from a recognized military authority, such as papers from a military separation center or an official copy of a diploma from a service school or USAFI transcript. Cal State Hayward is a Serviceman's Opportunity College (SOC).

#### Credit for Noncollegiate Instruction

Cal State Hayward grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate, that has been recommended by the American Council on Education (ACE) College Credit Recommendation Service or by the National Program on Non-Collegiate Sponsored Instruction (NCSI). The number of units allowed are those recommended in the national guides published by these organizations.

Lower division, occupationally-oriented courses designed to train technicians are not acceptable for university credit. Credit granted for noncollegiate instruction is not generally applied to general education or major requirements.

#### Advanced Placement

Cal State Hayward grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of the College Board. Scores of three or better will be accepted; you will be granted 4-12 quarter units of college credit for each test completed, depending upon the specific discipline. (See the [Registration chapter](#) for additional information.)

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## Are there special admission and eligibility requirements for international students?

#### Admission Requirements

Cal State Hayward must assess the academic preparation of international students. For this purpose, "international students" include those who hold U.S. visas as students, exchange visitors, or in other nonimmigrant classifications. California residents and U.S. citizens with international transcripts are also classified as "international students" for admission evaluation purposes.

Cal State Hayward uses separate requirements and application filing dates in the admission of international students. Verification of English proficiency (see "TOEFL Requirement" in this section), financial resources, and academic performance are all important considerations for admission.

Priority in admission is given to residents of California. There is little likelihood of nonresident applicants, including international students, being admitted either to impacted majors or to those with limited openings.

#### *First-time Freshmen*

If you received your preparatory education outside the U.S., you must have completed the equivalent of 12 years of elementary

and secondary schooling with the equivalent of a "B" average or higher. ACT or SAT test scores are not required of international students who completed their secondary schooling outside the U.S. International students who graduated from a U.S. high school must meet the same requirements as U.S. citizens.

#### *Transfer students*

1. If you are a transfer applicant with fewer than 56 semester (84 quarter) units of transferable work completed at the time of planned enrollment, you must have a 2.0 GPA or higher in all transferable units attempted. You must also meet the eligibility requirements for first-time freshmen applicants. (See "What Are the Minimum Admission Requirements for Freshmen?" earlier in this chapter.)
2. If you are a transfer applicant with 56 semester (84 quarter) units or more, you must have a 2.4 GPA or higher in all transferable units attempted.
3. All transfer students must have completed a comprehensive pattern of college preparatory subject requirements. (See "What Are the Minimum Admission Requirements for Freshmen?")

Transfer students with university-level work earned outside the U.S., will be accepted if the overall grade point average of that work is equivalent to minimum grade point average requirements for admission. If a numerical grade point average cannot be determined by Admissions, at least a "B" average will be required.

#### Academic Records

Certificates, diplomas, mark sheets, transcripts, and test scores normally must be sent directly from the issuing institution to the Admissions Office to be considered official. The Admissions Office reserves the right to determine what constitutes an official document. Certified English translations must accompany all non-English original documents. Academic records from international institutions must be on file at Cal State Hayward at least eight weeks before registration for the first term.

#### TOEFL Requirement

If you are an undergraduate applicant (regardless of citizenship) and you have not attended schools at the secondary level, or above, for at least three years full-time where English is the principal language of instruction, you must present a minimum score of 525 (197 on the new TOEFL) on the Test of English as a Foreign Language (TOEFL).

#### Financial Certification

A financial certification form will be sent to international applicants upon receipt of the application for admission. You must make satisfactory arrangements for your entire stay at Cal State Hayward and must return the completed financial certification form, together with verification of your sources of financial support, before a letter of admission or an "I-20" form will be issued. Cal State Hayward currently has no scholarships or other financial aid for international students. Tuition waivers are available for a limited number of students. For information, contact the Director of the Center for International Education (Student Services Hub 1325; E-mail: [cie@csuhayward.edu](mailto:cie@csuhayward.edu)).

The commitment of the sponsor for full financial support for the entire period of proposed study must be given the most serious consideration. Immigration and Naturalization Service restrictions prohibit international students from obtaining work permits, except in extreme emergencies, and for a limited period only.

#### Certification of International Students

If you are an undergraduate on a student visa, you are required by the Immigration Service to take a minimum study load of 12 units per quarter.

When enrolled at Cal State Hayward, international students are expected to comply with all regulations of the Immigration Service as well as those of the university.

You should contact the Center for International Education for information on matters affecting visas, eligibility for employment, and any special academic requirements for international students.

#### Other Non-U.S. Citizens

Admission eligibility for students who are not U.S. citizens, and are not on student visas, will be based upon the same standards applied to international students who are on student visas. You are expected to have proficiency in the English language sufficient to meet the academic standards of individual courses and the University English proficiency requirements. Evidence of proficiency in English is the same as for international students. (See "TOEFL" section above.)

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## What are the enrollment requirements for transitory (visiting) students?

#### High School Students

See "Does the University Have Any Special Provisions for Enrollment and Admission?" in this chapter.

#### Intrasystem Concurrent Enrollment

If you are enrolled at any campus of The California State University, you may apply to attend another campus while concurrently enrolled at your home campus.

#### *Undergraduate Eligibility Requirements:*

1. You have completed at least one term at the home campus as a matriculated student and have earned at least 12 units there.
2. You have attained a grade point average of at least a 2.0 in all work completed at the home campus and are in good standing.

#### *Enrollment Conditions:*

1. Approval of concurrent enrollment is valid only for the term specified and is subject to space availability and registration priority policies at the host campus.
2. Because of overlap in the academic terms of campuses on

semester and quarter calendars, concurrent enrollment is possible only in certain combinations. Consult the Admissions Office concerning possible combinations.

(Note: Although Summer quarter concurrent enrollment is not possible for students whose home campus is on a semester calendar (or on a quarter calendar without a summer quarter), enrollment in "visitor" status is possible. See "Intrasystem Visitor Admission" below.)

3. Evidence of completion of course prerequisites may be required at the host campus (i.e., personal transcripts or grade reports).
4. Financial aid is available only through the home campus, and students eligible for Veterans, Rehabilitation, Social Security, and other federal, state, or county benefits must secure eligibility certification through the home campus.
5. Health services on the host campus will be limited to treatment of emergencies unless you buy campus specific health insurance.
6. Parking on the host campus will be available upon payment of a term fee or on a daily fee basis.
7. Information concerning host campus Identification Card policies will be provided at registration.

Applications and further information for Intrasystem Concurrent Enrollment may be secured from the Admissions and Records Information Counter, Warren Hall Lobby.

#### *Intrasystem Visitor Admission*

If you are a student of any campus of The California State University, you may apply for admission as a visiting student at another campus for a period of one term.

#### *Undergraduate Eligibility Requirements*

1. You have completed at least one term at your home campus as a matriculated student and have earned at least 12 units.
2. You have attained a grade point average of at least a 2.0 in all work completed at the home campus and are in good standing.
3. You are eligible to register under "continuing" status at home campus.

#### *Admission Conditions:*

1. Approval will be for one term only and is subject to space availability and the enrollment priority policies of the host campus.
2. If you wish to enroll in subsequent terms, you must file a regular admission application.
3. "Visitor" status will not be approved if the terms overlap on home and host campuses. Students from any CSU campus may seek approval for summer quarter Intrasystem Visitor

Admission at one of the four campuses which have a full summer quarter: Hayward, Los Angeles, Pomona, San Luis Obispo.

4. Concurrent enrollment at another CSU campus is not possible while in "Visitor" status.
5. Financial aid is available to "Visitors" only through the home campus, and students eligible for Veterans, Rehabilitation, Social Security, and other federal, state or county benefits must secure eligibility certification through the home campus.
6. All required fees must be paid at the time of "Visitor" registration.
7. A record of credit earned at the host campus will automatically be sent to the home campus.
8. Evidence of completion of course prerequisites may be required at time of enrollment (i.e., personal transcript copy or grade reports).

Applications for Intrasystem Visitor Enrollment may be secured from the Admissions and Records Information Counter, Warren Hall Lobby.

#### Cross-registration Program with the University of California, Berkeley (UCB)

The purpose of this program is to increase your educational opportunities by maximizing the use of existing programs and courses available in the East Bay region. The following conditions apply:

1. No course of instruction available to you at Cal State Hayward may be taken in the other system. Enrollment is limited to one course per term.
2. You may seek to enroll in a course offered at UCB upon the recommendation of your academic advisor and department chair. These advisors should insure the completion of any prerequisites before application is made. (Forms are available from the Records Office, WA 245.)
3. You may seek to enroll in a course offered at UCB only with the permission of the course instructor, and the approval of the appropriate department chair and school/college dean. Each university gives first registration priority to its own students; therefore, concurrent enrollment may not be available in courses with limited spaces. A Cal State Hayward student should return the completed form and card to 120 Sproul Hall at UCB.
4. You must be in good standing, be matriculated in a degree program (undergraduate or graduate) and have a full-time schedule (12 quarter units for undergraduates and 8 units of graduate level courses for graduate status) at Cal State Hayward in order to participate in the program. Cross-registration with UCB is normally not permitted during your first term of enrollment at Cal State Hayward. (Note that UCB is on

the early Semester Calendar and Cal State Hayward is on the Quarter Calendar.)

5. Each campus has appointed a coordinator of the cooperative program who verifies the satisfaction of conditions 1-4 for each prospective participating student. The coordinator at Cal State Hayward is the Registrar.
6. Under this agreement, coursework successfully completed by Cal State Hayward students at UCB is considered as if taken in residence. No additional costs are charged to the student at Cal State Hayward. However, you will be billed the Cal State Hayward rates for the total academic load in the combined registrations. Because of the interval involved in sending transcripts, there will be a time lag in the appearance of grades on Cal State Hayward's permanent records.
7. Cross-registration is only possible in the Fall and Winter quarters because U.C. Berkeley is on the semester system.
8. Cross-registration will be cancelled at any time if the student becomes ineligible for participation.

#### Cross-registration with Other Bay Area Two-Year and Four-Year Institutions

Programs have also been established to permit students from Cal State Hayward and those from Chabot College, Cogswell College, College of Alameda, Contra Costa College, Diablo Valley College, Holy Names College, John F. Kennedy University, Laney College, Las Positas College, Los Medanos College, Merritt College, Mills College, The National Hispanic University, Ohlone College, and Solano College to take coursework at another school which is not available at their home campus. Contact the Counseling Center or Registrar at the host campus (or the Records Office at Cal State Hayward, WA 245) for information on eligibility requirements, limitations and other privileges or restrictions.

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## How is residence for tuition purposes determined?

The Admissions Office determines residence status of all new and returning students for nonresident tuition purposes. Information on the "Application for Admission," "Residency Questionnaire," and "Reclassification Request Form," and, if necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish a right to classification as a California resident will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University is found in California Education Code Sections 68000-68090, 68121, 68123, 68124, and 89705-89707.5, and in Title 5 of *The California Code of Regulations*, Sections 41900-41912. A copy of the statutes and

regulations is available for inspection at the campus Admissions Office.

Legal residence may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Physical presence in the state combined with steps taken at least one year prior to the residence determination date to show an intent to make California the permanent home is required to establish a California residence for tuition purposes. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California, filing resident California state income tax returns on total income, ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one's permanent belongings are kept, maintaining active resident memberships in California professional or social organizations, maintaining California vehicle plates and operator's license, maintaining active savings and checking accounts in California banks, maintaining permanent military address and home of record in California if one is in the military service.

The student who is in the state for educational purposes only does not gain the status of resident regardless of the length of the student's stay in California.

In general, the unmarried minor citizen or noncitizen (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of a minor cannot be changed by the minor or by the appointment of a guardian for the minor, as long as the minor's parents are living.

A married person may establish his or her residence, independent of his or her spouse.

A noncitizen may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor noncitizen derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire concerning their financial dependence status.

*The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term.*

The residence determination dates for quarter term campuses (Cal State Hayward) are:

Fall: September 20

Winter: January 5



Spring: April 1

Summer: July 1

The residence determination dates for the four stages of CalStateTEACH are as follows:

Stage 1: September 20

Stage 2: January 5

Stage 3: June 1

Stage 4: September 20

Questions regarding residence determination dates should be directed to Cal State Hayward's Admissions Office, WA 200.

Also see "[Nonresident Tuition Exceptions](#)" in the Appendix for additional information.

Any student, following a final campus decision on his or her residence classification only, may make written appeal to the following address within 120 calendar days of notification of the final decision by the campus of the classification.

The California State University  
Office of General Counsel  
401 Golden Shore  
Long Beach, California 90802-4210

The Office of General Counsel may make a decision on the issue, or it may send the matter back to the campus for further review.

Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of *The California Code of Regulations*. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admissions Office. Applications for a change in classification with respect to a previous term are not accepted.

You should be aware that this summary of the rules regarding residency determination is by no means a complete explanation of their meaning. You should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.

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## Footnotes

<sup>1</sup>Complete the "Application for Registration as an Auditor Only" available from the Cal State Hayward Admissions and Records Information Counter in the Lobby (first floor) of Warren Hall.

<sup>2</sup>Reflects recentering (recalibration) of SAT I tests taken in April 1995 and thereafter. Qualifying scores for SAT I tests taken prior to April 1995 that have not been recentered can be determined by subtracting 100 from the SAT I scores shown in the table.

<sup>3</sup>Veterans' Administration benefits will not cover transferable

units in excess of transfer unit restrictions (even if these units are potentially applicable to the veteran's objective).



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## Orientation and Advising

- ▶ [What orientation programs are offered at Cal State Hayward?](#)
- ▶ [What academic advising is available to me?](#)
- ▶ [How do I receive course requirement information?](#)
- ▶ [What Honors Programs does the university offer?](#)
- ▶ [Where can I get additional information on Cal State Hayward's academic programs?](#)

1.

### What orientation programs are offered at Cal State Hayward?

Cal State Hayward offers orientation and advisement programs prior to each quarter to introduce new students to the university and to prepare students for registration. Through special programs planned for freshmen, transfer, reentry, and graduate students, Orientation provides essential information about degree requirements, campus resources, and registration. During Orientation, new students receive academic advising and learn about the campus from current students. Tours of the campus are also available.

Both the Hayward campus and the Contra Costa Campus offer orientation programs. Detailed information about orientation is mailed to all individuals who have applied for admission.



Students awaiting final notice of admission may attend orientation, although attendance does not constitute admission by the university.

In addition to the information mailed directly to applicants, the *Class Schedule* published each quarter provides specific information regarding the dates and locations of orientation programs. For additional information, contact Student Life Programs, (510) 885-3657. (You can purchase copies of the quarterly *Class Schedule* at the Pioneer Bookstore, either in person or by mail. The *Class Schedule* is also available online at: [www.csuhayward.edu](http://www.csuhayward.edu).)

2.

## What academic advising is available to me?

### Consulting with an Advisor

Every student who enters Cal State Hayward is entitled to receive academic advising from a faculty member in the department or committee housing his or her major. Undeclared students are advised by the University Advisement Center in the Student Services Hub 1131. (See the "[Academic Assistance](#)" section of the Student Services chapter for information on the University Advisement Center.) All new students must see their advisors at least once each quarter during their first year at Cal State Hayward.

First-time freshmen, during their first quarter at Cal State Hayward, should develop a program with their advisor which will satisfy all requirements (general education, major, and minor or option if required) for the degree. Undergraduate transfer students, following receipt of the university's evaluation of previous college credit, should develop with their advisor a complete program of courses leading to the baccalaureate degree. This program should serve as a guide to the student throughout his or her university career, and changes in program should not be made without the approval of the advisor.

For information on the catalog requirements under which a student may graduate, see the [B.A./B.S Degree Requirements chapter](#).

### Faculty Office Hours

The faculty of the university is available to you for consultation during regularly scheduled office hours, which are at times other than scheduled classes. The times of the office hours are posted outside each faculty office and are also available in the faculty member's department office. The faculty member informs the department of his/her office hours the first day of classes each quarter. Full-time faculty members maintain a minimum of three office hours per week and also make provision for meeting with students by appointment at a mutually convenient time beyond the stated office hours. The full-time faculty member's office hours are held over a period of at least two days and each office-hour block must be one-half hour or longer. Part-time lecturers maintain the equivalent of one office hour per week for each 4-unit class of their teaching load.

If for any reason a faculty member cannot meet the posted office hours, (s)he informs the department chair. If possible, the department notes the absence on the faculty office door.

Normal office hours are maintained during the Final Examination period. If a final examination conflicts with a posted office hour, the faculty member posts an alternative hour for that week.

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3.

## How do I receive course requirement information?

Faculty shall provide you with a written statement containing the following information: (1) office number, office hours, and office telephone number; (2) required texts and any other required and/or recommended material; (3) specific course requirements, such as exams, quizzes, papers, field trips, labs, and so on; (4) grading policy (the relative weight of examinations, quizzes, papers, class participation, and other factors); (5) approximate due dates for assignments and exams; (6) attendance requirements (if any); (7) policy on makeup work.

The faculty is also encouraged to include items such as: (a) daily and/or weekly assignments, (b) type of quizzes and exams (subjective, objective, etc.), and (c) description of the course (format, objectives, etc.).

Furthermore, faculty should advise you of their expectations for you in the course no later than the end of the second class. Any changes in course requirements should be communicated to you in a timely manner. It is your responsibility to read the course statement and to request any clarification of course policies. If you add the course after the first week of class, you must seek course information in a timely manner.

*This policy is to be implemented by each department.*

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#### 4. What Honors Programs does the university offer?

There is a university Honors Program open to any student who meets the criteria for admission. See the [Honors Program](#) chapter in the undergraduate section of this catalog. Individual departments may also develop honors programs. Departmental Honors Programs are upper division programs designed to provide special courses and advanced, independent reading and research for superior students in the individual majors. Contact the chair of the department for additional information.

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#### 5. Where can I get additional information on Cal State Hayward's academic programs?

Information concerning the academic programs of Cal State Hayward may be obtained from Leigh Mintz, Associate Vice President, Curriculum and Academic and Programs, WA 859, (510) 885-3716. This information may include:

- the current degree programs and other educational and training programs;
- the instructional, laboratory, and other physical plant facilities which relate to the academic program;
- the faculty and other instructional personnel;

- data regarding student retention and graduation at Cal State Hayward and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest;
- the names of associations, agencies, or governmental bodies which accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution's accreditation, approval, or licensing.



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## Fees and Expenses

- ▶ [What undergraduate fees do I pay when I register at Cal State Hayward?](#)
- ▶ [How should I pay my fees?](#)
- ▶ [What Is Nonresident Tuition?](#)
- ▶ [Am I responsible for other fees?](#)
- ▶ [What are the fees for extension courses?](#)
- ▶ [Where can I get information on financial assistance?](#)
- ▶ [What is the average annual cost of education for The California State University?](#)
- ▶ [Who qualifies for fee waivers?](#)
- ▶ [What are Cal State Hayward's refund policies?](#)
- ▶ [What is Cal State Hayward's policy regarding debts owed to the institution?](#)
- ▶ [What is the procedure for the establishment or abolishment of a student body fee?](#)

1.

### What undergraduate fees do I pay when I register at Cal State Hayward?

Schedule of Undergraduate Registration Fees, 2000-2001

*For post-baccalaureate and graduate student registration fees, see the Graduate Studies chapter.*

The California State University is one of the most economical public universities in the nation. Only one other state charges lower registration fees to residents. Resident students currently pay only 20% of the total cost of their education. The Board of Trustees implemented a five percent (5%) reduction in the State University Fee portion of total fees for undergraduate students effective Fall 1999. (See below.) All fees are subject to revision by the Board of Trustees without notice. Undergraduate fees may be revised for the 2001-2002 academic year and will be published in the [Class Schedule](#). Legal residents of California are not charged tuition, only fees.

The following "Undergraduate Registration Fees" schedule applies only to students who do not hold a bachelor's degree. If you already hold a bachelor's degree, regardless of your current educational objective, you will pay the fees listed in the Graduate Studies chapter in the section "Graduate and Postbaccalaureate Registration Fees."



## Undergraduate Registration Fees<sup>1</sup>

	0 to 6.0 Units	6.1 or More Units
State University Fee	\$276	\$476
Student Body Fee	15	15
Facilities Fee	2	2
University Union Fee	33	33
Instructionally Related Activities Fee	14	14
Health Services Fee	35	35
Photo I.D. (quarterly fee)	1	1
Total	\$376	\$576

The total fees paid per quarter will be determined by the number of units taken, including those in excess of fifteen.

No fees of any kind shall be required of, or collected from, those individuals who qualify for such exemption under the provisions of the Alan Pattee Scholarships Act. (See "Who qualifies for fee waivers?" in this chapter.)

## 2. How should I pay my fees?

### Credit Cards, Cash, Check

You may use credit cards (VISA and MasterCard), cash, or check for payment of registration fees. See the current *Class Schedule* for additional information.

### Installment Payment Plans

Installment Payment Plans have been authorized if you are assessed Nonresident Tuition or State University Fees. See the current *Class Schedule* for additional information about payment plans.

### Payment of Special Fees

The Cashier in the Lobby of Warren Hall accepts in-person cash, credit card, or check payments for all fees due to Cal State Hayward, such as registration, lab, breakage, test, library, and parking fees. (Most payments can also be mailed.)

## 3. What Is Nonresident Tuition?

Nonresident Tuition (in addition to other fees charged to all

students) per unit or fraction thereof is \$164.

(Note: The total amount of nonresident tuition charged is based on the number of units taken, including those in excess of fifteen. Fees are subject to change without advance notice.)

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4.

## Am I responsible for other fees?

In addition to the fees required of all students, you may have to pay fees for the following items:

**Library Fees for Overdue, Lost, or Damaged Materials**  
Fees are computed on a per transaction basis for library materials. Each department within the library has its own fee rate. For example, Main Circulation has a 21-day loan period, and fines after the due date are \$.15 per day, per book (starting at \$1.05). The maximum fine for a main circulation item is \$10. Reserve items have a higher fine rate, depending on the loan period.

Charges for lost or damaged material are based on an average replacement cost of \$60 plus a processing fee of \$10.

Failure to pay accrued fees will result in a hold on your university records, delays in registration, and denial of other university services. For a complete explanation of library fees and policies, call the Library at 510-885-3612.

### Miscellaneous Course Fees

You may have to pay a miscellaneous course fee for instructional materials and field trips for some courses. If courses have such fees, it is noted in their course descriptions in this catalog. Also refer to the *Class Schedule* for additional information and specific fee schedules for these courses.

### Other Fees (payable when service is rendered)

Late registration fee	\$25
Failure to meet administratively-required time limit	\$20
Graduation and diploma fee	\$30
Returned check	\$25
Parking fee per quarter	\$36
Official transcript of record Single	\$1-\$20+ (\$4)
Additional transcripts prepared at same time up to ten	(\$2 each)
Additional transcripts prepared at same time after first ten	(\$1 each)
Unofficial transcript of record	(\$2 each)

Items lost or broken	Cost
Test fees	Cost
Laboratory and/or activity fee	Cost
Certificate program fee	\$40
Entry Level Math (ELM) Exam	\$16 or \$24
English Placement Test (EPT)	\$15
Writing Skills Test (WST)	\$25
Miscellaneous Course fee	\$5-\$100

(Notes: The graduation fee does not include the cost of cap and gown rental. The parking fee for 2-wheel vehicles is \$9.)

---

## 5. What are the fees for extension courses?

No Nonresident Tuition is charged for Extension or Special Session classes. Extension fees are as follows (unless stated otherwise in the Extension Bulletin):

Extension Classes	\$ 74
Open University	\$110
Special Session Classes	\$ 78

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## 6. Where can I get information on financial assistance?

You may obtain the following information about student financial assistance from Betty Harris, Director, Financial Aid Office (WA 545, 885-3616).

- Student financial assistance programs, including state grants, available to students who enroll at Cal State Hayward
- The methods by which student eligibility for aid is determined and by which such assistance is distributed among recipients
- The means, including forms, by which you apply for student financial assistance and requirements for accurately preparing such applications
- The availability of federal financial aid funds for study-abroad programs. You may also contact the Center for International Education for information on financial aid for study abroad

programs (SSH 1325, 885-2880).

- The rights and responsibilities of students receiving financial assistance
- The terms and conditions of any employment offered as financial aid
- The availability of community-service Federal Work-Study jobs
- The terms of, schedules for, and necessity of loan repayment
- The standards you must maintain to be considered to be making satisfactory academic progress for the purpose of establishing and maintaining eligibility for financial assistance, and the procedures to be followed to regain eligibility

You may also obtain the following information concerning the cost of attending Cal State Hayward from Betty Harris, Director, Financial Aid Office (WA 545, 885-3616).

- Fees and tuition (where applicable)
- Estimated costs of books and supplies
- Estimates of typical student room and board costs or typical commuting costs
- Any additional costs of the program in which you are enrolled or for which you have expressed special interest

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7.

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## What is the average annual cost of education for The California State University?

### Average Annual Cost of Education and Sources of Funds per Full-Time Equivalent Student

The 23 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total state appropriation to the CSU for 1999-2000 (not including capital outlay funding in the amount of \$260,033,000) is \$2,252,941,000. However, the total cost of education for CSU is \$3,015,710,000, which must provide support for a projected 279,403 full-time equivalent students (FTES). The number of FTES is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The *total cost of education* for the CSU is defined as the expenditures for current operations, including payments made to students in the form of financial aid, and all fully reimbursed programs contained in state appropriations, but excluding capital outlay appropriations and lottery funds. The *average cost of education* is determined by dividing the total cost by the total FTES. The average cost is further differentiated into three categories: State support (the state appropriation, excluding capital outlay), Student Fee Support, and Support from Other

Sources (including federal funds).

Thus, excluding costs that relate to capital outlay, *the average cost of education* per FTE student is \$10,793. Of this amount, the average student fee support per FTE student is \$1,830. (The State University Fee, application fee, and nonresident tuition are included in the average costs paid by the students; individual students may pay less or more than \$1,830, depending on whether they are part-time, full-time, resident, or nonresident students.)

#### Sources of Funds and Average Costs for CSU Budget

1999-2000	Amount	Average Cost per FTE Student	Percent- age
Total Cost of Education <sup>2</sup>	\$3,015,710,000	\$10,793	100.0
State Appropriation <sup>3</sup>	2,252,941,000	8,063	74.7
Student Fee Support	624,128,000	2,234	20.7
Reimbursements	138,641,000	496	4.6

Detail:

Total State Support           \$2,252,941,000

Total Support                 \$3,015,710,000

(including State General Fund appropriation, student fee support, and support from other sources)

## 8.

### Who qualifies for fee waivers?

#### Alan Pattee Scholarships

Children of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties are not charged mandatory systemwide fees or tuition of any kind at any California State University campus, according to the Alan Pattee Scholarship Act, California Education Code Section 68120. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Admissions and Records Information Counter, Warren Hall Lobby, (510) 885-2624.

#### Fee Waivers for Senior Citizens

If you are a California resident 60 years of age or older, and you have applied for regular admission and established your eligibility prior to the start of classes, you may have your application fee and State University fee waived. To qualify, you must register for classes during the Late Registration Period. (Admission to classes

is on a space available basis under this program.) For procedures to qualify for fee waiver eligibility, contact the Admissions and Records Information Counter (Warren Hall Lobby, or call 510-885-2624).

#### Fee Exemptions-Dependents of Deceased or Disabled Military Veterans

California Education Code Section 32320 provides that "No state-owned college, community college, or other school shall charge any mandatory system-wide tuition and fees, including application and State University Fees, to any of the following:

- (a) Any dependent eligible to receive assistance under Article 2 of Chapter 4 of the Military and Veterans Code.
- (b) Any child of any veteran of the United States military who has a service-connected disability, has been killed in service, or has died of a service-related disability, where the annual income of the child, including the value of support received from a parent, does not exceed seven thousand dollars.
- (c) Notwithstanding Section 893 of the Military and Veterans Code, the Department of Veteran Affairs may determine the eligibility for fee waivers for a child described in subdivision (b).
- (d) Any dependent, or surviving spouse who has not remarried, of any member of the California National Guard who, in the line of duty, and while in the active service of the state, was killed, died of a disability resulting from an event that occurred while in the active service of the state, or is permanently disabled as a result of an event that occurred while in the active service of the state."

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9.

## What are Cal State Hayward's refund policies?

### Refund of Fees

Details concerning fees which may be refunded, the circumstances under which fees may be refunded, and the appropriate procedure to be followed in seeking refunds may be obtained by consulting Section 42201 (parking fees), 41913 (nonresident tuition), 42019 (housing charges), and 41802 (all other fees) of Title 5, *California Code of Regulations*. In all cases it is important that you act quickly in applying for a refund. You may obtain information concerning the refund policy for the return of unearned tuition and fees or other refundable portions of costs from the Admissions and Records Information Counter in Warren Hall Lobby (885-2624), the *Class Schedule* published each quarter and sold through the university bookstore, or the Accounting Office (WA 645). You may also obtain information on the policies regarding any return of federal Title IV student assistance funds, as required by regulations, from the Admissions and Records Information Counter in Warren Hall Lobby or the Accounting Office (WA 645).

### Refund Regulations

Refunds are not made automatically. If you request a refund (see below) and it is approved, a check will be available in about six weeks.

If you are eligible for a refund of Registration fees or Non-Resident Tuition for withdrawing or reducing units before the published deadlines, the amount of the refund will automatically be credited to your university account. If you take no action, the university will leave the balance on your account to apply toward future charges.

A few refund regulations are listed below for your convenience.

- (a) If you find it necessary to withdraw officially from Cal State Hayward, you may be eligible for a partial refund of the Registration fees. Also see (c) below. A "Refund Request" form is available at the Admissions and Records Information Counter in the first floor Lobby of Warren Hall and in the Contra Costa Campus Academic Services Lobby.
- (b) If you withdraw from the term before the end of the Add/Drop period, all quarterly fees, including the Facilities fee, Instructionally Related Activities fee, Associated Students fee, Health Services fee, and University Union fee, are refunded in full. (A \$5.00 processing fee will be assessed if a refund check is generated.) If you withdraw after this date the Quarterly fees are not refunded unless your withdrawal is due to university regulations or verifiable medical reasons. The Late Registration fee is not refundable except when due to university error.
- (c) If you have been called to active duty and, as a result, find it necessary to withdraw from Cal State Hayward, you are eligible for a refund of fees. You must file "Refund Request" form available at the Admissions and Records Information Counter (first floor Lobby of Warren Hall) with a copy of the orders.
- (d) After withdrawal from Cal State Hayward or reduction of academic load; Nonresident or International Student Tuition will be refunded according to this schedule:
- |  |      |
|--|------|
| Before or during the first week of the quarter | 100% |
| During the second week of the quarter          | 75%  |
| During the third week of the quarter           | 50%  |
| During the fourth week of the quarter          | 25%  |
- (e) Apply for parking fee refund at the Cashier's Office in the first floor Lobby of Warren Hall. Upon application, parking fees are refunded according to the following schedule:
- For 1-25 calendar days of the quarter:  
Motorcycles, \$6; Automobiles, \$24
- For 26-50 calendar days of the quarter:  
Automobiles, \$12



After 51 calendar days of the quarter: None

- (f) Refunds owed to financial aid recipients will be used to repay the funds from which the student has received financial aid.

Refunds for the first time, first term financial aid recipients receiving Federal Title IV aid will be the greater of the amounts computed under items A through E, or a pro rated computation prescribed under the Higher Education Amendments of 1992.

Information concerning the refund policy of Cal State Hayward for the return of unearned tuition and fees or other refundable portions of costs is available from the Accounting Office, WA 645, (510) 885-3642.

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10.

### What is Cal State Hayward's policy regarding debts owed to the institution?

Should a student or former student fail to pay a debt owed to Cal State Hayward, the institution may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food, or merchandise or any combination of the above from any person owing a debt" until the debt is paid (see Title 5, *California Code of Regulations*, Sections 42380 and 42381). For example, the institution may withhold permission to receive official transcripts of grades from any person owing a debt. If a student believes that he or she does not owe all or part of an unpaid obligation, the student should contact the Accounting Office in Warren Hall 645 at (510) 885-3641. The Accounting Office, or another office on campus to which the student may be referred by the Accounting Office, will review the pertinent information, including information the student may wish to present, and will advise the student of its conclusions with respect to the debt.

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11.

### What is the procedure for the establishment or abolishment of a student body fee?

The law governing The California State University provides that fees defined as mandatory, such as a *student body association fee* and a *student body center fee*, may be established. A *student body association fee* must be established upon a favorable vote of two-thirds of the students voting in an election held for this purpose (Education Code, Section 89300). A *student body center fee* may be established only after a fee referendum is held which approves by a two-thirds favorable vote the establishment of the fee (Education Code, Section 89304). (The *student body fee* was established at Cal State Hayward by student referendum in the 1960-61 academic year.) The campus president may adjust the *student body association fee* only after the fee adjustment has been approved by a majority of students voting in a referendum

established for that purpose (Education Code, Section 89300). The required fee shall be subject to referendum at any time upon the presentation of a petition to the campus president containing the signatures of 10% of the regularly enrolled students at the university. Once bonds are issued, authority to set and adjust *student body center fees* is governed by provisions of the State University Revenue Bond Act of 1947: Education Code, Sections 90012, 90027, and 90068. *Student body fees* support a variety of cultural and recreational programs, childcare centers, and special student support programs.

The process to establish and adjust other mandatory fees requires consideration by the campus fee advisory committee. A student referendum is also required. The campus resident may use alternate consultation mechanisms if he/she determines that a referendum is not the best mechanism to achieve appropriate and meaningful consultation. Results of the referendum and the fee committee review are advisory to the campus president. The president may request the chancellor to establish the mandatory fee. Authority to adjust fees after consideration by the campus fee advisory committee and the completion of a student referendum is delegated to the president.

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## Footnotes

- <sup>1</sup>Fee adjustments subject to the policies established in Executive Order 661.
- <sup>2</sup>Based on final campus budget submissions subsequent to the passage of the Budget Act. Totals may differ slightly from other CSU published amounts.
- <sup>3</sup>Includes mandatory cost increase of 18.4 million; 3% increase in enrollment of \$52.5 million; 3.8% general compensation pool increase of \$89.4 million; technology access, training, and support services of \$10 million; plant maintenance increase of \$12 million; student assistance and faculty alliance outreach programs of \$14.4 million; and campus specific applied research, educational, and state-requested investments of 16.8 million.



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## Registration

- ▶ [What general policies affect my registration at Cal State Hayward?](#)
- ▶ [What information do I need to register for, and enroll in classes?](#)
- ▶ [What determines my classification?](#)
- ▶ [How do I register for classes?](#)
- ▶ [What changes can I make in my enrollment status?](#)
- ▶ [Which undergraduate placement examinations do I need to take?](#)
- ▶ [How may I obtain credit by examination as an undergraduate student?](#)

1.

### What general policies affect my registration at Cal State Hayward?

1. To register at Cal State Hayward, you must be admitted by the Admissions Office.
2. Registration is complete only when all your registration requests have been properly recorded and you have paid all fees, deposits, and charges. You must pay all fees three days prior to registering. Instructions and dates for using SAILOR, the Cal State Hayward touchtone registration system, are published quarterly in the [Class Schedule](#), available for sale at the campus Pioneer Bookstore and on the World Wide Web via the [Bookstore's website](#).
3. You are given credit only for those courses in which you are officially registered at the conclusion of the Add/Drop period, except when you have officially filed a Withdrawal form(s) with the Admissions and Records Information Counter (first floor Lobby in Warren Hall).
4. You will be held responsible for completing all courses for which you initially register, except for changes in registration which you have officially filed with the Admissions and Records Information Counter.
5. If you enrolled in a course and do not attend initial class meetings, you may be dropped from the class if demand for the course exceeds capacity. Departments following this practice will make reasonable efforts to inform students of this action. You should not assume, however, that nonattendance will result in your being automatically dropped.
6. The university does not guarantee the availability of particular courses or sections because admission to classes is

authorized only until the maximum number of students allowable in any section has been reached.

7. The priority for registration is as follows:
  - a. Graduating seniors
  - b. Freshmen
  - c. Graduate and post-baccalaureate students
  - d. Other seniors
  - e. Juniors
  - f. Sophomores
8. The priority for registration for students enrolling in 6000-level courses is as follows:
  - a. All Graduate students
  - b. Undergraduate students majoring in the department concerned
  - c. All other students
9. If a student or former student fails to pay a debt owed to Cal State Hayward, the university may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid (see Sections 42380 and 42381 of Title 5, *California Code of Regulations*). For example, Cal State Hayward may withhold permission to provide official transcripts of grades to any person owing a debt. If you believe that you do not owe all or part of an unpaid obligation, contact the encumbering campus department listed on the back of the Invitation to Register. The office which placed the hold will review the pertinent information, including information you may wish to present, and will advise you of its conclusions with respect to the debt.
10. All new and readmitted students born after January 1, 1957 are notified of the requirement to present proof of measles and rubella immunizations. This is not an admission requirement, but is required of students by the beginning of their second term of enrollment in CSU. Proof of measles and rubella immunizations is also required for certain groups of enrolled students who have increased exposure to these diseases.

Persons subject to these health-screening provisions include:

  - a. New students enrolling Fall 1986 and later;
  - b. Readmitted students re-enrolling Fall 1986 and later;
  - c. Students who obtained their primary and secondary schooling outside the United States;

- d. Students enrolled in dietetics, medical technology, nursing, physical therapy, and any practicum, student teaching, or field work involving preschool-age children, school-age children, or taking place in a hospital or health care setting.

The Student Health Center provides the Measles and Rubella immunization free of charge to enrolled students unable to obtain acceptable proof of immunizations.

11. Hepatitis B Immunization Requirement: Effective January 1, 2000, first-time enrollees who are *18 years of age or younger* must submit proof of full immunization against hepatitis B. The Student Health Center provides hepatitis B immunization at low cost.

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## 2. What information do I need to register for, and enroll in classes?

To begin, purchase a *Class Schedule*, work with a faculty advisor to decide what courses you need, and read the following information.

### Class Schedule

A [Class Schedule](#), prepared each quarter, lists general information, courses offered, hours, rooms, instructor names, and final examination times. The Schedule also includes the quarterly calendar, orientation and registration information, fees, General Education course lists, a summary of the writing and mathematics requirements, descriptions of new courses, lists of student services and counseling groups, bookstore and library hours, and a "Bulletin Board" page to alert the campus community to new policies and important deadlines. The schedule is available before SAILOR registration each quarter and may be purchased in the university bookstore. The courses offered, as well as registration and fee information, are also available on the World Wide Web at: [www.csu Hayward.edu](http://www.csu Hayward.edu).

Separate schedules of evening and Contra Costa classes appear in the back of the regular [Class Schedule](#) although these classes are also included with day and Hayward classes in the main schedule.

### Units

All college courses at Cal State Hayward have unit values based on the number of 50-minute hours they meet each week. In most lecture, lecture-discussion, and seminar courses, each hour/week is a unit, but in laboratories, activities, and performances, you may put in two or more hours per week for each unit of credit. Courses meeting for more hours per week than their units have the amount of weekly class time noted in their course descriptions.

### Academic Load

1. Undergraduate Students. The normal academic load for full-time undergraduate students is 15-16 units of coursework (12

units is the minimum for full-time status) per quarter. Students on the Four-year Degree Pledge Program must enroll in 15-16 units per quarter. Generally, you can expect two hours of preparation for each hour of classroom work.

2. Graduate Students. A graduate student who wishes to receive a 45-unit master's degree in one year needs to enroll in 15 units for three quarters or 11-12 units for four quarters. (Eight units a quarter is the minimum for full-time status.)

#### Prerequisites

A prerequisite is another course or group of courses containing necessary background material for full understanding of the course content. Prerequisites, if any, are noted in course descriptions.

#### Auditing Courses

An auditor pays the same fees and enjoys the same instructional privileges as students enrolled for credit, but is not held responsible for examinations or term papers. Regular class attendance is customary. Enrollment as an auditor may be deleted if the customary attendance is not observed. If you wish to audit a class, secure the written permission of an instructor on an "Audit Grading" form and file it with the Admissions and Records Information Counter on the 1st floor of Warren Hall during the Add period. No change, to or from, auditor status is possible after the Add period. Only those who file the "Audit/Grading" form may be assigned an AU grade. Regular class attendance is expected. Students eligible to enroll on a credit basis have priority over auditors when enrolling in courses.

#### Maximum SAILOR Registration

You are allowed to register for a maximum of 22 units during Registration on SAILOR. The normal academic load for full-time undergraduate students who expect to graduate by enrolling for three quarters per year for four years is 15-16 units per quarter. Because each classroom hour normally requires two hours of outside study per week, working students should carefully balance the time required for academic preparation with outside commitments.

#### California Articulation Number (CAN) System

The California Articulation Number (CAN) System provides a cross-reference course identification number for many lower division, major preparation courses commonly taught on college campuses. The CAN System includes 36 sequence designations, 198 semester courses, and 52 quarter courses which are transferable. The basic premise of CAN is that identically numbered CAN courses are acceptable "in lieu of" each other. While the courses are comparable, they are not necessarily identical. The CAN System eliminates the necessity for every four-year campus to negotiate with every two-year campus.

Each CAN course is given a number within each discipline, e.g., CAN ART 8, CAN GEOG 2. Some CAN numbers are used exclusively for quarter courses, but CAN numbers may apply to both semester and quarter courses. Semester courses are assigned EVEN numbers. An EVEN number is also assigned to a quarter course if it is accepted "in lieu of" a semester course. Other quarter-unit courses are assigned ODD numbers.

CAN numbers for articulated courses appear after the unit value in the individual course listings in this Catalog. For online information on the CAN System, go to: <http://www.cansystem.org>

#### Course Numbers

The course numbering system indicates the level at which courses are offered. Generally, 1000 courses are freshman level, 2000 courses are sophomore level, 3000 courses are junior level, and 4000 courses are senior level. If you have completed the prerequisites, you may enroll for undergraduate courses irrespective of numbers.

#### English 1001 and Math Requirements

If you have earned 90 or more baccalaureate-level quarter units without having passed English 1001, Expository Writing, or an equivalent course, you will not be permitted to register for additional coursework at Cal State Hayward. In addition, if you have earned 90 or more baccalaureate-level quarter units without having passed a course satisfying the General Education, Area B4 requirement in Quantitative Reasoning, you will not be permitted to register for additional coursework at Cal State Hayward.

#### Additional Credit Request

If you wish credit for work taken at another institution while in continuing student status at Cal State Hayward, you must, upon completing the work, have two copies of the transcript sent to the Admissions Office. You must also complete a "Request for Additional Credit" form available at the Admissions and Records Information Counter in the Lobby of Warren Hall.

#### Individual Study Courses

An Individual Study course is a course which is listed in the Cal State Hayward Catalog, but is not being offered during the term in which a student must gain course credit to complete a specified objective. Permission to take such a course may be granted only in cases of necessity, and arrangements must be made to determine how the faculty teaching overload (if any) will be made up. You may obtain applications for Individual Study (Special Registration Petition) in departmental offices. You then return the application, with signatures of approval, to the departmental office during the first week of classes.

#### Independent Study Courses

An Independent Study course is a program of study which is above and beyond the regular offerings of a department. The number of such a course is 4900, 5900, or 6900, depending on the level and content of the work. Such a course is considered as elective credit in the program of a student working for a specified objective. You may apply no more than 12 units of independent study in the major department and 8 units in other departments to a baccalaureate degree.

The privilege of Independent Study is limited to undergraduate students who have at least a 2.0 (C) grade point average and graduate students with at least a 3.0 (B) grade point average in all courses in the field or department in which the Independent Study is to be taken, both at this institution and in any work attempted at other institutions. If you are on academic probation,



you are ineligible for Independent Study. Independent Study is restricted to students who are able to work with minimal supervision. No faculty member is required to teach an Independent Study course, and arrangements must be made to determine how the faculty teaching overload (if any) will be made up.

You may obtain applications for Independent Study (Special Registration Petition) in departmental offices. The application, with signatures of approval, is to be returned to the department office during the first week of classes.

A course offered by Independent (or Individual) Study shall be taught only by a professor in the department offering the credit or by a professor the department judges to be competent to teach the particular course.

#### Non-catalog Courses

Each quarter, Cal State Hayward offers a variety of new courses whose descriptions are not yet in the catalog. Such courses carry full credit and fulfill the same requirements as regular courses in the curriculum. Students, therefore, should not hesitate to take them. (Remedial courses, whose numbers begin with "0," are not applicable to the baccalaureate degree, but are applicable to the student's class load for that term.)

Descriptions of new, non-catalog courses appear in the [Class Schedule](#) each quarter. A new course may be passed by examination or challenged only after it has been listed in the *Class Schedule* and has been or is being taught.

#### Dual Matriculation/Cross Registration

Information pertaining to dual matriculation and cross registration is available at the Admissions and Records Information Counter in the first floor Lobby of Warren Hall. Under these programs, eligible high school and college students may enroll for university credit if they satisfy the requirements for admission to this status.

#### Late Registration

A Late Registration period of the first fifteen or sixteen calendar days of the quarter is available to previously admitted and continuing students who were unable to schedule courses and pay fees during the Registration period. If you complete the registration process during this Late Registration period, you are assessed a nonrefundable Late Registration fee.

#### Cancellation of Enrollment

If you fail to fulfill enrollment or matriculation requirements, or otherwise fail to adhere to academic or Cal State Hayward regulations, you are subject to immediate administrative action which may result in your being placed on Administrative Probation, or having enrollment for that term cancelled.

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### 3.

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## What determines my classification?

In general, you are classified as a full- or as a part-time student, and you are classified by your grade level.



## Classification of Students as Full- or Part-Time

The following classifications apply to students enrolled in the Fall, Winter, Spring, and Summer quarters (not extension and summer sessions):

1. Full-time undergraduate students (including students seeking a second baccalaureate) are those enrolled in 12 or more units in a regular quarter. Part-time undergraduate students are those enrolled in fewer than 12 units. (Note that in order to graduate in 4 years or 12 quarters, you must complete 15-16 units per quarter.)
2. Full-time enrollment for "Unclassified Post-baccalaureate" students not enrolled in a graduate degree program is 12 or more units in a regular quarter.
3. Full-time enrollment for "Graduate" students and "Classified Post-baccalaureate" students is 8 or more units.
4. Full-time enrollment for veterans (or dependents of disabled or deceased veterans), or reservists under Chapter 30, 31, 34, 35, or 106 is 12 or more units, according to V.A. regulations. Each quarter, veterans and eligible dependents should come to the Veterans' Services desk in the Record's Office (WA 245) before the first day of classes and submit their forms requesting certification of enrollment for V.A. benefits.

*Note:* Undergraduate and graduate students who apply for veterans' benefits (or for benefits as dependents of disabled or deceased veterans), international students wishing INS certification, student athletes wishing to compete in intercollegiate sports, and students on most types of financial aid must be enrolled in courses that apply to a definite program (baccalaureate or master's degree and/or credential).

**Classification of Undergraduates by Grade Level**  
Undergraduates are assigned a class level according to the following plan:

	<i>Quarter Units Earned Toward the Degree</i>
1. Lower Division	
Freshmen	Fewer than 45
Sophomores	45 but fewer than 90
2. Upper Division	
Juniors	90 but fewer than 135
Seniors	135 or more
Graduating Seniors	150 or more, filed, and paid fee

## International Student Enrollment Policies

The U.S. Immigration and Naturalization Service requires students on non-immigrant F-1 and J-1 visas to pursue a full course of study in a specific program. Therefore undergraduate students are expected to complete a minimum of 12 units per quarter for three consecutive quarters. Graduate and second baccalaureate students must complete a minimum of 8 units per quarter for

three consecutive quarters.

## 4.

### How do I register for classes?

You register for most classes late in the preceding quarter using SAILOR, an automated registration system available through any touchtone telephone. An "Invitation to Register" is mailed to all eligible students approximately one week before Registration begins. You should verify that all information on the "Invitation to Register" is accurate and clear any holds it identifies on your registration. Holds can be placed for failure to comply with policies, or to pay fees, and can be cleared by resolving the matter with the office placing the hold.

The [Class Schedule](#) is generally available in the university Bookstore and on the World Wide Web around the same time as you receive your "Invitation to Register." Purchase and read the *Class Schedule*, and then meet with your academic advisor to plan your program of classes. The *Class Schedule* contains a list of the registration times. Your registration time is determined by your class level and the first two or three letters of your last name. Each student has one 24-hour period in which to register and several Open Registration periods. During the Open Registration periods, you may also change your schedule if you have previously registered. You are eligible to register using SAILOR if you have paid your fees at least three university working days before your designated time to register. See the *Class Schedule* for additional information. If you have any difficulties registering, call the Registration Assistance Center at (510) 885-2200.

*Note:* The university plans to introduce online registration during the time period covered by this catalog.

Cooperative Education, Independent Study, Individual Study, Project, Thesis Courses

To register for a Cooperative Education course, you must complete a "Cooperative Education Agreement" form available from the Cooperative Education Office, Warren Hall 509. After obtaining the necessary approvals, you may then call SAILOR to register for the course.

You will not be able to register for Independent Study, Individual Study, Project, Departmental Thesis, or University Thesis courses using SAILOR. You must complete a "Special Registration Petition" available from the department which offers the course.

Schedule Changes

In addition to the Open Registration periods mentioned above, you may also adjust your schedule using SAILOR during the Add/Drop period. If you are on a Wait list and wish to add a class, it is important that you attend the first class meeting. See the [Class Schedule](#) for specific instructions. Although departments may drop you from a class if you fail to attend the first meeting, they do not have to do so. Therefore, if you wish to drop a class, be sure to do so using SAILOR during the first two weeks of the quarter.

Fee Refunds

If you are eligible for a fee refund, it will be credited to your account, unless you apply for a refund during the Add/Drop period. See the *Class Schedule* for additional information.

5.

## What changes can I make in my enrollment status?

You may add other classes, drop or withdraw from classes, and make a few other changes as discussed below.

### *Adding Courses*

You may add courses during the first two weeks of instruction (Add period) either by (a) using the SAILOR touchtone registration system, or (b) reporting to the departmental office for Independent Study, Individual Study, Project, and/or Thesis courses. You have the right to add classes during the Add period, subject to your having successfully completed the prerequisites (coursework and/or consent of instructor as stated in the Catalog) and to the availability of sufficient capacity in the class to accommodate you.

### *Dropping and Withdrawing from Individual Courses*

If you cannot continue enrollment in a course for which you registered that particular quarter, you must officially drop or withdraw from the course. (See the next section "Withdrawing from the University" if you plan to drop all the courses for which you registered.)

### *Dropping a Course*

You may drop a course by using SAILOR through the second week of instruction without the course appearing on your permanent record. The word "drop" refers to official deletion of a course from your program of classes during the first two weeks of a term (Add/Drop period).

Departments offering a class may drop you if you don't attend the first class meeting or if you have not met the course prerequisites that are published in the University Catalog. Some departments may call you as a matter of courtesy when they are dropping you, but other departments may not. There is no university policy and this will vary by department. Do not assume that you will be dropped automatically if you do not attend class.

### *Withdrawing from a Course*

You can not "drop" after the end of the Add/Drop period, but you can "withdraw." The word "withdrawal" refers to official termination of enrollment in a class after the Add/Drop period. You can withdraw from a class only for serious health, work, or personal problems beyond your control. If you withdraw from a class, the class will appear on your record with a grade of "W." The administrative symbol "W" indicates that a student was permitted to withdraw from a course after the Add/Drop period with the approval of the instructor and appropriate campus officials. It carries no connotation of quality of student performance and is not used in calculating grade point average. Beginning the third week of classes, you will be permitted to withdraw from individual courses by obtaining a "Withdrawal" form from the Admissions and Records Information Counter in the first floor Lobby of

Warren Hall or at the Contra Costa Campus Academic Services Office. On the form, state the reason, obtain approvals of the instructor and department chair and return the completed form to the Admissions and Records Information Counter or the Academic Services Office.

Withdrawals from individual courses are normally not permitted after the seventh week of the quarter. Students who have completed work up to that point and cannot continue should normally be assigned an "I" (Incomplete) grade. If you have serious and compelling non-academic reasons for withdrawal from a class after the seventh week you must obtain written documentation of the circumstances from an impartial third party such as a doctor or employer. It should be an original document (not a copy) on letterhead; then complete the procedures outlined above. You must submit the form and documentation to the Admissions and Records Information Counter in the first floor lobby of Warren Hall or the Contra Costa Campus Academic Services Lobby for approval of the Registrar. Approval of the withdrawal is not automatic. Withdrawal from any class in which the final examination was taken is not permitted, regardless of circumstances or documentation.

If you register for a course and fail to attend, but do not officially drop or withdraw, you will receive an appropriate administrative grade indicating failure. Refer to the [Grading and Academic Standards](#) chapter of this catalog.

#### Withdrawing from the University

Students who find it necessary to withdraw from Cal State Hayward after enrolling for any academic term are required to follow the official withdrawal procedures described below. Failure to follow formal withdrawal procedures may result in the assignment of failing grades in all courses and the need to apply for readmission before being permitted to enroll in another academic term. Additional information on withdrawal procedures is available from the Admissions and Records Information Counter in the first floor lobby of Warren Hall (510-885-2624).

Students who are receiving financial aid funds must consult with a counselor in the Financial Aid Office (Warren Hall 545; Tel. 510-885-3018) prior to withdrawing from the university regarding any required return or repayments of grant or loan assistance received for that academic term. If a recipient of financial assistance under federal Title IV financial aid programs withdraws from the institution during a payment period the amount of grant or loan assistance received is subject to return and repayment provisions governed by federal law.

Submitting a "Withdrawal" form is not required if you find it necessary to cancel all courses in which you registered that particular quarter and you drop the courses by using SAILOR during the Add/Drop period. For refund information, refer to the "[Refund of Fees](#)" section in the Fees and Expenses chapter.

If you find it necessary to withdraw from the university after the Add/Drop period has ended (during the third through the seventh week of instruction), you must complete a "Withdrawal" form, obtain approval signatures from each instructor and department chair, and return it to the Admissions and Records Information

Counter. Withdrawal at this time can be only for serious health, work, or personal problems beyond your control. Normally withdrawal is not permitted beyond the seventh week of the quarter. If you have attended classes up to that time, you should discuss with the instructor the possibility of receiving an "I" (Incomplete) grade if circumstances prevent completion at the time. Withdrawals after the seventh week of instruction must have the reason substantiated in writing by an impartial third party and require the approval signature of the Registrar in addition to the signatures stated above. A quarter from which you withdraw is not counted as an interruption of enrollment for continuing student status.

A Withdrawal (W) will be recorded for each course in the term on your permanent record if you withdraw from the university after the end of the second week of instruction. The administrative symbol "W" indicates that a student was permitted to withdraw from a course(s) after the Add/Drop period with the approval of the instructor and appropriate campus officials. It carries no connotation of quality of student performance and is not used in calculating grade point average. If you withdraw from the university, but do not file an official "Withdrawal" form, you will receive appropriate administrative grade(s) indicating failure.

#### Change of Major, Degree, Minor, or Credential Objective

Undergraduate or post-baccalaureate students who wish to change their baccalaureate major or degree objective or declare a minor and graduate students who wish to change to unclassified or second baccalaureate status, must obtain the required form at the Admissions and Records Information Counter. A change is not official until the form has been signed and returned to Records Office. You should be aware that you will be responsible for the major or minor requirements in the Catalog in effect at the time you file the form.

#### Change of Name or Address

A currently enrolled student who has changed his or her name or address should notify the university by completing the form available at the Admissions and Records Information Counter. Official notification is necessary for proper identification of student records and for accurate mailing of correspondence, e.g., changes of grade, transcripts, enrollment verifications, and information pertaining to graduation requirements. You are required to inform the Records Office of all changes; the university will not be responsible for mailing correspondence to the incorrect name or address unless changes have been formally filed.

#### Planned Educational Leave

You may petition for a Planned Educational Leave to pursue educationally related activities which will enhance the prospect of successful completion of your academic program, but which do not require enrollment at Cal State Hayward or any other institution of higher education. Students who are unable to enroll due to compulsory military service or because of a documented disability or because of pregnancy may apply for a leave of absence.

A Planned Educational Leave may be for a period of up to a total of two years if you are enrolled in a program leading to a degree.

If the leave is approved, you will retain graduation catalog rights and may register as a continuing student, provided you return and register in the same major for the quarter indicated. Students returning from a leave of absence of more than two quarters must file for readmission to the university but will retain catalog rights. Failure to return from a planned educational leave by the quarter indicated means loss of catalog rights and you will be required to apply for readmission and pay an application fee.

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6.

## Which undergraduate placement examinations do I need to take?

Placement examinations are given in Chemistry, English, Mathematics, and Music. These are not admission tests, but a way to determine what courses best match your level of preparation. *We strongly recommend completion of these tests before your first quarter of registration.* Four-Year Pledge students must complete any necessary placement examinations prior to their first enrollment.

### Systemwide Tests Required of Most New Students

The CSU requires new students to be tested in English and Mathematics as soon as possible *after admission and before their first enrollment.* These are not admission tests, but a way to determine whether you are prepared for college work and, if not, to counsel you how to strengthen your preparation. You might be exempt from one or both of the tests if you have scored well on other specified tests or completed appropriate courses.

Failure to take either of these tests, as required, at the earliest opportunity after admission and before initial enrollment will result in a hold on your registration.

For test dates for the English Placement Test (EPT) and the Entry Level Mathematics (ELM) Test, call Assessment and Testing, (510) 885-3661.

*Where the Tests Are Given:* The EPT and ELM are given on all CSU campuses. You may take the test on the campus most convenient to you, which need not be the campus you will be attending.

*Test Registration and Registration forms:* Cal State Hayward will mail a registration form to all students required to take the EPT and/or ELM. Students required to take the test, but who do not receive a registration form, may pick up a copy at any CSU Admissions Office or the Cal State Hayward Office of Assessment and Testing, Warren Hall, Room 438. Mail the registration form to the CSU campus where you plan to take the exam.

### English Placement Test (EPT)

The English Placement Test, developed by the CSU faculty and Educational Testing Service (ETS), is designed to assess the level of analytical reading and writing skills of students entering the California State University. The test is offered only to admitted students and has no effect on admission decisions. *The CSU English Placement Test must be completed by all non-exempt*

*undergraduates prior to enrollment in any course, including remedial courses.* Undergraduates admitted with 56 or more transferable semester units (84 quarter units) and who are subject to a campus catalog or bulletin earlier than 1986-87 are not required to complete the EPT. Exemptions from the test are given only to those who present proof of one of the following:

- A score of 550 or above on the Verbal section of the College Board SAT I<sup>®</sup> Reasoning Test taken on or after April 1, 1995.
- A score of 470 or above on the Verbal section of the College Board SAT I<sup>®</sup> Reasoning Test taken between March 1994 and March 1995. A score of 470 or above on the Verbal section of the College Board Scholastic Aptitude Test (SAT) taken prior to March 1994.
- A score of 24 or above on the enhanced ACT English Test taken October 1989 or later.
- A score of 22 or above on the American College Testing (ACT) English Usage Test taken prior to October 1989.
- A score of 680 or above on the re-centered and adjusted College Board SAT II Writing Test taken May 1998 or after.<sup>2</sup>
- A score of 660 or above on the College Board SAT II<sup>®</sup> in English Composition with essay taken prior to January 1994.
- A score of 3, 4, or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Scholastic Advanced Placement program.
- A score on the CSU English Equivalency Examination that qualifies the student for "Pass for Credit" or "Exemption."
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) written communication requirement, provided such course was completed with a grade of "C" or better.

If special circumstances make it impossible for you to take the test at the first available administration following admission, you must plan to meet the requirement at the next scheduled opportunity. Each test administration requires a separate registration form. If your religious convictions prevent you from taking the EPT on the scheduled test dates, you must request special arrangements by including a letter, from an appropriate religious authority, when you send your registration forms to the campus Assessment and Testing Office. Persons with verified disabilities should consult the Student Disability Resource Center about possible alternative arrangements for meeting the EPT requirement.

#### English Placement Test and Graduation Requirement in Writing Proficiency

All students subject to degree requirements of 1977-78 and subsequent general catalogs must demonstrate competency in writing skills as a requirement for graduation. *In addition, all undergraduate students (except those qualifying for exemption)*



are required to take the CSU English Placement Test (EPT) before their first enrollment so that appropriate coursework in writing skills may be selected to prepare them to meet the graduation requirement. Failure to take the English Placement Test as required, at the earliest opportunity after admission and before initial enrollment, will lead to a hold on your registration. The results of the EPT will not affect admission eligibility, but will be used to identify students who need special help in reading and writing to prepare them for college-level work.

Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirements. The materials may be obtained from the Office of Assessment and Testing.

**Appropriate Coursework Based on EPT Results**  
Cal State Hayward requires that the following courses be taken by students on the basis of their Total ("T") scores on the English Placement Test. *Students whose T score is below 151 must register for one of the remedial courses (ENGL 0801-2-3, 0804-5-6, 0910, 0988, 0989) as listed below in their first quarter of attendance.*

- T score of 151 or higher: register for ENGL 1001. Expository Writing I, the introductory, college-level English composition class.
- For native speakers of English, T score of 147-150: register for ENGL 1001 Expository Writing I, and ENGL 0989 Tutoring Support for ENGL 1001.
- For native speakers of English, T score of 142-146: register for ENGL 0910 Basic Writing: The Sentence.
- For native speakers of English, T score of 141 or lower: register for ENGL 0801 ILE Writing I, and complete the entire ILE sequence of ENGL 0801, -2, -3.
- For non-native speakers of English, T score of 147-150: register for ENGL 1001 and ENGL 0989.
- For non-native speakers of English, T score of 142-146: register for ENGL 0910 and ENGL 0988 ESL Tutoring Support for ENGL 0910.
- For non-native speakers of English, T score of 141 or lower: register for ENGL 0804, (ILE English for Non-Native Speakers), and complete the entire ILE sequence of ENGL 0804-5-6.

Students who successfully complete ENGL 0803, 0806, or 0910 shall enroll in ENGL 1001 at the earliest opportunity.

If this advice proves inappropriate for a particular student, the Department of English will advise him or her to change enrollment to a more appropriate course during the Add/Drop period.

Students who are required to enroll in remedial English coursework must enroll in such coursework in their first quarter and every quarter thereafter, including Summer, until remediation is completed. A student who fails the same remedial course twice or does not complete remediation in six consecutive quarters



(including Summer) has a hold placed on future registration (and is disenrolled if already registered). The hold can only be removed by 1) completing the remedial course which was failed, or 2) completing all remedial courses (if six quarters have expired), or 3) completing the baccalaureate level English course satisfying G.E. Area A2, Written Communication, (if 84 quarter units have been completed). Students who have completed more than 84 quarter units must complete the G.E. course before reentry. A student who wishes to transfer any baccalaureate-level units must reapply and pay the \$55 application fee.

Remedial courses are not applicable to the baccalaureate degree requirements. However, they do generate enrollment units which can be used by students required to carry a minimum course load.

You may take the EPT only once. Students whose EPT scores require them to complete remedial English coursework can gain admission to freshman English composition (ENGL 1001) only upon recommendation of the instructor of their last remedial course (ENGL 0803, 0806, or 0910).

#### Entry-Level Mathematics (ELM) Exam

The ELM examination tests for entry-level mathematics skills acquired through three years of rigorous college preparatory mathematics coursework (normally Algebra I, Algebra II, and Geometry). *All new undergraduate students must take the test or be exempted from it before their first enrollment.* Students may retake the ELM test. Exemptions from the test are given only to those students who can present proof of one of the following:

- A score of 550 or above on the mathematics section of the College Board SAT I Reasoning Test or on the College Board SAT II Mathematics Tests Level I, IC (Calculator), II, or IIC (Calculator).
- A score of 23 or above on the American College Testing Mathematics Test.
- A score of 3 or above on the College Board Advanced Placement mathematics examination (AB or BC).
- A score of 3 or above on the College Board Advanced Placement Statistics examination.
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) quantitative reasoning requirement, provided such course was completed with a grade of "C" or better.

Students required to take this examination must do so as soon as possible after admission and before their first enrollment. (The results of this examination do not affect admission.) Failure to take this test, as required, before initial enrollment will lead to disenrollment.

*Students who cannot demonstrate basic competence at the level of intermediate algebra on the examination (official scaled*

*competency score of 550) must take steps to overcome deficiencies in their first quarter of enrollment.* Students who score above 470, but below 550, must enroll in MATH 0950, Intermediate Algebra. Students with scores of 380-470 must enroll in MATH 0900, Elementary Algebra, followed by MATH 0950, Intermediate Algebra. Students who score 370 or below must enroll in MATH 0801-2, Elementary Algebra A and B, followed by MATH 0950, Intermediate Algebra. Courses beginning with zero are not applicable to the baccalaureate degree.

Students who are required to enroll in remedial math coursework must enroll in such coursework in their first quarter and every quarter thereafter, including Summer, until remediation is completed. A student who fails the same remedial course twice or does not complete remediation in six consecutive quarters (including Summer) has a hold placed on future registration (and is disenrolled if already registered). The hold can only be removed by 1) completing the remedial course failed, or 2) completing all remedial courses (if six quarters have expired), or 3) completing a baccalaureate level mathematics course satisfying G.E. Area B4, Quantitative Reasoning, (if 84 quarter units have been completed). Students who have completed more than 84 quarter units must complete the G.E. course before reentry. A student who wishes to transfer any baccalaureate-level units must reapply and pay the \$55 application fee.

Information bulletins and registration materials for the ELM examination will be mailed to all students who may be subject to the requirements. The materials may be obtained from the Office of Assessment and Testing. There is a fee for the ELM.

#### Implementation of the EPT and ELM Exams

After admission, each undergraduate student is sent a packet which indicates that taking the EPT and ELM exams are requirements which should be fulfilled at the next offering of the test. If you fail to take the EPT and/or the ELM tests before your first term of enrollment, a hold will be placed on your registration until you do take the test(s).

#### Other Placement Examinations

Placement examinations are given to place students at appropriate levels of achievement as follows. Check the [Class Schedule](#) each quarter for specific details.

#### *Chemistry 1101*

A 50-minute placement examination covering basic chemical concepts and problem-solving skills is given during the first laboratory meeting of CHEM 1101 in Fall and Winter quarters. If you receive a low score, you are advised to withdraw from CHEM 1101 and enroll in CHEM 1100 Introductory Chemistry. In subsequent quarters, you should plan to take CHEM 1101, 1102 and 1103. If you receive a low score on the algebra portions of the placement examination, you are advised to enroll in an algebra course. The most appropriate mathematics course can be determined with the assistance of the Mathematics Department.

#### *Modern Languages and Literatures*

Placement exams in French and Spanish languages are offered on a continuing basis through the Department of Modern Languages and Literatures. If you have prior language

experience, you are encouraged to take one of these exams before enrolling in a French or Spanish language course.

#### *Mathematics Placement Tests*

It is important that you begin the collegiate-level study of mathematics in a course appropriate to your preparation and background. Satisfying the ELM requirement is prerequisite to all baccalaureate-level Mathematics courses. If you were exempt from or have passed the ELM exam, you should call the Mathematics and Computer Science Student Service Center, (510) 885-4011, for advice about which course to take. Also, the Office of Assessment and Testing offers the Mathematics Placement Test (MPT) that can assist you in finding the appropriate starting class.

#### *Music Auditions and Proficiency Examinations*

Prior to Registration, students who wish to declare a major in music must complete examinations and auditions to determine: (1) theory placement, (2) level of applied study, (3) piano proficiency, and (4) major performance ensemble. These examinations are not a substitute for the Advanced Placement Test in Music and should not be confused with the Advanced Placement Program. Auditions and examinations are scheduled prior to the first week of each quarter. For additional information and specific appointment times, contact the Department of Music, MB 1501, or telephone 885-3135.

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## How may I obtain credit by examination as an undergraduate student?

Cal State Hayward grants credit to those students who pass examinations that have been approved for credit systemwide. These include the Advanced Placement Examinations and some CLEP examinations.

Also see "Challenging Courses" in this section.

#### Credit by Examination Policy

The award of credit for successfully passing any approved examination is subject to the following conditions:

1. Credit shall not be awarded for successful passage of any examination if the student previously took that examination during the past quarter.
2. Credit shall not be awarded when equivalent degree credit has been granted for regular coursework, credit-by evaluation, or other instructional processes such as correspondence.
3. Credit shall not be awarded when credit has been granted at a level represented by the examination in question.
4. Duplicate credit shall not be awarded where there are overlapping tests, university level work, or both. Where there is partial overlap, the amount of examination credit shall be reduced accordingly.

- 5 The total amount of credit earned on the basis of externally developed tests which may be applied to a baccalaureate degree shall not exceed 45 quarter units. Advanced Placement credit is excluded from this limit.

#### Challenging Courses

Students may challenge courses by taking examinations developed at the campus. Credit shall be awarded to those who pass them successfully. No instructor is obliged to offer credit-by-examination for a course.

The university recognizes that exceptional students, by reason of special studies or experiences, may already have achieved the objectives of certain courses in the basic program; therefore, students with this background may petition to receive credit in selected courses by special examination. Such an examination is normally from three to six hours in length and may be oral as well as written. Each course may be challenged only once.

If you wish credit under this plan, you must register during registration for the units to be earned by the examination. The class being challenged for credit must be listed in the [Class Schedule](#) for the particular quarter. Obtain a petition for credit by examination from the office of the department offering the course, and get the permission of both the instructor and department chair. The examination must be administered during the first two weeks of the quarter and the results, in grade form, must be submitted to the Records Office by the end of the fifth week. The instructor is responsible for notifying you of the results of the examination.

If the exam is passed with a grade of "C-" or higher, the letter grade and credit by examination will be indicated on your permanent record. If you receive a grade of "D+," "D," or "F" on the examination, you must either continue taking the course formally or officially withdraw from it within one week after completing the examination. (*Note:* The instructor need not inform the Records Office of the grades "D+," "D" or "F.") Some departments (e.g., Modern Languages and Literatures) only allow their courses to be challenged for a "CR" grade.

No more than 36 quarter units of credit obtained by challenging courses may be applied toward the baccalaureate degree. No credit earned by examination may be used to satisfy the requirement of 45 quarter units in residence at Cal State Hayward.

#### Advanced Placement

Cal State Hayward grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of The College Board. Students who present scores of 3 or better will be granted 4-12 quarter units of transfer college credit, as indicated below.

The Advanced Placement Examinations referred to below are prepared and offered by the College Board. Unit credit will be granted to those passing the exams, but no letter grade will be assigned or computed in a student's grade point average.

If you have Advanced Placement credit, request the College Board to send your test score(s) to the Admissions Office at Cal State Hayward.

Normally, if Advanced Placement course credits satisfy G.E. Area B, C, and/or D requirements, they will apply to sophomore clusters and not frosh clusters because the university wants all first-time frosh to participate in these learning communities. Only if the amount of Advanced Placement credit exceeds what can be applied to sophomore clusters will it be applied to frosh clusters.

#### *School of Science*

**Biology.** If you successfully complete an advanced placement course in biology in high school and have a score of 3 or better on the Advanced Placement Examination, you will receive 9 units of credit in place of BIOL 1001 and 1002 and either BIOL 2030 or 2040 (by advisement). If you are a biology major you will receive 10 units in place of BIOL 1301 and 1302. Credit will not be given for BIOL 1303.

**Chemistry.** If you have successfully completed the advanced placement course in chemistry in high school, and you have a score of 3 or better on the Advanced Placement Examination, you will receive 10 units of credit equivalent to CHEM 1101 and 1102.

**Computer Science.** If you have successfully completed an advanced placement course in computer science in high school, and have a score of 3 or better on the Advanced Placement Computer Science A Examination, you will receive 4 units of credit equivalent to CS 1160. If you earned a 3 or better on the Computer Science AB Examination, you will receive 8 units of credit equivalent to CS 1160 and CS 2360. *Note:* University courses in Computer Science may require knowledge of computer languages not used on the AP Computer Science examinations. You should consult the Chair of the Department of Mathematics and Computer Science about additional preparation you may need if you plan to take university-level courses in Computer Science.

**Mathematics.** If you have successfully completed an advanced placement course in calculus in high school and you have a score of 3 or better on the Advanced Placement Calculus AB Examination or a grade of 3 on the Advanced Placement Calculus BC Examination, you will receive 8 units of credit equivalent to MATH 1300 and 1304. If you have a score of 4 or 5 on the Advanced Placement Calculus BC Examination, you will receive 12 units of credit equivalent to MATH 1300, 1304, and 1305.

**Physics.** Passing the examination Type B with a score of 3, 4, or 5 will give you 8 units of credit equivalent to PHYS 2701 and 2702. Passing the examination Type C with a score of 3, or better will give you 10 units of credit equivalent to PHYS 1001 and 1002.

**Psychology.** Passing the examination with a score of 3 or better will give you 5 units of credit equivalent to PSYC 1000.

Statistics. Passing the examination with a score of 3 or better will give you 5 units of credit equivalent to STAT 1000.

#### *School of Business and Economics*

Economics. If you have a score of 3 or better on the Advanced Placement Test in Microeconomics in high school, you will be granted 4 units of credit equivalent to ECON 2301. If you have a score of 3 or better on the Advanced Placement Test in Macroeconomics in high school, you will receive 4 units of credit equivalent to ECON 2302.

#### *School of Arts, Letters, and Social Sciences*

Art. If you have successfully completed an advanced placement course in General Studio Art in high school, and you have a score of 3 or better on the Advanced Placement Examination in General Studio Art, you will receive 10 units of credit equivalent to two of the following courses: ART 1111, 1113, 1114, 1116. The specific equivalence will be determined by portfolio review upon your entrance into the university. If you have successfully completed an advanced placement course in Drawing in high school and have a score of 3 or better on the Advanced Placement Examination in Studio Art: Drawing, you will receive 10 units of credit equivalent to ART 1113 and 3141.

If you have successfully completed an advanced placement course in Art History in high school, and you have earned a score of 3 or better on the Advanced Placement Examination in Art History, you will receive 8 units of credit equivalent to ART 1010 and 3035.

English. If you have successfully completed the advanced placement course in either English literature/composition or English language/composition in high school, and have a score of 3 or better on the Advanced Placement Examination, you will receive 8 units of credit equivalent to ENGL 1001 and 1002.

If you have a score of 3 or better on both tests, you will be given credit for ENGL 1001, 1002, and 2030.

History. If you have successfully completed the advanced placement course in U.S. history in high school, and you have a score of 3 or better on the Advanced Placement Examination, you will receive 8 units of credit equivalent to HIST 1101 and 1102. (Credit will apply to the U.S. history and U.S. Constitution requirements for graduation, but not to the California state and local government requirement.)

If you have completed the advanced placement course in European history in high school, and you have a score of 3 or better on the Advanced Placement Examination, you will receive 8 units of credit equivalent to two of the following courses: HIST 1014, 1015, 1016. The specific equivalence will be determined by review upon your entrance into the university.

Modern Languages and Literatures. A student who has

successfully completed the advanced placement course in a foreign language or literature in high school and has a score of 3 or better on the Advanced Placement Examination will receive 8-12 units of credit equivalent to two or three courses of a foreign language as listed below.

If you have completed the *French* Language examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2101, 2102, and 2103. If you have completed the French Literature examination with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 3106 and 3108. If you have completed the *German* Language examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2201, 2202, and 2203. If you have completed the *Spanish* Language examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2401, 2402, and 2403. If you have completed the *Spanish* Literature examination with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 3400 and 4455. If you have completed one of the *Latin* Classics examinations with a score of 3 or better, you will receive 4 units of credit equivalent to MLL 1701. If you have completed both Latin examinations with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 1701 and 1702.

Music. If you have a score of 3 on the Advanced Placement Test in Music Theory, you will receive 8 units of credit equivalent to Music 1031-2. A score of 4 will earn 10 units of credit equivalent to 1031-2 and 1027-8. A score of 5 will earn 15 units of credit equivalent to 1031-2-3 and 1027-8-9.

Political Science. If you have a score of 3 or better on the Advanced Placement Test in American Government and Politics, you will receive 4 units of credit equivalent to POSC 1201. If you have a score of 3 or better on the Advanced Placement Test in Comparative Governments and Politics, you will receive 4 units of credit equivalent to POSC 1300.

#### International Baccalaureate Program

Cal State Hayward recognizes the International Baccalaureate (IB) as a challenging college-preparatory program. Eight (8) to twelve (12) units of college credit will be awarded for each IB Higher Level Examination passed with a score of 4, 5, 6, or 7. (No credit will be awarded for IB Subsidiary Level passes.) Higher Level examinations are available in Anthropology, Biology, Chemistry, Computing Studies, Economics, English, French, Geography, German, History, Latin, Mathematics, Music, Philosophy, Physics, Psychology, and Spanish. A copy of the official IB transcript must be supplied to the university when credit is requested. All credit will be granted in terms of existing Cal State, Hayward courses with equivalent subject matter determined by the department.

#### College Level Examination Program

The following College Level Examination Program (CLEP) tests are acceptable for the amount of credit indicated, subject to the achievement of the scores indicated and the conditions stated in the "Credit by Examination Policy" section. (At present, Cal State Hayward grants no credit for completion of the ACT Credit by Examination Program.)



<i>Examination</i>	<i>Passing Score</i>	<i>Credit</i>
College Algebra-Trigonometry	49	4 units
Calculus with Elementary Functions	51	4 units
General Chemistry	48	4 units

There are no specific course equivalencies for the examinations and, hence, only transfer unit credit toward graduation may be granted.

#### Science Equivalency Test Program

Students who pass the American Chemistry Society Cooperative Examination in General Chemistry at or above the 50th percentile will receive 4 units of credit.

#### Credit for Non-Collegiate Instruction

Cal State Hayward grants undergraduate degree credit for successful completion of non-collegiate instruction (either military or civilian) appropriate to the baccalaureate degree that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. Military courses and schools must be documented by forms DD214 or DD295. Such credit shall be clearly identified on your permanent record.

Credit for the following types of courses may be granted:

- Lower division baccalaureate/associate degree credit courses which are comparable to courses offered on most CSU campuses. (Credit is not allowed for occupationally oriented courses designed to enable a student to function only as a technician.)
- Upper division baccalaureate degree credit courses.
- Graduate degree credit courses.

The number of units allowed are those recommended in *the Guide to the Evaluation of Educational Experience in the Armed Services and the National Guide to Educational Credit for Training Programs*.

Cal State Hayward shall determine which units shall be applied as general education, major, or elective credit.

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## Footnotes

<sup>1</sup>Note: The College Board SAT and Achievement Tests were replaced by SAT I and SAT II, respectively, beginning March 1994. Beginning April 1, 1995, the SAT I and SAT II exams were scored on a new scale.

<sup>2</sup>Note: Beginning in May 1998, SAT II: Writing Test scores



will increase 10 to 20 points. The adjustment is being made to make Writing Test scores more comparable to scores on other SAT II subject tests. Although scores will be higher, their relative rank compared to scores for tests taken before May 1998 will remain the same.



HOME



HELP

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## Grading/Academic Standards

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1.

### What is the grading policy at Cal State Hayward?

It is an integral part of the teaching responsibility of the faculty to provide careful evaluation and timely assignment of an appropriate grade to each enrolled student. There is a presumption that grades assigned are correct. It is the responsibility of anyone appealing an assigned grade to demonstrate otherwise. In the absence of compelling reasons, such as instructor or clerical error, prejudice, or capriciousness, the grade determined by the instructor of record is to be considered final. Final course grades must be submitted by the faculty to the Records Office no later than noon of the second academic day after the end of the Final Examination Period. Also see "[What are the policies which affect my registration, grades, and academic status](#)" in the Graduate and Post-Baccalaureate Studies chapter.

If you believe that an appropriate grade has not been assigned, and you cannot resolve the matter informally with the instructor, department chair, and/or school dean/associate dean, you should present your case to the President's appointee to the Fairness Committee, the Assistant Vice President, Instructional Services. The Fairness Committee may authorize a change of grade under certain circumstances (see "What recourse do I have if I believe I have received a grade that is inappropriate?" in this chapter.). If

the instructor of record does not assign a grade to an individual student, the appropriate failing grade for nonattendance (U or NC) is automatically recorded by the Records Office. You may petition the Fairness Committee if you believe the instructor should have assigned an academic grade. If the instructor of record is unable to assign course grades, the Fairness Committee is authorized to insure that other qualified faculty do assign grades.

For purposes of correcting an error, an instructor may change a grade with approval of his/her department chair and school dean. No grade may be changed once graduation has been recorded. The administrative symbol for withdrawal cannot be assigned by a faculty member. See the [Registration chapter](#) for the description of withdrawal policies and procedures.

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## 2. What are the academic grading symbols for undergraduates, and what do they signify?

<i>Academic Symbols</i>	<i>Definitions</i>	<i>Grading (Quality) Points Earned</i>
A	Excellent	4.0
A-	Excellent	3.7
B+	Good	3.3
B	Good	3.0
B-	Good	2.7
C+	Satisfactory	2.3
C	Satisfactory	2.0
C-	Satisfactory	1.7
D+	Poor	1.3
D	Poor	1.0
F	Failing	0.0
CR	Credit	0.0
NC	No Credit	0.0

### "A-F" Grading Pattern

Courses required for your major in your major department are taken in this pattern. Specific department exemptions are noted in the course description. Faculty use of "+" or "-" is optional.

### Credit/No Credit and A/B/C/No Credit Grading Patterns (CR/NC and A/B/C/NC)

You may enroll in up to 60 units in credit/no credit patterns as an undergraduate. There are two credit/no credit patterns: (1) "CR/NC," and (2) "A/B/C/NC." Some courses are only offered in the "CR/NC" or "A/B/C/NC" patterns. You can select the "CR/NC" pattern for most other courses subject to certain restrictions. You can choose the "CR/NC" pattern during Registration and Add/Drop. No changes to, or from, the credit/no credit pattern are permitted after the Add/Drop period. There are no exceptions to this rule. No course in your major department may be taken "CR/NC," unless that is the only grading pattern in the course.

Courses in your major which are offered by other departments may be taken "CR/NC" with the permission of your major department. Be certain to check with your advisor before taking any course in your major on a "CR/NC" basis.

Units that you earn in courses taken under these grading patterns will apply to your degree requirements as long as they are not remedial courses (courses numbered 0800 - 0999). "CR" signifies you mastered the material at the level of "C-" or higher. "NC" signifies a work level of "D+" or lower.

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### 3. What are the administrative grading symbols, and what do they signify?

<i>Administrative Grading Symbols</i>	<i>Definitions</i>	<i>Grade (Quality Points Earned)</i>
SP	Satisfactory Progress	0.0
I	Incomplete (Authorized)	0.0
U	Unauthorized Incomplete	0.0
RD	Report Delayed	0.0
W	Withdrawal	0.0
AU	Audit	0.0

#### Satisfactory Progress (SP)

This administrative grade is available only in courses which, as a rule, cannot be completed in the quarter of registration. An "SP" grade indicates that work in progress is satisfactory to date, but that you must complete additional coursework before an academic grade can be assigned. You cannot enroll in more units of SP-graded courses than are applicable to your degree. All work must be completed within one calendar year of the date of first enrollment. (See Graduate and Post-Baccalaureate Studies chapter for exceptions.) You may receive up to two one-quarter extensions from your department. These extensions are for cause and must be approved by both your instructor and department chair. (Examples of cause include military service, serious health or personal problems, or instructor's leave of absence.) If the "SP" is not converted to an academic grade within the appropriate period, it becomes an "F" or "NC" depending on the grading pattern in which you are enrolled.

In situations where normal practice requires extension of course requirements beyond the end of the quarter, "SP" is required. "I" or "W" are prohibited. When you complete the course, your instructor will submit a change of grade form and you will receive an academic grade for all segments of the course based on evaluation of overall quality.

#### Incomplete (I)

The symbol "I", Incomplete (Authorized), indicates that a portion of required coursework has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified,

reasons and that there is still a possibility of earning credit. It is your responsibility to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements which must be satisfied to remove the Incomplete. A final grade is assigned when the work agreed upon has been completed and evaluated. Your instructor will specify the work needed for completion and will communicate the requirements to you in writing with a copy to the department or program chair.

An "I" must normally be made up within one calendar year immediately following the end of the term during which it was assigned. This limitation prevails whether or not you maintain continuous enrollment.

When you complete the required work and it has been evaluated, your instructor will submit a change of grade form and the academic grade will be recorded. If you do not complete your work within the period specified by your instructor (in no case to exceed one year), the grade will be recorded as "F" or "NC" depending on the grading pattern in which you enrolled. An "F" is counted as a failing grade for computing your grade point average. You may be able to receive up to two one-quarter extensions from the department. These extensions are for cause and must be approved by both your instructor and department chair. (Examples of cause include military service, serious health or personal problems, or instructor's leave of absence.) If you want credit for a course after an "I" has been converted to an "F" or "NC," you must reregister and pass the course. Do not reregister while the grade is still recorded as "I," for you would then be responsible for completing both enrollments.

You can graduate with an "I" grade on your record if the course is not necessary for you to graduate. Remember that no grade may be changed once graduation has been posted.

#### Unauthorized Incomplete (U)

If you take a course in the "A - F" pattern, do not officially drop or withdraw from the course, and do not complete sufficient course requirements for your instructor to evaluate your performance, you will receive this grade. Unlike the "I" grade, this grade cannot be changed by completing additional work. It is counted in your grade point average as an "F" grade. You must reregister and Academically Renew the course to remove the effect of the "U" on your grade point average. This is the only administrative grade that affects your grade point average.

#### Report Delayed (RD)

You will be assigned this administrative grade for a course if the instructor notifies the Registrar that grade reports have been delayed by circumstances beyond his or her control. An example is the illness of the instructor at the end of the quarter. Your instructor will replace the "RD" grade with an academic grade as soon as possible. If the instructor fails to replace it with an academic grade by the end of the Add/Drop period of the following term, the grade "RD" will be converted to a "U" or an "NC" depending on your grading pattern.

#### Withdrawal (W)

This administrative grade indicates you were permitted to

withdraw from a course after the end of the Add/Drop period with the approval of the instructor and appropriate campus officials. (Earlier deletion of a course, or Drop, is not recorded on your record and requires no justification.) This grade does not reflect the quality of your coursework and is not used in calculating your grade point average. Your instructor is urged to provide you with a mechanism to evaluate your progress in the course during the first two weeks so that you can make an informed decision regarding your continued enrollment before the beginning of the withdrawal period.

Withdrawal after the seventh week is normally not permitted. If you have attended the class, done the work, and have a valid reason for failing to complete the course, your instructor should normally assign the Incomplete (Authorized) grade.

Withdrawal from a class after the seventh week requires verification of the reason by an impartial third party, written on letterhead stationery, and approval by the instructor, the department chair and university registrar. The requirements for withdrawal from the university from the fourth through the seventh weeks must also be fulfilled.

You may not withdraw if you have taken the final examination.

If you do not attend class and do not have an approved withdrawal petition, you will receive a "U" grade or an "NC" grade, depending on the grading pattern you selected for the course.

Details on the withdrawal process are documented in the Registration chapter.

#### Audit (AU)

You may take courses for instruction only (Audit), attending class but not participating further or receiving credit. You will pay the same fees and enjoy the same instructional privileges as students enrolled for credit, but you will not be held responsible for examinations or term papers.

You may not petition to change your enrollment status from, or to, "Audit" after the Add/Drop period has expired.

Details on the audit process are covered in the Registration chapter.

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## 4.

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### How is my grade point average (GPA) computed?

#### Grade Point Averages and Their Significance

You earn grade (quality) points on the following basis:

4 quality points per unit of "A," 3.7 quality points per unit of "A-," 3.3 quality points per unit of "B+," 3 quality points per unit of "B," 2.7 quality points per unit of "B-," 2.3 quality points per unit of "C+," 2 quality points per unit of "C," 1.7 quality points per unit of "C-," 1.3 quality points per unit of "D+," and 1 quality point per unit of "D." A grade of "F" or "U" earns no quality points.

Your grade point average (GPA) is computed by dividing the total number of quality hours (units attempted), whether or not they were passed (but excluding "CR/NC" courses and those in which administrative grades were assigned except for the "U"), into the number of quality (grade) points earned. A 2.00 (C) average in all college/university courses, all Cal State Hayward courses, and all major courses is required for a baccalaureate degree (excluding "CR," "NC," "W," and "AU" grades). All courses required by a major, including those in other departments, must be included in the calculation of the major GPA.

The number of quality points you earn may affect your academic standing on a quarterly basis. If your total number of Higher Education quality points does not equal at least twice the number of Higher Education quality hours, or your number of Cal State Hayward quality points does not equal at least twice the number of Cal State Hayward quality hours, you will be placed on probation (your GPA will be below 2.00). Graduate students refer to the "[Probation and Disqualification](#)" section of the Graduate and Post-baccalaureate Studies chapter. If you fall short of a 2.0 grade point average, then you are said to have a quality (grade) point deficiency. The quality point deficiency is computed as follows:

$$\begin{aligned} \text{Number of quality points deficient} &= 2 \times (\text{number of quality hours}) \\ &\quad - (\text{quality points earned for} \\ &\quad \quad \text{those units}) \end{aligned}$$

If you have a quality point deficiency either in your entire undergraduate record or in your Cal State Hayward record, you are placed on Academic Probation. If your quality point deficiency reaches certain specified levels defined in the section, "What Constitutes Probation and Disqualification" in this chapter, you are subject to Academic Disqualification.

You should note three significant aspects of the GPA. First, it is the number of deficient quality points and not the GPA itself which determines disqualification. For example, two students have identical GPA's of 1.75, but one is a freshman and deficient 15 quality points and the other is a senior and deficient 55 quality points. The former is on probation; the latter is disqualified. A second point to note is that a certain quality point deficiency may be sufficient to disqualify a person at one class level, but not at another. For example, an 18 point deficiency will subject a senior to disqualification, but not freshmen, sophomores, and juniors. Finally, you should recognize that there are two ways in which progress toward a degree is gauged. A simple accumulation of units is one method, but the proper accumulation of quality points must also be maintained. It is impossible to graduate with any quality point deficiency, no matter how many units you earn. A student may progress toward graduation accumulating "D" or "D+" units at the same time (s)he increases a quality point deficiency and thus moves farther from graduation.

"CR" and "NC" grades and units are not included in your GPA calculation.

"SP" and "I" grades and units are not included in your GPA calculation. An "SP" or "I" grade becomes an "F" if you do not complete the coursework in the specified time frame. The "F" will be included in your GPA calculation in the quarter in which the "SP" or "I" changes.

"U" grades are regarded the same as "F's" in your GPA calculation.

"RD" grades and units are not included in your GPA.

"W" grades and units are not included in your GPA.

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## 5. When are final examinations scheduled?

Your instructor will fully inform you of the manner of his/her evaluation as well as requirements and assignments. Typically, there will be periodic examinations, graded assignments, and a final examination. Final examinations are administered only during final exam week and only at the times scheduled by the university in the [Class Schedule](#). Exceptions for compelling reasons are authorized in writing by the department chair with a copy to the school dean. The day and start time of the first lecture in the week determine the final examination time. Some courses contain a separate laboratory, activity, or discussion segment. If your instructor desires, s(he) may give a final examination on that segment during the last class meeting of that segment. You will find the final examination policy and schedule in the Class Schedule.

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## 6. When do I get my grade report?

At the end of each quarter you will be notified of your academic standing and grades achieved. This report is mailed to you about two weeks following the end of final examination week.

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## 7. How can I qualify for the Dean's and Honors Lists?

Your name can be placed on these annual lists if you have an outstanding academic record. You must complete at least 24 units with letter grades in a four-quarter period (Spring through Winter). These recognitions will be posted to your academic record at the end of each Winter quarter, and students on the Dean's List are recognized at the annual Honors Convocation in the Spring quarter. (Honors and Dean's Lists do not apply to graduate students.)

Dean's List: 3.80 to 4.00 GPA

Honors List: 3.60 to 3.79 GPA



If you are on the Dean's List for the year or are graduating with Honors (on the basis of your entire academic record), you will be invited to the Student Honors Convocation in May. This is a popular event, with families, friends, faculty, and staff attending.

Honors at Graduation is covered in detail in the Baccalaureate Degree Requirements chapter.

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## 8. What constitutes probation and disqualification?

### Academic Probation

According to Title 5 of the *California Code of Regulations*, you must achieve at least a 2.00 GPA in all university work, all work at the degree-granting state university, and all work in your major to receive a baccalaureate degree. Academic Probation warns you that your academic performance is below the state minimum required for graduation, and that you must improve before a degree can be granted.

There are various university services to help you improve your academic work, and you should take advantage of one or more. If you have declared a major, contact [Academic Enhancement Services](#) (510) 885-4707. If you have not declared a major, contact the University Advisement Center (510) 885-4682. If you are on Academic Probation, consult with your academic department advisor prior to registration in the subsequent quarter. If you are an Educational Opportunity Program (EOP) student, you must also consult with your EOP counselor.

When both your Higher Education (cumulative) GPA and Cal State Hayward GPA reach 2.0, you are removed from Academic Probation.

### Administrative Academic Probation

You can also be placed on Administrative Academic Probation if (a) you withdraw or are administratively disenrolled from all courses for two consecutive quarters, or any three quarters; (b) you repeatedly fail to make progress toward a degree while enrolled, e.g., earn 23 "NC" units; (c) you fail to comply with a routine academic requirement or regulation, e.g., fail to take the Writing Skills Test; or (d) you earn only grades of "F," "NC," and/or "U" for two consecutive quarters, or any three quarters.

### Academic Disqualification

You can be academically disqualified if your quality point deficiency is so great that it is unlikely you can make it up in the remaining time before you complete other degree requirements. Only when you can provide compelling evidence that you will be able to complete a university degree will reinstatement be considered.

*While on Academic Probation, you will be Academically Disqualified if:*

- with fewer than 90 earned hours of college work completed, you

fall 32 or more quality points below a 2.0 GPA on either Higher Education quality hours or Cal State Hayward quality hours.

- with 90 to 134 earned hours of college work completed, you fall 23 or more quality points below a 2.0 GPA on either Higher Education quality hours or Cal State Hayward quality hours.
- with 135 or more earned hours of college work completed, you fall 18 or more quality points below a 2.0 GPA on either Higher Education quality hours or Cal State Hayward quality hours.

#### Administrative Disqualification

If you become subject to Academic Probation while on Administrative Academic Probation or you are placed twice on Administrative Academic Probation for the same reason, you will be administratively disqualified.

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## 9. How can I be readmitted after Academic Disqualification?

To be readmitted following Academic Disqualification, you must demonstrate evidence of improved academic performance. This is usually demonstrated by earning good grades at another institution or through Open University. Typically, you will not be considered for readmission for one year, certainly not for at least a quarter. If you are not admitted within three quarters, you must reapply for admission.

If you are readmitted/reinstated following Academic Disqualification, you are placed on Academic Probation.

If you are readmitted/reinstated, you must maintain a 2.5 GPA each and every quarter until you are no longer subject to disqualification. You may be subject to application fees depending on how many quarters have elapsed since you last registered.

If you are academically disqualified a second time, you will not be readmitted/reinstated a second time.

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## 10. Can I qualify for Academic Renewal?

Academic Renewal is the process that matriculated students seeking a bachelor's degree follow, under limited circumstances, to remove the punitive effect of past academic failures. (A matriculated student is regularly enrolled after being admitted to the university.)

There are two ways to achieve Academic Renewal, Repetition of a Course and Forgiveness of Previous Term(s).

#### Repetition of Courses

You may repeat a course, which means your earlier attempts are ignored in GPA calculations, but not removed from your record, subject to the following conditions:

*You must file a "Report of Academic Renewal" form if:*

your original grade is an "F," "D," "D+," or "U" and all attempts in the course are at Cal State Hayward either as a matriculated student or through Open University/Extension. After you reregister for the course, fill out the "Report of Academic Renewal" form at the Admissions and Records Information counter in the lobby of Warren Hall. You must file by the Add/Drop deadline of the quarter in which you repeat the course. (This form reports your academic renewal; it is not a petition subject to approval.) The Graduation Evaluations Office will mail you a copy at the end of the quarter in which you repeat the course. The previous attempt(s) will then be excluded from your GPA calculations. This happens after the end of that quarter and may not be reflected in that quarter's grade report.

*You must file a "Petition for Academic Renewal" with the Office of Curriculum and Academic Programs (WA 859) if:*

1. (a) the course prefix and/or number has changed, (b) the course is Independent Study, (c) the course is in the Accounting Option in Business Administration, you are a Business Administration/Accounting major, and you are taking the course for the third time, or (d) the course is Biology 2010, 2020, or 3005.
2. your original grade is an "F," "D," "D+," or "U" and one or more attempts were at another accredited post-secondary institution.
3. your original grades were "C-" or better, regardless of where the original grades were assigned. You may repeat a maximum of 20 units graded "C-" or better. A grade of "CR" qualifies as "C-" or better. [There is no limit on the repeatability of courses in which the original grade was an "F," "D," "D+," or "U" except as noted in 1(c) and (d) above.]
4. you are a readmitted student who was disqualified for earning only grades of "F," "NC," and/or "U" for three consecutive, or four total quarters.

You pick up the petition in the department offering the course at Cal State Hayward. The chair of the department must certify that the courses are equivalent. (This means the course content is substantially identical. It does not mean merely that the courses meet the same requirement.) Then the Associate Vice President, Curriculum and Academic Programs must approve your petition. You must file the petition with the Associate Vice President, Curriculum and Academic Programs, duly approved by the department chair offering the course, before the end of the Add/Drop period for that quarter. A denied petition is promptly mailed to you by the Curriculum and Academic Programs Office. An approved petition is sent to the Graduation Evaluations Office. The Graduation Evaluations Office will mail you a copy at the end of the quarter in which you repeat the course. The previous attempt(s) will then be excluded from your GPA calculations. This happens after the end of that quarter and may not be reflected in

that quarter's grade report.

*Note:* The CSU system normally forbids retroactive Academic Renewal. File your petition before reregistering for the course to give yourself time to adjust your program if your petition is denied.

*If your required renewal petition is not filed or it is denied and you repeat the course:*

- All grades will be used in GPA calculations if the original grades are "D+," "D," "F," or "U," but unit credit toward graduation will be given only once if all grades are "D" or "D+."
- The second attempt may be calculated in summary statistics if the original grade is "C-" or better, until the final graduation check has been completed. At that time the second attempt will no longer be calculated in any summary statistics.

*Academic Renewal is not possible in the following circumstances:*

- You cannot renew an "A-F," "I," or "U" grades with an "F," "NC," "I," or "U."
- Business Administration will not approve renewal for any course in the Accounting Option after two enrollments.
- Academic Renewal can not be approved for any grade assigned as a result of academic dishonesty.
- If the original grade(s) was assigned at Cal State Hayward, Academic Renewal by repeating a course at another institution is normally not possible. (Exceptions can be made for disqualified students who file an approved petition prior to repeating the course elsewhere, but only to the extent necessary for their readmission.)

Cal State Hayward honors the Academic Renewal policies of other institutions as stated on their transcripts.

*Note:* The last grade earned is the grade used in GPA calculations regardless of whether it is higher than, lower than, or identical to the earlier grade(s).

*You should not file a "Petition for Academic Renewal" or a "Report of Academic Renewal" if:*

1. your original grades were "NC." You may repeat the course but there is no Academic Renewal because the "NC" grade has no effect on your GPA.
2. the original grade is still an "I." You can not get Academic Renewal because the "I" does not affect your GPA. If the grade has been changed to an "F," Academic Renewal is possible.

Forgiveness of Previous Term(s)

You can petition to exclude from degree requirements and GPA

computations up to three quarters (or up to two semesters) of coursework taken at any institution. To have your petition approved, you must meet certain conditions and follow the process described below.

Approval of your petition requires satisfaction of all the following conditions:

- proof that the coursework to be excluded does not represent your scholastic ability, and that this substandard performance was due to an extenuating circumstance, and that you would be compelled to complete additional courses or enroll in additional quarters to achieve your baccalaureate degree if your petition is not approved
- five years have elapsed since the most recent coursework to be excluded was completed
- you completed at least 22 units at Cal State Hayward since the last term to be disregarded, with a 3.0 GPA, 45 units with a 2.5 GPA, or 67 units with a 2.0 GPA.

You must complete the following steps:

- complete your portion of the "Academic Renewal, Forgiveness of Previous Term(s)" petition available from the Admissions and Records Information Counter
- obtain your major advisor's approval on the petition
- file the petition at the Admissions and Records Information Counter. If you are eligible, the Graduation Evaluations Office certifies that you meet the above conditions, attaches a copy of your academic record, and forwards the package to the Academic Renewal committee in the Provost's Office. The committee acts upon all petitions by majority vote.

If the Graduation Evaluations Office determines you do not meet the conditions, you are notified and no action is taken.

Cal State Hayward honors the exclusion policies of other institutions. Each term excluded by another institution reduces by one the number of terms that Cal State Hayward will consider for exclusion.

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11.

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## What recourse do I have if I believe I have received a grade that is inappropriate?

If you question the grade you received in a course, attempt to resolve the problem with your instructor. If you are not satisfied, discuss the issue with the chair of the department in which the course is offered. If the issue is not resolved, see the dean or associate dean of the school in which the course is offered. If all previous actions fail, contact the Fairness Committee through the Office of Instructional Services. If you are a candidate for a

degree, notify your graduation evaluator that a question is pending resolution. Remember, once your degree has been posted, no grade changes will be recorded.

#### Fairness Committee

This is your recourse to resolve serious cases of alleged academic unfairness or discrimination. After every effort by all parties to resolve the dispute have been ineffective, you discuss your case with the Assistant Vice President, Instructional Services, who is the President's appointee to the Fairness Committee. S(he) will assist you in exhausting all normal channels and, if necessary, in filing a formal complaint. Submit your complaint and supporting documentation to the committee. The Fairness Committee will review your documentation and that filed by interested parties. If the committee finds possible grounds for a grievance, a Hearing Panel will be convened to hear the case. Under normal circumstances, you must file your case before the end of the quarter following the quarter in which the alleged incident took place. Cases occurring in the Spring may be filed the following Fall.

The Fairness Committee is empowered to change a grade in accordance with the Fairness Document and to assign a grade in cases where the instructor may have assigned an unfair academic grade. In cases where your instructor is unable to assign course grades, the Fairness Committee is authorized to insure the grades are assigned by other qualified faculty. The Fairness Committee is authorized to change a grade only after it has conducted a proper review of the case.

More information is available from the Office of Instructional Services (Warren Hall, Room 755, (510) 885-4637).

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12.

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## How does Cal State Hayward define and handle academic dishonesty?

Faculty members are expected to instill in their students a respect for integrity and a desire to behave honestly because deception for individual gain is an offense against the members of the university community. To this end, faculty will take measures to discourage dishonesty, adjust grades appropriately if dishonesty is discovered, and recommend that additional administrative sanctions be considered. Grading policies are the exclusive prerogative of faculty. Administrative sanctions are the province of the Student Disciplinary Officer, the Vice President, Student Affairs (Warren Hall, Room 959, (510) 885-3646).

Academic Dishonesty includes, but is not limited to:

- cheating, which includes possessing unauthorized sources of information during examinations, copying the work of others, permitting others to copy your work, submitting work done by others, completing assignments for others, altering work after grading and subsequently submitting it for re-grading, submitting work for two or more classes without the permission of all instructors involved, or retaining materials that you have been instructed to return to your instructor;

- plagiarism, which includes taking the words or substance of another and either copying or paraphrasing the work without giving credit to the source through footnotes, quotation marks, or reference citations;
- providing materials to another with knowledge they will be improperly used;
- possessing another's work without permission;
- selling, purchasing, or trading materials for class assignments;
- altering the work of another;
- knowingly furnishing false or incomplete academic information;
- altering documents that make up part of the student record;
- forging signatures or falsifying information on any official academic document.

Dishonesty can be prevented by the following actions:

- Students should be aware of the standards of academic honesty by being provided with a clear definition of expectations and standards, and of the consequences for dishonesty.
- Faculty should seek appropriate opportunities (e.g., in-class assignments, quizzes) to become familiar with student capabilities.
- To minimize or eliminate cheating, faculty shall keep exams in secure locations, consider developing an exam pool and multiple versions of exams, proctor exams, consider avoiding the use of exam questions in instructors' manuals, provide space or exam books for test responses.
- To discourage plagiarism, faculty can meet periodically with students to review progress on their papers, require submission of a preliminary draft, provide a sequence of separate assignments in the development of papers.

If there is evidence of dishonesty:

- involving cheating, you should be privately informed, if possible; the materials should be confiscated; you should be allowed to finish the exam; and your instructor should note the names of adjacent individuals;
- involving plagiarism, your instructor should assemble documentation and notify you promptly in private.

Whenever dishonesty occurs, your instructor will take appropriate action and file an "Academic Dishonesty Incident Report" detailing the infraction and the action taken. The report will be filed in the Academic Affairs Office, and you will receive a copy. The report will remain on file for five years or until you graduate, whichever comes first. If the office receives two or more reports on an individual, the Student Disciplinary Officer is notified.

Depending on the circumstances, you may: (a) be warned; (b) be required to resubmit work or retake an exam under specified conditions and with a possible grade penalty; (c) have your grade adjusted for the assignment; or (d) have your grade adjusted in the course, including assignment of an "F" at the discretion of the faculty. If the course grade is adjusted, it is not subject to Academic Renewal.

You may appeal an instructor's action to the Fairness Committee (see above). Your appeal of an instructor's academic sanction is governed by the "Fairness Document."

Depending upon the severity of the offense or the number of offenses, the instructor may directly refer the instance of academic dishonesty to the Student Disciplinary Officer, the Vice President, Student Affairs, to determine if further action is necessary. At the discretion of the Student Disciplinary Officer, administrative sanctions such as warning, probation, suspension, or expulsion may be imposed. As prescribed in Executive Order #628, Article VI, Subsection 6, sanctions of "probation and suspension" shall be made part of the student's academic record during the term of the probation or suspension. Expulsion shall be made part of the student's permanent academic record." The Student Disciplinary Officer shall inform the instructor of the actions taken on any referral. (If an appeal to the Fairness Committee regarding an academic sanction imposed by the instructor is pending, action by the Student Disciplinary Officer will be postponed until after the adjudication of the appeal.)

Your appeal of administrative sanctions is governed by Title 5 of the *California Code of Regulations*, sections 41301 through 41304 and Chancellor's Executive Order #628 (1994). The Student Disciplinary Officer can provide you with details.



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## Program Information

# Certificate Programs

▶ [Program Information](#)

A certificate program is a coherent set of academic courses, considerably narrower in scope and objectives than a degree or major, which leads to a certificate. A certificate program is normally oriented toward occupations and/or career skills. It contains a minimum of 12 units of courses numbered 3000 and above and a minimum of 20 total units unless the program consists entirely of 5000- and/or 6000-level courses, in which case the required minimum is 15 units. Each certificate program contains a required core of at least three courses and 12 units.

Some certificate programs have admission requirements which are described in the appropriate catalog chapter. (See the chapter describing the major most closely associated with the certificate.) To receive a certificate, you must earn a grade of "C" or better in each course applied to the program which is numbered below 6000 and a grade of "B" or better in each course applied to the program which is numbered 6000 and above. One course numbered below 6000 may be applied to a certificate program with a "CR" grade; no course numbered 6000 or above may be applied with a "CR" grade. At least 75% of the courses in a certificate program and all 5000- and 6000-level courses must be taken at Cal State Hayward for you to receive the certificate. You may meet this requirement with coursework taken at Cal State Hayward in matriculated or extension status. Prerequisites which are part of a regular degree major or mandatory General Education-Breadth requirements need not to be included within the certificate program, but must be clearly identified. No academic certificate program can have a title which is identical or similar to that of a legal license or certificate unless it meets the requirements for that license or certificate. You may not receive a certificate with the same title as the degree major, option, or minor which you have already received.

Certificate programs are designed to serve students who have a limited time to spend at Cal State Hayward and/or who wish to learn specific subjects, concepts, skills, and competencies. Most certificate programs add a specific occupational skill to an academic major which was previously completed or is being completed concurrently. Such programs are compatible with the related major and contain no prerequisites not included in the major and/or required G.E. Some certificate programs are designed to provide the preprofessional background for students contemplating transfer to other universities offering programs not

available at Hayward. These certificate programs have been made compatible with the professional program by including all prerequisite or strongly recommended preparatory courses which are offered by Cal State Hayward. Still other certificate programs are the equivalent of minors which can be earned without a degree. These are normally completed by students who already possess a baccalaureate degree and want to add some skills in a new field without completing another entire degree. Such certificate programs meet at least the minimum requirements for an academic minor in the discipline. A Special Certificate Program is also available. See the Special Major chapters.



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## B.A./B.S. Degree Requirements

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1.

### What is a baccalaureate degree?

A baccalaureate degree, often called a bachelor's degree, is the academic title that the university confers upon you after you have successfully completed a minimum number of college credit units (186 quarter units at Cal State Hayward), including certain specified patterns of coursework (for example, General Education, a major) and a minimum number of advanced units (60 upper division) with a grade point average of at least 2.00 (on a 4.00 point scale), and various other requirements specified in Title 5 of the *California Code of Regulations*.

Cal State Hayward offers two baccalaureate degrees, a Bachelor of Arts (B.A.) degree and a Bachelor of

Science (B.S.) degree. The only legal difference between the two degrees is that a B.A. degree can require no more or less than 186 quarter units, whereas a B.S. degree can require 186-210 quarter units. The degree awarded appears on your diploma and permanent record.

Before the 1960s, it was common to refer to baccalaureate degrees as four-year degrees because students went to school three quarters, or two semesters, a year and earned 15-16 units a term. Each year had its own title: first year, freshman; second year, sophomore; third year, junior; and fourth year, senior. The first two years were called lower division and could be completed at a community college, the second two were called upper division and had to be completed at the baccalaureate degree-granting institution. Now, since many students have commitments other than college, they take fewer units and occasionally do not attend every quarter. Consequently they take longer to complete their degrees. (Nevertheless, the university does offer a "Four-Year Degree Pledge Program" for full-time students. Contact Enrollment Services for information.) Information concerning the graduation rates of students enrolling at Cal State Hayward may be obtained from Leone Nidiffer, the Assistant Vice President, Institutional Research and Analysis, WA 739 (Te. 510-835-2223). It is also available on the World Wide Web at <http://www.aba.csuhayward.edu/ira/>

Cal State Hayward still uses the four designations but defines them by units, not years. Our designations are the following: 0-44 units, freshman; 45-89 units, sophomore; 90-134 units, junior; and 135 and more units, senior. You can complete a maximum of 105 units at a community college and transfer them to a CSU campus. Cal State Hayward operates on a year-round, four-quarter system. Hence, by taking a full academic load of 15-16 units per quarter, four quarters a year, you can graduate in three years.

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## 2.

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### What are the requirements for the baccalaureate degree?

There are three major parts of your baccalaureate degree and seven basic requirements defined in the California Code. Most of your courses will fall into one of the three major parts of the degree: (1) the General Education (G.E.) requirements for basic skills and breadth, (2) the major for depth in one field, and (3) free electives which you can use to shape your education in directions you choose. Each of these will be described in later sections.

These are the seven basic requirements for your B.A. or B.S. degree defined in the Code:

1. Completion of a 72 quarter-unit program of General Education-Breadth requirements (details to follow).
2. Completion of one of the majors described in this catalog.
3. Completion of the U.S. history, U.S. Constitution, and

California state and local government requirement through coursework or exams (details to follow).

4. Satisfaction of the University Writing Skills requirement by passing two freshman-level English composition courses and the upper division University Writing Skills Requirement (details to follow).
5. Completion of a minimum of 45 quarter units in residence (enrolled as an admitted student) at Cal State Hayward, including at least 36 upper division units, 18 units in your major, and 12 units of G.E. (Units you earn at other institutions, units you earn through the Cal State Hayward Extended and Continuing Education Division such as Open University, and units you earn through Credit-by-Examination are not residence units.) Your last two quarters of enrollment must be at Cal State Hayward if you are to receive your degree from us. Waivers may be possible for extenuating circumstances. Contact your advisor for information.
6. Completion of at least 186 quarter units for your B.A. degree or 186-204 quarter units for your B.S. degree. At least 60 of these units must be in upper division courses (courses numbered 3000 and above). No more than 60 units can be graded in the Credit/No Credit pattern (CR/NC or A/B/C/NC). No more than 36 units can be in Extension, Open University, Special Session, or correspondence credit, and no more than 45 units can be earned credit-by-examination (excepting Advanced Placement).
7. Attainment of a grade point average of at least 2.00 on a 4.00 scale in all units you attempt at Cal State Hayward, all the units you attempt including transfer units, and all units you attempt in the major regardless of the department in which they are taught.

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### 3. What are my catalog rights for graduation?

To meet the seven requirements listed in the previous section, you must follow the specifics listed in this catalog. As long as you maintain attendance by enrolling in at least two quarters each calendar year, your degree requirements will remain those in this catalog. However, you may elect to meet the requirements of the catalog in effect at the time you graduate. These principles are called your "catalog rights."

If you are absent due to an approved Educational Leave or to attend another California State University and/or California Community College, you will not lose your catalog rights as long as you are not away for over two years.

If you are a transfer student who attended another CSU campus and/or California community college, you have Cal State Hayward catalog rights from the time you began at the other institution if you have maintained attendance as noted above.

Your catalog rights for your major (and minor if you pursue one) are governed by the catalog in effect at the time you declare your major (or minor). So if you don't declare a major during the effective dates of this catalog or later change your major, the catalog in effect at the time you declare your major of graduation will govern your major requirements. You will not lose your catalog rights for G.E. and other graduation requirements by declaring or changing your major, if you maintain attendance.

If you do break attendance by not enrolling in two quarters in a calendar year, your graduation requirements will be governed by the catalog in effect at the time you reenter.

The principle of catalog rights refers to degree requirements, not policies, fees, services, and other matters which, when they change, apply to all students. For that reason, you should check the on-line catalog or purchase a new printed catalog when it is issued.

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#### 4. What are the General Education-Breadth requirements?

Through our [G.E. requirements](#), the university attempts to insure that you have made significant progress toward becoming a truly educated person. In particular, when you complete the G.E. requirements, you should have:

1. Achieved the ability to think clearly and logically, to find and critically examine information, to communicate orally and in writing, and to perform quantitative functions above the level of intermediate algebra.
2. Acquired appreciable knowledge about your own body and mind, about how human society has developed and how it functions, about the physical world in which we live, about the other forms of life with which we share the world, and about the cultural endeavors and legacies of human civilization.
3. Come to an understanding and appreciation of the principles, methodologies, value systems, and thought processes employed in human inquiries.
4. Come to understand and appreciate the contributions to knowledge and civilization that members of diverse cultural groups and women have made.

The Cal State G.E. program requires at least 72 quarter units (a minimum of 21 courses) distributed over six areas and governed by three general requirements. The lists of courses meeting the requirements change from quarter to quarter and are not included in this catalog because they rapidly become outdated. The list of courses currently meeting each requirement appears in the ***Class Schedule*** each quarter.

The G.E. requirements are described below in two ways, a tabular summary and a text specifying the intent of each area and subarea requirement. The latter will be useful to you in attempting

to decide whether to petition a course taken elsewhere for G.E. credit.

Before progressing very far into your G.E. and other degree requirements, be certain you have developed the entry-level learning skills in English composition and mathematics necessary for collegiate success. You must take the Error! Bookmark not defined. Error! Bookmark not defined. EPT/ELM tests before your first enrollment (if not exempt by the other test scores listed in the Registration chapter). If your skills are such that you can begin taking college-level English composition and math immediately, do so at your earliest opportunity, as a freshman if at all possible. (Many majors, including Business Administration and the sciences, require much more math than the single G.E. course.)

If your skills are not at the collegiate level, you must enroll in the appropriate remedial course(s) (again, described in the Registration chapter) in your first quarter and complete all remedial courses you need as soon as possible, as a freshman if at all possible. Students who fail the same remedial course twice, fail to enroll continuously in remediation as long as it is required, and/or who fail to complete remediation in six quarters will not be allowed to continue.

You will not be allowed to register once you have earned 90 units if your first freshman English composition course (ENGL 1001 or equivalent for G.E. Area A2) and your quantitative reasoning course (G.E. Area B4) have not been passed. Cal State Hayward requires that your freshman English composition course be passed before you attempt the Writing Skills Test in your first quarter in junior status (90 or more quarter units).

A word is necessary about the relationship of G.E. to your major. Normally no course in your major department, as designated by course prefix (for example, ANTH, ENGL, GEOL, MUS) can be applied to G.E., *even if not applied to your major requirements*. For Business Administration majors, the forbidden prefixes are ACCT, CIS, FIN, MGMT, MKTG, and TC. THEA and DANC cannot be used by Theatre Arts Majors. The only exceptions to this rule are in Area A, in Area B4, in Area C for a MLL course in another language from those in the major, in Area G4, and one course in a thematic freshman or sophomore cluster (B1-3, C1-3, D1-3).

On the other hand, courses required for your major, but offered by other departments (for example, MATH for Geology majors, MLL for English majors), can be applied to G.E. And Liberal Studies, which offers no courses, subsumes G.E. in its major.

This is why it is important to know your major before you get too far into the G.E. program. Most majors specify certain G.E. courses for their students. If you take a course other than the one specified, you will have to take the required course anyway. Also, if you don't know your major, you could take a course that subsequently ends up in your major and lose it for G.E. credit.

## LOWER DIVISION G.E. REQUIREMENTS (60 Units)

### Area A: Communication in the English Language (12 units)

You must complete this area of the G.E. Requirements in your freshman year unless a year or more of remediation is required. You must enroll in sections of Area A1 and A2 courses which are linked to the freshman thematic cluster you select in Area B, Area C, or Area D. You must also enroll in an activity class each quarter you are taking the Area A classes (see Area G, G.E. Electives).

#### *A1 Oral Communication (4 units)*

Criteria: A course meeting the Oral Communication requirement is based upon communication theory presented through lecture, discussion, and reading. It must provide several opportunities for a planned sequence of speaking and listening experiences in at least two of the following modes: (a) small-group (problem-solving) discussion, (b) interpersonal communication, (c) expository discourse presented extemporaneously, (d) argumentative and persuasive discourse presented extemporaneously. The course must provide you with constructive criticism of both substance and form of communication and must reflect awareness of the cognitive and emotional conditions dealt with by people who communicate with others. You will complete at least five oral assignments demonstrating increasing skill in oral communication.

#### *A2 Written Communication (4 units)*

Criteria: A course meeting the freshman composition requirement assumes that you should, at the time of entry, be able to write brief essays showing adequacy in (a) selection of a controlling idea appropriate to the given writing task, (b) coherent development of that idea to a reasoned conclusion, (c) use of sentences that demonstrate some structural variety and contain language appropriate to the audience and purposes, and (d) control of conventions of standard written English (relative freedom from errors such as fragments, run-together sentences, faulty agreement, and improper pronoun reference) and of mechanics (capitalization, spelling, and punctuation). The work of the freshman English course is to strengthen these skills by extensive practice in the writing of expository essays suitable for college-level credit. If you are not exempt from the EPT and do not score 147 or higher on the test, you must pass one or more remedial English courses before enrolling in the A2 course (see Registration chapter). If you score 147-150 on the EPT, you must immediately enroll in your A2 course accompanied by the 2-unit remedial tutorial course ENGL 0989. G.E. Area A2 must be completed by the time you reach 90 quarter units or future registration will be blocked.

#### *A3 Critical Thinking (4 units)*

Criteria: A course meeting the critical thinking G.E. requirement focuses primarily on: (a) identifying, analyzing, evaluating, and presenting arguments, (b) learning elementary inductive and deductive reasoning, and (c) recognizing formal and informal fallacies. You will complete a minimum of six assignments demonstrating critical thinking in a variety of contexts. At least



four of these assignments must be written. A critical thinking textbook or its equivalent is required in all courses meeting this requirement.

**Area B: Natural Sciences and Mathematics (16 units)**

Criteria: G.E. courses in the physical and life sciences teach the methodologies of science, including systematic observation and experimentation. The laboratory course required in this General Education Area provides firsthand experience in making observations in the natural world or laboratory, the techniques and procedures of making those observations, and techniques and procedures for organizing and analyzing observations. In addition to a working knowledge of the methods of science, you will acquire an understanding of the fundamental principles of particular disciplines.

*B1-3 (12 units)*

You must select a three-course thematic cluster in the natural sciences. These clusters include the equivalent of at least one course in physical science and one in life science, courses in three different disciplines, and at least one of the courses must have a laboratory. You may select a freshman cluster or a sophomore cluster. Sophomore courses assume a higher level of basic skills (completion of Area A and B4 requirements).

*B4 One Course in Quantitative Reasoning (4 units)*

Criteria: G.E. courses in quantitative reasoning teach you skills and concepts that build on what you have previously mastered in intermediate algebra. Courses which satisfy Area B4 foster the development and use of formal skills and concepts appropriate to the specific course. They emphasize problem solving, reasoning skills, and the communication of mathematical ideas. If you are not exempt from the ELM requirement and do not score 550 or higher on the test, you must pass one or more remedial Mathematics courses before enrolling in the B4 course (see Registration chapter).

You must complete your quantitative reasoning G.E. requirement in your freshman year unless three quarters of remediation are needed. In any case, G.E. Area B4 must be completed by the time you reach 90 quarter units or future registration will be blocked.

**Area C: Humanities (12 units)**

*C1-3 (12 units)*

You must select a three-course thematic cluster in the humanities. These clusters include the equivalent of at least one course in fine arts and one in letters (see below) and courses in three different disciplines. You may select a freshman cluster or a sophomore cluster. Sophomore courses assume a higher level of basic skills (completion of Area A requirements). No Cal State Hayward course used to meet the U.S. History, Constitution, and American Ideals Requirement may be applied to Area C.

*C1 Fine Arts (4 units)*

Criteria: Courses meeting this requirement have as their major component the integration of evaluative and descriptive aspects of the history, theory, aesthetics, and criticism of different works, forms, styles, and schools of art.

*C2 Letters (4 units)*

Criteria: Courses in this area examine significant written and oral texts of the creative intellect. The major goals are: (a) to teach the critical examination of ideas and theories through the use of historical, linguistic, literary, philosophical, and rhetorical approaches and methods; and (b) to encourage understanding of enduring human concerns and the intellectual and cultural traditions within which they arise.

*C3 An Additional Humanities Course in either Fine Arts or Letters.*

Area D: Social Sciences (12 units)

Criteria: Courses in this area acquaint you with basic principles, methodologies, theoretical problems, and applications in those sciences whose field of study is human behavior in its social environment. No Cal State Hayward course used to meet the U.S. History, Constitution, and American Ideals Requirement may be applied to Area D.

*D1-3 Basic Requirements (12 units)*

Criteria: Courses fulfilling the Basic Social Science requirements present the fundamental principles and methods of inquiry in social science disciplines.

You must select a three-course thematic cluster in the social sciences. These clusters must include significant content from at least three different social science disciplines. You may select a freshman cluster or a sophomore cluster. Sophomore courses assume a higher level of basic skills (completion of Area A and B4 requirements).

Area F: Performing Arts and Activities (4 units)

Criteria: Courses in this area provide an opportunity to develop an appreciation of the visual and performing arts and activities through direct experience. Students are guided by participation toward an understanding of the techniques, processes, and possibilities inherent in such aspects of culture as art, theatre, music, creative writing, and sport. Courses in this area enhance student development through accomplishment. At least 40% of the class time in these courses must be activity or performance.

Area G: Electives (4 units)

*G1 Activity Courses Accompanying Freshman Clusters (3 units)*

Criteria: These are one-unit activity courses (two hours of class) which accompany the freshman clusters (Areas B1-3, C1-3, D1-3). They integrate the thematic and Area A course content, build learning communities, and integrate academic support services. They also include the development and honing of particular skills (e.g., writing, speaking, calculating, reasoning) at various levels depending on the individual student's proficiency.

*G2 Information Literacy (1 unit)*

Criteria: Courses fulfilling this G.E. requirement develop information processing and technical competencies. The former include the ability to recognize a need; find resources; access, evaluate, and organize information; understand ethical, social and legal dimensions; and communicate information. The latter include

the ability to select and use the appropriate technology.

#### UPPER DIVISION G.E. REQUIREMENTS (12 units)

To be eligible to begin taking upper division G.E. courses, you must have completed 90 quarter (60 semester) units, your lower division G.E. requirements, and the University Writing Skills Requirement (or a second-tier writing course if you failed the Writing Skills Test). You should complete Areas C4 and D4 in your junior year. Area E may be completed in either the junior or senior year.

##### Area C4: Upper Division Humanities (4 units)

A 4-unit upper division course in the humanities (history, literature, philosophy) that includes a significant writing component and emphasizes advanced communication and critical thinking skills.

##### Area D4: Upper Division Social Sciences (4 units)

A 4-unit upper division course applying the research findings of the social sciences to significant contemporary problems and emphasizing advanced writing and information literacy skills.

##### Area E: Capstone (4 units)

A 4-unit course emphasizing the integration of knowledge from disciplines, employing different methods of inquiry from at least two of the major areas (natural sciences, humanities, social sciences), requiring a major writing component, and emphasizing advanced communication and critical thinking skills.

#### GENERAL REQUIREMENTS

These are to be satisfied simultaneously with the lower and upper division Area requirements described above.

- (a) A total of 72 quarter units of coursework are required to meet the General Education-Breadth Requirements. Normally, no course taken in the major department, as designated by course prefix, may be applied to the 72-unit G.E. program. Exceptions are: (1) in Areas A, B4, and G4 and one course in one thematic cluster (B1-3, C1-3, D1-3)-unless certified by California community colleges and/or other CSU campuses; (2) Modern Language majors may use courses in another language; (3) a course required for the major, but not offered by the major department, may be applied to G.E. No course taken to satisfy the U.S. History, U.S. Constitution, and California State and Local Government requirement may be applied to G.E. unless certified by California community colleges or other CSU campuses. No cooperative education courses may be applied to G.E.
- (b) A minimum of 12 quarter units of the General Education-Breadth Requirements must be taken in residence at Cal State Hayward. (You are in residence if admitted to and regularly enrolled in the university).

- (c) A minimum of 12 quarter units of upper division (3000 and above) coursework applicable to the General Education-Breadth Requirements must be taken after you attain upper division status (90 or more quarter units). *You cannot use community college courses to satisfy this requirement.* You must take these 12 units in Areas C4, D4, and E. No course taken in the major department, as designated by course prefix, may be applied to the upper division G.E. requirement.
- (d) A minimum of 3 quarter units of coursework applicable to the General Education-Breadth Requirements must recognize the contributions to American civilization and knowledge that members of various cultural groups and women have made. Coursework must also be applicable to one of the G.E. Areas. Courses satisfying this requirement must focus on African Americans, Asian Americans, Hispanic Americans, Native Americans, gays/lesbians, and/or women in the United States.

### TRANSFER STUDENTS

Under Chancellor's Executive Order No. 595, up to 58 quarter (39 semester) units of the CSU General Education-Breadth Requirements may be certified by California Community Colleges and other CSU campuses. You must request the certification; it is not automatic except for the A.A. in University Studies programs. Although many certification forms may show more than the maximum number of certifiable units, you must still complete 12 upper division residence G.E. units at Cal State Hayward. If you transfer to Cal State Hayward with the Intersegmental General Education Transfer Curriculum (IGETC) certified by a community college, you must still complete 12 upper division residence G.E. units at Cal State Hayward.

Regardless of whether you are certified for the CSU G.E. pattern or the IGETC, you must complete the following courses: (1) Area C, an upper division Humanities course of at least 4 units selected from the Area C4 literature/history/philosophy list; (2) Area D, an upper division Social Science course of at least 4 units selected from the Area D4 list; (3) Area E, an upper division capstone course totaling at least 4 units selected from the Area E list. The Cultural Groups/Women General G.E. requirement must be satisfied simultaneously with one of the above Area G.E. requirements if not previously satisfied by a lower division G.E. transfer course.

*You must complete at least 45 quarter (30 semester) units of G.E. including G.E. Areas A (Communication in the English Language) and B4 (Quantitative Reasoning) before transferring as a junior. .*

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5.

### What is a major?

A major is a specified pattern of courses in a particular discipline or group of disciplines. (A list of Cal State Hayward undergraduate majors appears at the beginning of the programs section of this catalog.) It complements G.E. by allowing you to specialize in one

area, to study it in more depth than the one or two courses taken for G.E. in other disciplines. A few majors (such as Music and Spanish) are self-contained in the major department and have no courses which can double-count in G.E. Most majors, however, require some coursework in other departments and these courses, if applicable to G.E., can be double-counted. You can design a Special Major with faculty advice and administrative support (see the Special Major chapter in the programs section of this catalog).

A major is not the same as a career, though some majors are more closely allied to specific careers than others. There are people in most careers from a wide variety of majors. Cal State Hayward majors are described in alphabetical order in the Academic Programs section of this catalog, and career options are listed for each of them.

A major in a B.A. degree must contain at least 40 quarter units and, in a B.S. degree, at least 54 quarter units. Unless a special exception has been made, no major can require more than 93 units after subtracting the units which double-count in G.E. One exception is the Liberal Studies major, which includes G.E. within it. Other programs exceeding 93 units must add an extra unit to the degree for every extra unit in the major.

B.A. degree majors require a minimum of 20 upper division units, and B.S. degree majors require a minimum of 27 upper division units according to the state Code, but Cal State Hayward majors easily exceed these totals.

You may declare your major either on your application when you apply to Cal State Hayward or by filling out a "Change of Major" form available in the Lobby of Warren Hall or in the Student Services Center at Contra Costa after you enroll.

You may complete more than one major. All majors earned as part of the same degree appear on your diploma, but majors within other degrees do not appear on the diploma, though they can be noted on the permanent record if you request it.

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## 6. What is an option?

An option is a prescribed pathway through a major which allows for emphasis on a particular segment of the discipline (for example, the Journalism Option in the Mass Communication Major and the Dance Option in the Theatre Arts Major). Not all majors have formal options. Some majors with formal options require you to select an option (e.g., Business Administration) whereas others do not (e.g., Political Science). In some majors, different options have different unit values.

An option can appear on your diploma if you request it when filing for graduation. If you wish to complete more than one option and have the additional option(s) recorded, each must differ by at least three courses and nine units from any other option you complete.

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7.

## What are free electives, and what can I do with them?

Every student has some units not prescribed by G.E., the major, or other graduation requirements. These range from one or two courses in a few very large, occupationally oriented majors to a dozen or more courses in some humanities and social science majors.

Free electives are courses you are free to select to complete your minimum unit requirements for the degree. Some students complete free electives with whatever looks interesting when they have free hours in their schedules, but most students have a purpose in mind. This could be taking more courses in the major to prepare for graduate school or employment, taking a minor or certificate program (defined below) to complement the major (e.g., an English major taking a Marketing minor), or simply following a special interest (e.g., dance or photography). No student is required to do any of these things, but it is important that you understand your options.

8.

## What is a minor?

A minor is a coherent program in some field or group of related fields other than your major. Minors range in size from 24-48 quarter units, at least 12 of which must be upper division. No student is required to have a minor, so it will not appear on your record or diploma unless you request it. The minimum grade point average for a minor is 2.00, so you must take at least one course on the A-F grading pattern. At least 50% of a minor or 12 units, whichever is less, must be taken at Cal State Hayward if you want the minor recognized on your diploma and/or permanent record.

Courses in a minor may be double-counted in G.E. However, at least 18 quarter units of a minor must not be double-counted in the discipline of the major for Cal State Hayward to recognize the minor.

If you wish to complete a minor, fill out a "Declaration of Minor" form available in the Lobby of Warren Hall or the Student Services Center at Contra Costa.

You cannot get a minor in the same department as your major unless the disciplines are distinct (e.g., French and Spanish, Art History and Studio Art). A minor is recognized only when a baccalaureate degree is awarded. For freestanding programs, see the next section.

9.

## What is a certificate program?

A certificate program is a coherent set of academic courses, considerably narrower in scope and objectives than a degree or major, for which you can receive a certificate upon its successful completion. Most certificate programs are oriented toward

occupations and/or career skills. A certificate program must contain at least 12 units of courses numbered 3000 and above and a minimum of 20 total units (unless the certificate consists solely of 5000- and 6000-level courses in which case only 15 units are required). Each certificate program must contain a required core of at least three courses and 12 units. You can design a special certificate with faculty advice. See "Special Certificates" in the Special Major chapter (programs section) of this catalog.

Some certificate programs have admission requirements. Refer to the catalog description of the specific certificate program for more information. You must receive a grade of "C" or better in each undergraduate and 5000-level course and a "B" or better in each graduate course (6000-level) applied to the program. Only one course below the 6000-level may be taken "CR/NC" and no graduate course may be taken "CR/NC" in a certificate program unless that is the only grading pattern for the course. You must take at least 75% of the courses and all 5000- and 6000-level courses at Cal State Hayward. (For certificate programs, Cal State Hayward courses may be taken through Extended and Continuing Education or as a regularly admitted and enrolled student.) You may not receive a certificate if you have already received a major, option, or minor with the same title.

No student is required to complete a certificate program. Completion of a certificate program is recognized by the awarding of a certificate. There is no notation about the program on either a diploma or permanent record. (The courses will, of course, be on your permanent record.) You may pursue a certificate program before, during, or after your baccalaureate degree. Unlike a minor, a certificate is not part of a degree.

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10.

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## What is the U.S. history and government code requirement?

CSU graduates are expected to have knowledge of: significant events in U.S. history; the role of major ethnic and social groups in these events; the political, economic, social, and geographic context of these events; the U.S. Constitution, U.S. political institutions and processes; the rights and obligations of U.S. citizens; the California Constitution; federal-state relations; and California state and local government, and political processes.

You can demonstrate your competence in these fields by either: (a) passing a set of three examinations (U.S. history, U.S. Constitution, California state and local government) offered each quarter by the Office of Assessment and Testing, or (b) passing an approved set of courses covering all three topics. The list of currently approved courses appears in the quarterly [Class Schedule](#).

Be aware that receiving credit for any courses applicable to this requirement through a national test such as Advanced Placement or at an out-of-state institution will not satisfy the California state and local government part of this requirement.

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## What is the University Writing Skills requirement?

All CSU graduates are required to demonstrate competency in writing skills for graduation. To prepare for the graduation writing proficiency requirement, you should complete two courses in freshman English composition (ENGL 1001-1002 or their equivalents). ENGL 1001 must be completed within the first 90 quarter units. *Unless exempt by admission test scores, you must take the EPT before you first enroll so that you can complete any needed remediation as soon as possible.* You should also complete ENGL 1002 before earning 90 quarter units, but if you cannot, do so immediately thereafter.

As soon as you have completed 90 quarter units, you will be required to take the Writing Skills Test (WST) offered by Assessment and Testing. (Do not attempt the WST before completing 90 units or the graduation writing competency requirement will not be met by passing it.) For details about the test, contact that office. If you pass the test, you have satisfied the graduation proficiency.

The WST includes both an objective portion (testing your knowledge of sentence structure, organization, grammar, punctuation, strategy, and style) and an analytic essay portion (requiring you to demonstrate that you can think critically and analyze a short text). You pass the WST and satisfy the University Writing Skills requirement with: (a) an essay score of 9-12, (b) an essay score of 8 and an objective score of 61-80, (c) an essay score of 7 and an objective score of 63-80, (d) an essay score of 6 and an objective score of 65-80.

If you fail the WST with an essay score of 6 or below, you must complete two writing courses: (1) a first-tier course, ENGL 3000 or 3001 (for ESL students) in the quarter subsequent to failing the test, (2) an approved second-tier writing course, normally in the school of your major, which addresses rhetorical approaches and strategies and is taken in the quarter after passing ENGL 3000 or 3001. [A list of approved second-tier writing courses appears in the Class Schedule each quarter. The currently approved courses are: ENGL 3003 Discursive Writing, MKTG 3495 Business Communication, MLL 3119 French Literature in English Translation, MLL 3309 Studies in Italian Literature (in English), SCI 3010 Writing in Sciences, SCI 3020 Writing in Math/Computer Science.] To satisfy the University Writing Skills Requirement, you must pass the second-tier writing class with a grade of "C" or better.

If you fail the WST with an essay score of 7 or 8, you must either: (a) take an approved second-tier writing course in the subsequent quarter or, (b) take the WST at its next offering. You will satisfy the University Writing Skills Requirement if you pass the WST on the second attempt or pass the second-tier writing course with a grade of "C" or better. If you fail the WST on the second attempt, you will not be permitted to take it again and must pass a second-tier writing course with a grade of "C" or better to satisfy the University Writing Skills Requirement. A first-tier course will also be required if your second WST essay score is 6 or below. (If you fail the second-tier course, you may take another second-tier



course to attempt to satisfy the UWSR.)

If you fail the WST with an essay score of 6, 7, or 8 and receive a grade of "C-," "D+," or "D" in a second-tier writing course, you may appeal to the Associate Vice President, Curriculum and Academic Programs, for a waiver of the University Writing Skills Requirement. If a waiver is granted, your permanent record will note that you were allowed to graduate without having satisfied the University Writing Skills requirement. If you do not satisfy the requirement and do not have a waiver approved, you will not be allowed to graduate. Contact the Office of Curriculum and Academic Programs for information on waivers (WA 859; Tel. 510-885-3718).

If you have a verified disability which affects your ability to satisfy this requirement, there is a special appeal process facilitated by the Student Disability Resource Center. Contact that office for details.

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12.

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## Are requirements different for students who do their entire degree at Cal State Hayward and those who transfer?

In general, degree requirements are the same, but special provisions safeguard the programs taken by students at California community colleges and other CSU campuses. If you are a transfer student, the following provisions apply.

1. If you complete G.E. courses approved for transfer to the CSU and they are certified by that campus (or another campus accepts them and certifies them), Cal State Hayward will accept them to meet the requirements for which they are certified. (Be aware that certification is not automatic; you must request it.)

According to the Code, CSU cannot accept more than 58 quarter units or 39 semester units. In practice, Cal State Hayward accepts 60 quarter (40 semester) units because our three-course, upper division G.E. program is 12 quarter units. 60 plus 12 totals the 72 units required for G.E.

2. If you complete the Intersegmental General Education Transfer Curriculum (IGETC) and it is certified complete by your community college, you have satisfied the entire 60-unit lower division G.E. program and have only the three courses, 12-unit, upper division G.E. program to complete. (The IGETC is an all-or-nothing proposition; there is no partial certification as in #1 above.)
3. If you complete any part or all of the U.S. history, U.S. Constitution, and California state and local government requirement at a California community college or other CSU campus and have it certified, Cal State Hayward will accept that certification for completion for part or all of the requirement.
4. If you successfully completed a course at another university or college which is not certified for the CSU G.E. program, but you believe it meets the criteria listed earlier for a specific

requirement, you may file a "G.E. Substitution Petition." This form is available in all department offices and in the University Advisement Center. If you believe you have a petitionable course, discuss it with your advisor or with a G.E. evaluator in the University Advisement Center. If (s)he agrees, fill out the form, sign it, have your advisor sign it, and submit the petition to the Office of Curriculum and Academic Programs in Warren Hall (WA 859) or the University Advisement Center. After action on your petition, a copy will be mailed to you.

Likewise, if you believe you have a petitionable course for the U.S. history and government requirement, you may request a substitution. In this case, go to either the History Department or the Political Science Department, whichever is appropriate to the course, and review the issue with the department chair. (Both departments are in Meiklejohn Hall.) If the chair agrees, (s)he will send a form to the Registrar's Office informing them of approval of the substitution.

5. Cal State Hayward has articulation agreements for all of our majors with all community colleges in Alameda and Contra Costa counties and with several others from which we receive sizable numbers of students. If you followed one of these major articulation agreements and completed all equivalent lower division work at the community college, your major department will consider your lower division major complete.

If you did not follow an articulation agreement, your major department will evaluate your transfer courses individually for equivalence.

6. The graduation writing proficiency requirement (called the University Writing Skills Requirement at Cal State Hayward) is mandatory on all CSU campuses. Cal State Hayward will accept certification of the graduation writing proficiency requirement from any CSU campus. However, we must have written documentation that the entire requirement was satisfied at the other campus where you were enrolled as a matriculated student. ("Matriculation" means regularly enrolled after being admitted to a university.) You cannot, for example, take a writing proficiency test at another campus to meet the UWSR at Hayward while you are matriculated at Hayward.

Although you can complete a sizable portion of your graduation requirements at other colleges and universities, do not forget the residence requirements previously listed. They must be satisfied while matriculated and enrolled at Cal State Hayward.

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13.

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## Can I get credit for multiple majors or multiple degrees?

The answer to both is yes. A disadvantage of pursuing additional degrees, however, is that you must meet the G.E. requirements in the catalog governing the second degree. If requirements have changed since your first degree was earned, you may have additional G.E. courses to take. At the very least, you will have the three G.E. residence courses to take for the additional

degree. Also, if a course previously used for G.E. is in the major of your additional degree, you cannot use it for G.E. in that degree. (The U.S. history/institutions and writing skills requirements need not be satisfied again if completed for a previous CSU degree.)

The disadvantage of completing multiple majors while working on the same degree is that you have to delay graduation until you complete all requirements of all the majors. However, you are checked for completion of the G.E. requirements only once (and the only department excluded from G.E. is your first major, not any additional ones).

Because of the 45-unit residency requirement, you cannot get two degrees at once. (You cannot be in residence in two separate degrees at the same time.) This points up another advantage of multiple majors over multiple degrees. You can pursue two or more majors simultaneously, but you must separate each degree by 45 units. In other words, if you want two degrees, after you finish one degree, you have to reapply for admission and complete another 45 quarter units in residence (at least 36 of which are upper division, at least 18 units of which are in the additional major, and at least 12 of which are in G.E.). You also have to comply with CSU GPA requirements (at least a 2.00 GPA in all units, all Cal State Hayward units, and all units in the major) for the additional degree.

If you complete two majors at the same time but one falls in a B.A. degree and one falls in a B.S. degree, you must decide which degree to receive because you cannot receive two degrees at once. And your diploma, being awarded for the completion of a degree, will show only the major completed under that degree. Your permanent record and transcripts, however, will include all majors completed if requested.

You cannot get two degrees in the same field. For example, a B.A. with a major in Geology and a B.S. with a major in Geology, or a B.S. with a major in Business Administration (Option in Accounting) and a B.S. with a major in Business Administration (Option in Marketing) are not allowed.

Any options and minors completed within your degree will also be recorded on your diploma and permanent record if you request them.

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## 14.

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### How do I apply for graduation?

Go to your major department (or the Office of Curriculum and Academic Programs, WA 859, if you are a Special Major) and complete a "Degree Candidacy" form, including department approval. Be sure to list all majors, options, and minors you plan to complete as part of your degree. You must do this no later than the end of the Late Registration Period (15 or 16 calendar days excluding weekends) of the quarter preceding your final quarter. (The exact date is published in the quarterly *Class Schedule*.)

Next, take the form to the Cashier's Office in the Lobby of Warren

Hall (or the Student Services Center at Contra Costa), and pay the graduation filing fee. The fee covers the cost of the graduation check, the diploma, and participation in the annual commencement ceremony (but not cap and gown rental/purchase, which is handled separately by the Bookstore). The Cashier's Office sends the "Degree Candidacy" form "with certification of payment to Graduation Evaluations.

The fee is non-refundable, but if you don't graduate when you intended, it will be transferred to the subsequent quarter automatically. Your graduation quarter can be moved a maximum of three consecutive times, after which you must re-file and pay again. You must send such a request, in writing, to the Office of Graduation Evaluations. This should be done no later than the end of the Late Registration period of the quarter originally intended to be your final quarter. Changes in the information on the diploma (change of name, address, deletion of an incomplete minor) must be submitted no later than the end of the Late Registration period of the intended quarter of graduation.

After you have filed for graduation, your major department completes an official "Major Check" form "showing all requirements completed for the major and those remaining to be completed for the major. (If you are a Special Major, a Major Check is not needed.) Your department must submit the form to Graduation Evaluations no later than the fifth week of the quarter preceding your final quarter if you are to graduate on time. Check with your department by the end of the fifth week of classes of your next to last quarter to be certain this has been done. If it is not submitted by this time, your graduation will be delayed a quarter, though you may request Graduation Evaluations to send a letter to, for example, an employer, certifying requirements have been met.

If you are completing a minor and want it recorded, be certain to request that a "Minor Check" form be submitted by the department offering the minor to Graduation Evaluations no later than the end of the fifth week of classes of your second to last term.

If you are completing a Single or Multiple Subject Matter Preparation Program for entry into a Teaching Credential Program, be certain that the appropriate check sheet is submitted by the department or program committee offering the program to the Credential Student Service Center in the School of Education.

After receiving your Major Check from the department and your "Degree Candidacy" form from the Cashier's Office, Graduation Evaluations will prepare a Bachelor's Degree Check Sheet (or Master's Degree Check Sheet if you are a graduate student) and mail it to you before the end of the Add/Drop Period of your final quarter. This Check Sheet is the official statement of your status. It shows all degree requirements, in progress, and to be completed.

If you file any waiver or substitution petitions for major, G.E., or other graduation requirements, be certain they reach Graduation Evaluations at least four weeks before the end of your final quarter.

Once you have completed all degree requirements and Graduation Evaluations can verify their completion (normally this takes about two months after the end of the quarter), your diploma will be ordered. Your diploma is normally available within four months of this final clearance. It will be mailed unless you make prior arrangements with Graduation Evaluations to pick it up.

A diploma is an official document containing the embossed seals of Cal State Hayward and the CSU, your name, the degree conferred and date, major(s) completed in the degree conferred, any options or minors completed and requested, type of honors if any, and the signatures of state and university officials. It is not reproducible or available in multiple copies. You can obtain multiple copies of your record by ordering transcripts which also show degrees, majors, options, minors, and honors, as well as other information. Should you change your name, a new diploma will not be issued. If you need proof of completion of your degree before receiving your diploma, you may request a verification of graduation or a transcript from the Records Office.

Once your degree is posted to your permanent record, your diploma and transcript cannot be altered by adding additional options and/or minors, nor by grade changes, withdrawals, and/or academic renewal. The university protects the integrity of its transcripts and will not rewrite history unless we have made a mistake.

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15.

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## How do I qualify for academic honors at graduation?

Earlier in the catalog, in the undergraduate Grading and Academic Standards chapter, the Dean's and Honors Lists (the annual academic honors recognition) were discussed. Cal State Hayward also recognizes undergraduate students at graduation for consistently high scholarship through their entire academic careers. If you graduate from Cal State Hayward beginning Fall quarter 2000 through Summer quarter 2002, you will qualify for Graduation with Honors if your academic record meets the following criteria.

1. You will qualify for one of these categories of honors at graduation on the basis of the following grade point average in all college work taken for your degree: 3.90-4.00 summa cum laude (highest honors); 3.80-3.89 magna cum laude (high honors); 3.60-3.79 cum laude (honors)
2. To qualify for any category of honors, you must have a minimum Cal State Hayward grade point average of 3.60, and
3. You must have completed at least 60 units graded "A-D" at Cal State Hayward (up to 15 units in Open University may be substituted).

These standards were adopted to insure that the top 1% of those graduating in the years this catalog is in effect receive summa cum laude designations, the top 3% receive at least magna cum

laude designations, and the top 8% receive at least cum laude designations. *Graduation with honors is governed by the catalog in effect at the time of the student's graduation. The GPA standards cited above are in effect for those who graduate during the two years this catalog is in effect, Fall quarter 2000 through Summer quarter 2002.* GPA standards will be adjusted in future catalogs, if necessary, to maintain the 1%, 3% and 8% groupings. So check the catalog in effect at the time you graduate to see if you qualify.

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16.

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## How can I earn graduate credit before I get my baccalaureate degree?

Many Cal State Hayward students continue their studies beyond the baccalaureate to earn a master's degree. If you are one of these students, you may find that you have only one or two courses left to complete your baccalaureate and would like to take a course for your graduate program in your final undergraduate quarter. Or perhaps you missed the graduation filing date, don't have anything to take in your last quarter as an undergraduate, and want to get started on your master's degree.

You can take up to 13 units of courses in your final undergraduate quarter (no earlier) and apply them to your master's degree if you:

1. Have at least a 2.00 grade point average at Cal State Hayward,
2. Do not need the units or grade points to complete your baccalaureate degree,
3. Do not need the units for residence credit in your master's degree, and
4. Obtain prior permission from the department chair of the graduate program in which you wish to apply the units.

While an undergraduate, obtain a "Petition for Graduate Credit" form in the office of the graduate department. Fill out this form including all courses (for both undergraduate and graduate credit) you are taking in your final undergraduate quarter, and sign it. Obtain the signed verification from your undergraduate advisor that you do not need the courses you want to apply to your master's degree for your baccalaureate degree, and obtain the signed approval of the graduate department chair to apply the courses to your master's degree. Then file the form with the Admissions and Records Information Counter in the Lobby of Warren Hall. You must do this no later than the end of the Add/Drop period of your final undergraduate quarter. Once you have graduated, you cannot go back and retroactively transfer a course to your graduate degree.

You cannot be matriculated in a baccalaureate degree and a master's degree at the same time, so the units earned in your last undergraduate quarter which are applied to your master's degree are not residence credit in your graduate degree. Most Cal State Hayward master's degrees require 45 units, 32 of which must be

in residence. If you take the maximum 13 units for your graduate degree in your last undergraduate quarter, you will have used up your non-residence degree credit and cannot use any transfer, extension or Open University units for your master's degree.

If you start working on a basic Teaching Credential (5000-level courses in Teacher Education) before completing your baccalaureate, you may have the units certified for application to your post-baccalaureate requirements. To qualify, the units must all be in excess of the units needed for your bachelor's degree or any requirement of that degree. Submit a written request to the Graduation Evaluations Office of Enrollment Services. Your request should cite all the courses to be certified for this type of post-baccalaureate credit and should be submitted after completing your baccalaureate degree.



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## Undergraduate Programs

- ▶ [Majors and Options](#)
- ▶ [Minors](#)
- ▶ [Certificate Programs](#)
- ▶ [Academic Organization](#)

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Cal State Hayward offers major programs leading to the baccalaureate degree in 41 fields of study (in addition to the Special Major) and minors in 66 fields.

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### Majors and Options

Anthropology, B.A.

- Archaeology and Biological Anthropology Option
- Socio-Cultural Anthropology Option

Art, B.A.

- Art History Option
- Art Studio Option
- Digital Graphics Option
- Multimedia Option
- Photography Option
- Pictorial Arts Option
- Spatial Arts Option

Arts Administration, B.A.

Biochemistry, B.S.

Biological Science, B.A.

Biological Science, B.S.<sup>1</sup>

- Biomedical Laboratory Sciences Option

Business Administration, B.S.<sup>2</sup>

- Accounting Option
- Advertising Option
- Computer Information Systems Option
- Finance Option
- General Business Option
- Human Resources Management Option
- Managerial Economics Option
- Marketing Management Option
- New Ventures and Small Business Management Option
- Organizational Communication/Public Relations Option
- Production and Operations Management Option
- Promotion Option
- Purchasing and Materials Management Option
- Real Estate Management Option
- Sales Option
- Telecommunications Management Option

Chemistry, B.A.<sup>1</sup>

- Biochemistry Option



Chemistry, B.S.  
Computer Science, B.S.<sup>1</sup>  
    Networking and Data Communications Option  
    Software Engineering Option  
Criminal Justice Administration, B.S.  
    Corrections Option  
    Law Enforcement and Administration Option  
Economics, B.A.  
Engineering, B.S.  
    Industrial Engineering Option  
English, B.A.  
    British and American Literature Option  
    Creative Writing Option  
    Interdisciplinary Language and Literature Studies Option  
    Language and Discourse Option  
    New Voices in English Literature Option  
Environmental Science, B.S.  
    Biology Option  
    Chemistry Option  
    Environmental Systems and Resource Management Option  
    Geology Option  
Environmental Studies, B.A.  
    Ecology/Life Sciences Option  
    Environmental Health Option  
    Human Environment Option  
    Land Use Planning and Management Option  
    Physical Environment Option  
Ethnic Studies, B.A.  
    African American Studies Option  
    Asian American Studies Option  
    Mexican American/Latino Studies Option  
    Native American Studies Option  
French, B.A.  
Geography, B.A.  
Geography, B.S.  
Geology, B.A.  
Geology, B.S.  
Health Sciences, B.S.  
History, B.A.  
Human Development, B.A.<sup>1</sup> <sup>2</sup>  
    Adolescence Option  
    Adult Development Option  
    Childhood Option  
    Gerontology Option  
International Studies, B.A.  
Kinesiology, B.S.  
    Athletic Training Option  
    Exercise Nutrition and Wellness Option  
    Exercise Physiology Option  
    Pre-Physical Therapy Option  
    Physical Education Teaching Option  
    Special Studies Option  
Latin American Studies, B.A.  
Liberal Studies, B.A.<sup>2</sup>  
    African American Studies Option  
    Anthropology Option  
    Art Option  
    Bilingual/Cross Cultural Studies Option  
    Business Studies Option  
    Childhood Studies Option

Dance Option  
Early Childhood Studies Option  
Economics Option  
English Option  
Environmental Studies Option  
Ethnic Studies Option  
Geography Option  
History Option  
Human Development Option  
Integrative Science Option  
Kinesiology Option  
Language Studies Option  
Latin American Studies Option  
Life Sciences Option  
Mass Communication Option  
Mathematics Option  
Modern Languages Options (French, Italian, Portuguese,  
Russian, Spanish)  
Music Option  
Philosophy Option  
Physical Sciences Option  
Political Science Option  
Psychology Option  
Recreation Option  
Sign Language Option  
Sociology Option  
Special Education Option  
Speech Communication Option  
Speech Pathology and Audiology Option  
Statistics Option  
Theatre Option  
Women's Studies Option  
Mass Communication, B.A. <sup>1</sup>  
Advertising Option  
Broadcasting Option  
Journalism Option  
Photocommunication Option  
Public Relations Option  
Mathematics, B.S.  
Applied Mathematics Option  
Mathematics Teaching Option  
Option A  
Music, B.A.  
Nursing, B.S.  
Philosophy, B.A. <sup>1</sup>  
Religious Studies Option  
Physical Science, B.S.  
Physics, B.S.  
Political Science, B.A. <sup>1</sup>  
Pre-Law Option  
Public Affairs and Administration Option  
Psychology, B.A.  
Psychology, B.S.  
Human Factors Psychology Option  
Industrial Psychology Option  
Recreation, B.S. <sup>1</sup>  
Environmental Recreation Option  
Recreation Therapy Option  
Sociology, B.A.  
Social Services Option

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## Minors

Sociology Option  
Spanish, B.A.  
Special Major, B.A.  
Special Major, B.S.  
Speech Communication, B.A.  
    General Speech Communication Option  
    Intercultural Communication Option  
    Interpersonal Communication Option  
    Organizational Communication/Public Relations Option  
    Public Communication Option  
Speech Pathology and Audiology, B.S.  
Statistics, B.S.  
Theatre Arts, B.A.  
    Acting Option  
    Children's Theatre and Dance Option  
    Creative Arts Option  
    Dance Option  
    Directing Option  
    Literature and Performance Option  
    Musical Theatre Option  
    Recreational and Community Theatre Option  
    Technical and Design Option

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Advertising  
African American Studies  
Anthropology  
Art History  
Art Studio  
Asian American Studies  
Asian Studies  
Biological Sciences  
Business Administration  
Business Computer Telecommunications  
California Studies  
Chemistry  
Children's Theatre and Dance  
Cognitive Science  
Communication Skills  
Computer Information Systems  
Computer Science  
Creative Video  
Creative Writing  
Criminal Justice Administration  
Dance  
Economics  
English  
Environmental Recreation  
Environmental Studies  
Ethnic Studies  
Filipino/Filipino American Studies  
French  
Geography  
Geology  
German  
Health Sciences  
History  
Human Development  
International Business

International Studies  
Italian  
Kinesiology  
Latin American Studies  
Marketing  
Mass Communication  
Mathematics  
Mexican American/Latino Studies  
Multimedia  
Music  
Native American Studies  
Philosophy  
Photography  
Physics  
Political Science  
Portuguese  
Psychology  
Recreation  
Religious Studies  
Russian  
Sign Language  
Sociology  
Spanish  
Speech Communication  
Speech Pathology and Audiology  
Statistics  
Taxation  
Theatre  
Urban Studies  
Women's Studies  
Youth Services Administration

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## Certificate Programs

Certificate in Applied Statistics  
Certificate in Art Museum and Gallery Studies  
Certificate in Cartographic Communication  
Certificate in Coaching  
Certificate in Commercial Physical Education  
Certificate in Creative Video  
Certificate in Organizational Communication  
Certificate in Pre-Physical Therapy  
Certificate in Special (Adapted) Physical Education  
Certificate in Youth Services Administration  
Special Certificate

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## Academic Organization

California State University, Hayward is organized into four schools: Arts, Letters and Social Sciences (ALSS); Business and Economics; Education and Allied Studies; and Science. Each school has significant responsibility for its own curricula, faculties, students, and budgets. The school dean, aided by an associate dean and an administrative assistant, is the chief administrative officer of each school. (The names of these officers appear in the University Administration chapter.) The Deans' offices are located as follows: ALSS, eighth floor of Warren Hall (885-3161); Business and Economics, second floor of the Music and Business Building (885-3311); Education and Allied Studies, first floor of the Art and Education Building (885-3072); and Science, first floor of

the North Science Building (885-3441). The Special Major and the Engineering Program are administered by the Associate Vice President, Curriculum and Academic Programs, on the eighth floor of Warren Hall (885-3716). The organizational table (available as a [JPEG Image](#) [76k] or a [PDF Document](#) [18k]) indicates the departments and programs of each school and the interdisciplinary programs. (You may need a viewer (Acrobat Reader) from [Adobe](#) in order to display the PDF document.)

## School of Arts, Letters and Social Sciences

The School of Arts, Letters and Social Sciences is the largest in the university and includes 18 departments in addition to several interdisciplinary programs. It embraces the creative arts, the humanities, the social and behavioral sciences, and several applied disciplines.

### Baccalaureate Degree Majors

- Anthropology (B.A.)
- Art (B.A.)
- Arts Administration (B.A.)
- Criminal Justice Administration (B.S.)
- English (B.A.)
- Environmental Science (B.S.)
- Environmental Studies (B.A.)
- Ethnic Studies (B.A.)
- French (B.A.)
- Geography (B.A., B.S.)
- History (B.A.)
- Human Development (B.A.)<sup>4</sup>
- International Studies (B.A.)
- Latin American Studies (B.A.)
- Liberal Studies, B.A.<sup>4</sup>
- Mass Communication (B.A.)
- Music (B.A.)
- Philosophy (B.A.)
- Political Science (B.A.)
- Sociology (B.A.)
- Spanish (B.A.)
- Speech Communication (B.A.)
- Speech Pathology and Audiology (B.S.)
- Theatre Arts (B.A.)

### Academic Minors

- Advertising
- African American Studies
- Anthropology
- Art History
- Art Studio
- Asian American Studies
- Asian Studies
- California Studies
- Children's Theatre and Dance
- Cognitive Science
- Communication Skills
- Creative Video
- Creative Writing
- Criminal Justice Administration
- Dance
- English
- Environmental Studies

Ethnic Studies  
Filipino/Filipino American Studies  
French  
Geography  
German  
History  
Human Development  
International Business  
International Studies  
Italian  
Latin American Studies  
Mass Communication  
Mexican American/Latino Studies  
Multimedia  
Music  
Native American Studies  
Philosophy  
Photography  
Political Science  
Portuguese  
Religious Studies  
Russian  
Sign Language  
Sociology  
Spanish  
Speech Communication  
Speech Pathology and Audiology  
Theatre  
Urban Studies  
Women's Studies

#### Certificate Programs

Art Museum and Gallery Studies  
Cartographic Communication  
Organizational Communication

#### The Program for Adult College Education

Students who have completed their lower-division general education requirements may elect to earn a Bachelor of Arts degree (B.A.) in Liberal Studies or Human Development via the Program for Adult College Education (PACE), an upper-division program of instruction in formats convenient for working individuals. The scheduling of classes on one or two nights per week and Saturdays, and the use of audio and visual materials enable students to combine their studies with the demands of full-time employment or other daytime responsibilities. For more information, see "PACE" in the General Information chapter. Also, call the PACE office at (510) 885-2989.

#### School of Business and Economics

##### *Mission Statement:*

The School of Business and Economics provides excellence and innovation in integrating quality teaching and learning, with applied research and relevant experience to a diverse clientele from the San Francisco Bay Area to the global community.

##### *Core Values:*

- Value diversity in students, faculty, staff and other stakeholders

- Commitment to and synergy between regional and global constituencies
- Commitment to excellence in teaching, curriculum delivery, and applied research
  - Latest technology and delivery systems
  - Flexibility in program delivery
- Innovation and cooperative approach to business problems
  - Business-ready curriculum
  - Economic development initiatives
  - Team-oriented approach
  - Capitalize on opportunities
  - Entrepreneurial orientation
- Commitment to ethics, honesty and integrity
- Creating a collegial and supportive work environment
- Commitment to outstanding service to our clientele

The undergraduate programs in business administration are accredited by the American Assembly of Collegiate Schools of Business.

#### Baccalaureate Degree Majors

Business Administration (B.S.)  
Economics (B.A.)

#### Academic Minors

Advertising  
Business Administration  
Business Computer Telecommunications  
Computer Information Systems  
Communication Skills  
Economics  
International Business  
Marketing  
Taxation

#### School of Education and Allied Studies

The mission of the School of Education and Allied Studies is to prepare collaborative leaders who will influence a highly technological and diverse world.

The School offers programs for liberal arts instruction and professional preparation of undergraduates in the fields of kinesiology and recreation.

#### Baccalaureate Degree Majors

Kinesiology (B.S.)  
Recreation (B.S.)

#### Minors

Environmental Recreation  
Kinesiology  
Recreation  
Youth Services Administration

## Certificate Programs

- Coaching
- Commercial Physical Education
- Pre-Physical Therapy
- Special (Adapted) Physical Education
- Youth Services Administration

## School of Science

The School of Science offers programs that provide a broad education in the physical, life, and health sciences; and in mathematics, statistics, and computer science. The career flexibility available to science students is one of the main advantages of a degree in the science area. The baccalaureate programs are designed to prepare students for graduate study and for careers in industry, government, and public school teaching.

## Baccalaureate Degree Majors

- Biochemistry (B.S.)
- Biological Science (B.A., B.S.)
- Chemistry (B.A., B.S.)
- Computer Science (B.S.)
- Environmental Science (B.S.)
- Geology (B.A., B.S.)
- Health Sciences (B.S.)
- Mathematics (B.S.)
- Nursing (B.S.)
- Physical Science (B.S.)
- Physics (B.S.)
- Psychology (B.A., B.S.)
- Statistics (B.S.)

## Minors

- Biological Sciences
- Chemistry
- Computer Science
- Geology
- Health Sciences
- Mathematics
- Physics
- Psychology
- Statistics

## Certificate Program

- Applied Statistics

## Interdisciplinary Programs

Interschool interdisciplinary programs are administered by the Associate Vice President, Curriculum and Academic Programs.

## Baccalaureate Degree Majors

- Engineering (B.S.)
- Special Major (B.A., B.S.)

## Certificate Program

- Special Certificate

## Course Numbering Key

The numbering of courses is intended to describe the level at which they are offered. Any student, however, may enroll for any



course if he or she has completed the listed prerequisites, except for certain graduate courses. See "California Articulation Number (CAN) System" in the Registration chapter for an explanation of CAN numbers.

0800-0999	Remedial courses (not for baccalaureate degree credit)
1000-1999	Freshman level
2000-2999	Sophomore level
3000-3999	Junior level
4000-4999	Senior level
5000-5999	Post baccalaureate and professional level
6000-6999	Graduate level
7000-7699	Upper division level extension <sup>5</sup>
7700-7999	Graduate level extension <sup>5</sup>

## Course Units

( ) -Unit credits appear in parentheses following title of course

## Class Hours per Week

The number of class hours a course meets per week equals the number of units listed for the course, unless otherwise indicated in the course description. (A "class hour" is 50 minutes.) Supervision courses (e.g., independent study, project, thesis) have no prescribed correspondence between class hours per week and units.

## Course Offering Key

Quarter of offering may be subject to change without prior notice.

F	-	Fall quarter
W	-	Winter quarter
Sp	-	Spring quarter
Su	-	Summer quarter
A	-	All quarters
Y	-	At least once a year
Tent.	-	Tentatively (used with one of the basic symbols above)
Alt.	-	Alternate (used with one of the basic symbols above)

The lack of a symbol indicates uncertainty about offering the course in 2000-2002.

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## Footnotes

<sup>1</sup>It is not necessary to select an option in these majors.

<sup>2</sup>A minor from outside Business/Economics may be substituted for an option.

<sup>3</sup>These majors are also offered through the Program for Adult College Education (PACE).

<sup>4</sup>The upper division portions of these majors can be

completed via the Program for Adult College Education (PACE).

See quarterly bulletin of Extended and Continuing Education.



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## Department Information

## Advertising

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- ▶ [Program Information](#)
- ▶ [Minor In Advertising](#)

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Department of Marketing and Entrepreneurship  
School of Business and Economics  
Office: Music and Business Bldg., Room 2587  
Phone: (510) 885-4146

Department of Mass Communication  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall, Room 3011  
Phone: (510) 885-3292

*Advisors:* Robert Terrell (Mass Communication, ALSS), Chong Lee (Marketing and Entrepreneurship, SBE)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## Program Information

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The advertising minor allows students to integrate an interdisciplinary set of advertising-related courses with their own major and their general education requirements. This may be an attractive specialization for students in such majors as business, mass communication, art, or psychology.

Careers in advertising include positions with advertising agencies in account supervision, copywriting, production, traffic, marketing and media research, and media buying.

Students with advertising skills are also in demand for the advertising and public relations departments of corporations and not-for-profit organizations, in radio, television, newspapers and magazines, and in specialty firms such as direct mail, outdoor advertising, marketing research agencies, production shops, and syndicated data services.

Students in the Advertising Minor are urged to complete some of the listed elective courses and, in particular, to seek out co-op education or internship placements during their junior and senior years. Practical working experience is available through active participation in The Advertising Agency, which serves The Pioneer, Escape Magazine, and KSUH-Radio within the Department of Mass Communication.

## Minor In Advertising

Advertising options are available under the Business Administration major (see the Business Administration chapter) and the Mass Communication major (see Mass Communication chapter in the undergraduate section). A student will not be permitted to earn both an option and a minor in advertising.

### Required Courses (47 units)

(Mass Communication majors may use all 47 units for their major and/or G.E. requirements; Business Administration majors may use 39 of the 47; Sociology majors, 31 of the 47; and English and Psychology majors, 27 of the 47 units.)

ART 1111 The Art Experience or another adviser-approved Art activity course (5)

ENGL 2005 Grammar for Writers (4) or ENGL 3005 Study of Language (4)

MKTG 3401 Marketing Principles (4)  
MKTG 3410 Advertising Management (4)

MKTG 3445 Seminar in Marketing Research (4) or MCOM 3800 Research Methods in Mass Communication (4) or SOC 4111 Methods of Sociological Research I (4)

MKTG 4412 Media Planning (4) or MCOM 3100 Television Production/Direction (4)

MCOM 3340 Graphic Communication (4)  
MCOM 4520 Advertising Theory and Practice (4)  
MCOM 4530 The Advertising-Public Relations Campaign (4)  
PSYC 1000 General Psychology (5)  
STAT 1000 Elements of Probability and Statistics (5) or STAT 2010<sup>1</sup> Elements of Statistics for Business and Economics (5)

### Strongly Recommended

PSYC 1100 Critical Thinking in Psychology (4)

PSYC 3510<sup>1</sup> Attitudes and Opinions (4) or PSYC 4740 Psycholinguistics (4)

Co-op Ed or internship experiences in advertising and/or public relations (4-8)

### Additional Electives Relevant to the Minor

ACCT 2210 Accounting for Non-Business Majors (4) or 2251-52 Principles of Accounting I, II (8)

ART/MCOM 3600 Intermediate Photography (5)  
ART/MCOM 4600 Advanced Photography (5)  
MKTG 3425 Promotion (4)  
MKTG 4415 Corporate Communications (4)  
MCOM/ART 2700 Introduction to Photography (5)  
MCOM 3110 Law of Mass Communication (4)  
MCOM 4050 Theories of Mass Communication (4)  
MCOM 4510 Public Relations Theory and Practice (4)  
SOC 1000 Introduction to Sociology (4)

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## Footnotes

- 1 Has a prerequisite that is not included in the minor.



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## International Studies

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- ▶ [Undergraduate Courses](#)

### Department Information

Department of Political Science  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4092  
Phone: (510) 885-3221

*Professor Emeritus:* Bruce E. MacNab (Marketing)

*Professors:* Loretta Breuning (Management and Finance), Herbert M. Eder (Geography and Environmental Studies), Shyam J. Kamath (Economics)

*Assistant Professor:* Pablo Arreola (History)

*Director:* Norman Bowen (Political Science)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The International Studies major consists of an integrated group of courses reflecting international aspects of various disciplines. It is designed to provide the student with a broad base of understanding of the interrelationship of the world community, while at the same time providing the opportunity to specialize in an area of interest. A minor in International Studies is also offered.

The International Studies major consists of a lower division requirement of twelve (12) units in Economics and Geography/Environmental Studies and, optionally, Anthropology, plus a foreign language requirement. The upper division requirements include a methods course, a twentieth century History course, and three INTS courses (an introductory upper division course, a senior seminar, and an international field experience). The student will complete the major with sixteen (16) units of international coursework with a particular emphasis and twelve (12) units selected from a list of electives.

## Features

The university encourages firsthand experience abroad. INTS 4100 (International Field Work) is designed to afford such an opportunity. Optimally the student will elect to complete the internship, either paid or voluntary, in a foreign country. The University recognizes that this may not always be possible and therefore accepts the completion of the internship locally if a substantial portion of the work experience is internationally related. The student may also elect to fulfill the international work experience requirement by completing a course of study through the CSU International Programs or a recognized quarter, semester, or summer program abroad. Any such activity must be approved by an International Studies advisor before being undertaken.

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## Career Opportunities

International Business • International Organizations • Federal Government • Journalism • Law • Local services to foreign language speakers

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 58-85 units; the B.A. degree requires a total of 186 units.

- I. Lower Division (12-36 units)  
*Select one course from each group*
  - A. ANTH 1300 Introduction to Cultural Anthropology (4) or GEOG 2300 Cultural Geography (4)
  - B. ECON 1000 Economics of Public Issues (4) or ECON 2301 Principles of Microeconomics (4) or ECON 2302 Principles of Macroeconomics (4)
  - C. GEOG 2310 Economic Geography (4)
  - D. Modern Language Requirement (0-24 units)  
Oral and written proficiency in a modern foreign language equivalent to two full years of university-level studies. The requirement can be fulfilled by the recent completion of the third quarter of intermediate language at Cal State, Hayward or by an examination offered by the Department of Modern Languages and Literatures measuring oral and written proficiency at that level.
- II. Upper Division Core (14-16 units)
  - A. INTS 3100 Global Systems (4), INTS 4500 Senior Seminar (4), and HIST 3017 Twentieth Century History (4)
  - B. International Field Experience (minimum 2 units) through one of the following: INTS 4100 International Field Work (2-4) or an approved course of study in a foreign country.

*Note:* In order to fulfill this requirement, any experiential activity or course of study must be pre-approved by an International Studies advisor.

III. Methods Course (4-5 units)

*One methods course selected from the following list:*

ANTH 4310 Field Course in Ethnography (5)  
ECON 4400 Introduction to Econometrics (4)  
HIST 3010 Historical Writing (4)  
MGMT 3100 Introduction to Quantitative Methods in Business (5)  
PHIL 3321 Philosophy of the Human Sciences (4)  
POSC 3010 Political Inquiry: Scope and Methods (4)  
PSYC 3090 Methods of Investigation in Psychology (4)  
SOC 3000 Introduction to Sociological Research (4)  
SOC 4111 Methods of Sociological Research (4)  
STAT 3010 Statistical Methods in the Social Sciences (4)  
STAT 4610 Nonparametric Statistical Methods for the Social Science (4)

IV. Area of Emphasis (16 units)

Emphasis courses: 4 courses (16 units) to be chosen with the approval of an advisor in either (1) a discipline area (example: Economics, History); (2) a regional area (example: Europe, Latin America); or (3) a topic area (example: arms control, economic development, environmental issues). All courses selected should be internationally relevant.

V. Upper Division Electives (12 units):

*Select from the following with no more than 2 courses in any one discipline:*

ANTH 3000 Anthropology in the Modern World (4), (if ANTH 1300 has not been taken); or any upper division anthropology course with primarily international content.  
ECON: Any upper division International Economics course  
FIN 4375 International Financial Management (4)  
MLL: Any upper division modern language course not primarily devoted to literature.  
GEOG/ENVT: Any geography or environmental studies course with primarily international content.  
HIST: Any upper division modern history course with primarily international content.  
INTS: Any upper division international studies course.  
MGMT 4670 Multinational Business (4)  
MKTG 4470 International Marketing (4)  
MCOM 4110 International Communication (4)  
POSC: Any upper division political science course devoted to comparative government or international relations.  
SOC 3431 Seminar in World Development (4)  
SPCH 4830 Intercultural Communication (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills Requirement; and the residence, unit, and grade point average requirements.



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## Minor Requirements

The minor consists of 28-40 units.

- I. Lower Division (8-20 units)
  - A. Twelve (12) units of a modern foreign language or the equivalent as determined by examination. The language, when possible, should be coordinated with the student's other coursework in the minor. It is strongly recommended that a student achieve a higher level of proficiency in a foreign language through courses in language, culture, or literature.
  - B. Eight (8) units selected from:
    1. ANTH 1300 Introduction to Cultural Anthropology (4) or GEOG 2300 Cultural Geography (4)
    2. ENVT 2000 Introduction to Environmental Studies (4) or GEOG 2310 Economic and Resource Geography (4)
    3. POSC 1300 The Politics of Developing Countries (4) or POSC 1500 Conflict in World Politics (4)
    4. ECON 1000 Economics of Public Issues (4) or ECON 2301 Principles of Microeconomics (4) or ECON 2302 Principles of Macroeconomics (4)
- II. Upper Division (20 units):
  - A. INTS 3100 Global Systems (4)
  - B. Sixteen (16) units of upper division international course work from the School of Arts, Letters, and Social Sciences (ALSS) or the School of Business and Economics, selected with the approval of an International Studies Minor advisor. No more than eight (8) units may be taken in any one department; a minimum of eight (8) units must be taken in ALSS.

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## Undergraduate Courses

*The course prefix for the following courses is INTS.*

- 3100** Global Systems (4)  
The wide range of global systems which have evolved to provide a framework for international transactions and problem-solving. Focus on global systems in the areas of politics, economics, mass media, science/technology, and basic human needs. The origins, objectives, and institutional capabilities of existing global systems in each area.
- 4100** International Field Work (2-4)  
Supervised field placement with a company, non-profit organization or government agency in which a substantial portion of the work experience is internationally related. Foreign placements are encouraged. CR/NC grading only. May be repeated once for credit for a maximum of 8 units.
- 4500** Senior Seminar (4)

Advanced analysis and evaluation of global systems. Study of theoretical models. Prerequisite: INTS 3100.

4900 Independent Study (1-4)



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## Anthropology

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### Department Information

Department of Anthropology  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4064  
Phone: (510) 885-3168

*Professor Emerita:* Lindy Li Mark (Chair)

*Professors:* Alan J. Almquist, Peter J. Claus, H. Glynn Custred,  
George R. Miller

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Anthropology is the multifaceted study of humans and their ways of life from a global and evolutionary perspective. Students in anthropology learn about the self as well as other ethnic nationalities as they are shaped by biological evolution, ecological constraints, political history, and sociological conditioning. The Department of Anthropology offers theoretical and methodological courses in the five sub-disciplines: biological anthropology, prehistory and archaeology, anthropological linguistics, sociocultural anthropology, and applied anthropology. Regional courses on major populations of the world, especially the heritage cultures of North and South America, Asia, and the Middle East, form an important component of the curriculum.

At the undergraduate level, students in the B.A. degree program may choose to focus on special interests in two combined sub-disciplines:

- Archaeology and Biological Anthropology emphasize the study of human biology, variation, evolution, and the reconstruction of past ways of life and cultural systems from material remains.
- Socio-Cultural and Applied Anthropology emphasize the study of social and cultural systems of more recent historical and contemporary populations, and the application of anthropological

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## Career Opportunities

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insights into present-day problems.

Other combinations are possible upon consultation with, and approval by, the faculty.

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Anthropologist • Archaeologist • Artifacts Conservator • Curator • Ethnologist • Foreign Service Officer • Immigration Service Official • International Aid Agencies Official • International Business Employee • Multicultural Education Instructor • Museum Curator • Park Ranger • Park Service Official • Professor/Teacher • Refugee Worker • Researcher • Social Science Teacher • Social Worker • Travel Consultant • Urban Planner

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## Features

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The Department administers the Clarence E. Smith Museum of Anthropology, located on the fourth floor of Meiklejohn Hall. The museum houses a sizable collection of archaeological artifacts recovered in Alameda and Contra Costa Counties, as well as ethnographic specimens from cultural groups throughout the world. The museum is an instructional facility for museum curating, research, design, and exhibits. Museum exhibits and special events are open to the public free of charge. For information, call (510) 885-7414 or (510) 885-3104.

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## Major Requirements (B.A.)

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Major requirements are subject to change, so consult an advisor in your major department for clarification and interpretation.

The major consists of 60-74 units; the B.A. requires a total of 186 units.

I. Required Courses in Anthropology (60-62 units)

A. Lower Division (16 units)

ANTH 1100, 1200, 1300, 1800 (ANTH 2020 or 3000 may be substituted for ANTH 1300 on approval of an advisor and the department chair.)

B. Upper Division (44-46 units)

1. ANTH 3400, one course in the 3100 series, one course in the 3200 series, and ANTH 3800

2. One course from the following: ANTH 3500, 3510, 3520, 3535, 3545, 3550, 3560, 3580

3. ANTH 4910 Pro-Seminar in Anthropology

4. Five additional courses from one of the following two options:

a. Archaeology and Biological Anthropology:

ANTH 4240 and 4250 and three of ANTH 3100, 3101, 3110, 3200, 3240, 3250, 3255, 3260, 3280, 3710, 4260

b. Socio-Cultural Anthropology:

ANTH 4310, and one additional course from the 3500 series and three of ANTH 3110, 3410, 3425, 3700, 3710, 3720, 3730, 3740, 3745, 3750, 3755, 3760, 3780, 3820, 3840, 3890

II. Required Courses in Supporting Fields (0-12 units)

Two or three courses selected from the following list:  
(Students should make their choice on the basis of discussions with a department faculty advisor.)

BIOL 1001-2, and one of 2040, 3020, 3031, 3060, or 3130 (9 units)

GEOLOGY 2101 and one of 3030, 3110, 3200, or 3730 (6-10 units)

STAT 1000 and one of STAT 3010, CS 1020, or CS 1160 (9 units)

Three quarters of a Modern Language (MLL -01, -02, -03) or competence demonstrated by test in the foreign language (0-12 units)

Ethnic or Area Studies courses (Asian Studies, Latin American Studies) excluding Anthropology Department offerings in these fields (12 units)

III. Recommended Courses in Supporting Fields

Students intending to pursue graduate work are urged to elect or add Modern Language courses to satisfy the course requirements above.

When possible, students should satisfy their G.E. requirements from additional courses listed in paragraph II above.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor requires thirty-six (36) units in Anthropology to be taken in approximately the following order:

A. Two of the following:

ANTH 1100, 1200, 1300 (3000 may be substituted), 1800

B. Two of the following: ANTH 3100 (or 3101), 3200, 3400, 3800

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## Anthropology Option: Liberal Studies

- C. One course in the 3500 series (regional ethnography)
- D. One course in the 3700 series (applied anthropology) and two additional 3000- and/or 4000-level courses (excluding 3500 series)
- E. ANTH 4910

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### Area I (4 units)

One of the following (4 units):

- ANTH 1100 Introduction to Biological Anthropology (4), 1200 Introduction to Archaeology (4), 1800 Introduction to Anthropological Linguistics (4)

### Area VII, Credential Track or Area VI, Liberal Arts Track (24 units)

- Either ANTH 1300 Cultural Anthropology (4), or ANTH 3000 Anthropology in the Modern World (4)

Three of the following courses (12 units):

- ANTH 3500 North American Indians (4), 3505 Indians of California (4), 3510 South America (4), 3520 Contact Period California (4), 3535 Southeast Asia (4), 3545 China (4), 3550 Japan (4), 3560 India (4), 3580 Middle East (4)

One additional upper division Anthropology course (4 units)

- ANTH 4910 Pro-Seminar in Anthropology (4)

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## Undergraduate Courses

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*The course prefix for the following courses is ANTH.*

### Introductory Courses

- 1000** Introduction to Anthropology (4)  
The holistic study of human beings for non-majors: concepts of human evolution, prehistory, culture; comparison in human variation; structure and function in social organization; synthesis of biological, cultural, and social factors. Four hrs. lect., or 3 hrs. lect., 1 hr. disc. (A)
- 1001** Mankind and Food (4)  
Social, cultural and ecological aspects of food and food resources in comparative perspective. Examination of food symbolism, preferences and taboos. Students will taste (optional) traditional ethnic foods. Hygiene and safety of all consumables will be stressed. (Y)
- 1002** Prehistory Through Popular Literature (4)  
Comparison of popular novels and films concerning prehistory with traditional archaeological approaches to the same data. A survey of Old World prehistory which illustrates the relative value of fictional and scholarly reconstructions of the past. (Y)
- 1004** Introduction to World Music (4)

(See MUS 1004 for course description)

- 1005 Ancestors (4)  
Anthropology from the perspective of genealogy and the individual student's family tree. Exploration of human diversity, both biological and cultural, through the methods of genealogical research: oral history, family folklore, DNA profiling, Internet resources, etc.
- 1006 Viewing Diversity (4)  
Basic social science approaches to the study of local, national, and global constructions and representations of cultural diversity.
- 1010 The Human Adaptation (4)  
Introduction to the study of humans in the natural world, human origins, and adaptations both from a cultural and biological perspective.
- 1100 Introduction to Biological Anthropology (4)  
[CAN ANTH 2]  
An introduction to human biology from an evolutionary perspective. Topics include evolutionary theory, evolution of the primates based on fossil remains, behavioral studies of living primates, and modern human variability and adaptations. Four hrs. lect.; or three hrs. lect., 1 hr. disc. (F)
- 1200 Introduction to Archaeology (4)  
[CAN ANTH 6]  
Introduction to the techniques used in recovery and interpretation of archaeological materials. Examples of the processes of cultural reconstructions from sites in the old and new world. (F)
- 1201 Native Voices in Today's World (4)  
Interdisciplinary representation of peoples and cultures that includes the voices and visions of native members and intellectuals. An interpretation of culture that promotes respect and awareness for how people seek meaning through symbolic behavior and social relations.
- 1300 Introduction to Cultural Anthropology (4)  
[CAN ANTH 4]  
Functional approaches to the structure and dynamics of culture and society around the world; comparative study of human behavior and value systems in varied ecological settings. (F)
- 1800 Introduction to Anthropological Linguistics (4)  
An examination of the nature of language and an introduction to the principles of linguistic science. (F)
- 2020 Self, Family, Culture (4)  
Anthropological approaches to the study of personhood, family, and kinship in a cross-cultural perspective. Methodologies include comparative structural analysis, genealogical research, and the use of oral tradition, family folklore, and personal experience narrative in kinship study.

- 2755 Conflict in Cross-Cultural Perspective (4)  
Introduction to the anthropological approach in studies of conflict, conflict resolution and legal systems. Comparative examination of the transition from indigenous to Westernized systems and alternatives to the modern American formal legal system.
- 3000 Anthropology in the Modern World (4)  
The relevance of anthropology to contemporary world problems and issues of mankind. A course for non-majors examining topics such as the social and cultural dimensions of health services, population problems, business, management, and public administration. (Y)

## Biological Anthropology

- 3100, Human Evolution I, II (4,4)
- 3101 Human and non-human primate evolutionary history. Fossil evidence, comparative anatomy and molecular systematics; 3100 Primate evolutionary history based on fossil evidence and comparative anatomy (F); 3101 The fossil evidence for human evolution. Prerequisite: ANTH 1100 or BIOL 3020 or equivalent, or consent of instructor. One course is not prerequisite to the other. (W, Sp)
- 3110 Primate Social Behavior (4)  
A survey course concerned with behavior of non-human primates. Discussions of the relationships between social structure and the environment. The relevance of the study of non-human primate behavior to an understanding of human behavior will be emphasized. (Y)
- 3120 Human Bio-diversity (4)  
Human genetics and genetic variability in human populations. Human growth and development, human ecology and human adaptations to changing environments. Prerequisite: ANTH 1100 or BIOL 1001 or equivalent.

## Archaeology

- 3200 Science in Archaeology (4)  
Introduction to the application of the physical sciences in the solutions of problems in prehistory. Emphasis on dating methods and paleoenvironmental reconstructions. Prerequisite: ANTH 1200 or consent of instructor. (Y)
- 3240 Archaeology of North America (4)  
Prehistory of the Native Americans, north of Mexico. Ecologic adaptations and processes of culture growth as evidenced by archaeological data. Prerequisite: ANTH 1200 or consent of instructor. (Y)
- 3250 Precolumbian America: Aztec, Inca, Maya (4)  
The origins, growth and interaction of the Mesoamerican and South American civilizations, with particular emphasis on the Aztecs, Incas and Mayas. Archaeological, historical



and ethnographic evidence. (Y)

- 3260 Historical Archaeology (4)  
Archaeology of the United States, historical period from 1500 to the present. Survey course emphasizing both native and immigrant peoples' contributions to the historical/archaeological record.
- 3280 Preconquest Mexico (4)  
The archaeological and ethnohistorical study of the origins, growth, and interaction of the major Mesoamerican civilizations in Mexico (Olmec, Maya, Teotihuacan, Mixtec, Zapotec, Toltec, and Aztec).

## Sociocultural Anthropology

- 3400 Social Anthropology (4)  
Structural-functional approach to the comparative study of human institutions, with emphasis on changing kinship, family, and social structure in various regions of the world. Critical analysis of major ethnographic works and substantial writing required. Prerequisite: ANTH 1300 or consent of instructor. (W)
- 3410 Folklore (4)  
Introduction to and survey of oral literature, e.g., folktales, myths, legends, proverbs, riddles, etc., especially among non-literate peoples; methods and theories of folklore analysis and the use of folklore in studies of diffusion, social functions, world view, and religion. (Y)
- 3425 Anthropology and the Arts (4)  
A cross-cultural survey of the arts. Arts of non-western peoples as well as traditional western and contemporary art will be considered. Visual arts are emphasized but integration of these with dramatic, musical, literary and choreographic arts will also be reviewed. (Y)
- 3430 Ethnicity and Nationalism (4)  
The nature of ethnicity and nationalism, the relationship between ethnic group and nation, the ethnic origin of nations, and ethnic conflict and accommodations within nation states.
- 3432 Discover India (4)  
See SOC 3432 for course description.

## Regional Anthropology and Ethnography

- 3500 North American Indians (4)  
Native peoples and cultures of present-day United States and Canada. (Y)
- 3505 Indians of California (4)  
Habitat, economy, society, arts, and beliefs of the native populations of California. (Y)
- 3510 South America (4)

Peoples and cultures of South America from contact times to the present. Ecological adaptations, socioeconomic organization, kinship, religion, and culture change. (Y)

- 3520 Contact Period of California (4)  
Anthropological perspective on the societies and cultures of California during the contact period from the beginning of the mission period to the end of the Gold Rush. (Y)
- 3535 Southeast Asia (4)  
Cultural patterns of Southeast Asia; comparative study of dominant populations and ethnic minorities; role in the contemporary world. (Y)
- 3545 China (4)  
Cultural patterns, religion, social structure, ecological setting and regional variations of China, Taiwan and Hong Kong; their traditional, present and future role in the world. (Y)
- 3550 Japan (4)  
Cultural patterns, religion, social structure and ecological settings of Japan. Topics will include family and kinship, gender roles, work groups, socialization, and education. (Y)
- 3560 India (4)  
Development of Indian cultural traditions, with emphasis upon social organization and its relation to the social problems of the peoples inhabiting the Indian subcontinent. (Y)
- 3580 Middle East (4)  
An exploration of the regional diversity of people and social institutions of the Middle East in order to understand the complexities of current social issues. (Y)
- 3660 Native American Literature (4)  
See ENGL 3660 for course description.

## Applied Anthropology

- 3710 Anthropology and Museums (4)  
The anthropologist in the museum profession; the curatorial role; acquisition, identification, recording, repair, preservation and display of anthropological materials. May be repeated once for credit. Prerequisites: ANTH 1100, 1200, or 1300, or consent of instructor. Minimum of two field trips required. One hr. lect., 6 hrs. act. (F, W)
- 3720 Medical Anthropology (4)  
The ecology of health, magical beliefs, and medicine; public health and medical problems as affected by cultural differences; the effects of acculturation upon mental and physical health. Prerequisite: Junior or senior standing or consent of instructor. (A)
- 3730 Anthropology on the Internet (4)  
The Internet computer network contains many "virtual

communities" representative of various international multicultural interest groups. Application of anthropological fieldwork techniques to study issues of transitional identity, communications, expressions, representation, and the concerns of geographically dispersed communities. (Y)

- 3740 Cross-Cultural Studies in Child-Rearing (4)  
Cross-cultural study of infancy, childhood and adolescence; the process of enculturation, socialization and methods of child rearing. (Y)
- 3745 Human Sexuality: Anthropological Perspectives (4)  
A cross-cultural and evolutionary study of human sexuality expanding the constricted perspectives of Western cultures, including a review of sexual practices and attitudes, gender roles in sensuality, and sexual orientation in both Western and non-Western societies. (A)
- 3750 Women in Cross-Cultural Perspective (4)  
Similarities and differences in women's experiences in various societies around the world. Questions concerning gender identity, sexuality, marriage, the family, work, power, and intersections of gender with age, class and other inequalities. (Y)
- 3755 Culture, Conflict, and Law (4)  
In-depth study of conflict, conflict resolution, and legal systems in non-Western societies. Transition to formal law among indigenous populations and informal social control systems in industrialized and Western societies.
- 3760 Media in Cross-Cultural Perspective (4)  
Introduction to socio-cultural anthropology from the perspective of visual media; ethnographic and feature films, video, and slides of field work. Assigned readings and lectures parallel media presentations placing them in a broader topical and theoretical context.
- 3780 The Anthropology of Production and Exchange (4)  
Systems of production and exchange in non-western societies and the economic factors in acculturation and culture change. Current methodological and theoretical problems in the analysis of non-industrial economic systems. (Y)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Anthropology major; not applicable toward the Anthropology minor, CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

## Symbolic Anthropology and Religion

- 3800 Language and Culture (4)  
The structured nature of language, linguistic classification, and the relationship of language, thought and reality viewed through the perspective of linguistic relativity.
- 3810 Socio-linguistics (4)  
Introduction to linguistic varieties (dialects and styles) and patterns of bilingual use and their history within speech communities and as a constitutive part of social interaction. Focus, through the use of appropriate texts, on communicative function including discourse analysis.
- 3820 Oral Traditions (4)  
A cross-cultural survey of folk narrative traditions: myth, legend, folktale, and others. Their analysis in a cultural and performative context. (Y)
- 3840 Magic, Witchcraft and Religion (4)  
Cross-cultural comparison of the origins, development and social functions of magical, witchcraft and religious beliefs and behavior, including relevant aspects of symbolism, ritual, ceremony, spirit possession, exorcism, divination, pilgrimage, renunciation and revivalistic cult movements. (Y)
- 3890 Shamanism (4)  
The art, techniques, and functions of shamanism are reviewed in various societies. Historical, psychological, sociological and philosophical and aesthetic aspects of shamanism are considered. (Y)

### Advanced Archaeology - Biological Anthropology

- 4240 Data Analysis in Archaeology (4)  
General field and laboratory techniques for retrieval and analysis of data recovered from prehistoric and/or historic sites. May be repeated once for credit. Prerequisite: ANTH 1200 or consent of instructor. One hr. lect., 6 hrs. act. (Sp)
- 4250 Field Course in Archaeology (5)  
Techniques of surface survey and scientific excavation; controlled data retrieval from a variety of archaeological field situations. Aspects emphasized will depend on available opportunities. Prerequisite: ANTH 1200 or 3200 or consent of instructor. One hr. lect., 8 hrs. act. (Sp)
- 4260 Human Osteology Laboratory (3)  
A laboratory course on the human skeleton. Reconstruction of individual characteristics based on metric, non-metric and statistical analysis. Topics may include analysis of human populations from archaeological contexts, paleodemography, and paleopathology. Prerequisite: ANTH 1100 or consent of instructor. Six hours lab. (Sp)

### Advanced Sociocultural Anthropology

- 4310 Field Course in Ethnography (5)  
Securing, recording, ordering, and analysis of cultural data; problems of participant observation and eliciting information from informants; methods of data collection. Prerequisite: one course in ANTH 1300 or 3400 or 3500 series. One hr. lect., 8 hrs. act. (field work all day Saturday or two afternoons per week).
- 4800 Understanding Languages (4)  
Classroom demonstration and practice of linguistic field techniques, instructor supervised small group work with native non-Western language speaker in class, discovering different language structures; learning about various linguistic forms. Prerequisites: ANTH 1800 or ENGL 3015 or SPPA 3855 or consent of instructor.
- 4900 Independent Study (1-4)
- 4910 Pro-Seminar in Anthropology (4)  
Seminar in history and philosophy of anthropological thought: its place among the sciences and the humanities, schools of thought and the respective contributions of eminent anthropologists. Prerequisites: senior standing, completion of three upper division anthropology courses or consent of instructor. (Sp)



HOME



HELP



## Kinesiology

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### Department Information

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Department of Kinesiology and Physical Education  
School of Education and Allied Studies  
Office: Physical Education Bldg. 130  
Phone: (510) 885-3061

*Professors Emerita:* Arlene H. Smith

*Professors:* Cynthia Berrol, Calvin S. Caplan, Stanley J. Clark, Herbert M. Graw, Dorie Krepton, Penny McCullagh (Chair), John Z. Ostarello, Jr., Timothy Tierney, F. Douglas Weiss, Robert W. Zambetti

*Associate Professor:* Donald T. Sawyer

*Assistant Professor:* Catherine Inouye, Rita Liberti

*Lecturers:* Lisa A. Best, Will Biggs, Glen E. Borgeson, Leslie J. Entwistle, Jair Fory, Anthony G. Garcia, Scott A. Kennedy, Sara Lillevand, Karenlee Matteson, Dirk Morrison, James A. Spagle

*Director of Athletics:* F. Douglas Weiss

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Kinesiology is the study of human motor performance and those physical activities yielding exercise benefits and/or satisfying a person's competitive nature. Physical Education is one professional application of the study of Kinesiology. It is instruction that provides the individual with the skills, techniques and knowledge necessary for successful and enjoyable participation in sport and exercise. Other professional applications offered by the department include Athletic Training, Exercise Nutrition and Wellness, and Pre-Physical Therapy.

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## Career Opportunities

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## Features

The purposes of the Department of Kinesiology and Physical Education are (1) to provide opportunities for learning and participation in a wide variety of motor activities at all levels, from beginning instruction through intercollegiate competition; and (2) to provide an opportunity for students to study the discipline of kinesiology. Such study includes an investigation into the nature of motor performance, how it is assessed, what its effects are upon the rest of the system; and how motor performance is learned. It also involves an investigation of the historical, cultural, philosophical and social factors which result from and influence play, games, and sports.

The department's program offers courses appropriate to the general education curriculum of the university. It provides the necessary foundation for students who wish to continue their own personal lifelong activities. It includes the application of knowledge acquired in the study of the discipline to such professional fields as teaching, coaching, and physical therapy, and to graduate study.

The major in Kinesiology includes both an academic as well as a performance base. Understanding and appreciation are enhanced when the student takes an active role in performance.

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Athletic Trainer • Activities Director • Coach • Community College Teacher • Community Fitness Agency Director • Exercise/Nutrition Counselor • Physical Education Teacher • Physical Therapist • University Instructor • Wellness Specialist

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Many of the physical education facilities are open to the campus community when not being used for classes. These include swimming pools, tennis courts, handball courts, the gymnasium, and outdoor fields.

Students enrolled in the department's eleven intercollegiate athletic programs have the opportunity to engage in numerous field trips throughout California and, in some cases, in neighboring states. As a member of the California Pacific Conference (CPC), students travel to compete against other CPC institutions. The intercollegiate athletic program includes: basketball, cross country and soccer for men and women; baseball for men; and softball, swimming, volleyball, and waterpolo for women.

There is one scholarship housed within the Department of Kinesiology and Physical Education. Recipients of the Joe Morgan Scholarship, named for the Hall of Fame baseball player who is a Cal State Hayward graduate, are identified each Winter with the award(s) applying to the subsequent year. The amount of the Joe Morgan award varies and multiple awards may be given.

There are two scholarships housed within the Department of Kinesiology and Physical Education. The recipient of the Helen C. Jacobsen Affiliates Scholarship (\$1,000) is identified each Winter with the award applying to the subsequent academic year. Recipients of the Joe Morgan Scholarship, named for the Hall of

## Major Requirements (B.S.)

Fame baseball player who is a Cal State Hayward graduate, are also identified each Winter with the award(s) applying to the subsequent year. The amount of the Joe Morgan award varies and multiple awards may be given.

Because requirements are subject to change, consult your advisor for clarification and interpretation of major requirements. The major consists of 72-116 units; the B.S. degree requires a total of 186 units.

### I. Lower Division

The lower division requirements vary depending on the option. Each student must complete one of the following options: Athletic Training, Exercise Nutrition and Wellness, Exercise Physiology, Physical Education Teaching, Pre-Physical Therapy, Special Studies. The lower division requirements are listed within the option requirements.

### II. Upper Division Core (37 units)

- KPE 3300 Kinesiological Measurement (5)
- KPE 3305 Structural Kinesiology (5)
- KPE 3310 Biomechanics (5)
- KPE 3320 Exercise Physiology (5)
- KPE 3330 Sensorimotor Skill (5)
- KPE 3700 History of Sport and Physical Education (4)
- KPE 3740 Philosophical Foundations of Sport and Physical Education (4)
- KPE 3750 Sport in Contemporary Society (4)

### III. Option Requirements

(In addition to the upper division Core requirements listed above, students must complete one of the following options.)

#### A. Athletic Training Option (41 units)

The Athletic Training option provides an opportunity to specialize in prevention, management and rehabilitation of athletic injuries and prepares students for the National Athletic Trainers Association (NATA) certification. The major with this option totals 84-88 units.

##### 1. Lower Division (18 units)

- BIOL 1001, 1002 Introduction to Biology, Lab (5)
- BIOL 2010 Human Physiology & Anatomy I (5)
- KPE 1625 Nutrition and Performance (4)
- KPE 2600 Introduction to Athletic Training (4)

##### 2. Upper Division (23 units)

- KPE 3600 Care and Prevention of Athletic Injuries (5)
- KPE 3601 Athletic Training: Modalities and Rehabilitation (4)
- KPE 4030 Professional Field Experience (2)
- KPE 4600 Athletic Training Practicum (2, 2)
- KPE 4610 Exercise Prescription (4)
- KPE 4650 First Aid and Safety (4)

#### B. Exercise Nutrition and Wellness Option (52-62 units)

The Exercise Nutrition and Wellness option explores the



relationship between nutrition and exercise. Both metabolic and behavioral implications are investigated. The major with this option totals 97-101 units.

1. Lower Division (28-38 units)

BIOL 1001, 1002 Introduction to Biology, Lab (5)  
BIOL 2010 Human Physiology and Anatomy I (5)  
BIOL 2020 Human Physiology and Anatomy II (5)  
CHEM 1100 Introduction to College Chemistry (5), or  
CHEM 1101-2-3 General Chemistry (15), or CHEM  
1601-2-3 Basic Chemistry for the Health Sciences (12)  
KPE 1625 Nutrition and Performance (4)  
KPE 2600 Introduction to Athletic Training (4)

2. Upper Division (24 units)

KPE 4005 Exercise Nutrition and Metabolism (4)  
KPE 4010 Contemporary Perspectives in Exercise  
Nutrition (4)  
KPE 4030/4031 Professional Field Experience (4)  
KPE 4330 Clinical Exercise Physiology (4)  
KPE 4610 Exercise Prescription (4)  
KPE 4615 Exercise and Stress (4)

C. Exercise Physiology Option (52-62 units)

The Exercise Physiology option provides a course of study which focuses on the response of human physiological systems to exercise. The major with this option totals 104-108 units.

1. Lower Division Requirements (20-30 units)

BIOL 1001, 1002 Introduction to Biology, Lab (5)  
BIOL 2010 Human Physiology and Anatomy I (5)  
BIOL 2020 Human Physiology and Anatomy II (5)  
CHEM 1100 Introduction to College Chemistry (5), or  
CHEM 1101-2-3 General Chemistry (15), or CHEM  
1601-2-3 Basic Chemistry for the Health Sciences (12)

2. Upper Division Option Requirements (32 units)

KPE 4000 Exercise Nutrition and Metabolism (4)  
KPE 4030/4031 Professional Field Experience (4)  
KPE 4320 Environmental Exercise Physiology (4)  
KPE 4325 Neuromuscular Function in Performance (4)  
KPE 4330 Clinical Exercise Physiology (4)  
KPE 4335 Exercise, Cardiopulmonary and Metabolic  
Disease (4)  
KPE 4610 Exercise Prescription (4)  
KPE 4615 Exercise and Stress (4)

D. Pre-Physical Therapy Option (68-69 units)

The Pre-Physical Therapy option satisfies the majority of, if not all, prerequisite coursework needed to gain admission to various California Schools of Physical Therapy. The major with this option totals 111-116 units.

1. Lower Division (51 units)

BIOL 1301 Foundations of Biological Sciences (5)  
BIOL 1303 Foundations of Biological Sciences (5)  
BIOL 2010 Human Physiology and Anatomy I (5)  
BIOL 2020 Human Physiology and Anatomy II (5)  
CHEM 1101, 1102, 1103 General Chemistry (15)

PHYS 2701 Force, Mass and Motion (4)  
PHYS 2702 Heat, Sound, Electricity and Magnetism (4)  
PHYS 2703 Light, and Modern Physics (4)  
KPE 2600 Introduction to Athletic Training (4)

2. Upper Division (13 units)

KPE 3600 Care and Prevention of Athletic Injuries (5)  
KPE 4030/4031 Professional Field Experience (4)  
PSYC 4410 Abnormal Psychology (4)

3. Elective (4-5 Units)

BIOL 3005 Introduction to Microbiology (5)  
BIOL 4160 Medical Physiology (4)  
CHEM 2301 Survey of Organic Chemistry (4)  
KPE 4340 Motor Development (4)  
PSYC 4420 Developmental Psychology (4)  
STAT 1000 Elements of Probability and Statistics (5)  
STAT 1100 Elements of Descriptive and Inferential  
Statistics (4)  
STAT 3031 Statistical Methods in Biology (4)

E. Physical Education Teaching Option (48 units)

This option is designed to prepare students for teaching physical education in grades K-12 in public and private schools. The approved curriculum meets the Standard Requirements by the California Commission on Teacher Credentialing. The major with this option totals 91-95 units.

1. Lower Division Requirements (5 units)

BIOL 2010 Human Physiology and Anatomy I (5)

2. Upper Division Requirements (43 units)

*Theory-Analysis-Practice Courses (15 units)*

DANC 3241 The Dance Experience (3)  
KPE 3072 Individual and Dual Sports (3)  
KPE 3075 Aquatic and Outdoor Education (3)  
KPE 3079 Combatives and Fitness Activities (3)  
KPE 3080 Team Sports and Field Sports (3)

*Foundation Courses (12 units)*

KPE 4008 Physical Education for Exceptional  
Individuals (4)  
KPE 4340 Motor Development (4)  
KPE 4650 First Aid and Safety (4)

*Pedagogical Courses (12 units)*

EDUI 5090 Computer Application in Educational  
Settings (4)  
KPE 4004 Elementary School Physical Education (4)  
KPE 4006 Secondary School Physical Education (4)

3. Field Experience (4 units)

KPE 4031 Professional Field Experience (2, 2)  
(Must be taken concurrently with KPE 4004 and 4006)

F. Special Studies Option (41 units minimum)

The Special Studies option provides students the opportunity to design an individualized course of study

which focuses upon interdisciplinary topics or themes related to Kinesiology. A unique aspect of this option is the requirement of coursework outside the department which is related to sport and exercise phenomena (e.g., mass communication and sport, business management and fitness programs). The major with this option totals 84 units minimum.

1. Lower Division (5 units)

BIOL 2010 Human Physiology and Anatomy I (5)

2. Upper Division (32 units minimum)

Students may design an individualized option consisting of a minimum of 32 units. Five courses (20 units) must be taken from those listed for the Exercise Nutrition and Wellness option, the Athletic Training option, the Exercise Physiology option, and/or the Physical Education Teaching option. In addition, a minimum of three related courses (12 units) must be taken outside the department. All Special Studies option programs must receive approval from the department chair before coursework is initiated.

3. Field Experience (4 units)

KPE 4030 Professional Field Experience (1-4) and/or  
KPE 4031 Professional Field Experience (1-4)

IV. Performance Requirements (6-10 units)

The skill proficiency requirement for all major students in Kinesiology, regardless of option, involves satisfactory completion of one (1) activity course in each of five categories: Swimming, Combatives, Team Sports, Individual or Dual Sports, and Fitness Activities. Therefore, the student must have completed a minimum of five different activities. At least one intermediate and one advanced-level activity course must be included. Courses satisfying the skill proficiency requirement must be taken in residence or as an upper division student.

Students possessing demonstrable skill and knowledge of sport may obtain credit in that activity by successfully challenging the appropriate course. In special circumstances, students may petition the department chair for a waiver. Students may not challenge Fitness Activities.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth Requirements; the U.S. History, U.S. Constitution, and California State and Local Government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

knowledge of Kinesiology as a secondary academic focus. It also enables students who have a degree in another field to meet the prerequisite coursework requirements for the Master of Science degree in Kinesiology.

1. Lower Division Prerequisite (5 units)  
BIOL 2010 Human Physiology and Anatomy I (5)
2. Upper Division Core (10 units)  
KPE 3300 Kinesiological Measurements (5)  
KPE 3305 Structural Kinesiology (5)
3. Upper Division Electives (18 units)  
*Complete two of the following:*  
KPE 3310 Biomechanics (5)  
KPE 3320 Exercise Physiology (5)  
KPE 3330 Sensorimotor Skill (5)  
  
*Complete two of the following:*  
KPE 3700 History of Sport and Physical Education (4)  
KPE 3740 Philosophical Foundations of Sport and Physical Education (4)  
KPE 3750 Sport in Contemporary Society (4)
4. Field Experience (4 units)  
KPE 4030 Professional Field Experience I (1-4) and/or KPE 4031 Professional Field Experience II (1-4)
5. Performance Requirements (3 units)  
Complete at least one proficiency in at least three of the designated categories: aquatics, team sports, individual or dual sports, combatives, and fitness activities.

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Area VII Credential Track or Area VI Liberal Arts Track (25 units)

KPE 1007 Beginning Swimming (1)  
KPE 3300 Kinesiological Measurement (5)  
KPE 3305 Structural Kinesiology (5)

*One of the following (5 units):*  
KPE 3310 Biomechanics (5)  
KPE 3320 Exercise Physiology (5)  
KPE 3330 Sensorimotor Skill (5)

*One of the following (4 units):*  
KPE 2600 Introduction to Athletic Training (4)  
KPE 3700 History of Sport and Physical Education (4)  
KPE 3740 Philosophical Foundations of Sport and Physical Education (4)  
KPE 3750 Sport in Contemporary Society (4)  
KPE 4008 Physical Education for Exceptional Individuals (4)  
KPE 4340 Motor Development (4)  
KPE 4650 First Aid and Safety (4)

Other 1000-level Beginning Activities (1 each) (3 units)  
2000-level Intermediate Activities (1 each) (2 units)

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Kinesiology  
Option: Liberal  
Studies

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## Certificate Programs

### Coaching Certificate

The certificate program in Coaching is designed for persons with majors in other fields who are in-service teachers or who plan to enter the teaching profession (e.g., Liberal Studies majors who plan to pursue a Multiple Subject Credential). The program is designed to enhance student understanding of a particular sport and prepare the student to assume coaching responsibilities in the public or private sectors. A minimum GPA of 2.00 is required in the following courses (21-24 units):

1. KPE 2600, 3250, 4650 (12 units)
2. Theory of a particular sport (3 units)  
One course from the KPE 3000-24 series
3. Advanced Activity in the same sport (2 units)  
One course from the KPE 3500-54 series
4. KPE 5000 Sports Officiating (3 units)  
Must cover same sport as (2) and (3) above
5. KPE 4031 Professional Field Experience (1-4 units)

### Commercial Physical Education Certificate

The certificate program in Commercial Physical Education is designed to improve employment opportunities of Physical Education majors. Current economic and social conditions have altered vocational goals of many students. Opportunities for career development in the private sector have increased dramatically in the past decade. This program provides students with the necessary background for employment in various commercial enterprises.

#### *Required Coursework (24-32 units)*

- ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251, 2252 Principles of Accounting I, II (8)
- MGMT 2701 Legal Environment of Business (4)
- MGMT 3600 Theories of Management (4)
- MKTG 2485 Establishing and Managing a Small Business (4)
- KPE 4031 Professional Field Experience II (4-8)
- REC/KPE 4800 Commercial Leisure Services (4)

### Pre-Physical Therapy Certificate

See description of this program in the Pre-Professional Programs section of this catalog.

### Special (Adapted) Physical Education Certificate

*Check with the department about the status of this program.*

- EPSY 6500 (4) or 6501 (3)
  - Complete all of the following (13 units): KPE 4605 (4), 5600 (5), and 5610 (4)
  - One of the following (4 units): DANC 3235 (4), KPE 4340 (4) or KPE 5210 (4)
-

## Single Subject Matter Preparation Program

The following 91-95 unit Single Subject Matter Preparation Program in Physical Education has been approved by the California Commission on Teacher Credentialing.

- BIOL 2010 Human Physiology and Anatomy I (5)
- DANC 3241 The Dance Experience (3)
- EDUI 5090 Computer Applications for Educational Settings (4)
- KPE 3072 Individual and Dual Sports (3)
- KPE 3075 Aquatics and Outdoor Education (3)
- KPE 3079 Combatives and Fitness Activities (3)
- KPE 3080 Team Sports and Field Sports (3)
- KPE 3300 Kinesiological Measurement (5)
- KPE 3305 Structural Kinesiology (5)
- KPE 3310 Biomechanics (5)
- KPE 3320 Exercise Physiology (5)
- KPE 3330 Sensorimotor Skill (5)
- KPE 3700 History of Sport and Physical Education (4)
- KPE 3740 Philosophical Foundations of Sport and Physical Education (4)
- KPE 3750 Sport in Contemporary Society (4)
- KPE 4004 Elementary School Physical Education (4)
- KPE 4006 Secondary School Physical Education (4)
- KPE 4008 Physical Education for Exceptional Individuals (4)
- KPE 4031 Professional Field Experience II (2,2)
- KPE 4340 Motor Development (4)
- KPE 4650 First Aid and Safety (4)
- KPE activities (6-10)

At least one in each of swimming, combative, team, individual, fitness activities

At least one intermediate and one advanced activity

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## Undergraduate Courses

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*The course prefix for the following courses is KPE.*

### Lower Division Courses

1000- Beginning Activities (1 each)

1052<sup>1</sup>

Two hrs. activity.

- |                         |                                  |
|-------------------------|----------------------------------|
| 00 Badminton            | 30 Aerobic Fitness: Inline Skate |
| 01 Basketball           | 32 Aerobic Fitness: Lap Swimming |
| 06 Softball             | 33 Aerobic Fitness: Par Course   |
| 07 Swimming             | 34 Yoga                          |
| 09 Volleyball           | 35 T'ai Chi                      |
| 10 Weight Training      | 38 Aerobic Fitness: Kick Box     |
| 13 Judo                 | 41 Aerobic Condition             |
| 15 Hapkido Self Defense | 42 Ski Conditioning              |
| 16 Taekwondo Karate     | 47 Indoor Soccer                 |
| 17 Soccer               | 49 Aerobic Walking               |
| 18 Self Defense-Women   | 50 Stretch Fitness               |
| 21 Golf                 | 51 Aqua Aerobics                 |
| 22 Gymnastics           | 52 Beginning Water Polo          |
| 24 Tennis               |                                  |
| 28 Jogging              |                                  |

1110 Concepts of Health (4)  
Analysis of the basic concepts and principles of individual health. Investigation and evaluation of contemporary health problems and information.

1625 Nutrition and Performance (4)  
The interrelationship of nutrition and exercise capability. The effect on athletic performance of diet and food additives. (F, W, Sp)

1650 Cardio-Pulmonary Resuscitation/Basic Life Support (1)  
Instruction in techniques and procedures for three areas of basic life support-artificial respiration, external cardiac massage, and airway obstruction. American Red Cross CPR certificate awarded. Must be taken credit/no credit. May be repeated once per year. Two hrs. act. (F, W, Sp)

2000- Intermediate Activities (1 each)

2047

Two hrs. act.

00 Badminton	16 Taekwondo
01 Basketball	17 Soccer
06 Softball	21 Golf
07 Swimming	24 Tennis
09 Volleyball	41 Aerobic Conditioning
10 Weight Training	47 Indoor Soccer

2600 Introduction to Athletic Training (4)  
Beginning course in the recognition, management, reconditioning, and prevention of injuries occurring in physical activity. Recommended preparation: BIOL 2010 or equivalent. (F, Sp)

2700 Gender and Sport  
How dominant historical and contemporary cultural ideals related to masculinity and femininity are reproduced, reinforced, and challenged in sport. The effects of race, class, and ethnicity on the construction of gender.

## Upper Division Courses

3000- Theory of Sport (3 each)

3068

Instruction at the advanced theory level in designated areas of sport, including analysis of skill, game strategy, and specific techniques of coaching. Organization of the sport, training, and conditioning. Prerequisite: Experience specific to each section.

00 Football
02 Basketball
04 Baseball
24 Tennis (Two hrs. lect., 2 hrs. act.)



68 Volleyball (Two hrs. lect., 2 hrs. act.)

**3072 Individual and Dual Sports (3)**

Theory, analysis, and practice of the skills, techniques, and knowledge necessary for the teaching of individual and dual sports. Participation required. Prerequisites: one college-level course in individual sports and one in dual sports, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

**3075 Aquatics and Outdoor Education (3)**

Theory, analysis, and practice of the skills, techniques, and knowledge necessary for the teaching of aquatics and outdoor education. Participation required. Prerequisites: one college-level course in aquatics and one in an outdoor education activity, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

**3079 Combatives and Fitness Activities (3)**

Theory, analysis, and practice of the skills, techniques, and knowledge necessary for the teaching of combatives and fitness activities. Participation required. Prerequisites: one college-level course in combative skills and one in fitness activities, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

**3080 Team Sports and Field Sports (3)**

Theory, analysis, and practice of the skills, techniques and knowledge necessary for the teaching of team sports and field sports. Participation required. Prerequisites: one college-level course in team sports and one in field sports, or consent of the instructor. Two hrs. lect., 2 hrs. act. (A)

**3250 Kinesiological Foundations of Physical Education (4)**

Kinesiological concepts of physical performance and physical education. Anaerobic and aerobic activities; health concepts in relation to cardiovascular and other diseases; exercise and diet; principles of motor learning and development; and psychosocial dynamics of activity. Not for KPE major credit. (F, W, Sp)

**3255 Fitness and Wellness for a Lifetime (4)**

Physical and psycho-social factors that contribute to lifelong wellness. Exercise, nutrition, stress and related issues from both conceptual and practical (movement and relaxation techniques) perspectives.

**3300 Kinesiological Measurement (5)**

Theory and application of measurement and assessment procedures related to sport and exercise phenomena. STAT 1000 or 1100 highly recommended. Four hrs. lect., 3 hrs. lab. (F, W, Sp)

**3305 Structural Kinesiology (5)**

Anatomical structures as functional determinants of movement. Skeletal, muscular, and nervous systems and their roles in determining movement efficiency. Kinesiological application of anatomical information. Prerequisite: BIOL 2010. Recommended preparation: BIOL



1000 and CHEM 1100 or equivalents. Four hrs. lect./disc., 3 hrs. lab. (F, W, Sp)

**3310 Biomechanics (5)**

Biomechanics of human movement and the mechanical and muscular analysis of movement patterns.

Prerequisites: KPE 3300, KPE 3305. Four hrs. lect., 3 hrs. lab. (F, W, Sp)

**3320 Exercise Physiology (5)**

The physiological parameters and mechanisms that determine adaptations of the physiological systems of human beings in response to exercise. Prerequisites: BIOL 2010, KPE 3300, 3305. Four hrs. lect., 3 hrs. lab. (F, W, Sp)

**3330 Sensorimotor Skill (5)**

The nature of sensory-motor skills. Analysis of the motor systems and mechanisms of basic sensory-motor integration. An overview of skill acquisition. Prerequisites: BIOL 2010, KPE 3300, KPE 3305. Four hrs. lect., 3 hrs. lab. (F, Sp)

**3500- Advanced Activities (2 each)**

**3554**

Instruction at advanced level for persons with intermediate level skill. Each course may be repeated only once for credit. Four hrs. act.

00 Badminton	24 Tennis
01 Basketball	25 Water Polo
05 Fastpitch Softball	41 Aerobic Conditioning
06 Softball	47 Indoor Soccer
07 Aquatics	50 Football
09 Volleyball	51 Football Tactics
10 Weight Training	52 Track and Field
16 Taekwondo	53 Baseball
17 Soccer	54 Baseball Tactics

**3542 Aerobic Instructor Training (2)**

Skills and knowledge necessary to teach music-based aerobics classes. Fitness assessment, choreography, routines, and music selection. Students gain experience teaching an aerobics class. Prerequisite: advanced level aerobic skills. Four hrs. act.

**3545 Competition Conditioning (2)**

Fitness instruction and activities in preparation for athletic competition. Designed for individuals who are at advanced levels of physical conditioning. Consent of instructor required. Four hrs. act.

**3555 Tournament Volleyball (2)**

Instruction and competitive play for skilled performers. Prerequisite: advanced volleyball proficiency. CR/NC grading only. Four hrs. act.

**3560 Lifeguard Training (2)**

Development of skills and knowledge necessary to keep patrons of aquatic facilities safe in and around the water. Prerequisites: advanced swimming proficiency, American Red Cross Community First Aid and Safety certification or equivalent. Four hrs. act.

- 3561 Water Safety Instructor (2)  
Development of skills and knowledge leading to American Red Cross Water Safety Instructor certification. Prerequisites: Advanced swimming proficiency, American Red Cross Community First Aid and Safety certification or equivalent. Four hrs. act.
- 3600 Care and Prevention of Athletic Injuries (5)  
Application of kinesiology in the recognition, management, reconditioning, and prevention of athletic injuries. Prerequisites: BIOL 2010 or equivalent, KPE 2600, and 3305. Four hrs. lect., 3 hrs. lab. (W)
- 3601 Athletic Training: Modalities and Rehabilitation (4)  
Theory and application of therapeutic modalities; design of sports related injury rehabilitation programs. Prerequisite: KPE 2600 and 3600. (Sp)
- 3700 History of Sport and Physical Education (4)  
The role of sport and physical education in ancient and medieval societies and their subsequent development. Historical development of athletics and physical education in North America. Prerequisite: junior standing. (F, W)
- 3740 Philosophical Foundations of Sport and Physical Education (4)  
Philosophical movements and leaders in sport and physical education. Philosophical concepts such as axiology, ontology, and epistemology with emphasis on ethics and esthetics. (W, Sp)
- 3750 Sport in Contemporary Society (4)  
Analysis of sport and physical activity as socio-cultural phenomena. Emphasis on social structures and processes related to sport, including values, education, roles of minorities and women. Impact of economics, politics and religion. Recommended preparation: SOC 1000. (F, Sp)
- 4004 Elementary School Physical Education (4)  
Planning, development, implementation and evaluation of physical education programs in culturally diverse settings in grades K-5. Emphasis on games, sports, fundamental rhythms, and dance movements as delineated for instruction by the California State Physical Education Framework. (W)
- 4005 Exercise Nutrition and Metabolism (4)  
Kinesiological discussion of nutrients and ergogenic aids and their interaction within metabolic pathways. Emphasis upon the role of nutrients in bioenergetics and how manipulation of nutrient intake alters energy production during exercise. Prerequisites: CHEM 1103 or 1603, KPE 3320. (W)

- 4006 Secondary School Physical Education (4)  
Planning, development, implementation and evaluation of physical education programs in culturally diverse setting in grades 6-12 as delineated by the California State Physical Education Framework. Emphasis on games, sports, dance, fitness activities and outdoor education as delineated for instruction by the California State Physical Education Framework. (Sp)
- 4008 Physical Education for Exceptional Individuals (4)  
Neurophysiological and functional aspects of psychomotor disabilities. Planning, teaching and evaluating modified physical education activities to meet the needs of exceptional students found in general physical education classes. Participation in laboratory setting required. Prerequisite: KPE 4340. (F)
- 4010 Contemporary Perspectives in Exercise Nutrition (4)  
Study and application of current issues in exercise nutrition. Emphases on health and fitness program design and lifestyle management. Prerequisites: KPE 1625, 2600, 4005, 4610. (Sp)
- 4030 Professional Field Experience I (1-4)  
Instruction in and practice of professional technique and methodology through supervised field work. Prerequisites: completion of skill requirements for the major or minor. (F, W, Sp)
- 4031 Professional Field Experience II (1-4)  
Off campus field experience related to degree options. CR/NC grading only. May be repeated for credit. A maximum of 4 units may be counted toward degree/certificate. (F, W, Sp)
- 4050- Intercollegiate Sports (1 each)  
May be repeated according to season. Three hrs. perf.
- 4083
- |                             |                            |
|-----------------------------|----------------------------|
| 51 Basketball (men) (F, W)  | 69 Soccer (men)(F)         |
| 53 Baseball (men) (W, Sp)   | 74 Softball (women) (W,Sp) |
| 54 Cross-country (women)    | 77 Swimming (women)        |
| 62 Basketball (women) (F,W) | 78 Waterpolo (women) (W)   |
| 64 Cross-country (men)      | 83 Soccer (women) (F)      |
| 68 Volleyball (women) (F)   |                            |
- 4320 Environmental Exercise Physiology (4)  
Human physiological response and adaptation during exercise under stressful environments. Prerequisite: KPE 3320 or equivalent. (A)
- 4325 Neuromuscular Function in Performance (4)  
Advanced study of the nature of muscle physiology and voluntary motor-sensory systems as they affect the acquisition of skill. Emphasis on the adaptations of the muscular and nervous systems centrally and peripherally affecting voluntary gross motor movements in humans.

Prerequisite: KPE 3320, 3330, or equivalents. (A)

- 4330 Clinical Exercise Physiology (4)  
Study and practice of techniques for administering and evaluating the results of graded exercise stress tests. Analysis of normal and abnormal cardiopulmonary response to exercise. Emphasis on exercise electrocardiography. Prerequisite: KPE 3320 or equivalent. (Sp)
- 4335 Exercise, Cardiopulmonary and Metabolic Disease (4)  
The role of exercise in the detection, prognosis and management of cardiovascular, pulmonary and metabolic disease. Prerequisite: KPE 4330 or equivalent. (A)
- 4340 Motor Development (4)  
Physical growth, body build and motor development through childhood, adolescence and the adult stage. Age and sex differences in typical motor performances. Prerequisite: BIOL 2010 or equivalent. (W)
- 4390 Senior Seminar (4)  
Seminar on special topics selected from current kinesiological research literature. May be taken twice for credit with different content. Prerequisites: Senior standing or consent of instructor. (A)
- 4395 Contemporary Issues in Kinesiology (4)  
Selected topics of interest and importance within the discipline of kinesiology. (A)
- 4600 Athletic Training Practicum (2)  
Supervised clinical experience in techniques of athletic training. Open only to students in departmental option in athletic training/clinical exercise. Prerequisite: KPE 2600 or concurrent. May be taken up to three times for credit. (F, W, Sp)
- 4610 Exercise Prescription (4)  
Application of kinesiological principles to methods of physical conditioning. Systems of progressive resistance exercise, physical fitness and training. Exercise programs for special conditions and effects. Prerequisite: KPE 3320. Three hrs. lect., 3 hrs. lab. (Sp)
- 4615 Exercise and Stress (4)  
The nature of stress and its relationship to exercise. The physiology of the stress response, its role in disease, and immediate and long term interactions of exercise and stress. Prerequisite: KPE 3330. PSYC 1000 highly recommended. (F)
- 4650 First Aid and Safety (4)  
Principles and procedures of first aid to maintain life in emergency situations. Meets qualifications for Red Cross and cardiopulmonary resuscitation certification. Three hrs. lect., 2 hrs. act. (F, W, Sp)
- 4800 Commercial Leisure Services (4)

(See REC 4800 for course description.)

## 4900 Independent Study (1-4)

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### Footnotes

- 1** Each course may be repeated only once.
- 2** A facilities fee is required to participate in this course.  
Consult the quarterly Class Schedule for the current fee.



HOME



HELP

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## Art

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### Department Information

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Department of Art  
School of Arts, Letters, and Social Sciences  
Office: Art and Education 1233  
Phone: (510) 885-3111

*Professor Emeritus:* James Perrizo

*Professors:* Lewis S. Carson, Corban LePell, Mark Levy, Gregory MacGregor, Amy O. Rodman

*Associate Professors:* Grace Munakata, James F. Petrillo

*Assistant Professors:* Michael Henninger, Phillip Hofstetter, Suzy Wear

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Courses in the Department of Art develop our students' perceptual skills, their access to the imagination, and their ability to think critically and independently. Instruction in use of art materials and specific arts processes enables students to create original artworks reflecting their evolving vision. Our program also fosters a broad cultural awareness of the visual arts in society. Graduating majors should be able to clearly express their ideas about artmaking. In addition, their grasp of historical and contemporary aesthetic issues should inform their own work. We offer excellent facilities, small classes taught by a distinguished faculty, space to work, a guest lecturer series, and field trips to museums, galleries and artists' studios.

Seven options for the B.A. degree are offered: Art History, Art Studio (general), Digital Graphics, Multimedia, Photography (jointly offered by the Departments of Art and Mass Communication),

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## Career Possibilities

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Pictorial Arts (Drawing/Printmaking/Painting), Spatial Arts (Ceramics/Sculpture). The B.A. degree major is accredited by the National Association of Schools of Art and Design. The department is also part of the interdisciplinary graduate M.A. degree program in Multimedia (see the Multimedia chapter in the graduate section of this catalog).

The Art Department offers minors in Art Studio, Art History, Multimedia, and Digital Graphics. The Departments of Art and Mass Communication offer a joint minor in Photography. In addition, the Art Department offers an option in the Liberal Studies major and a Certificate Program in Art Museum and Gallery Studies.

The department has proposed a Bachelor of Fine Arts (B.F.A.) degree with a major in Art. The program is still under review; please contact the department to learn its status.

The B.F.A. program will offer four options: Digital Graphics, Multimedia, Photography, and Traditional Arts. It is designed for students seeking additional development of their studio skills in preparation for graduate or professional study.

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Animator • Artist • Art Critic • Art Educator • Art Historian • Arts Administrator • Ceramicist • Graphic Artist/Designer • Multimedia Developer • Museum/Gallery Curator • Painter • Photographer/Photojournalist • Printmaker • Sculptor • Video Producer • Web Developer

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## Features

- State of the Art Electronic Media Facilities
- 100,000 slides in the Department Slide Library
- Three fully equipped Painting and Drawing studio spaces
- 3000 square foot machine shop which is fully equipped and professionally staffed
- Sculpture and Ceramic studios and a large outdoor working space
- Printmaking facility
- Excellent Photography facilities
- 2000 square foot University Art Gallery with a year round program of changing exhibits
- Guest Artists Lecture Program hosts lectures and workshops by prominent artists, authors and gallery directors
- Video Art Collection of historical and contemporary art videos
- Student Art Gallery for solo or group Advanced Student Exhibitions.

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## Preparation

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## Major Requirements (B.A.)

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For Advanced Placement course equivalents, see the Registration chapter.

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### Art Studio Options (72-90 units)

I. Required Courses (26 units)

ART 1010 Introduction to World Art History (4)

ART 1020 Creative Process (5)

ART 1113 Drawing I (5)

ART 3035 Modern Art (4)

Two additional upper division art history courses (8)

(For Electronic Arts students one of these must be ART 3400 History of Art and Technology)

II. Capstone Requirements (6 units)  
(Not required for Electronic Arts students)

ART 4710 Senior Thesis (2)

ART 4720 Senior Seminar (2)

ART 4730 Senior Portfolio (2)

III. Option Requirements (43-58 units)

A. *Art Studio Option (45 units)*

This option allows students to focus on more than one area.

ART 1112 Ceramics I (5) or ART 1116 Sculpture I (5)

Complete a minimum of 40 additional units taken from the Art Department listing of studio courses, no more than 20 units of which may be lower division.

Total for Art Major, Art Studio Option: 76 units

B. *Digital Graphics Option (Electronic Arts) (56-58 units)*

1. Required Courses (44-46 units)

ART 1114 Painting I (5) or ART 1115 Printmaking I (5) or

ART/MCOM 2701 Introduction to Photography (5) or

MCOM/ART 2700 Introduction to Photography (5)

ART 2000 Introduction to Electronic Art (2), 2010

Introduction to Cyberspace (2), and 2015 Introduction to

Electronic 3D (2); or ART 2025 Basics of Electronic Art

(4)

ART 2810 Introduction to Graphic Design (4)

ART 2830 Introduction to Digital Imaging (4)

ART 3144 Drawing Lab (2, 2, 2) taken 3 times

ART 3212 Painting II (5) or ART 3600 Intermediate

Photography (5) or ART 3650 Color Photography (5) or

ART 4857 Advanced Studio Practice Printmaking (5)

ART 3810 Digital Graphics I: Designing Digitally (4)



ART 3830 Digital Graphics II: Digital Imaging (4)  
ART 3860 Digital Graphics III: Advanced Graphic Design (4)

ART 3870 Art for the Web (4)

2. Capstone Requirements (12 units)

ART 4210 Digital Graphics IV: Computer to Print (4)  
ART 4230 Digital Graphics V: Portfolio Project (4)  
ART 4740 Senior Seminar in Electronic Arts (4)

Total for Art Major, Digital Graphic Option: 82-84 units

C. *Multimedia Option (Electronic Arts) (55-57 units)*

Electronic arts is about the use of rapidly evolving new media tools to express the human imagination. Computers are used to create, control and integrate images, text, graphics, video, sound, and interactivity. The classes stress the development of strong aesthetic and humanistic sensibilities combined with sophisticated technical abilities.

The Electronic Arts program has two option areas: Multimedia and Digital Graphics. Both areas share many fundamental and intermediate classes but vary significantly on the advanced level.

1. Required Courses (43-45 units)

ART 1114 Painting I (5) or ART 1115 Printmaking I (5) or  
ART/MCOM 2701 Introduction to Photography (5) or  
MCOM/ART 2700 Introduction to Photography (5)

ART 2000 Introduction to Electronic Art (2), 2010  
Introduction to Cyberspace (2), and 2015 Introduction to  
Electronic 3D (2); or ART 2025 Basics of Electronic Art  
(4)

ART 2810 Introduction to Graphic Design (4)  
ART 2830 Introduction to Digital Imaging (4)  
ART 3144 Drawing Lab (2, 2, 2) taken 3 times  
ART 3800 Multimedia I: Animation (4)  
ART 3820 Multimedia II: Digital Video and Audio (4)  
ART 3830 Digital Graphics II: Digital Imaging (4)  
ART 3840 Multimedia III: 3D Modeling and Animation (4)  
ART 3870 Art for the Web (4)

2. Capstone Requirements (12 units)

ART 4200 Multimedia IV: Interactive Design/Authoring (4)  
ART 4220 Multimedia V: Portfolio Project (4)  
ART 4740 Senior Seminar in Electronic Arts (4)

Total for Art Major, Multimedia Option: 81-83 units

D. *Photography Option (40-44 units)*

The Photography Option provides well-grounded studies in the aesthetic and practical areas of contemporary camera-generated imagery. Black and white, as well as color classes are taught using traditional darkroom techniques. The program also requires classes in computer-generated and manipulated images. Students can choose electives to develop skills in specialty areas such as fine art,

journalism, or computer/digital photography.

1. Required Courses (19 units)

ART/MCOM 2701 Introduction to Photography (5) or  
MCOM/ART 2700 Introduction to Photography (5)  
ART/MCOM 3600 Intermediate Photography II (5)  
ART/MCOM 3650 Color Photography (5)  
MCOM/ART 4620 History of Photography (4)

2. Elective courses (21-25 units)

Five courses from the following:

ART 2025, ART 3630, ART/MCOM 3660, ART/MCOM  
3670, ART/MCOM 3671, ART/MCOM 3680, ART 3810,  
ART 3830, ART/MCOM 4600, BIOL 4630, MCOM/ART  
3500, MCOM/ART 3700.

Any lower division studio art course by advisement.

Total for Art Major, Photography Option: 72-76 units

*E. Pictorial Arts Option (Drawing/Painting/Printmaking) (50 units)*

Beginning painting, printmaking and drawing courses offer traditional and nontraditional approaches to studies from life as well as more subjective approaches to imaginative work. Intermediate and advanced courses guide students toward a personal vision.

1. Required Courses (25 units)

ART 1112 Ceramics I (5) or ART 1116 Sculpture I (5)  
ART 1114 Painting I (5)  
ART 1115 Printmaking I (5)  
ART 3141 Drawing II (5)  
ART 3212 Painting II (5)

2. Elective Courses (25 units)

ART 3141 Drawing II (5), 3142 Drawing III: Figure  
Drawing (5), 3212 Painting II (5), 3213 Painting III (5),  
4143 Drawing IV (5), 4857 Advanced Studio Practice:  
Printmaking (5)

Total for Art Major, Pictorial Arts Option: 81 units

*F. Spatial Arts Option (Ceramics/Sculpture) (45 units)*

The Spatial Arts program familiarizes students with a broad range of sculptural processes. The department has one of the best studio facilities in the Bay Area.

1. Required Courses (25 units)

ART 1112 Ceramics I (5)  
ART 1116 Sculpture I (5)  
ART 3311 Sculpture II: Figure/Portrait Modeling (5)  
ART 3512 Ceramics II (5)  
ART 4302 Spatial Arts: Advanced Project (5)

2. Elective Courses (20 units)

ART 3312 Metal Fabrication (5), 3313 Bronze Casting  
(5), 3314 Stone Carving (5), 3513 Ceramics III (5)

Total for Art Major, Spatial Arts Option: 76 units

### Art History Option (63 units)

The Art History Option emphasizes world art history with Western art history as an important component. As part of our commitment to an expanded view of art history, we include artists and art objects which have been excluded from traditional art historical curricula. Our goal is to acquaint students with a broad spectrum of examples from world art history and develop their perceptual and analytic abilities within the appropriate historical context.

- I. Required courses (22 units)
  - ART 1010 Introduction to World Art History (4)
  - ART 1020 Creative Process (5)
  - ART 1113 Drawing I (5)
  - ART 3035 Modern Art (4)
  - ART 4000 The History of Art Theory (4)
- II. Modern language requirement (16 units)

Sixteen units of one or more foreign languages selected with an advisor.
- III. Elective courses (25 units)
  - One additional lower division art studio course (5)
  
  - Five upper division courses in Art History selected with an advisor (20)

Total for Art Major, Art History Option: 63 units

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### Art Studio Minor (43 units)

- ART 1010 Introduction to World Art History (4)
- ART 1111 Art Experience (5)
- ART 1113 Drawing I (5)

Two lower division Art Studio courses selected with an advisor (10)

Three upper division Art Studio courses (15)  
One upper division Art History course (4)

### Art History Minor (38 units)

- ART 1010 Introduction to World Art History (4)
- ART 1020 Creative Process (5)
- ART 1113 Drawing I (5)
- ART 3035 Modern Art (4)
- ART 4000 The History of Art Theory (4)
- Four 3000/4000 level Art History courses (16 total)

### Photography Minor (33-35 units)

- ART/MCOM 2701 Introduction to Photography (5) or MCOM/ART 2700 Introduction to Photography (5)
- ART/MCOM 3600 Intermediate Photography (5)
- ART/MCOM 3650 Color Photography (5)
- ART/MCOM 4620 History of Photography (4)

*Electives (14-16 units)*

Selected with an advisor from the following list:

ART 3630 Digital Photography (5), 3800 Multimedia I: Animation (5), 3810 Digital Graphics I: Designing Digitally (5), 3830 Digital Graphics II: Digital Imaging (5); ART/MCOM 3660 Portrait Photo (5), 3670 View Camera and Studio Lighting (5), 3671 Advanced Studio Lighting (5), 3680 Photography Career Preparation (2), 4600 Advanced Photography (5); BIOL 4630 Biological Photography (4); GEOG 3410 Air-Photo Interpretation (4); MCOM 3100 Television Production/Direction (4), 3220 Media Workshop-Print (2), 3340 Graphic Communication, 3350 Magazine Publishing in America (4), 3500 Photo Journalism (5), 3700 Digital Photography and Photo Essay (4)

Multimedia Minor (Electronic Arts) (45 units)

ART 2000 Introduction to Electronic Art (2 units)

ART 2010 Introduction to Cyberspace (2 units)

ART 2015 Introduction to Electronic 3D (2 units)

ART/MCOM 2701 Introduction to Photography (5) or MCOM/ART 2700 Introduction to Photography (5)

ART 3400 History of Art and Technology (4 units)

ART 3800 Multimedia I: Animation (5 units)

ART 3810 Digital Graphics I: Designing Digitally (5 units)

ART 3820 Multimedia II: Digital Video and Audio (5 units)

ART 3830 Digital Graphics II: Digital Imaging (5 units)

ART 3840 Multimedia III: 3D Modeling and Animation (5 units)

ART 4220 Multimedia V: Portfolio Project (5 units)

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## Certificate in Art Museum/Gallery Studies

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The Certificate Program in Art Museum and Gallery Studies endeavors to prepare students for graduate school and/or a career in the exhibition field.

ANTH 3710 Museum Curating (4) (must be taken twice) (8)

ART 3701 Gallery and Museum Exhibition and Design (4) (must be taken three times for certificate) (12)

ART 3702 Theories and Practices of Galleries and Museums (4)

ART 4000 Theory of Art History (4)

ART 4701 Internship I (3)

ART 4702 Internship II (3)

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## Art Option: Liberal Studies

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Areas I and/or V (14 units)

ART 1010 Introduction to World Art History (4)

ART 1111 The Art Experience (5) or ART 1020 Creative Process (5)

ART 1112 Ceramics I (5) or ART 1114 Painting I (5)

Area VII, Credential Track, or Area VI, Liberal Arts Track (23 units)

ART 1113 Drawing I (5)

ART 1116 Sculpture I (5)

## Undergraduate Courses

ART 3035 Modern Art (4)  
ART 4000 The History of Art Theory (4)  
One upper division studio course (5)

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*The course prefix for the following courses is ART.*

### Art Studio

Auditing of Art Studio courses is not permitted.

**1020** The Creative Process (5)

Studio practice emphasizing creativity and imagination in the realization of works of visual art. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (A)

**1111** The Art Experience (5)

Introductory hands-on experience with 2- and 3-dimensional projects. Basic instruction in use of materials, color and expressive composing. Field trips may be required. A miscellaneous course fee will be charged. Check the quarterly *Class Schedule* for current fee. Two hrs. lect., 6 hrs. act. (A)

**1112** Ceramics I (5)

[CAN ART 6]

An introduction to the basic techniques of construction with clay. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (A)

**1113** Drawing I (5)

[CAN ART 8]

Introduces varied approaches to drawing and use of materials. Projects increase perceptual and imaginative abilities. Instruction in using line, shape, and illusion of form to translate/interpret what you see or how you respond. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

**1114** Painting I (5)

[CAN ART 10]

Provides introductory experiences in making images and using painting materials. Slides, reproductions and demonstrations accompany lectures. Projects and discussions develop students' understanding of how painting can communicate our experience and imagination. Field trips may be required. Two hrs. lect., 6 hrs. act. (A)

**1115** Printmaking I (5)

An introduction to the history of printmaking and the study of the main graphic processes including lithography, intaglio etching and monoprint. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act.

- 1116 Introduction to Sculpture (5)  
[CAN ART 12]  
An introduction to the creative process of sculpture and its aesthetic merit. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (A)
- 2000 Introduction to Electronic Art (2)  
The basic principles of using electronic media as creative tools. This hands-on class introduces students to electronic studio practices, hardware, software, imaging, video and audio production. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee.
- 2010 Introduction to Cyberspace (2)  
Exploration and use of the telecommunications environment for the arts. Introduction to the Internet, the World Wide Web, and emerging new technologies. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. One hr. lect., 2 hrs. act.
- 2015 Introduction to Electronic 3D (2)  
Introduction to electronic 3D modeling and animation. Design concepts and practice. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. One hr. lect., 2 hrs. act.
- 2025 Basics of Electronic Art (4)  
Fundamentals of computers as creative tools. Internet, graphics, and 3-D projects, viewing Electronic Art, and discussing related ideas. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 2700 Introduction to Photography (5)  
[CAN ART 18]  
(See MCOM 2700 for course description.)
- 2701 Introduction to Photography (5)  
Fundamental theory and practice of black and white photography. Developing of negatives and darkroom printing. Not open to students with credit for MCOM/ART 2700. Cross-listed with MCOM 2701. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lecture, 6 hrs. act.
- 2810 Introduction to Graphic Design (4)  
Introduction to composition, color, typography, and message in the digital environment. Prerequisite: ART 2025 (or ART 2000, 2010, and 2015). A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 2830 Introduction to Digital Imaging (4)  
Introduction to the use of computers in artistic image production for screen and print. Prerequisite: ART 2025 (or ART 2000, 2010, and 2015). A miscellaneous course fee

will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.

- 3141 Drawing II (5)  
Concepts and techniques of drawing, including studies from life. Emphasis on individual expression in various drawing media. May be repeated once for credit. Prerequisite: ART 1113. Field trips may be required. Two hrs. lect., 6 hrs., act. (Y)
- 3142 Drawing III: Figure Drawing (5)  
Principles of figure drawing. May be repeated once for credit with consent of instructor. Prerequisite: ART 3141. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)
- 3144 Drawing Lab (2)  
Concepts and techniques of drawing with an emphasis on rendering and representation. Drawing with traditional and electronic media. May be repeated two times for credit. Prerequisites: ART 1113, 2025. One hr. lect., 2 hrs. act.
- 3212 Painting II (5)  
Emphasis on individual expression and critical analysis. May be repeated once for credit with consent of instructor. Prerequisite: ART 1114. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)
- 3213 Painting III (5)  
Advanced study in painting. Individual project with selected media. May be repeated for credit with consent of instructor when content varies. Prerequisite: ART 3212. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)
- 3311 Figure Modeling Sculpture (5)  
Seeing and the translation of seeing into the act of clay modeling. Repeatable twice for credit. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)
- 3312 Steel Sculpture (5)  
Use of welding and forging techniques to create metal sculptures. Repeatable twice for credit. Prerequisite: ART 1116. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)
- 3313 Bronze Sculpture (5)  
Creating sculpture with the lost wax investment mold casting method. Repeatable for credit with consent of instructor. Prerequisite: ART 1116. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs., act. (Y)
- 3314 Stone Carving (5)  
Stone carving using hand and power tools. Repeatable twice for credit. Prerequisites: ART 1116, 3311. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)



- 3500 Photojournalism (5)  
(See MCOM 3500 for course description.)
- 3512 Ceramics II (5)  
Building and forming processes in ceramics, including glazes and clay bodies. Course repeatable once for credit with instructor's consent. Prerequisite: ART 1112. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (Y)
- 3513 Ceramics III (5)  
Emphasis on personal direction in ceramics. May be repeated for credit with consent of instructor when content varies. Prerequisite: ART 3512. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (Y)
- 3600 Intermediate Photography (5)  
Emphasis on the use of photography as a fine art and visual language. Technical areas include: zone system, color toning and hand painting. Cross-listed with MCOM 3600. Prerequisite: MCOM/ART 2700 or ART/MCOM 2701. A miscellaneous course fee will be charged. Please consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (Y)
- 3630 Digital Photography (5)  
Creation of digital camera images as applied to still photography. Traditional and digital cameras, image scanning, editing, manipulating and printing with Adobe Photoshop and related computer technology. Prerequisite: MCOM/ART 2700 or ART/MCOM 2701. Two hrs. lect, 6 hrs. act.
- 3650 Color Photography (5)  
Comprehensive introduction to color photography. Aesthetics and techniques integrated into a general survey of color slide processing and color printing. Emphasis on type "C" printing from negatives. Frequent viewing of contemporary work. Cross-listed with MCOM 3650. Prerequisite: ART/MCOM 3600. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect, 6 hrs. act.
- 3660 Portrait Photography (5)  
A studio workshop approach to portraiture photography. Various types of lighting such as flood and electronic flash. Natural light, both indoors and out. The history of the portrait and contemporary usage. Cross-listed with MCOM 3660. Prerequisite: MCOM/ART 2700 or ART/MCOM 2701. Field trips may be required. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act.
- 3670 View Camera and Studio Lighting (5)  
Introduction to 4 x 5 view camera techniques including black and white negative developing, printing and color transparency production. Camera work applied to studio



strobe lighting problems. Cross-listed with MCOM 3670.  
Prerequisite: MCOM/ART 2700 or ART/MCOM 2701. Two hrs. lect., 6 hrs. act.

- 3671 Advanced Studio Lighting (5)  
The use of electronic strobe lights in a studio lighting situation to create commercial product and portrait photography. Use of view camera and medium format camera will be emphasized. Repeatable for credit if content varies. Prerequisite: ART 3670. Cross-listed with MCOM 3671. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hours lect., 6 hrs. act.
- 3680 Photography Career Preparation (2)  
Both fine art and professional photography career preparation. Topics include: resume creation, gallery and museum interactions, portfolio production, commercial photography practices and apprenticeship programs, and general business practices for photographers.
- 3800 Multimedia I: Animation (4)  
Creating imaginative, computer-based animation with traditional and digital techniques. Prerequisites: ART 2025 (or ART 2000, 2010, and 2015), 2810, 2830. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 3810 Digital Graphics I: Designing Digitally (4)  
The aesthetics of composition, color, typography, and message created in the digital environment. Prerequisites: ART 2810, 2830. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs lect., 2 hrs. act.
- 3820 Multimedia II: Digital Video and Audio (4)  
The creative use of video and audio for multimedia production. Students produce projects using storyboards, cameras, lighting, audio technology, and video digitizing and editing software. Prerequisites: ART 3400, 3800. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hours act.
- 3825 Intermediate Digital Video (4)  
Intermediate topics in digital video production for multimedia. Aesthetics of editing, shooting for the edit, compositing, and audio/video editing software. Prerequisites: ART 3820, 3830. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 3828 Advanced Digital Video (4)  
Advanced topics in digital video production for multimedia. Video technology including formats, compression, and specifications. Motion graphics and integrating animation from non-video sources, optimizing video for the distribution channel, and interactive video. Prerequisite: ART 3825. A miscellaneous course fee will be charged.

Consult the quarterly *Class Schedule* for the current fee.  
Three hrs. lect., 2 hrs. act.

- 3830** Digital Graphics II: Digital Imaging (4)  
The use of computers, scanners, digital cameras and drawing tablets with various software to produce imaginative pictures for screen and print. Prerequisites: ART 3400, and either 3800 or 3810. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 3840** Multimedia III: 3D Modeling and Animation (4)  
Introduction to creating 3D models and animations. Prerequisites: ART 3400, 3800. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 3860** Digital Graphics III: Advanced Graphic Design (4)  
Strengthening digital design skills through creative projects, analyzing contemporary design, and discussion. Professional practices and preparing work for commercial printing. Prerequisites: ART 3400, 3810. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 3870** Art for the Web (4)  
Unique characteristics of the World Wide Web as a medium for artistic creation. Explore existing Web-based artworks. Develop individual Web-based artworks of intermediate technical complexity, with emphasis on both concept and implementation. Prerequisite: ART 3830. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. studio act.
- 3880** Advanced Art for the Web (5)  
Expand and deepen knowledge of Web aesthetics and techniques to apply to creation of sophisticated Web-based artworks. Prerequisite: ART 3870. Two hrs. lect., 6 hrs. studio act.
- 3890** Advanced 3D Modeling & Animation (4)  
Advanced topics in 3D modeling and animation. Prerequisite: ART 3840. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units, which may be applied to the major or the minor in Art. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)
- 3950** Creating Art (5)  
Exercises in the development and realization of drawing, painting, and sculpture for the general student. Field trips, term paper required. A miscellaneous course fee will be

charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act.

- 4143 Drawing IV (5)  
Emphasis on individual expression in various drawing media. May be repeated for credit with consent of instructor when content varies. Prerequisite: ART 3141. Field trips may be required. Two hrs. lect., 6 hrs. act.
- 4200 Multimedia IV: Interactive Design/Authoring (4)  
Design and creation of interactive computer-based art. Projects utilize graphics, animation, video, audio, authoring skills. Prerequisites: ART 3820, 3830, 3840. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 4210 Digital Graphics IV: Computer to Print (4)  
Combining digital media and traditional fine art printmaking to produce print and print objects from computer-based source materials. Prerequisites: ART 3830, 3860. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 4220 Multimedia V: Portfolio Project (4)  
Students produce large scale interactive works for public presentation. Prerequisites: ART 3820, 3830, 3840. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 4230 Digital Graphics V: Portfolio Project (4)  
Students produce a personal body of work for public presentation. Prerequisites: ART 3870, 4210. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.
- 4301 Mixed Media for Sculpture (5)  
Construction of sculptural objects using a variety of materials and methods. Repeatable twice for credit. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Prerequisite: ART 1116. Field trips may be required. Two hrs. lect., 6 hrs. act.
- 4302 Spatial Arts: Advanced Project (5)  
Emphasis on individual expression in spatial arts. Weekly group discussion of students' work. Repeatable for credit with consent of instructor when content varies. Prerequisites: 2 courses from the following: ART 3312, 3313, or 3314-or ART 3513 taken twice. A miscellaneous course fee will be charged for materials. Consult the quarterly *Class Schedule* for the current fee. Field trips may be required. Two hrs. lect., 6 hrs. act. (Y)
- 4450 Internship Seminar in Applied Arts Administration (2)  
(See THEA 4450 for course description.)

- 4600 Advanced Photography (5)  
Concentrates on the individual development of each student as photographer, increasing technical skills and personal vision. Assignments directed toward student's major field of study, as well as group projects. Documentary photography and visual communication theory emphasized. Cross-listed with MCOM 4600. Prerequisite: ART/MCOM 3600. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act. (Y)
- 4710 Senior Thesis (2)  
Senior exhibit of art works in appropriate department spaces. Part of a series of capstone senior courses.
- 4720 Senior Seminar (2)  
Development of students' written and verbal communication skills for the purpose of presenting themselves and their work.
- 4730 Senior Portfolio (2)  
Senior portfolio production and presentation for career oriented goals. Faculty participation in reviews of portfolios.
- 4740 Senior Seminar in Electronic Arts (4)  
Analysis and discussion of digital art works and venues for electronic artists. Development of an electronic art portfolio for career-oriented goals. Prerequisites: ART 3830, and either 3840 or 3860.
- 4857 Advanced Studio Practice: Printmaking (5)  
Studies in printmaking to clarify the student's direction as an artist. May be repeated for credit with consent of instructor when content varies. Field trips may be required. Prerequisite: upper division standing. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. act.
- 4900 Independent Study (1-4)

## Art History Courses

- 1007 Introduction to Asian Thought (4)  
The thought of China, India, and Japan, past and present, as expressed in visual art and music.
- 1010 Introduction to World Art History (4)  
An examination of style in the visual arts and factors which influence the nature of art in selected salient periods of art history. (F, W, Sp)
- 1014 Ancient Art (4)  
Representative works of art of the ancient world, including the cultures of the Middle East, Mediterranean, and Asia. Field trips may be required.
- 1201 Native Voices in Today's World (4)  
Art of native peoples in Africa, Eurasia, and the Americas.

Traditional forms and those that are part of the dynamic interaction of traditional art with art of contemporary urbanized cultures.

- 2005 Asian Thought (4)  
Hindu thought in India and Taoist thought in China as expressed in philosophical texts, visual art, music, and literature. The interconnections among the disciplines.
- 2227 Women in Art/Women Artists (4)  
Contemporary women artists of the United States. The presentation of the image of woman in historical periods. The development of artistic training in the modern world.
- 2401 Art, Technology, and World Culture (4)  
The relation of art, technology and culture from historical and aesthetic perspectives. From primitive to postmodern society.
- 3000 Sacred World Art (4)  
A comparison of the sacred art of the East and West focusing on cross cultural themes. These include the mandala, the "axis mundi" or world axis, sacred geometry, ornamentation and ritual, sacred eros, and the icon.
- 3010 Latin American Art (4)  
Art and architecture of Latin America from the conquest and colonial period to the present, including art of Mexico, Central America and South America. Field trips may be required.
- 3035 Modern Art (4)  
Main topics of European art of the Modern period from the nineteenth century to the middle of the twentieth century including Impressionism, Cubism, and Surrealism.
- 3040 Art in the United States (4)  
The development of art in the United States from the colonial period to the present. Individual visits to museums required. (Y)
- 3055 Ancient American Art (4)  
Art of Mexico, Central America and South America from the ancient periods to the Spanish Conquest. Field trips may be required.
- 3056 Ethnic Art (4)  
A survey of Ethnic Art from tribal origins to present. The history of Native American, Chicano, Latin American, African-American and Asian American Art from their origins to the present. Field trips may be required.
- 3058 Far Eastern Art: India, China, Japan (4)  
A comparative survey of the evolution of Far Eastern art from pre-history to the present in the context of cultural history. Field trip to Asian Art Museum will be required.
- 3220 Art in the Ancient World (4)  
The evolution of art from the prehistoric Near East through the later Roman Empire. Individual study visits to

museums and/or field trips required. (Y)

- 3223 Baroque and Rococo Art (4)  
European art and architecture of the seventeenth and eighteenth centuries in their cultural context. Individual museum and/or field trips may be required.
- 3224 Italian Renaissance Art (4)  
The evolution of Italian art from the thirteenth to the sixteenth centuries focusing on the relationships between art and Humanism and Neoplatonism. Individual museum and/or field trips may be required.
- 3226 The Woman Artist (4)  
(See THEA 3226 for course description.)
- 3227 Women in Art (4)  
Women artists and images of women's art, including history from ancient periods to the present. Individual museum and/or field trips may be required.
- 3400 History of Art and Technology (4)  
How the interaction of art and technology shaped human culture from cave paintings to computers.
- 3432 Discover India (4)  
(See SOC 3432 for course description.)
- 4000 The History of Art Theory (4)  
Art theory emphasizing the writings of artists as well as philosophers from Plato and Aristotle to the Post-Modernists, including China and India.
- 4020 Shamanism and Art: A Cross-Cultural Perspective (4)  
The relationship between the practice of shamanism and art from around the world. Artworks from North American Indian, Oceanic, Siberian, Aboriginal, Huichol and African cultures as well as those from Indonesia, China and Tibet. The practice of shamanic techniques by modern artists.
- 4071 Art Since 1945 (4)  
The most recent developments from WW II to the present. Prerequisites: Any 2000 or 3000 level art history course. Individual study visits to museums and/or field trips required. (Y)
- 4620 History of Photography (4)  
(See MCOM 4620 for course description.)
- 4900 Independent Study (1-4)

### Art Museum and Gallery Studies

- 3701 Gallery and Museum Exhibition and Design (4)  
A gallery workshop covering the planning, design, publicity and installation of art exhibits. May be repeated twice for credit. Field trips may be required. Two hrs. lect., 4 hrs. act. (F, W, Sp)

- 3702** Theories and Practices of Galleries and Museums (4)  
Emphasis on the history and philosophy of museums and galleries; curatorial responsibilities. Prerequisites: upper division standing and ART 3701. Field trips may be required. (Y)
- 4701** Internship I (3)  
Internship in museums and galleries of the Bay Area. Duties involve professional exhibition and design under the direction of the museum and/or gallery staff. Prerequisites: ART 3701 (thrice for credit), and ART 3702. (Y)
- 4702** Internship II (3)  
Museum and Gallery involvement with office of administration, curation, education, and public relations. Increased responsibility for exhibitions at the University Galleries. May be repeated once for credit. Prerequisites: ART 4701. (Y)
- 4900** Independent Study (1-4)



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HELP



## Latin American Studies

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### Department Information

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*Professor Emeritus:* Joaquin A. Zuniga

*Professors:* Loretta Breuning, H. Glynn Custred, Roxanne Dunbar-Ortiz, Herbert M. Eder, Richard A. Garcia, Iliana Holbrook, George R. Miller, Amy Rodman, Noel Samaroo, William D. Whisler

*Assistant Professors:* Edna Benitez, Michael Lee

*Director:* Pablo-Raul Arreola

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Latin America, with its rich Indigenous, African, and Iberian heritage, is a unique and extraordinarily varied region of the world about which North Americans are often very poorly informed. Yet the relationship between Latin America and the U.S. is necessarily a close one: we are bound together by history, by geography, by long-standing financial and commercial relationships, by the often-disappointed expectation on the part of the U.S. that Latin America is our natural political and military ally, and finally, by the growing number of men and women of Latin American origin and culture living in the U.S.

The Latin American Studies major draws on courses taught in the Departments of Anthropology, Art, Ethnic Studies, Geography and Environmental Studies, History, and Modern Languages and Literatures, as well as courses taught from time to time in other departments. It provides the student with an opportunity to acquire a broad and deep understanding of the richness of Latin American and Iberian civilizations. The major in Latin American Studies is a liberal arts program which is of particular interest to students



planning to enter careers related to the Latin American region (teaching, business, government, or other agency service, for example.)

A minor, double major, or Liberal Studies option in Latin American Studies is appropriate for students who wish to enrich their career prospects by establishing expertise not only in their major fields and in Spanish or Portuguese, but also in Latin American culture and history. It is also desirable for students with majors in the liberal arts disciplines represented in the Latin American Studies major for whom a regional specialization adds another dimension to the mastery of the themes and methodologies of their major fields.

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## Features

A unique feature of the program is the possibility of concentrating on Spanish or Portuguese speaking areas of Latin American and the Iberian Peninsula.

Cal State Hayward has established study abroad and exchange programs with the Instituto Tecnológico y de Estudios Superiores de Monterrey, Queretaro Campus. Credit can be arranged for numerous other summer and academic-year programs. Majors are encouraged to spend at least one quarter studying in Latin America.

Majors may also do research on Latin America as an intern at one of the many agencies of the Bay Area which need volunteers and the occasional paid employee. Interns will help evaluate proposals for grants-in-aid submitted by Latin American communities to work with recent Latin American migrants. The Program Director maintains a file on study abroad and internship opportunities.

LAS students are expected to develop a close relationship with their advisor because of the importance placed on "extra-campus" activities and the special needs of coordination required in an interdisciplinary major. This relationship can be one of the strongest features recommending the program.

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## Scholarship

### Helen C. Jacobsen Scholarship

One \$1,000 scholarship awarded for full-time undergraduate students. Awards are limited to students with upper division standing. A grade point average of 3.0 or higher is required.

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## Major Requirements (B.A.)

The Latin American Studies major consists of 60-84 units; the B.A. degree requires a total of 186 units.

### I. Lower Division Requirements (12-36 units)

*Select one course from each group:*

- A. ANTH 1000 Introduction to Anthropology (4), or ANTH 1300 Introduction to Cultural Anthropology (4), or SOC 1000 Introduction to Sociology (4)

B. ECON 1000 Economics in Public Issues (4), or ECON 2302 Principles of Macroeconomics (4)

C. GEOG 1000 Introduction to Geography (4), or GEOG 2300 Cultural Geography (4), or GEOG 2310 Economic and Resource Geography (4)

D. Modern Language Requirement

Demonstrate proficiency in Spanish or Portuguese by completion of the third quarter of intermediate language at CSUH, or by an examination administered by the Latin American Studies Program.

II. Upper Division Core Courses (16 units)

LAST 3000 The Latin American World (4)

HIST 3600 Colonial Latin America (4)

HIST 3605 Modern Latin America (4)

INTS 3100 Global Systems (4)

III. Distribution Requirements (24 units)

A. Art and Literature (8 units)

*Select two courses from two different disciplines:*

ART 3010 Latin American Art (4), 3055 Ancient American Art (4); MLL 3461 Introduction to Spanish-American Literature: 1492-1900 (4), 3463 Introduction to Spanish-American Literature: 1900 to the Present (4), 3495 Spanish-American Culture and Civilization (4), 3861 Topics in Portuguese Literature (4); 3871 Topics in Brazilian Literature (4), 4495 Single Movement, Country or Theme: Spanish-American Literature (4); PHIL 3214 Philosophy and Myth in Latin American Literature (4), 3611 Twentieth Century Latin American Philosophy (4)

B. Society and Environments (8 units)

*Select one course in Geography and another in either Anthropology or Ethnic Studies:*

ANTH 3250 Precolumbian America: Aztec, Inca, Maya (4), 3510 South America (4); E S 3800 Peoples of Central America (4); GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands (4), 3515 Geography of South America (4)

C. History and Contemporary Politics (4 units)

*Select at least one course:*

HIST 3138 Imperial Spain (4), 3555 Inter-American Relations (4), 3620 The Cuban Revolution and Latin America (4), 3622 Mexico since 1810 (4), 3625 The Andean Republics of South America (4), 3632 Film and Society in Latin America (4), 3804 Topics in Latin American History (4), 6500 Conference Course in Latin American History (open to undergraduate majors and minors in LAS) (4); POSC 3280 Political Systems of Latin America (4)

D. Latino Experience in U.S. (4 units)

*Select at least one course:*

E S 3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present (4), 3202 Latino Writers (4), 3210 Latinas in the United States (4), 3805 Mexican and Latin American Immigration (4); HIST 3515 Mexican-Americans and the American Southwest (4); SOC 3416 Sociology of the Mexican American Family (4)

IV. Electives (8 units)

Any other course certified by the LAS Director to have suitable content for the program.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 24 units; at least 18 must be outside major department. Students must complete 12 units of college-level Spanish or Portuguese, or pass a program-administered examination. (0-12 units)

I. Required Courses (8 units)

LAST 3000 The Latin American World (4)

HIST 3605 Modern Latin America (4)

II. Complete four additional courses (16 units) from the following lists. At least two disciplines besides History must be represented.

ANTH 3250 Pre-Columbian America: Aztec, Inca, Maya (4), 3510 South America (4); ART 3010 Latin American Art (4), 3055 Ancient American Art (4); E S 3130 Slavery in the Americas (4), 3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present (4), 3202 Latino Writers (4), 3210 Latinas in the United States (4), 3800 Peoples of Central America (4), 3805 Mexican and Latin American Immigration (4); GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands (4), 3515 Geography of South America (4); HIST 3138 Imperial Spain (4), 3555 Inter-American Relations (4), 3600 Colonial Latin America (4), 3620 The Cuban Revolution and Latin America (4), 3622 Mexico since 1810 (4), 3625 The Andean Republics of South America (4), 3632 Film and Society in Latin America (4), 3804 Topics in Latin American History (4), 6500 Conference Course in Latin American History (open to undergraduate majors and minors in LAS) (4);

MLL 3461 Introduction to Spanish-American Literature: 1492-1900 (4), 3463 Introduction to Spanish-American Literature: 1900 to the Present (4), 3495 Spanish-American Culture and Civilization (4), 3861 Topics in Portuguese

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## Latin American Studies Option: Liberal Studies

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## Undergraduate Courses

Literature (4), 3871 Topics in Brazilian Literature (4), 4495 A Single Movement, Country or Theme: Spanish American Literature (4); PHIL 3214 Philosophy and Myth in Latin American Literature (4), 3611 Twentieth Century Latin American Philosophy (4); POSC 3280 Political Systems of Latin America (4)

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### Area II. B (0-12 units)

Demonstrated reading knowledge of Spanish or Portuguese by completion of one year of college-level course work, or by program-administered examination.

### Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

LAST 3000 The Latin America World (4)

HIST 3605 Modern Latin America (4)

### *Four upper division courses selected from the following (16 units):*

ANTH 3250 Precolumbian America: Aztec, Inca, Maya (4), 3510 South America (4); ART 3010 Latin American Art (4), 3055 Ancient American Art (4), E S 3800 Peoples of Central America (4), 3805 Mexican and Latin American Immigration (4); GEOG 3510 Geography of Mexico, Central America, and the Caribbean Islands (4), 3515 Geography of South America (4); HIST 3600 Colonial Latin America (4), 3620 The Cuban Revolution and Latin America (4), 3622 Mexico Since 1810 (4), 3625 Andean Republics (4), 3632 Film and Society in Latin America (4), 3804 Topics in Latin American History (4); MLL 3461 Introduction to Spanish-American Literature: 1492 to 1900 (4), 3463 Introduction to Spanish-American Literature: 1900 to the Present (4), 4495 A Single Movement, Country or Theme: Spanish-American Literature (4); PHIL 3214 Philosophy and Myth in Latin American Literature (4), 3611 Twentieth Century Latin American Philosophy (4); POSC 3280 Political Systems of Latin America (4)

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*The course prefix for the following courses is LAST.*

### 3000 The Latin American World (4)

Interdisciplinary survey of Latin American civilization from pre-Columbian times to the present. Focus on social and political evolution, literature, material culture, and physical environments. Some attention to the Latino experience in the U.S.

### 4900 Independent Study (1-4)



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## Arts Administration

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### Department Information

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Department of Theatre and Dance  
School of Arts, Letters, and Social Sciences  
Office: Robinson Hall 220  
Phone: (510) 885-3118

*Professors:* Lewis Carson, Thomas Hird (Director), Ricardo Singson, Eric Soares, William Wohlmacher, Dvora Yanow

*Associate Professor:* Ching-Lih Jan, James Petrillo

*Lecturer:* S. Lanier Graham

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

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The Arts Administration Major is jointly sponsored by the departments of Art, Music, Public Administration, and Theatre and Dance. It is administered by the Department of Theatre and Dance. Majors are expected to have a central interest in at least one of the arts offered by the sponsoring departments.

The Arts Administration major leads to a professional degree and intends to prepare arts students for entry-level jobs in the field of arts administration. The program provides a rich mixture of administrative knowledge, including: management skills, organizational design approaches, communications and marketing methods, personnel and collective bargaining techniques, budgeting and finance strategies, and small-business management techniques. The curriculum offers students experience in fund-raising and grant-writing. In addition, the program includes coursework in graphic design; journalistic and expository writing; curatorial knowledge and skill; knowledge of gallery, museum, dance, and theatre presentation; and, theoretical understanding of aesthetics and art criticism. Each student participates in a tutored internship experience.

### Career

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Agent • Artistic Director • Booking Agent • Business Manager •  
Curator • Development Director • Events Manager • Facility

## Opportunities

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Manager • Fund-raiser • Gallery Director • General Manager • Grant Writer • Nonprofit Executive Director • Production Manager • Producer • Promoter • Sales Manager • Self-Manager • Technical Director

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## Features

The Arts Administration program offers a significant departure from other arts administration programs in the Bay Area and nationally. First, the intent of the program is not to teach the traditional manager something about the arts. Rather, the purpose and spirit of the major is to prepare aspiring art historians, studio artists, and performing artists for parallel, mutually supporting careers in the arts and in arts administration. The program prepares students for a range of professional and volunteer arts administration activities, including participation with: museums; profit and nonprofit galleries; regional arts programs; civic arts programs; art festival development/management; dance, music, and theatre companies of various kinds; and, career self-management.

The second departure is reflected in the approach to arts administration. Too often those in arts administration, wittingly or unwittingly, borrow too freely from traditional managerial folklore. The unhappy outcome is that these managerial approaches, instituted to nurture an artistic activity, end up creating interpersonal, organizational-managerial environments that undermine and erode the very artistic endeavor the administrative activity was intended to promote. Together, the courses in arts administration focus on organizational strategies, managerial processes, administrative attitudes and professional values that promote effective organizations. At the same time the courses are intended to promote workable means to nurture the artistic requirements composing the goals of an arts organization.

The Arts Administration program provides an education that is well grounded in the arts. It provides for the development of managerial and organizational approaches that enhance the artistic purpose of the organization; further, it provides for a sensitivity toward public policy issues as well as aesthetics and art criticism. The curriculum insures the development of an array of necessary skills fundamental to successful arts administration.

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## Major Requirements (B.A.)

The Arts Administration major consists of 102-116 units (70-71 units of required courses, plus 32-45 units in a required minor). In planning their General Education program, majors are advised to take as many communication and writing courses as possible, especially in the areas of interpersonal communication, multicultural communication and writing for mass media. Admission to the internship seminar requires that the student has reached senior class standing, has completed at least 50 units toward the major and 25 units toward the minor, and has completed or is concurrently involved in an internship approved by his/her advisor.

- I. Foundation Courses (32-33 units)  
ACCT 2210 Accounting for Non-Business Majors (4)

ART 3810 Digital Graphics I-Designing Digitally (5) or MCOM 3340 Graphic Communication (4)  
ENGL 3003 Discursive Writing (4) or ENGL 3020 Advanced Expository Writing (4)  
THEA 4445 Arts and Management-Issues and Practice (4)

*Select sixteen units* in the area of art history or historic development of the arts selected from approved departmental lists in two different sponsoring arts departments and not in the department of one's minor.

Choose from:

ART 1010, 3035, 3056, 4000, 4071; DANC 4200, 4201, 4202; E S 3145; MUS 1000, 1003, 1004, 1005, 1007, 3002, 4110, 4120; THEA 3201, 3202, 3203, 3207, 3226, 3228, 3230, 3422, 3423, 4230, 4232, 4375

II. Arts Administration Courses (28 units)  
ART 3701 Gallery and Museum Design (4)

MKTG 3435 Environmental and Nonprofit Marketing (4) or  
PHIL 3160 Business and Professional Ethics (4)

PUAD 4805 Public Policy in the Arts (4)  
PUAD 4832 Organization Theory and Design for Arts Organizations (4)  
PUAD 4844 Financial Management and Budgeting in Art Organizations (4)

*Select eight units from the following:*

PUAD 4843 Fund Raising Dynamics (2)  
PUAD 4865 Legal Issues in Arts Administration (2)  
PUAD 4870 Board Development and Planning (2)  
PUAD 4880 Issues in Arts Administration (2)  
THEA 4446 Grant Writing (2)

III. Culmination/Internship Courses (10 units)  
*Take any of the following courses twice for four units total:*

ART/MUS/THEA 4450 Internship Seminar in Applied Arts Administration (2)

*Complete six units* of internship projects in either art, dance, music, or theatre organizations. Supervision by regular faculty members and enrollment in a selection of the following courses is required:

ART 4701, 4702 Internship I, II (3, 3)  
MUS 4900 Independent Study (1-4)  
THEA 3898 Cooperative Education (1-4)

IV. Arts Minor (32-45 units)

A minor must be selected in one of the sponsoring arts departments, Art, Music, or Theatre and Dance. In order to select classes for their specific needs, majors should seek advisement from either the primary department or the department of their minor. Requirements in the major which overlap with the chosen minor may be counted toward both programs.



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## Liberal Studies

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### Department Information

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Liberal Studies Program  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4055  
Phone: (510) 885-3852, FAX: (510) 885-2122

*Professor Emeritus:* James L. Nichols

*Professors:* Tom G. Hall, Gerald Henig, Maria Nieto

*Assistant Professor:* Pablo Arreola

*Director:* Tom G. Hall (History)

*Coordinator, Blended Program:* Pablo Arreola

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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The Liberal Studies Major aims to provide a rich educational experience through coursework in a broad range of academic disciplines. There are two tracks to the B.A. degree major in Liberal Studies. The Credential Track is designed for future elementary (K-8) teachers. The General Track is intended for those with other goals who desire a broad exposure to the arts, humanities, sciences, and social science fields that comprise a true liberal education. Differences between the two tracks are small, so that it is easy to change from one to the other. In either track, the student is guaranteed a breadth of academic experience, as well as depth in a single field. The Blended Liberal Studies/Credential Program offers selected students interested in a teaching career an opportunity for concurrent subject matter and professional preparation. See the "Blended Liberal Studies/Credential Program" section later in this chapter.

The broad-based, interdisciplinary nature of Liberal Studies provides a knowledge base and the communication and analytical skills appropriate to many careers and occupations. Hence, the Liberal Studies major is excellent preparation not only for

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## Career Opportunities

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teaching, but for graduate work, for law school, and for employment in business and government.

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Administrator • Business Executive • Civil Servant • Customer Service Representative • Foreign Service Officer • Human Resources Administrator • Journalist • Law • Manager • Personnel Representative • Salesperson • Stockbroker • Teacher (K-8) • Travel Agent • Writer

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## Features

Although the program is large and complex, remember that it incorporates all General Education requirements. All university graduation requirements can be completed within the structure of the Liberal Studies major.

The Credential Track is an approved Multiple Subject Matter Preparation Program. This means a student who completes it is exempt from the Multiple Subject Assessment for Teachers (MSAT) exam as an entrance requirement to a post-baccalaureate Multiple Subject Credential Program in Teacher Education.

The primary function of the Liberal Studies Office is to provide proper advising. Friendly, experienced office staff and faculty and staff advisors are available to help at every step. Advising is available through individual appointments and on a "drop-in" basis.

The Liberal Studies major is offered both day and evening, and on both the main Hayward campus and at the Contra Costa Campus. However, Contra Costa and evening-only students will not find a full range of courses and options available to them.

Liberal Studies is also one of the majors available through the Cal State Hayward Program for Adult College Education (PACE). For information, call the PACE office at (510) 885-PACE (7223). Also, see information about PACE in the Welcome to Cal State Hayward chapter and in the Student Services chapter in the front of this catalog.

Credential Track students, including students in the Blended Liberal Studies/Credential Program, are subject to special requirements for field experience in the schools and for summative assessment, which includes a portfolio of student work. Further information on these requirements is available from the Liberal Studies Office.

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## Preparation

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For transfer students, the best preparation for Liberal Studies is General Education coursework that may be counted in Area I, Foundations. Liberal Studies welcomes inquiries from community college counselors, and potential transfer students may call for informal, pre-admission advising.

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## Major Requirements (B.A.)

The Credential Track consists of a minimum of 161-180 units; the General Track consists a minimum of 154-164 units; the B.A. degree requires a total of 186 units. General Education-Breadth Requirements are subsumed in the Liberal Studies major. The U.S. history, U.S. Constitution, and the state and local government requirement can be satisfied by completion of the Liberal Studies major. Students must be certain to select courses satisfying this requirement which also meet major requirements or they will take extra courses. In addition, every student must satisfy the University Writing Skills requirement and the residence, upper division, and grade point average requirements. For details, see the Baccalaureate Degree Requirements chapter in the front of this Catalog. Only one course may be taken CR/NC in each of Areas I - VI and no course may be taken CR/NC in Area VII.

### Area I: Foundations (48-51 units)

- A. ENGL 1001 (4)
- B. SPCH 1000 (4)
  - General Track may take SPCH 1004
- C. Critical Thinking: a course selected from the *Class Schedule* under G.E. Area A.3 of the G.E. requirements (4)
- D. One Math or Statistics course (4-5) from the *Class Schedule* under G.E. Area B.4. Students who complete the Math 4021-4022-4023 sequence in Area III. D may count a computer science course here. (CS 1020 satisfies the G.E. requirement in Information Literacy for CSUH students.)
- E. One Art, Music, or Theatre course (4)
- F. Humanities (4): one Humanities course (History, Humanities, Literature, Modern Languages, or Philosophy) from the *Class Schedule* under Area C.2. May include a History course for U.S. history, U.S. Constitution, and state and local government requirement.
- G. One course in the Arts or Humanities (4)
- H. Social Science course (4)
- I. Social Science course (4)
- J. Social Science course (4)

*Note:* Three courses from at least *two* disciplines selected from Anthropology, Economics, Geography, History, Human Development, Political Science, Psychology, or Sociology. May include a Political Science course used for U.S. history, U.S. Constitution and state and local government requirement.
- K. One Biological Science course (Anatomy, Biology, Botany, Ecology, Genetics, Microbiology, Marine Science, Physiology, Zoology) from the *Class Schedule* under G.E. Area B.2. (4-5)

- L. One Physical Science course (astronomy, chemistry, geology, oceanography or physics) from the *Class Schedule* under Area B.1. (4-5)
- M. Lab for one of the courses listed in (K) or (L) from the *Class Schedule* under Area B.3. (0-2)

## Area II: Language and Communication (19-20 units)

- A. ENGL 1002 (4)
- B. ENGL 2030 or 2040 or 2050 or a course from the Required Course List (RCL). See "Liberal Studies Required Course List" at the end of this section. (4)
- C. ENGL 3010 (4) for Credential Track students
  - General Track students may select from ENGL 3005, 3010, 3015, or 3040 (4)
- D. Upper division English literature (4)
- E. Language Acquisition: either a third quarter foreign language course or a course from the RCL (See "Liberal Studies Required Course List" at the end of this section.) (4)
  - General Track students may also select any upper division English or Speech Course.

## Area III: Science and Environment (20-27 units)

- A. Biology course (4)  
Lab (0-1)
- B. Physical Science course (4)  
Lab (0-2)
  - Credential Track: two courses in science to include a course in biology and a course in physical science selected from the RCL (8-11). *Two labs are required.* (Courses in Areas I and III must include three labs.)
  - General Track: one course in either biological or physical science. *One lab is required.* (Courses in Areas I and III must include two labs.)
- C. Environmental Perspectives: one course from the RCL (4)
- D. Mathematics
  - Credential Track requires MATH 4021, 4022, and 4023.
  - General Track students can select any two Math, Statistics, or Computer Science courses numbered 1000 and above. (CS 1020 satisfies the G.E. requirement in Information Literacy for CSUH students.)

## Area IV: Individual Development (7-12

units)

*(Not required for General Track)*

- A. One course in Physical Development: KPE 1625, 3250, or DANC 3235 (4)
- B. Social Development: an upper division course from the RCL (3-5)
- C. Field Experience: T ED 1500 or 3001 or documented experience (40 hours) in an elementary (K-8) school classroom with children of elementary school age in positions such as a teacher's aide, tutor, or volunteer (0-3)

#### Area The Arts (12-17 units)

V:

- A. History, Theory, Appreciation: two courses from different departments selected from the RCL (8)
- B. Arts Activities: course(s) selected from the RCL (4-5)

*(Courses taken for Areas I and V must include an Art and a Music course.)*

- General Track Only: One additional course selected from the two categories above (4)

#### Area VI: The Social World (28 units)

*(No more than 4 courses in any one department)*

- A. History
  - Credential Track students must take an upper division U.S. History course. (4) May be used to partially satisfy the U.S. history, U.S. Constitution, and state and local government requirement.
  - General Track students may use any upper division History course.
- B. Western Heritage: a course from the RCL (4)
- C. African, Asian, & Western Hemisphere Civilizations: one upper division course from the RCL (4)
- D. Ethnic Experience in America: one upper division course from the RCL (4)
- E. Women in Society: one upper division course from the RCL (4)
- F. Ethics and Social Policy: one upper division course from the RCL (4)
- G. Geography: one upper division course from the RCL (4)
  - General Track may take one upper division course from any of the following social science disciplines: Anthropology, Economics, Geography, History, Human Development, Political Science, Psychology, or Sociology

#### Area VII: The Option (18-28 units)

The Liberal Studies major requires that each student complete an option, an area of study in some depth. All options except Childhood Studies in the Blended Program involve coursework totaling 23-28 units, similar to a minor. Liberal Studies majors may substitute any regular minor offered by the university in place of the option. However, for those on the Credential Track the choice should be made carefully, in consultation with an advisor, to be sure that it is appropriate for future work as a teacher. An option (except Childhood Studies in the Blended Program) or a minor must include at least 23 units not counted in any other Area of the major; the same is true for additional options or minors. No course taken CR/NC may be used in the option. The following Liberal Studies options are available through the program:

African American Studies, Anthropology, Art, Bilingual/Cross Cultural Studies, Business Studies,<sup>1</sup> Childhood Studies (open only to students in the Blended Liberal Studies/Credential Program), Dance, Early Childhood Studies, Economics, English, Environmental Studies, Ethnic Studies, Geography, History, Human Development, Integrative Science, Kinesiology, Language Studies, Latin American Studies, Life Sciences, Mass Communication, Mathematics, Modern Languages, Music, Philosophy, Physical Sciences, Political Science, Psychology, Recreation, Sign Language, Sociology, Special Education, Speech Communication, Speech Pathology & Audiology, Statistics, Theatre, Women's Studies

## Other Graduation Requirements

- A. G.E. Areas E Capstone (4 units). One course selected from G.E. Area E list in the *Class Schedule*.
- B. G.E. Area G1-3: GS 1010 (3 units). Three one-unit freshman activity courses (CSU Hayward students only).
- C. G.E. Area G4 Information Literacy (1-4 units). (CSU Hayward students only). May be satisfied by CS 1020 (see Area I.D above) or other courses listed in the *Class Schedule*.
- D. Cultural Groups/Women General G.E. requirement (3 units). One course selected from the list in the *Class Schedule*.
- E. U.S. history, U.S. Constitution, California state and local government requirement (0-8 units). See list of approved courses in this Catalog and in the *Class Schedule*. (Also see Areas I.F and I.J above.)
- F. University Writing Skills Requirement. (See B.A./B.S. Degree Requirements chapter.)

## Summative Assessment

Liberal Studies majors beginning the Multiple Subject Preparation Program Fall 1991 and later must meet requirements set by the California Commission on Teacher Credentialing (CCTC) which include a "summative assessment" of subject matter competence. This applies only to students pursuing the Credential Track, beginning Fall quarter 1991 and later. *It does not apply to students on the General Track.*

Summative assessment means an overall evaluation of academic

achievement, separate from and in addition to grades received in individual courses. It will be done by the Liberal Studies faculty on completion of all major requirements and when the student requests certification of completion of the Multiple Subject Preparation Program.

The main elements taken into account in summative assessment are:

1. Basic Skills Proficiency, demonstrated by passing scores on the following:
  - a. University Writing Skills Test (WST), a graduation requirement for all Cal State Hayward students;
  - b. California Basic Education Skills Test (CBEST), a requirement for admission to a credential program; and
  - c. The Entry Level Mathematics Test (ELM), if originally required by the university as a condition for taking college-credit mathematics courses.
2. Verification of Courses taken in ten subject areas specified by the CCTC. These are Language, Literature, Mathematics, Science, Social Science, History, Humanities, Arts, Physical Education, and Human Development. This is automatically satisfied by fulfilling major requirements.
3. A Minimum 2.5 GPA in (1) all courses taken in the option or minor, and (2) core courses in the major. The nine core courses are ENGL 3010, SPCH 1000, MATH 4021, an upper division English literature course, a science course with lab, an arts appreciation course, an upper division American History course, an upper division Geography course, and the course taken to satisfy the Physical Development requirement in Area IV.
4. Completion of the Field Experience Requirement in Area IV, either by courses such as T ED 1500 or 3001 or by documented experience. Satisfying this requirement in the major and for the Multiple Subject Matter Preparation Program is only a minimum, and may not be sufficient to meet admission standards for a teaching credential program. Students should be aware that it is to their advantage to obtain as much experience as possible through classroom service as a tutor, volunteer, or teacher's aide. This experience should be carefully documented; guidelines for documentation are available from the Liberal Studies Office.
5. A Portfolio of Student Work, to be kept, compiled, and submitted by the student with the request for subject matter certification. The portfolio should include a reasonable sample of work from a range of courses in as many of the CCTC-mandated subject areas as possible. Standard items would be examinations, term papers, field logs, laboratory notebooks, and other written student projects, with instructor's comments. Photos of art work and reviews of performances may also be included. The object is not bulk, but demonstration of familiarity with required subject matter and of effective skills in writing, thinking, and speaking. A



standard form will be used for the summative assessment, with a copy provided to the student. The student should pick up detailed guidelines for portfolio preparation from the Liberal Studies Office.

## Blended Liberal Studies/Credential Program

The Blended Liberal Studies/Credential Program combines, with minor changes, two outstanding programs on the Hayward campus designed for future elementary school teachers: the Liberal Studies B.A. major (Credential Track) and the Multiple Subject Credential Program. The Blended Program meets the requirements set by the California Commission on Teacher Credentialing for subject matter and professional preparation. A student who completes this program will be granted a B.A. degree major in Liberal Studies, and upon passage of the RICA examination, a Level I (Preliminary) Multiple Subject teaching credential.

The Blended Program does not replace the existing Liberal Studies major or the traditional sequence of four years of undergraduate work and one year of graduate work in the Teacher Education Department. That degree/credential path continues to exist and is chosen by most of our students. Rather, the Blended Program is an alternative path that allows selected students to complete in four calendar years an academic and professional program that combines subject matter coursework with training in educational methods and experience in the elementary school classroom. Students will take courses in ethics, social policy, ethnic experience, language acquisition, American history, and science concurrently with sociological foundations of education, bilingual methods, math methods, social studies methods, and science methods. Students in the program are required to select Childhood Studies as their option in Area VII of the Liberal Studies major. The Blended Program incorporates General Education requirements, and all university graduation requirements can be completed within the structure of the Liberal Studies major.

The lower division portion of the Blended Program can be completed in two years, but students are free to take a longer time if necessary. However, the upper division portion of the Blended Program is a full-time commitment for two years including the intervening summer. It is difficult to hold down a job during the junior and senior years. During those years, students are required to take 17 to 18 units a quarter. Final admission requirements for the Credential Program must be completed during the junior year. During the senior year, students are members of a Multiple Subject Team. Members of the Team take their courses together and finish together. Thus students are unable to move through the program at their own pace.

### Admission

Students must declare Liberal Studies as their major and then contact the Liberal Studies office to apply for admission to the Blended Program. Admission is a two stage process: (1) provisional admission during the summer prior to the student's junior year, and (2) final admission at the end of the junior year.

Provisional admission requirements are: completion of a minimum of 21 courses to a maximum of 25 courses in the Liberal Studies



## Options

major; a minimum GPA of 2.90; completion of T ED 1500 or equivalent course which requires a minimum of 20 hours of field experience in an elementary school classroom; and three letters of recommendation from a teacher or principal verifying experience in a K-8 classroom. (One letter may be from the instructor in T Ed 1500 or equivalent course.) Final admission requirements are: passage of the CBEST examination; completion of 80% of the Liberal Studies major including MATH 4021; a minimum GPA of 2.90 in coursework taken during the junior year; and an admission interview by the Multiple Subject Credential Team Leader.

Please contact the Liberal Studies office for information concerning admission forms, admission deadlines, and for the specific courses required during the junior and senior years.

Students in the Blended Program must also request certification of completion of the Multiple Subject Preparation Program, which includes a summative assessment of subject matter competence. The summative assessment process is described in the "Summative Assessment" section under "Major Requirements, B.A." in this chapter. Upon completion of the summative assessment, a waiver of the MSAT exam is granted.

The Liberal Studies Office advises students interested in the following Liberal Studies Options. See the departmental chapters in this catalog for information on other Liberal Studies Options. Contact the appropriate department for additional information.

### Bilingual/Cross Cultural Studies (36 units)

Areas I and/or II, Spanish Language (12 units)

Three courses from the following:

MLL 2401 Intermediate Spanish I (4), 2402 Intermediate Spanish II (4), 2403 Intermediate Spanish III (4), 2410 Spanish Conversation (4), 3401 Advanced Spanish Composition and Syntax, I (4), 3402 Advanced Spanish Composition and Syntax, II (4), 3403 Advanced Spanish Composition and Syntax III (4), 3411 Introduction to Spanish Linguistics (4), 3412 Spanish Phonetics (4), 3495 Spanish-American Culture and Civilization (4)

Area VII (24 units)

A. Required course:

E S 1200 Introduction to Mexican American/Latino Studies (4)

B. Twenty units selected from:

E S 2410 Mexican American/Latino Perspectives in Film (4), 3110 Racism in America (4), 3120 The Civil Rights Movement (4), 3290 Community Development (1-4), 3805 Mexican and Latin American Immigration (4), 4000 Research Seminar in Ethnic Studies (4).

### Business Studies (32 units)<sup>1</sup>

Area I (8 units)

- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)

Area VII (24 units)

- Either ACCT 2210 Accounting for Non-Business Majors (4) or  
ACCT 2251 Principles of Accounting I (4)

- CIS 3060 Computer Information Systems in Management (4)
- MGMT 3600 Theories of Management (4)
- MGMT 3614 Organizational Behavior (4)
- MGMT 4500 Business, Government, and Society (4)
- MKTG 3401 Introduction to Marketing Management (4)

Childhood Studies (18 units)

*This option is open only to students in the Blended Liberal Studies/Credential Program. (Note: One lower division course may be used in the option with consent of the Program Coordinator. No course in the option may be taken CR/NC.)*

- HDEV 4510 Cognitive Development (4)
- HDEV 4520 Language Acquisition and the Symbolic Function (4)

HDEV 4700 Childhood Development (4) or T ED 3500 Introduction to Childhood Studies

T ED 5355 Sociological Foundations of Education (2)

One course from the following:

- DANC 3235 Dance for Children (4)
- ENGL 4740 History of Children's Literature (4)
- KPE 4004 Elementary School Physical Education (4)
- T ED 4320 Art Skills for Teachers (4)
- T ED 5242 Teaching Multi-Ethnic Literature to Children (4)
- THEA 3610 Interpretation of Children's Literature and Story Telling (4)
- THEA 3650 Dramatic Activities for Children (4)

Early Childhood Studies (24 units)

Area VII

A. Core requirements (15-16 units)

1. Either HDEV 4700 Childhood Development (4) or T ED 3500 Introduction to Early Childhood Studies (4)
2. HDEV 4510 Cognitive Development (4)
3. HDEV 4520 Language Acquisition and the Symbolic Function (4)
4. One course from the following (3-4 units):  
DANC 3235 Dance for Children (4); ENGL 4740 History of Children's Literature (4); T ED 4320 Art Skills for Teachers (4), 5240 Children's Literature in Elementary Education (3), 5242 Teaching Multi-Ethnic Literature to Children (4);

THEA 3610 Interpretation of Children's Literature and Story Telling (4), 3650 Dramatic Activities for Children (4).

B. Electives (8-9 units)

ANTH 3740 Cross-Cultural Studies in Child-Rearing (4); DANC 3235 Dance for Children (4); EPSY 5021 The Exceptional Individual (4); ENGL 4740 History of Children's Literature (4); HDEV 3001, 2, or 3 Behavioral and Biological Approaches in Human Development I, II, or III (3), 4710 The Child in the Family and in the Community (4); PSYC 4200 Conditioning and Learning (4), 4210 Theories of Learning (4), 4420 Developmental Psychology (4);

SOC 3410<sup>2</sup> Sociology of the Family (4), 3413<sup>2</sup> Sociology of Parenting (4), 3415<sup>2</sup> Sociology of the African American Family (4), 3416<sup>2</sup> Sociology of the Mexican American Family (4), 3417<sup>2</sup> Sociology of the Asian American Family (4), 4750<sup>2</sup> Child Welfare (4); SPPA 3852-3 Survey of Speech and Language Disorders-Part I or II (4), 3856 Observation of Clinical Procedures in Communicative Disorders (1-4), 4863 Phonological Disorders in Children (4), 4865 Language Disorders in Children (4); T ED 4320 Arts Skills for Teachers (4), 5021 Child Growth and Development (3), 5038 Multicultural Education (4), 5180 Play and Learning in the Education of the Young Child (4), 5240 Children's Literature in Elementary Education (3), 5242 Teaching Multi-Ethnic Literature to Children (4); THEA 3610 Interpretation of Children's Literature and Story Telling (4), 3650 Dramatic Activities for Children (4).

Integrative Science (44-51 units)

Areas I and III (18-23 units)

BIOL 1001 Introduction to Biology (4)

BIOL 1002 Introduction to Biology Laboratory (1)

BIOL 3032 Diversity of Organisms in Selected Habitats (4)

or

BIOL 2040 Survey of the Animal Kingdom (4), and either BIOL 2030 Survey of the Plant Kingdom (4) or BIOL 4015 Horticultural Botany (4)

CHEM 1100 General Chemistry (5) or CHEM 1601 Basic Chemistry for the Health Sciences (4) (strongly recommended)

PHYS 1700 Elementary Physics (4) and PHYS 1780 Elementary Physics Laboratory (1)

Area VII (26-28 units)

BIOL 3020 Genetics, Evolution, and Humanity (4)

BIOL 3015 Natural History of Marine Organisms (4) or BIOL 3031 Nature Study (4)

GEOL 2101 Physical Geology (5)

GEOL 2300 Natural Disasters (4) or GEOL 3030 Earth and Life Through Time (5) or GEOL 3040 Fundamentals of Meteorology (4)

PHYS 1800 Astronomy (4)

PHYS 1880 Astronomy Laboratory (1)

One Chemistry-based course. In consultation with an advisor, choose one of the following:

- BIOL 2010 Human Physiology and Anatomy I (5)
- BIOL 3005 Introduction to Microbiology (5)
- CHEM 1602 Basic Chemistry for the Health Sciences (4)
- CHEM 1603 Basic Chemistry for the Health Sciences (4)
- GEOL 3610 Mineralogy (4)

*In addition to the above requirements, it is strongly recommended that students satisfy other major requirements as follows:*

Area I (Basic Math or Statistics Course)

- MATH 1130 College Algebra (4) or Math 1300 Trigonometry and Analytic Geometry (4) or STAT 1000 Elements of Probability and Statistics (5) or STAT 1100 Elements of Descriptive and Inferential Statistics (4)

Area VI (Women in Society Requirement)

- BIOL/CHEM/GEOL/PHYS 3800 Women in Science (4)

## Language Studies (28 units)

Area II. B

Required course (4 units)

- HDEV 4520 Language Acquisition and the Symbolic Function (4) (Prerequisite: HDEV 4510 which is waived for Liberal Studies majors)

Area VII (24 units)

A. Required courses

- A third quarter foreign language course (4)
- ENGL 3005<sup>5</sup> Study of Language (4)
- SPCH 4830 Intercultural Communication (4) or T ED 5038 Multicultural Education (4)

B. Electives (12 units)

- ANTH 2800 Introduction to Anthropological Linguistics (4), 3800 Language and Culture (4); ENGL 3015<sup>5</sup> Introduction to Phonology (4), 3040<sup>5</sup> Linguistic History of the English Language (4), 4010<sup>5</sup> Current Theories in Formal Grammar (4), 4060<sup>5</sup> Topics in the Study of the English Language (4) (if topic is appropriate); PSYC 4740<sup>5</sup> Psycholinguistics (4); SPPA 3854 Anatomy and Physiology of Speech (4); T ED 5242 Teaching Multi-Ethnic Literature (4).

## Special Education (24-27 units)

Area I (5 units)

- Recommend:* STAT 1000 Elements of Probability and Statistics (5)

Area II. B (4 units)

*Recommend one of the following:*

- HDEV 4520<sup>5</sup> Language Acquisition and the Symbolic Function (4); PSYC 4740<sup>5</sup> Psycholinguistics (4); SPPA 3854 Anatomy and Physiology of Speech (4)

Area IV. B (4 units)

*Recommend one of the following:*

HDEV 3001 Behavioral and Biological Approaches to Human Development I (3); PSYC 4200<sup>□</sup> Conditioning and Learning (4), 4420<sup>□</sup> Developmental Psychology (4)

Area IV. C (Field Experience)

*Required:*

Documented experience in a special education setting, either in addition to T ED 3001 or as part of a journal or other documentation submitted for this requirement.

Area VII (24-27 units)

A. Core requirements (14 units):

EPSY 5021 The Exceptional Individual (4)

EPSY 5121 Counseling Exceptional Children (4)

EPSY 5125 Methods, Materials and Media for Exceptional Individuals (3)

EPSY 5136 Curriculum for Severely Handicapped (3)

B. Electives: 10-13 units selected from at least two (2) of the following groups (10-13 units)

1. SPPA 3852<sup>□</sup> Survey of Speech and Language Disorders I (4), 3853<sup>□</sup> Survey of Speech and Language Disorders II (4), 3855 Introduction to Phonetics (4), 3856<sup>□</sup> Observation of Clinical Procedures (1), 3859 Introduction to Audiology (4), 4861 Introduction to Audiometry (4), 4863 Phonological Disorders in Children (4), 4865 Language Disorders in Children (4)

2. DANC 3235 Dance for Children (4); EPSY 5010 Computers in Education (3); KPE 1600 Physical Activity for Special Students (1), 3305 Structural Kinesiology (5) (Prerequisite: BIOL 2010), KPE 4800 Physical Education for Exceptional Individuals (4); KPE/REC 4605 Special Populations: Psychomotor Disabilities and Implications (4) (Prerequisite: KPE 3305 or consent of instructor), 5600 Special Populations: Program Development (5) (Prerequisite: KPE/REC 4605 or consent of instructor); KPE/REC 4605 or consent of instructor, 5610 Special Populations: Practicum (4) (Prerequisite: KPE/REC 5600 or consent of instructor), REC 4600 Therapeutic Procedures and Techniques (4), 4601 Therapeutic Recreation Treatment and Modalities (4); T ED 5038 Multicultural Education (4), 5610 Methods and Materials for Teaching English as a Second Language and Bilingual Education (4)

3. HDEV 3001 Behavioral and Biological Approaches to Human Development I (3), 3800 Human Development and Interaction (4), 4510 Cognitive Development (4), 4520 Language Acquisition and the Symbolic Function (4), 4700 Childhood Development (4), 4710 The Child in the Family and in the Community (4); PSYC 4345<sup>□</sup> Sensation and Perception (4), 4350<sup>□</sup> Heredity and Behavior (4), 4410<sup>□</sup> Abnormal Psychology (4), 4420<sup>□</sup> Developmental Psychology (4); SOC 4750 Child Welfare (4); T ED 5021 Child Growth and Development (3)

## Required Course List (RCL)

Liberal Studies Major requirements in Areas II-VI are to be satisfied by courses selected from the following list current as of September, 1999. For additions and deletions since then, students may check with the Liberal Studies Office.

### Area II. Language and Communication

#### B. Critical Writing

ENGL 1014 Ancient Literature, 2070 Beginning Workshop in Fiction, 2120 "Include Me Out," 2999 Literary and Cultural Responses to Technology, 3003 Discursive Writing, 3020 Advanced Expository Writing, 3077 Writing from Life to Video

#### E. Language Acquisition

One foreign language course at the level of at least the third quarter of the first year, or one course selected from the following:

ANTH 1800 Introduction to Anthropological Linguistics, 3800 Language and Culture, 3810 Socio-Linguistics, 4800 Understanding Language; ENGL 3005 Study of Language, 3040 Linguistic History of the English Language, 4010 Current Theories in Formal Grammar, 4050 Second Language Acquisition; HDEV 4520<sup>5</sup> Language Acquisition and the Symbolic Function; PSYC 4740<sup>4</sup> Psycholinguistics; SPCH 4830 Intercultural Communication, 4860 Ethnic Public Address; SPPA 3852<sup>6</sup> Survey of Speech and Language Disorders-Part I, 3854 Anatomy and Physiology of Speech, 3855 Introduction to Phonetics, 3856<sup>5</sup> Observation of Clinical Procedures in Communicative Disorders; T ED 5370 Second Language Acquisition

### Area III. A. Natural Sciences

Two courses selected from the following, one from Life Sciences and one from Physical Sciences. The total of four science courses taken in Areas I and III must include at least three laboratory/activity courses.

#### A. Life Sciences

BIOL 1001/1002 Introduction to Biology/Lab, 1003/1004 Biological Evolution/Lab, 2010 Human Physiology and Anatomy I, 2030 Survey of the Plant Kingdom, 2040 Survey of the Animal Kingdom, 3001 Concepts of Molecular Biology, 3015 Natural History of Marine Organisms, 3020 Genetics, Evolution, and Humanity (non-lab), 3031 Nature Study, 3060 Human Sexuality (non-lab), 4015 Horticultural Botany, 4020 Contemporary Biology (non-lab)

#### B. Physical Sciences

CHEM 1000 Popular Topics in Chemistry (non-lab), 1100 Introduction to College Chemistry, 1101 General Chemistry, 3010 The Making of Wine; GEOL 1001/1002 Introduction to the Earth Sciences/Environmental Geology Laboratory, 1201/1202 Introduction to Oceanography/Oceanography Laboratory, 2101 Physical Geology, 3040 Fundamentals of Meteorology (non-lab), 3050/3051 Volcanoes and Plate Tectonics/Volcanoes Laboratory, 3100 Geology of the Western National Parks (non-lab), 3300 Principles of Geology (non-lab), 3400 General Oceanography; PHYS 1005/1780 How Things Work/Physics Lab, 1600/1880 Evolution of the

Universe/Astronomy Lab, 1700/1780 Elementary Physics/Laboratory, 1800/1880 Astronomy/Laboratory, 2005 Science of Energy (non-lab), 2023/1780 Physics of Perception/Physics Lab, 2100/1780 Physics in the 21st Century/Physics Lab, 3700/1880 The Big Bang and Other Cosmologies/Astronomy Lab

### Area III. C. Environmental Perspectives

One course selected from the following:

ANTH 1100 Introduction to Biological Anthropology, 3100 Human Evolution I, 3101 Human Evolution II, 3110 Primate Social Behavior; BIOL 3015 Natural History of Marine Organisms, 3020 Genetics, Evolution, and Humanity, 3031 Nature Study, 3035 Endangered and Threatened Species in Bay Area and California Habitats, 4010 Microbes and Humanity, 4020 Contemporary Biology; ECON 4306 Environmental Economics; ENVT 2000 Introduction to Environmental Studies, 4100 Environmental Impact Analysis

GEOG 3000 Resource Management, 3100 Regional Climatology, 3115 Physical Landscape Analysis, 3320 Geography of World Agriculture, 3330 Urban Geography, 3340 Urban Planning, 3400 Field Geography of the San Francisco Bay Region, 4320 Energy Resources and Management, 4325 Field Course in Cultural-Urban Geography, 4330 Sustainable Development, 4350 Water Resources and Management;

GEOL 2300 Natural Disasters, 3000 Conservation of Natural Resources, 3030 Earth and Life through Time, 3110 Principles of Geomorphology, 3300 Principles of Geology, 4320 Hydrogeology; HSC 3200 Environmental Health; HIST 3505 California Environmental History; PHIL 3151 Environmental Ethics; POSC 3460 Environmental Law, 4171 Public Policy and the Environment; REC 4700 Environmental Recreation; SCI 1005 Technology of the Future, 3335 Science, Technology, and Values; SOC 3100 Seminar in Human Ecology.

### Area IV. A. Physical Development

One course selected from the following:

DANC 3235 Dance for Children; KPE 1625 Nutrition and Performance, 3250 Kinesiological Foundations of Physical Education.

### Area IV. B. Social Development

One upper division course (two if T ED 5351/5355 selected), at least 3-5 units, selected from the following:

ANTH 3700 Educational Systems in Cross-Cultural Perspective, 3740 Cross-Cultural Studies in Child-Rearing; EPSY 5021 The Exceptional Individual; E S 3105 African American Identity, 3180 The World of the Black Child; HDEV 3001-2-3 Behavioral and Biological Approaches in Human Development I, II, III; 3011-12-13 Sociocultural and Experiential Approaches in Human Development I, II, III, 3800 Human Development and Interaction, 4400 Adolescence, 4510 Cognitive Development, 4520 Language Acquisition and the Symbolic Function, 4700 Childhood Development, 4710 The



## Child in the Family and in the Community

PSYC 4200 Conditioning and Learning, 4350 Heredity and Behavior, 4410 Abnormal Psychology, 4420 Developmental Psychology; SOC 3410 Sociology of the Family, 3413 Sociology of Parenting, 3730 Juvenile Delinquency; T ED 5021 Child Growth and Development, 5351 Psychological Foundations of Education and 5355 Sociological Foundations of Education (must both be taken to count here).

## Area IV. C. Field Experience

The subject matter preparation program requirement for experience in the classroom may be satisfied by one of the alternatives below. *However students should be aware that admission requirements for a credential program may require additional school experience.* For further information, consult the Department of Teacher Education.

- A. Completion of T ED 1500 Introductory Field Experience or 3001 Exploring Education or their equivalent or
- B. Documented experience (30 hours) in an elementary (K-8) school classroom with children of elementary school age, in positions such as teacher's aide, tutor, or volunteer. Especially recommended is experience in a culturally diverse setting and with children with disabilities. Degree requirements may be cleared by submitting a letter from the school principal or supervisor (on school letterhead) verifying completion of K-8 classroom experience. This letter is due in the Liberal Studies Office on or before the last day of classes of the student's last quarter. A journal is to be included in the portfolio which is submitted when subject matter certification is requested, at the time of graduation or later.

## Area V. A. History, Theory, and Appreciation of the Arts

Two courses, from different departments, selected from the following:

ART 1010 The Idea of Art History or any other Art History course; DANC 4200 Dance Through the Ages, 4201 Dance in Modern Society, 4202 Women in Dance; ENGL 4745 Film Criticism; E S 2125 The Black Aesthetic, 2300 Blacks in Film, 2410 Mexican American/Latino Perspectives in Film, 3145 African American Music, 3243 Mexican American/Latino Perspectives in Film; HIST 4895 Architecture and Society; MCOM 3430 Women and Film; MCOM/ART 4620 History of Photography

MUS 1000 Survey of Music Literature, 1003 Music and Dance, 1004 Introduction to World Music, 1005 Music of Our Time, 1006 History of Rock and Roll, 1007 History of Jazz, 1008 Music Theory for Non-Majors, 2120 A Panorama of Jewish Music, 3000 Fundamentals of Music Theory and Composition, 3002 What to Listen For in Music; THEA 1005 How to See a Play, 1010 All the World's a Stage, 2226 Women in Performance, 3201 Classical Greek and Roman Drama, 3202 European Medieval and Renaissance Drama, 3203 Modern European Drama, 3207 Modern American Theatre, 3208



Postmodern Theatre, 3210 Script Analysis: The Western Tradition, 3216 History of Musical Theatre, 3225 Theatre Today, 3226 The Woman Artist, 3228 Women in Dramatic Literature, 3230 Shakespeare on Film, 3232 Modern Art and Theatre, 3422 History of Costume, 3423 Non-Western Costume, 4231 Eve and Her Sisters-Women of the Bible, 4375 Ethnic and Immigrant Theatre in the U.S

## Area V. B. Arts Activities

At least 4 units selected from the following:

ART 1020 Introduction to World Art, 1111 The Art Experience or any other Art Studio course

*Any other Art course listed in G.E. Area F in the Class Schedule.*

ART/MCOM 2701 Introduction to Photography, 3600 Intermediate Photography, 4600 Advanced Photography; MCOM 3101 Television Pre-production; MCOM/ART 2700 Introduction to Photography, 3340 Graphic Communication; MUS 1015, 1016 Basic Musicianship Through Guitar for Non-Music Majors I, II; 1027, 1028, 1029 Sight-singing I, II, III; 1311, 1312, 1313 Elementary Class Piano I, II, III; 1314, 1315, 1316 Basic Piano Class I, II, III; 2314 Keyboard Sight-Reading, 2315 Keyboard Harmony, 2500 Chamber Music in the Public Schools, 3210-3270 Applied Music (individual instruments), 3515 University Oratorio Society

*Any other Music course listed in G.E. Area F in the Class Schedule*

DANC 1141-2-3 Beginning Modern Dance I, II, III (1 unit activity), 1171-2-3 Beginning Jazz Dance I, II, III (1 unit activity), 2022 Contemporary Musical Theatre Dance, 2030 Fundamentals of Modern Dance, 2141-2-3 Intermediate Modern Dance I, II, III (1 unit activity), 2171-2-3 Intermediate Jazz Dance I, II, III (1 unit activity), 2250 Dance Performance Theatre (1 unit activity), 3021 Cultural Dance Forms, 3215 Dance Touring, 3216, 3217 Dance Touring II, III, 3220, 4220 Dance Performance, Composition, and Production I, II, 3235 Dance for Children, 3241 The Dance Experience, 3426 Collaborative Dance Theatre, 3690 Dance: Art and Education into Therapy, 4235 Children's Dance; SPCH 4183 Speech and Debate Activities Workshop (Forensics competition); T ED 4320 Art Skills for Teachers

THEA/DANC 2020 Rhythm and Music for Dance (2), THEA 1012 Exploring Creativity in Theatre and Dance, 1020 Discover Acting, 2005 Acting Fundamentals: Improvisation, 2015 Acting Fundamentals: Stage Movement, 2188 Summer Theatre Workshop; 3189 Production Practicum; 3310 Interpretation of Women's and Ethnic Literature, 3610 Interpretation of Children's Literature and Story Telling, 3650 Dramatic Activities for Children, 3660 Children's Theatre Performance, 4801 Topics in Theatre Performance

*Any other Theatre course listed in G.E. Area F in the Class Schedule*

## Area VI. B. Western Heritage

One course selected from the following:

ART 3035 Modern Art, 3040 Art in the United States, 3220 Art in the Ancient World, 3225 Renaissances in European Art, 4071 Art Since 1945; ECON 3170 History of Economic Thought; ENGL 3400 Masterworks of British Literature, 3600 Masterworks of American Literature, 3700 Classical Literature, 3710 Medieval Literature, 3715 Dante's World I, 3716 Dante's World II, 3720 Renaissance Humanism, 3725 Petrarch and Boccaccio, 3730 The Neo-Classical Tradition, 3740 The Romantic Era, 3745 The Gothic, 3750 Realism and Naturalism, 1830-1910, 3760 Literature of the Twentieth Century, 4710 Biblical Literature, 4720 Mythology, 4833 British Novel from 1914-1945, 4870 The American Novel, 1914-1945; E S 2120 Jewish Values

HIST 1014 World Civilizations I, 1015 World Civilizations II, 1016 World Civilizations III, 4030 Historiography or any upper division course in European history; HUM 1001 Dawn of Western Civilization, 1002 Western Civilization in Transition, 1003 Modern Western Civilization, 3000 Literature of the Holocaust; INTD 3001 In Search of Self: The Mystery of Self and Other, 3003 In Search of Self: Truth and Reality

*Modern European Languages: any upper division literature course, including those in English translation, except those in Brazilian and Spanish-American literature*

PHIL 3321 Philosophy of the Human Sciences, 3331 History of Science, 3332 Philosophy of Science, 3503 Philosophy of Law, 3601 Ancient and Medieval Philosophy, 3602 Modern Philosophy, 3603 Nineteenth Century Philosophy, 3604 Twentieth Century Philosophy, 3605 Studies in Contemporary Philosophy

POSC 3704 Marxism in Theory and Practice, 3711 Greek, Roman, and Medieval Political Thought, 3712 Early Modern Political Thought, 3713 Contemporary Political Thought; SPCH 4201 Comparative Traditions of Rhetoric; THEA 3201 Classical Greek and Roman Drama, 3202 European Medieval and Renaissance Drama, 3203 Modern European Drama, WOST 4922 Women of the Classics

## Area VI. C. African, Asian, and Western Hemisphere Civilizations

One upper division course selected from the following:

ANTH 3240 Archeology of North America, 3250 Precolumbian America: Aztec, Inca, Maya, 3280 Preconquest Mexico, 3430 Ethnicity and Nationalism, 3510 South America, 3535 Southeast Asia, 3545 Anthropology of China, 3550 Modern Japan, 3560 India, 3580 Middle East, 3755 Culture, Conflict, and Law, 3780 The Anthropology of Production and Exchange; ART 3010 Latin American Art, 3055 Ancient American Art, 3058 Far Eastern Art

ENGL 3790 Black Literature III (Africa, Mediterranean, Caribbean), E S 3800 Peoples of Central America; GEOG 3510 Geography of Mexico, Central America, and the

Caribbean Islands, 3515 Geography of South America, 3540 Geography of Eastern Asia, 3550 Geography of Southeast Asia; HIST 3301 Modern East Asia, 3302 Modern East Asia Through Film, 3311 Traditional China, 3312 Modern China, 3313 People's Republic of China, 3322 Early Japan, 3323 Modern Japan, 3325 Postwar Japan, 3600 Colonial Latin America, 3601 Latin America: 1700-1900, 3602 Latin America in the 20th Century, 3605 Modern Latin America, 3620 The Cuban Revolution and Latin America, 3622 Mexico Since 1810, 3803 Topics in Asian History, 3804 Topics in Latin American History

LAST 3000 The Latin American World; MLL 3461 Introduction to Spanish-American Literature: 1492 to 1900, 3463 Introduction to Spanish-American Literature: from 1900 to the Present, 3495 Spanish-American Culture and Civilization, 3830 Japanese Literature and Culture, 3871 Topics in Brazilian Literature, 4495 A Single Movement, Country or Theme: Spanish-American Literature PHIL 3214 Philosophy and Myth in Latin American Literature, 3403 Philosophy of the East, 3410 Comparative Themes in Eastern and Western Philosophy; POSC 3204 Political Systems of Asia, 3230 Government and Politics in the Middle East, 3260 Government and Politics of Africa South of the Sahara, 3280 Political Systems of Latin America; SOC 3431 Seminar in World Development; THEA 3311 Filipino Theatre, 3423 Non-Western Costume

#### Area VI. D. Ethnic Experience in America

One upper division course selected from the following:

ANTH 3500 North American Indians, 3505 Indians of California, 3520 Contact Period of California; ART 3056 Ethnic Art; ENGL 3660 Native American Literature, 3670 Asian/Filipino American Literature, 3680 Hispanic/Latino/U.S. Literature, 3691 Black Literature I, 3692 Black Literature II

E S 3000 Ethnic Writers, 3003 African American Women Writers, 3030 Immigrant and Refugee Women, 3105 African American Identity, 3110 Racism in America, 3120 The Civil Rights Movement, 3130 Slavery in the Americas, 3180 World of the Black Child, 3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present, 3202 Latino Writers, 3210 Latinas in the U.S., 3290 Community Development, 3305 Contemporary Native American Life, 3310 Native American World View, 3330 Native American Liberation Movements, 3555 Asian American Family Patterns, 3805 Mexican and Latin American Immigration, 3810 History of Minority Education, 3851 Asian American Women and Men, 4290 Latino Politics

HIST 3515 The Mexican American and the American Southwest, 3567 Blacks in the United States, 3568 Blacks in the West; MCOM 3400 The Ethnic Media in America; POSC 3333 Ethnic and Minority Politics; SOC 3414 Filipino Labor/Immigration, 3415 Sociology of the African American Family, 3416 Sociology of the Mexican American Family, 3417 Sociology of the Asian American Family, 3425 Prejudice and Discrimination, 3507 Filipino American Communities, 3520 Sociology of Minority Groups, 3525 The African American

Male; SPCH 4500 Critical Discourse in Multicultural America, 4830 Intercultural Communication, 4860 Ethnic Public Address; T ED 5038 Multicultural Education; THEA 3310 Interpretation of Women's and Ethnic Literature, 3315 Multicultural Theatre Troupe, 4375 Ethnic and Immigrant Theatre in the United States; WOST 3420 Minority Women in America

## Area VI. E. Women in Society

One upper division course, selected from the following:

ANTH 3750 Women in Cross-Cultural Perspective; ART 3227 Women in Art; BIOL 3800 Achievements of Women in Science; CRJA 4125 Women in Criminal Justice; DANC 4202 Women in Dance; ENGL 3650 Women and Literature, 4450 Studies in British Women's Literature, 4650 Studies in American Women's Literature; E S 3003 African American Women Writers, 3030 Immigrant and Refugee Women, 3210 Latinas in the U.S., 3851 Asian American Women and Men; HIST 3124 Women in Ancient and Medieval Europe, 3136 Women in the Renaissance, 3571 Women in American History, 4710 History and Trends in Nursing; MCOM 3430 Women and Film, 4500 Women in Media; POSC 3170 Public Policy on the Family, 3340 Women and Politics; PSYC 3410 Psychology of Women; REC 3202 Women and Leisure; SOC 3411 Sociology of Sex Roles

THEA 3226 The Woman Artist, 3228 Women in Dramatic Literature, 3310 Interpretation of Women's and Ethnic Literature, 4231 Eve and her Sisters-Women of the Bible; WOST 3100 Seminar in Women's Studies, or any other upper division Women's Studies course

## Area VI. F. Ethics and Social Policy

One upper division course selected from the following:

ANTH 3000 Anthropology in the Modern World; 3720 Medical Anthropology, 3760 Anthropology Through Media; CRJA 3700 Ethics and Justice Administration; ECON 3370 Public Finance, 3375 Public Choice, 3685 Labor Institutions; E S 3120 The Civil Rights Movement; H SC 3300, 3350, 3400; HIST 3000 Contemporary World Problems, 3017 The Twentieth Century, 3547 Modern War; HDEV 3600 Journey of the Soul; INTD 3002 In Search of Self: Conflict and Value; INTS 3100 Global Systems; MGMT 4500 Business, Government, and Society

PHIL 3100 Ethics, 3150 Contemporary Ethics, 3151 Environmental Ethics, 3152 Medical Ethics, 3160 Business Ethics, 3213 Ethics in Literature, 3400, 3401 Contemporary Religious Thinkers, 3502 Social and Political Philosophy, 3503 Philosophy of Law, 3510 Human Rights and Social Justice, 3560 Business and Professional Ethics, 3701 Philosophy of Education, 3925 Moral Values in the Modern World; PHIL/SCI 3335 Science, Technology, and Values; POSC 3170 Public Policy on the Family, 3370 Citizen Action, 3410 Law and Society, 3442 American Constitutional Law II, 3500 Contemporary World Problems, 3510 War and Peace, 3711 Greek, Roman and Medieval Political Thought, 3716 Citizenship, Community, and Democratic Theory, 3800 Public Policy Analysis, 3801 Welfare Politics, 4911 Seminar on Administrative Ethics; PUAD 4800 Public Administration and

## Society

SOC 3420 Social Inequality, 3425 Prejudice and Discrimination, 3431 Seminar in World Development, 3480 Violence and Conflict, 3620 Sociology of Education, 3710 Social Policy, 3720 Human Behavior and Social Environment, 4720 Medical Sociology, 4750 Child Welfare; WOST 3100 Seminar in Women's Studies

## Area VI. G. Geography

One upper division course, selected from the following:

GEOG 3000 Resource Management, 3300 Historical Cultural Geography, 3320 Geography of World Agriculture, 3330 Urban Geography, 3360 Historical Geography of the United States, 3370 The American Language, 3500 Geography of the United States and Canada, 3505 Geography of California, 3510 Geography of Mexico, Central America, and the Caribbean Islands, 3515 Geography of South America, 3540 Geography of Eastern Asia, 3550 Geography of Southeast Asia, 3550 Geography of Southeast Asia, 3590 Geography of Europe, 4330 Sustainable Development, 4350 Water Resource Management

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## Footnotes

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- <sup>1</sup>By California Commission on Teacher Credentialing Directive, the Business Studies Option is not allowed for the Credential track.
  - <sup>2</sup>Maximum of two Sociology courses allowed.
  - <sup>3</sup>Prerequisite is ENGL 1001, required in Area I of the major.
  - <sup>4</sup>Prerequisite is PSYC 1000 which is an elective in the major.
  - <sup>5</sup>Has a prerequisite of HDEV 4510 which is waived for Liberal Studies majors.
  - <sup>6</sup>Enrollment in SPPA 3852 or 3853 requires concurrent enrollment in at least one unit of SPPA 3856.



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## Department Information

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## Program Description

# Asian Studies

- ▶ [Department Information](#)
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Department of Sociology and Social Services  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3097  
Phone: (510) 885-3173

*Professors Emeriti:* Bruce E. MacNab, Lindy Mark, James L. Nichols

*Professors:* Asoke K. Basu, Sam N. Basu, Loretta Breuning, Peter J. Claus, Edgardo de la Cruz, Colleen Fong, Jong S. Jun, Shyam Kamath, Chong S. K. Lee, Mark Levy, Nancy Mangold, Surendra Pradhan, Ricardo L. Singson, Young I. Song, Willem W. Van Groenou (Director), Robert W. Zambetti

*Associate Professors:* Jagdish Agrawal, Hadi M. Behzad, Sophia Lee, Efren Padilla

*Assistant Professor:* David Woo

*Lecturers:* Agha Saeed, Mala Seshagiri, Yoko Shioiri-Clark

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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All students are invited to include some courses on Asia in their programs in order to enhance their critical understanding of the West's interrelatedness with the regions where half of humanity lives. The Asian countries are steeped in traditions that have elaborated different possibilities than those with which many Americans are acquainted. The Asian peoples have liberated themselves from Western rule and they are trying to establish equal relations with the West, while they work to come to terms with science, technology, and democracy in their own countries.

The Asian Studies faculty, in cooperation with Asian American student groups and concerned community members, attempt to encourage mutual understanding of East and West through regular courses in various departments (see following list); through new courses listed in the Class Schedule and Independent Study; through occasional workshops, lectures, and

cultural events; and through outreach work in the Bay Area schools. The program is supplemented with topics such as Yoga, Judo, and Karate (Kinesiology and Physical Education). Notice also that certain general courses in the curriculum include a major Asian component: for example, Mankind and Food, Folklore (Anthropology), International Finance and Trade (Economics), Nutrition and Diet Therapy (Health Sciences), Multinational Business (Management Sciences), International Marketing (Marketing), International Relations and Contemporary World Problems (Political Science), and World Development (Sociology), among others. The Asian Studies Program faculty publicizes these and related matters. Study abroad courses, as well as short educational tours, have been offered in several Asian countries.

#### Minor in Asian Studies

Students with broader interests in Asia can build into their curriculum a Minor in Asian Studies consisting of eight courses (32 units). The minor is designed to complement the student's major by grouping courses taken as part of the major, courses taken to fulfill General Education requirements, and free electives into a package emphasizing Asia. A minimum of 18 units must be taken outside the student's major.

Although the Minor in Asian Studies does not include a foreign language requirement, one year of an Asian language may be counted toward fulfillment of the minor requirements. Students wishing to go on to graduate school in Asian Studies are strongly encouraged to begin their language study as part of their undergraduate training. Mandarin Chinese, Japanese, Vietnamese and Filipino are offered on campus.

It is also possible to include courses taken at the universities that are associated with the International Programs of the California State University system; these opportunities presently exist in China, India, Japan, Taiwan, and Thailand and others are being considered.

Thirty two units (eight courses) may be chosen from the following list. No more than 12 units (three courses) in one department. At least 12 upper division units are required.

ANTH 3535 Southeast Asia (4), 3545 China (4), 3550 Japan (4), 3560 India (4); ART 2005 Asian Thought (4); GEOG 3540 Geography of East Asia (4), 3550 Geography of Southeast Asia (4); HIST 3301 Modern Asia (4), 3311 Traditional China (4), 3312 Modern China (4), 3313 People's Republic of China (4), 3322 Early Japan (4), 3323 Modern Japan (4), 3325 Postwar Japan (4); MLL 1601-2-3 Elementary Mandarin Chinese I, II, III (4 each), 1651-2-3 Elementary Filipino I, II, III (4 each), 1751-2-3 Elementary Vietnamese I, II, III (4 each), 1801-2-3 Elementary Japanese I, II, III (4 each), 2831 Asian Thought (4); PHIL 1401 Religions of the World (4), 2605 Asian Thought (4), 3403 Philosophies of the East (4), 3410 Comparative Themes in Eastern and Western Philosophy (4); POSC 3204 Political Systems in Asia (4)

Although not part of the courses that count in the minor, Asian courses in Kinesiology and Physical Education are a much appreciated supplement to the Asian Studies program. Yoga, Judo, and Karate combine the wisdom of the body with self-



understanding, and enhance learning skills, general alertness, and fitness.

Minor in Filipino/Filipino American Studies  
See Filipino/Filipino American Studies chapter.



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## Department Information

## Mission and Goals

## Library

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Reference Desk: Library 2000  
Phone (510) 885-3765

*Librarian Emerita:* Barbara Kwan

*University Librarian:* Myoung-ja Lee Kwon

*Deputy Director:* Ilene Rockman

*Librarians:* Michele Buda, Carol Castagnozzi, Douglas Ferguson,  
Elizabeth Ginno, Kristin Ramsdell

*Associate Librarians:* Judy Clarence, Dana Edwards, Stephen  
Philibosian

*Senior Assistant Librarians:* Judith Faust, Jennifer Laherty, Kate  
Manuel

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### Mission

Consistent with the University's mission, the Strategic Plan of the CSU Council of Library Directors, and the Library Bill of Rights as endorsed by the American Library Association, the Library's mission is to provide a wide range of resources and services to support undergraduate and graduate instruction, faculty research, and the general informational and cultural needs of the university community.

The Library's mission is accomplished through the following goals:

### Goals

- To provide students, faculty, and staff equal access to information resources in support of their learning and intellectual needs, regardless of location, learning style, or economic circumstances.
- To provide materials on site in a variety of formats and to develop and maintain collections that support the curricular and research needs of the university population.
- To provide expedient and effective bibliographic control and

access to the Library's collections as well as accurate circulation status of materials.

- To serve as a gateway to information available elsewhere.
- To participate in the development of shared information resources (networking, electronic access to text, sound, and graphic images, and universal access to collections regardless of physical location) within the CSU and with other institutions.
- To facilitate library use and information access through positive, enthusiastic, and appropriate reference service and instruction.
- To provide instruction, training, and assistance to students, faculty and staff in developing information competency necessary for teaching, learning, and scholarship.
- To encourage collaboration of discipline-based faculty and Library faculty in the areas of instruction (including the design of curricula and instructional methods) and collection development.
- To provide a supportive, inviting learning environment for a diverse student population.
- To develop and maintain a qualified, service-oriented staff by encouraging and supporting professional development of the Library faculty and staff.
- To develop constituencies, including cross-cultural links, in the region served by the university and to serve as a resource to the community at large.
- To fulfill these goals while maintaining the privacy of Library patrons in relation to all records that are kept.

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*The course prefix for the following courses is LIBY.*

**1010** Fundamentals of Information Literacy (1)  
Information structure and organization. Techniques and computer skills for effectively identifying, acquiring, evaluating, using, and communicating information in various formats. Sections tailored to articulate with courses in first year thematic G.E. sequences in Areas B, C, and D.

**1551** Information Skills in the Electronic Age (2)  
Instruction and practice in accessing information through print, electronic, and other non-print formats. Includes examination of the Library's collections as well as information available remotely through electronic means. CR/NC grading only.

**2000** Interdisciplinary Applications of Geographic Information Systems (4)  
Fundamentals of spatial database technology and manipulation using commercially available computer programs. Emphasis on applicability to interdisciplinary fields including business, life and physical sciences,

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## Library Skills Courses

education, social sciences, and library and information resources. Recommended preparation: familiarity with computers. Two hrs. lect., 4 hrs. act.

**3200** Discipline Based Information Research (2)  
Research techniques and computer skills for effectively identifying, acquiring, evaluating, using and communicating information in specific disciplines. The focus changes from quarter to quarter as appropriate. May be repeated for credit with consent of the instructor.



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## Biological Science

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- ▶ [Undergraduate Courses](#)

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### Department Information

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Department of Biological Sciences  
School of Science  
Office: North Science 429  
Phone: (510) 885-3471

*Professors:* Christoph W. Baysdorfer, Stephen C. Benson (Chair), Beverly A. Dixon, Lynne O. Elkin, Christopher L. Kitting, Edward B. Lyke, Samuel M. McGinnis, Maria C. Nieto, Susan B. Opp, Richard A. Symmons, Richard E. Tullis

*Associate Professor:* Donald A. Gailey

*Assistant Professors:* Michael S. Hedrick, Carol R. Lauzon, Laura Marschall, Kelly P. Steele

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Biology is concerned with living matter in all its forms, responses, and interactions. It deals with the study of anything which has been or is alive: microbes, all plants, and all animals, including humans. The Science of Biology includes a large number of sub-disciplines such as anatomy, reproduction, development, genetics, ecology, evolution, physiology, systematics, and behavior. A biologist must draw upon a wide variety of academic disciplines to make observations and draw conclusions. A well-trained biologist will have a background in chemistry, mathematics, computer science, statistics, and physics to meet the demands of the present professions.

The Department of Biological Sciences offers a diversified curriculum in the life sciences. Courses are designed for biology majors with specific degree objectives, for students seeking

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## Career Possibilities

applied technical training, and for non-major students with general interest in biological subjects. Undergraduate programs will prepare students for both graduate work and for a diversity of careers. Biology majors may enter specialized or general careers in life science and find themselves working in laboratories, offices, the field, farms, administrative posts, academic institutions, industry, government agencies, private foundations, botanic gardens and zoos, wildlife preserves, and elsewhere.

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Administrator • Biotechnology • Botany • Cell Biology • Consultant • Ecology • Entomology • Environmental Specialist • Genetic Engineering • Physiology • Genetics • Health Sciences • Lab Assistant • Lab Technician • Marine Biology • Medical Technology • Pharmacology • Population Biology • Researcher • Teacher • Scientist • Space Biology • Technical Sales • Technical Writer • Toxicology • Zoology • Zookeeper

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## Features

Classes are offered on the Hayward campus in well-equipped facilities, at the Moss Landing Marine Laboratories located on Monterey Bay, and at a number of field locations throughout the San Francisco Bay Area, including the South San Francisco Bay National Wildlife Refuge Field Station, the Cleary Reserve, and the Garin Reserve adjacent to campus.

A program in Biomedical Laboratory Sciences is offered to qualify students for California hospital traineeships which lead to state licensure as medical technologists.

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## Preparation

A student who has successfully completed an advanced placement course in biology in high school and has earned a score of "3," "4" or "5" on the Advanced Placement Examination will be granted 9 units of credit in place of BIOL 1001-2 and either BIOL 2030 or 2040 (by advisement) or, if student is a Biology Major, 10 units in place of BIOL 1301 & 1302. No Advanced Placement credit is given for BIOL 1303.

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## Major Requirements (B.S.)

The B.S. major should be considered by students anticipating careers in biology or the health sciences that require graduate school, professional school, or specialized training programs. All students wishing to enter medicine, dentistry, veterinary medicine, or biomedical laboratory positions should obtain a Bachelor of Science degree. Students wishing to teach in secondary schools should also consider the B.S. degree. Requirements are subject to change, so consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 100 units; the B.S. degree requires a total of 186 units.

- I. Physical Sciences and Mathematics (47 units)  
CHEM 1101-2-3 General Chemistry (15)

CHEM 2301-2 Survey of Organic Chemistry (8) (CHEM 3301-2-3 may be substituted, but only 8 units apply to major.)

CHEM 3400 Introductory Biochemistry (4) or CHEM 4411 General Biochemistry (4)

MATH 1300 Trigonometry and Analytic Geometry or MATH 1304 Calculus I (4) (Students should take the most advanced course for which they are qualified. Biologists continuing on to graduate work should complete MATH 1305 as a minimum.)

STAT 3031 Statistical Methods in Biology (4)

PHYS 2701-2-3 Introductory Physics (12)

- II. Biological Science Core Program (36 units)
- BIOL 1301-2-3 Foundations of Biological Science (15)
  - BIOL 3110 Principles of Ecology (4)
  - BIOL 3121 Principles of Genetics (5)
  - BIOL 3122 Principles of Developmental Genetic Analysis (4)
  - BIOL 3130 Principles of Evolutionary Biology (4)
  - BIOL 3150 Principles of Physiology (4)

- III. Advanced Biological Science Electives (17 units)
- Upper division electives in biological science. (May include up to 4 units of approved courses in sciences other than Biology and pertinent to the student's area of special interest. The approved courses are CHEM 4412 and GEOL 3400; other courses subject to approval by petitioning the department prior to registration)

*Note:* Because the upper division requirements of the Biology major are not large, students need to track carefully their progress toward the 60 upper division units required for graduation.

### B.S. Degree with Biomedical Laboratory Sciences Option (113 units)

The Biomedical Laboratory Sciences Option leading to a B.S. degree in Biological Science prepares students for further training after graduation in State approved hospital laboratories as required for State licensure of Medical Technologists. Traineeships are available to qualified graduates in laboratories throughout California. Trainee positions are highly competitive. This option is recommended for students contemplating work in public health, industrial microbiology, quality control, research, and graduate work in related fields. The major with the Biomedical Laboratory Sciences Option consists of 113 units; the B.S. degree requires a total of 186 units.

- I. Physical Sciences and Mathematics (43 units)
- CHEM 1101-2-3 General Chemistry (15)
  - CHEM 2301-2 Survey of Organic Chemistry (8) (CHEM 3301-2-3 may be substituted, but only 8 units apply to major.)

MATH 1300 Trigonometry and Analytic Geometry or MATH 1304 Calculus I (4) (Students should take the most advanced course for which they are qualified.)

STAT 3031 Statistical Methods in Biology (4)

PHYS 2701-2-3 Introductory Physics (12)

## Major Requirements (B.A.)

- II. Biological Science Core Program (24 units)
  - BIOL 1301-2-3 Foundations of Biological Science (15)
  - BIOL 3121 Principles of Genetics (5)
  - BIOL 3150 Principles of Physiology (4)
  
- III. Option Requirements (46 units)
  - CHEM 2200 Quantitative Analysis (5)
  - CHEM 3400, 3401, 3405 Introductory Biochemistry and Clinical Chemistry (11)
  - BIOL 3405 Microbiology (6)
  - BIOL 3430 Hematology (4)
  - BIOL 3440 Medical Parasitology (4)
  - BIOL 4411 Medical Microbiology I (5)
  - BIOL 4412 Medical Microbiology II (5)
  - BIOL 4430 Immunology (4)
  - BIOL 4431 Immunology Lab (2)

The Bachelor of Arts major program should be considered by students wishing broad experience in biology as well as specialized course work in one of the three options: General Biology, Ecology/Natural History, or Human Biology. Students planning careers in education, biological interpretative work, natural history programs, health-related vocations, or seeking generalized biological training may find this program most adaptable to their needs. However, the B.A. degree major in many cases will not provide the required courses for admission to graduate or professional schools. The major consists of a minimum of 98 units; the B.A. degree requires a total of 186 units.

- I. Physical Sciences and Mathematics (21-39 units)
  - CHEM 1601-2-3<sup>1</sup> Basic Chemistry for the Health Sciences or CHEM 1101-2-3 General Chemistry and CHEM 2301-2 Survey of Organic Chemistry (12-23)
  
  - MATH 1130 College Algebra or MATH 1300 Trigonometry and Analytic Geometry or MATH 1304 Calculus I or STAT 3031<sup>2</sup> Statistical Methods in Biology (4)
  
  - PHYS 1700<sup>1</sup> Elements of Physics and PHYS 1780<sup>1</sup> Elementary Physics Laboratory or PHYS 2701-2-3 Introductory Physics (5-12)
  
- II. Biological Sciences (28 units)
  - BIOL 1301-2-3 Foundations of Biological Science (15)
  - BIOL 3121 Principles of Genetics (5)
  
  - Two courses (8 units) selected from:
    - BIOL 3110 Principles of Ecology
    - BIOL 3122 Principles of Developmental Genetic Analysis
    - BIOL 3130 Principles of Evolutionary Biology
    - BIOL 3150 Principles of Physiology
  
- III. Electives (31-49 units)
  - Any upper division biology course except BIOL 3032 and 4020. BIOL 2010 and 2020 may also be used.

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## Minor Requirements

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## Life Sciences Option: Liberal Studies

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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The minor program is designed to provide students in other majors the opportunity to broaden their experience and understanding of the biological sciences, and it may expand their educational and employment opportunities. The minor consists of 35-37 units.

CHEM 1100 Introduction to College Chemistry (5) or CHEM 1601 Basic Chemistry for the Health Sciences (4)

BIOL 1301-2-3 Foundations of Biological Science (15)

BIOL 3020 Genetics, Evolution and Humanity (4) or BIOL 3121 Principles of Genetics (5)

Upper division Biology electives (12) (can include BIOL 2010 or BIOL 2020)

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### Area I and III.A (17-19 units)

BIOL 1001 Introduction to Biology (4)

BIOL 2030 Survey of the Plant Kingdom (4)

Either CHEM 1100 Introduction to College Chemistry (5), or CHEM 1601 Basic Chemistry for Health Sciences (4)

Either GEOL 1001 Introduction to the Earth Sciences (4), or GEOL 1201 Introduction to Oceanography (4)

### One of the following (1-2 units):

BIOL 1002 Introduction to Biology Lab (1)

GEOL 1002 Environmental Geology Lab (2)

GEOL 1202 Oceanography Lab (2)

### Area VII, Credential Track or Area VI, Liberal Arts Track (23-27 units)

BIOL 2040 Survey of the Animal Kingdom (4)

BIOL 3020 Genetics, Evolution, and Humanity (4)

Either BIOL 3015 Natural History of Marine Organisms (4), or BIOL 3031 Nature Study (4)

### Elective courses from the following (11-15 units):

BIOL 2010 Human Physiology and Anatomy I (5), 2020 Human Physiology and Anatomy II (5), 3001 Concepts in Molecular Biology (4), 3005 Introduction to Microbiology (5), 3015 Natural History of Marine Organisms (4), 3031 Nature Study (4), 3035 Endangered and Threatened Species in Bay Area and California Habitats (4), 3060 Human Sexuality (4), 3070 Optimal Nutrition (4), 3210 Woody Plants of California (4),



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## Certificate in Pre-Physical Therapy

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## Undergraduate Courses

4010 Microbes and Humanity (4), 4580, 4581 Natural History of the Vertebrates, I, II (5, 5), 4630 Biological Photography (4); GEOL 2300 Natural Disasters (4), 3000 Conservation of Natural Resources (5), 3030 Earth and Life Through Time (5), 4320 Hydrogeology (4)

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A Certificate in Pre-physical Therapy can be earned in conjunction with either degree in biological sciences. The requirements can be found in the section on Preprofessional Programs.

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*The course prefix for the following courses is BIOL.*

- 1001** Introduction to Biology (4)  
Plants, animals and microorganisms and the modern biological concepts that apply to their structure and function on cellular, organismal, population, and ecosystem levels. Special emphasis on humans and their relationships with other living things. Not for biology major credit. Recommended: concurrent enrollment in lab, BIOL 1002.
- 1002** Introduction to Biology Lab (1)  
Laboratory exposure to biological phenomena including microscope activities of cells, osmosis, diffusion, human nutrition, human genetics, plant growth, classification of plants and animals, fertilization and development, natural selection simulation, field ecology and ecosystems. Prerequisite: prior or concurrent enrollment in BIOL 1001 or equivalent. Not for biology major credit. Two hrs. lab.
- 1003** Biological Evolution (4)  
The origins of life forms such as bacteria, vertebrates, primates and humans. Theories of human expansion and diversity with application to medicine and the future of human evolution. Not for biology major credit.
- 1004** Biological Evolution: Lab (1)  
Laboratory identification and analysis of basic chemicals of life, bacteria and their evolution, vertebrate structure, and human DNA. Not for biology major credit. Prerequisite: concurrent enrollment in BIOL 1003. Three hours lab.
- 1005** How Things Work: The Human Body (4)  
A conceptual look at how important systems work, what they mean in an everyday way, and how they all fit together in one working unit...the human body. Not for biology major credit.
- 1301**, **1302**, **1303** Foundations of Biological Sciences (5, 5, 5)  
• BIOL 1301 An introduction to animal biology with emphasis on relationship of structure and function in animals, principles of classification and ecology, and a brief survey of the animal kingdom, including evolutionary

relationships. Four hrs. lect., 3 hrs. lab or field. (F, Sp)

- BIOL 1302 An introduction to plant biology with emphasis on relationship of structure and function in plants, principles of classification and ecology, and a brief survey of the plant kingdom, including evolutionary relationships. Four hrs. lect., 3 hrs. lab or field. (F, W)

- BIOL 1303 Introduction to molecular and cellular biology with emphasis on the integration of structure and function in the living cell as a biological system; cellular aspects of inheritance. Prerequisite: CHEM 1101 or 1601, or equivalent or consent of instructor. Four hrs. lect., 3 hrs. lab.

- 2010** Human Physiology and Anatomy I (5)  
[CAN BIOL SEQ B = BIOL 2010, 2020]  
An integrated approach to essential concepts of human physiology and anatomy. Analysis of skeletal, muscular, sensorimotor, cardiovascular and respiratory systems. Recommended preparation: high school biology and chemistry, or BIOL 1001, 1002 and CHEM 1100 or 1601. Not open for credit to students who have taken BIOL 2061 and/or 2062. Not for Biology B.S. degree credit. No Academic Renewal permitted. Four hrs. lect., 3 hrs. lab.
- 2015** Cooperative Learning for Physiology and Anatomy (1)  
Participation in cooperative learning sessions in small groups. Students receive written materials which are mastered and taught to other members of their group. Concurrent enrollment in BIOL 2010 required.
- 2020** Human Physiology and Anatomy II (5)  
[CAN BIOL SEQ B = BIOL 2010, 2020]  
An integrated analysis of physiology and anatomy of the integumentary, autonomic and central nervous, endocrine, urinary and reproductive systems and of the blood and special senses. Coverage of histology, metabolism, and thermoregulation. Prerequisites: BIOL 2010 or equivalent and CHEM 1100 (may be taken concurrently). No Academic Renewal permitted. Not for Biology B.S. degree credit. Four hrs. lect., 3 hrs. lab.
- 2030** Survey of the Plant Kingdom (4)  
General biology of the major plant groups, stressing the fundamentals of classification, morphology, physiology and reproduction. Prerequisite: BIOL 1001, 1002 or equivalent. Not for biology major credit and not open to students who have completed BIOL 1302. Three hrs. lect., 3 hrs. lab.
- 2040** Survey of the Animal Kingdom (4)  
Introduction to the anatomy, physiology, classification and evolution of the major animal phyla. Prerequisite: BIOL 1001, 1002 or equivalent. Not for biology major credit and not open to students who have completed BIOL 1301. Three hrs. lect., 3 hrs. lab.
- 3001** Concepts in Molecular Biology (4)

Principles and practice of molecular biology with emphasis on the human genome, human genetic diseases, and human evolution. Prerequisite: BIOL 1001 or 1303 or equivalent. Not for Biology B.S. degree credit. Two hrs. lect., 6 hrs. lab.

- 3005 Introduction to Microbiology (5)  
The nature and activities of beneficial and harmful microorganisms; their role in health, disease, and their natural environment. Laboratory practice in handling microorganisms, including identification and culture techniques. Designed for health sciences and nursing. Prerequisites: BIOL 1001, 1002 or permission of instructor, CHEM 1601 or equivalent. Not open for credit to students who have taken BIOL 4010 or BIOL 3405. Not for Biology B.S. Degree credit. Three hrs. lect., 3 hrs. lab, 1 hr. disc. (F, W)
- 3015 Natural History of Marine Organisms (4)  
Natural history of marine plants and animals with emphasis on explorations of local marine habitats. Prerequisite: BIOL 1001, 1002 or equivalent. Not for Biology B.S. degree credit. Not open for credit to students who have taken BIOL 3115. Cross-listed with M SC 3015. Two hrs. lect., 6 hrs. lab and/or field. (Y)
- 3020 Genetics, Evolution, and Humanity (4)  
Principles of genetics, their application to human problems, and to theories of evolutionary change, including the evolution of humans. Not for Biology B.S. degree credit. Prerequisite: BIOL 1001, 1002 or equivalent. (Y)
- 3031 Nature Study (4)  
Natural history in the field and laboratory with emphasis on biotic communities and their component plants and animals. Prerequisite: BIOL 1001, 1002 or equivalent. Not for Biology B.S. degree major credit. Two hrs. lect., 6 hrs. lab/field.
- 3032 Diversity of Organisms in Selected Habitats (4)  
Relationships among the diverse organisms found in selected habitats including freshwater, marine and terrestrial. Emphasis on organismal function, structure and ecology. Prerequisites: BIOL 1001 and 1002, or equivalent. Not for biology degree credit. Three hrs. lect., 3 hrs. lab/field.
- 3035 Endangered and Threatened Species in Bay Area and California Habitats (4)  
Endangered, threatened and other protected animal and plant species in the greater Bay Area and other selected sites in California. Emphasis on the factors which have reduced or destroyed their habitats. A Saturday field trip will explore several Bay Area sites where endangered species studies are presently in progress. Three hrs. lect., 3 hrs. lab/field. Prerequisite: BIOL 1001 or equivalent. Not for Biology B.S. degree credit.
- 3060 Human Sexuality (4)

Anatomy, physiology, endocrinology of adult sexual organs; human development through birth; abnormalities of sexual development and adult function; sexually transmitted and congenital diseases; new reproductive techniques. Not for Biology B.S. degree credit.  
Prerequisite: BIOL 1001, 1002 or equivalent, or consent of instructor. (Y)

- 3070 Human Nutrition (4)  
Key nutrients, including carbohydrates, lipids, proteins, vitamins, and minerals. Role each plays in human metabolism. Current controversies in nutritional information, including food supplements and claims for prevention of disease. Prerequisite: BIOL 1001 or equivalent. Not for Biology B.S. degree credit. (Y)
- 3110 Principles of Ecology (4)  
Relationships within and among populations in various environments; introduction to population dynamics and species interactions in natural communities and ecosystems; applications to human welfare. Prerequisites: BIOL 1301-2, MATH 1130 and STAT 3031 or equivalents; BIOL 1303 recommended. Three hrs. lect., 3 hrs. lab, and/or field trips. (Y)
- 3115 Marine Biology (4)  
The general biology of marine organisms with emphasis on the ecology of local marine communities. Students with concurrent or previous enrollment in M SC 4103 not admitted. Not open for credit to students who have taken BIOL 3015. Cross-listed with M SC 3115. Prerequisites: BIOL 1301-2 or equivalent. Two hrs. lect., 6 hrs. lab, field trips. (Y)
- 3116 Fresh-water Biology (5)  
The ecology of lakes, ponds and streams, with emphasis on water chemistry, structure and distribution of inland water communities, and biological productivity. Frequent trips to local aquatic habitats. Prerequisites: BIOL 1301-2-3 or equivalent; courses in general chemistry and general ecology recommended. Three hrs. lect., 6 hrs. lab/field.
- 3121 Principles of Genetics (5)  
Comprehensive analysis of gene structure, function, and inheritance incorporating classical and molecular-based approaches. Emphasis on the experimental evidence that has led to our current understanding of the nature of the gene, drawing on examples from bacteria to humans. Prerequisites: BIOL 1301-2-3 or equivalent. Four hrs. lect., 1 hr. disc.
- 3122 Principles of Developmental Genetic Analysis (4)  
Continuation of BIOL 3121. Aspects of development from subcellular to organismal phenomena, emphasizing current theories, techniques, and applications of cell biology and molecular genetics. Prerequisites: BIOL 1301-2-3, BIOL 3121, CHEM 1101-2-3 or 1601-2-3 or equivalents.

- 3130 Principles of Evolutionary Biology (4)**  
A survey of the basic processes involved in the evolution of natural populations. The systematic and phylogenetic implications of evolutionary change will also be considered. Prerequisite: BIOL 1301-2-3 and 3121 or equivalent. (Y)
- 3140 Principles of Developmental Biology (4)**  
Basic processes of fertilization, growth, determination, differentiation, induction, and morphogenesis as exemplified in microorganisms, plants, and animals at the molecular, cellular, tissue, and organismic levels. Prerequisites: BIOL 1301-2-3, CHEM 1101-2-3 or 1601-2-3 or equivalents; BIOL 3121. Three hrs. lect., 3 hrs. lab. (Y)
- 3150 Principles of Physiology (4)**  
Introduction to current views on the various physiological functions such as transport, respiration, nutrition, excretion, sensory reception, and nervous and hormonal systems. Concepts of these functions derived from plant and animal forms. Prerequisites: BIOL 1301-2-3, CHEM 2301-2 or 3301-2-3 or concurrent enrollment. Three hrs. lect., 3 hrs. lab. (Y)
- 3201 Biology of Nonvascular Plants (5)**  
The general biology of algae, fungi, and bryophytes, with emphasis on structure, reproduction, and ecology. Prerequisites: BIOL 1301-2-3 or equivalent. Three hrs. lect., 6 hrs lab./field.
- 3202 Advanced Plant Biology (4)**  
Development and evolution of structure and function in green algae and land plants from theoretical and historical perspectives. Genetics, developmental biology, ecology, molecular biology and paleobotany integrated into discussion of invasion of terrestrial habitat, evolution of vascular tissue, tree growth habit and wood, seeds, and flowers. Anatomy and morphology of extant and fossil land plants. Prerequisites: BIOL 1301-2-3. Three hrs. lect., 3 hrs. lab.
- 3210 Woody Plants of California (4)**  
Identification, distribution, and ecological characteristics of native and introduced trees and shrubs of California. Prerequisites: BIOL 1302 or BIOL 2030 and 3031 or equivalent. Two hrs. lect., 6 hrs. lab. or field trips and/or weekend field trips.
- 3405 Microbiology (6)**  
The general biology of major groups of microorganisms, including their morphology, metabolism, reproduction, genetics and ecology. Prerequisites: BIOL 1301-2-3 or equivalent, organic chemistry. Four hrs. lect., 6 hrs. lab. (F, Sp)
- 3410 Epidemiology (4)**  
Study of the distribution and determinants of disease and health-related aspects in populations. Application of results to the prevention and control of health problems.

Prerequisite: BIOL 1000 and 3005 or permission of instructor. (Y)

- 3430 Hematology (4)  
Morphology, function and composition of human blood fluids and cells, both normal and diseased. Prerequisite: BIOL 1301 and 1303 and organic chemistry. Two hrs. lect., 6 hrs. lab. (Sp)
- 3440 Medical Parasitology (4)  
Study of protozoa and metazoa important in the pathogenesis of human diseases, including pathology, immunology and epidemiology, as well as life cycles and laboratory identification of the parasites. Prerequisite: BIOL 1301 and 1303 or equivalent. Two hrs. lect., 6 hrs. lab.
- 3521, 3522 Biology of Invertebrate Animals I, II (5 each)  
Advanced study of functional morphology, development, phylogeny and natural history of invertebrates excluding insects. Biology 3521: lower invertebrates including protozoa, sponges, cnidarians and worms. Biology 3522: higher invertebrates including mollusks, arthropods, echinoderms and minor phyla. Prerequisites: BIOL 1301-2-3 or equivalents. Not open for credit to students who have taken M SC 4125 and 4126. Three hrs. lect., 6 hrs. lab/field. (Alt.W, Alt, Sp)
- 3800 Achievements of Women in Science (4)  
Historical and contemporary analysis of the achievements, lives, influences, experiences, attitudes, and status of women in science and mathematics with special emphasis on the role of education, mentoring, family, and the media. Cross-listed with CHEM, GEOL, and PHYS 3800. Not for major or minor credit in Biology, Chemistry, Geology, or Physics.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units, 4 units of which are applicable to biology major or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)
- 4010 Microbes and Humanity (4)  
Historical review of microbial organisms, their role in causing disease and beneficial contribution to humanity. For Liberal Studies, Biology Majors (B.A. only), and General Education (Lifelong Understanding). Does not meet Nursing prerequisite requirements. Not open for credit to students who have taken BIOL 3005 or BIOL 3405. Prerequisite: BIOL 1001, 1002 or equivalent. (Y)
- 4015 Horticultural Botany (4)  
Plant biology as illustrated by contemporary horticultural applications, including biotechnology, with lab exercises on plant morphology, plant growth experiments, water relations, horticultural techniques and soil conditioning. Prerequisites: BIOL 1001 and 1002 or equivalent or

permission of instructor. Applicable to B.A. degree in Biological Sciences, but not to B.S. degree in Biological Sciences. Three hrs. lect, 3 hrs. lab/field.

- 4020 Contemporary Human Biology (4)  
Contemporary biology issues are examined to promote understanding of topics directly affecting human lives. Major emphasis on the modern biology of human genetics, biotechnology, health, nutrition, and bioethics. Not for Biology major credit.
- 4120 Radiation Biology (4)  
Biological effects of radiation and radio tracer studies including physiological, ecological, clinical, and experimental applications; basic radiation physics, radioactivity, half-life, detection and measurement, counting statistics and techniques, and safety. Prerequisites: BIOL 3150, PHYS 2703, and college algebra. Three hrs. lect., 3 hrs. lab.
- 4130 Biogeography (4)  
Study of the distribution of organisms; the evolution and ecology of biomes, their biotas, dispersal, change in range, phylogenetic systematics and islands. Cross-listed with GEOG 4130. Prerequisites: BIOL 1301 and 1302 or equivalent.
- 4160 Medical Physiology (4)  
Particular emphasis on human pathophysiology, its etiology, diagnosis, and the physiologic rationale for treatment of multiple system disease, entities, and/or failures. Prerequisites: BIOL 2010 and 2020, or BIOL 3150 or equivalent, or consent of instructor. (F, Sp)
- 4180 Molecular Genetics (4)  
Advanced course detailing the molecular approach to gene analysis in prokaryotes and eukaryotes. Concentration on experimental techniques and approaches using publications from the molecular-genetic literature as examples. Prerequisites: BIOL 3121, CHEM 2301-2 or 3301-2-3.
- 4185 Molecular Evolution (4)  
Evolution of biological macromolecules, particularly genetic material and proteins; use of molecular data in reconstruction of evolutionary history of genes and organisms; emphasis on developing an evolutionary framework to better understand changes in genes and proteins; modern methods of data analysis. Prerequisites: BIOL 3121, 3130.
- 4200 Plant Taxonomy (4)  
Principles of plant taxonomy. Field and laboratory studies of native seed plants. Prerequisites: BIOL 1301-2-3 or equivalent. Two hrs. lect., 6 hrs. lab., field trips.
- 4300 General Entomology (4)  
Introduction to the anatomy, physiology, ecology and behavior of insects. Identification of local insect forms and techniques of collecting, rearing and preserving insects.



Prerequisites: BIOL 1301 and 1302. Two hrs. lect., 6 hrs. lab., field trips.

- 4310 Insect Systematics and Identification (4)  
Advanced study of the evolutionary history and systematics of insects and their terrestrial arthropod relatives. Taxonomy and identification of insects including techniques of collecting and preserving. Prerequisites: BIOL 1301 and 1302 or equivalents. Two hrs. lect., 6 hrs. lab/field. Alt. (Alt. Y)
- 4340 Environmental Microbiology (4)  
Key positions that microorganisms occupy in nature and their effects on global ecosystems; includes bioremediation, disease transmission/public health, biogeochemical cycling, plant-animal-insect-microbe interactions. Prerequisite: BIOL 3405.
- 4411, 4412 Medical Microbiology I, II (5,5)  
Laboratory isolation and identification and host-parasite interactions of the Gram negative (4411) and the Gram positive, acid-fast anaerobic (4412) pathogenic bacteria. Prerequisites: BIOL 3405 or equivalent. 4412 may be taken prior to 4411. Three hrs. lect., 6 hrs. lab. (F, W)
- 4420 Genetics Laboratory (4)  
Introduction to genetic analysis including classical experiments with viruses, bacteria and fruit flies. Implementation of genetic variants in DNA technology. Prerequisites: BIOL 3121 or equivalent. Two hrs. lect, 6 hours lab.
- 4430 Immunology (4)  
Specific and nonspecific reactions in immunity; manifestations of antigen-antibody reactions, hypersensitivity and transplantation immunity. Prerequisite: BIOL 1301-2-3, BIOL 3121, CHEM 2301-2 or CHEM 3301-2-3. (Sp)
- 4431 Immunology Laboratory (2)  
Antibody/antigen interactions, T and B cell functions, and the variability in the immune response. Biochemical and recombinant DNA techniques as well as standard immunodiagnostic tests. Prerequisites: BIOL 1301-2-3 or equivalent, and prior or concurrent enrollment in BIOL 4430 or equivalent. Six hrs. lab.
- 4450 Cell Culture Techniques (4)  
Techniques of in vitro culture of primary and established cell lines of multi-cellular origin. Topics include nutrition, growth, cloning, cell fusion, transformation, preservation, karyotyping, autoradiography, metabolic labeling, quality control applications. Prerequisite: permission of instructor. Two hrs. lect., 6 hrs. lab. (Sp)
- 4470 Physiological and Molecular Plant Biology (4)  
Physiological and molecular aspects of plant biology. Topics include photosynthesis, plant development, and the interaction of plants with their environment. Laboratory exercises cover basic techniques in modern physiological



and molecular plant biology. Prerequisites: BIOL 1302-3 or equivalents. Two hrs. lect., 6 hrs. lab.

- 4480 DNA Sequencing and Sequence Analysis (3)  
Determination and analysis of the base sequence of DNA. Various approaches to preparing DNA for sequencing, generation of reaction sets, preparing and running sequencing gels, sequence reading, computer analysis of sequence data, and DNA data base comparisons. Prerequisites: BIOL 1303 and 3121, or equivalent. One hr. lect., 6 hrs. lab.
- 4501 Comparative Animal Physiology (5)  
Physiological processes fundamental to invertebrate and vertebrate animals: digestive, circulatory neuromuscular, metabolic, excretory and endocrine systems. Emphasis on their ability to cope with internal and external environmental changes. Prerequisites: BIOL 3150 or consent of instructor. Three hrs. lect., 6 hrs. lab.
- 4505 General Endocrinology (4)  
Anatomy, physiology, and biochemistry of the endocrine system in vertebrate and invertebrate organisms. Prerequisite: BIOL 3150.
- 4510 Neurobiology (4)  
The structure and function of the vertebrate and invertebrate nervous system with emphasis on the principles of communication, control, and sensorimotor responses. Survey of concepts of neurochemistry, feedback, bionic models, and higher brain processes. Prerequisites: BIOL 3150 or BIOL 2010, 2020 or consent of instructor.
- 4518 Animal Behavior (4)  
Behavior patterns of animals; sensory adaptations, perception, orientation, imprinting instinct and learning, social and reproductive behavior; communication; emphasis on evolutionary relations. Prerequisites: BIOL 1301-2-3 or equivalent. Three hrs. lect., 3 hrs. lab./field.
- 4520 Mammalian Physiology (4)  
Principles of mammalian physiology, including laboratory experiments in cardiovascular, respiratory, gastrointestinal and renal physiology. Prerequisites: BIOL 3150 or consent of instructor. Two hrs. lect., 6 hrs. lab.
- 4530 Ecological Methods (4)  
Methods of design and analysis of ecological studies, including sampling techniques, field and laboratory measurements, and computer-aided data analysis including introductory modeling. Recommended for students interested in advanced study in ecology or conservation or environmental biology. Prerequisites: BIOL 1301-2-3 or equivalent, and BIOL 3110. Recommended prerequisite: statistics course. Three hrs. lect., 3 hrs. lab/field.
- 4560 Wildlife Ecology (4)  
North American gamebirds and mammals, world wildlife

problems, wildlife management principles and techniques, the U.S. and California endangered species programs, and practical field work in the preparation of a wildlife environmental impact report. Prerequisite: BIOL 3110 or equivalent, or permission of instructor. Two hrs lect., 6 hrs. lab/field.

4565 Ornithology (4)

The major adaptations and habits of birds, including sensory and behavioral limitations, flight, migration, nesting, and distributional ecology. Identification and taxonomy with field and lab work emphasizing western U.S. forms. Prerequisites: BIOL 1301-2-3 or equivalent. Two hrs. lect., 6 hrs. lab/field.

4570 Ichthyology (4)

The ecology, physiology, ethology, identification, and evolution of the fishes of California and coastal waters. Prerequisites: BIOL 1301-2-3 or equivalent. Cross-listed with M SC 4570. Two hrs. lect., 6 hrs. lab. and/or field trips.

4580 Natural History of the Vertebrates I (5)

Water birds, amphibians and large mammals of northern California. Field trips include water bird cruises on S.F. Bay, trips to Sacramento valley waterfowl refuges, and a weekend stay at Cleary Reserve. Prerequisites: BIOL 1301-2-3 or equivalents. Three hrs. lect., 6 hrs. lab/field.

4581 Natural History of the Vertebrates II (5)

Non-aquatic birds, reptiles, and small mammals of California. Field trips include local regional parks, a riparian habitat on the Stanislaus River, and a weekend trip to the Mojave Desert. Prerequisites: BIOL 1301-2-3 or equivalents. Three hrs. lect., 6 hrs. lab/field.

4630 Biological Photography (4)

Using photography to record scientific information accurately and artistically. Emphasis on color slide field macrophotography. Also photomicrography, telephoto flash, and hand colored high resolution photography. Prerequisites: a biology course, operational knowledge of a 35mm camera, consent of instructor. Recommended: MCOM 2700. Two hrs. lect., 6 hrs. lab./field trips.

4820 Biology Seminar (1)

Guest speakers describe their biological research and develop a dialogue between faculty and students. May be repeated once for credit. Prerequisite: one course in biology. Not applicable to G.E. requirements.

4900 Independent Study (1-4)

## Marine Science Courses

Offered at Hayward Campus

BIOL 3015 Natural History of Marine Organisms (4)

BIOL 3115 Marine Biology (4)

BIOL 4570 Ichthyology (4)

BIOL 4590 Biology of Marine Mammals (5)

Offered at the Moss Landing Marine Laboratories  
(See the undergraduate [Marine Science chapter](#) for descriptions  
of the following courses.)

Courses listed under Marine Science at Moss Landing  
Laboratories are offered on a semester basis in the Fall and  
Spring. Semester units have been converted to quarter units.

M SC 4103 Marine Ecology (6)  
M SC 4104 Quantitative Marine Science (6)  
M SC 4105 Marine Science Diving (4.5)  
M SC 4110 Introduction to Marine Animal Behavior (6)  
M SC 4112 Marine Birds and Mammals (6)  
M SC 4113 Marine Ichthyology (6)  
M SC 4124 Marine Invertebrate Zoology I (6)  
M SC 4125 Marine Invertebrate Zoology II (4.5)  
M SC 4131 Marine Botany (6)  
M SC 4135 Physiological Ecology of Marine Algae (6)  
M SC 4144 Biological Oceanography (6)  
M SC 4161 Marine Fisheries (6)  
M SC 4173 Topics in Marine Science (1.5-6)  
M SC 4174 Topics in Oceanography (1.5-6)  
M SC 4177 Microscope Techniques (4.5)  
M SC 4900 Independent Study (1.5-6)

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## Footnotes

- 1**Students electing these courses should be aware that they may not be acceptable for admission to graduate and professional schools.
- 2**Students anticipating careers in quantitative biology should include units in both mathematics and statistics as biology Core and Option electives
- 3**Students may take these three courses in any order. One is not prerequisite to any other of these courses.



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## Marine Science

► [Undergraduate Courses](#)

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### Moss Landing Marine Laboratories

The undergraduate curriculum is designed to fulfill major requirements for qualified upper division and graduate students. Such students can plan their academic schedules to provide for one or more terms at the Moss Landing Marine Laboratories and will be considered as in-residence at Hayward. Students may also take one or two all-day courses at Moss Landing to supplement their on-campus schedule. (The Admissions Office has information for concurrent registration.)

Interested students should make early application because enrollment is limited. Consult advisors in the Department of Biological Sciences or the Department of Geological Sciences for further details. An information brochure is available from the biology office or the Director's office at Moss Landing Marine Laboratories.

For additional information on the Marine Sciences program at Moss Landing Marine Laboratories, see Marine Sciences in the Graduate section of this catalog.

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## Undergraduate Courses

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*The course prefix for the following courses is MSC.*

Units are given in quarter units; hours are hours per week for a semester.

### Courses Offered through the Department of Biological Sciences

**3015** Natural History of Marine Organisms (4)  
(See BIOL 3015 for course description.)

**3115** Marine Biology (4)  
(See BIOL 3115 for course description.)

**4103** Marine Ecology (6)  
A field oriented introduction to the interrelationships between marine and estuarine organisms and their environment with emphasis on quantitative data collection and analysis. Prerequisites: BIOL 3110, STAT 3031 or equivalent and consent of instructor. Two hrs. lect., 6 hrs.

lab/field. (F, Sp)

- 4104 Quantitative Marine Science (6)  
Mathematical methods for analysis of biological, chemical, and physical data from the marine environment; experimental design, parametric and non-parametric statistics; computers and programming techniques. Prerequisites: Basic college math. Three hrs. lect., 3 hrs. lab. (F, Sp)
- 4105 Marine Science Diving (4.5)  
Scientific SCUBA diving course. Diving physics, physiology, dive planning, research diving techniques, marine life identification, and diver rescue. Open water diver training includes navigation, search and light salvage, scientific methods, small boat diving, photography and videography, and night diving. Prerequisites: certified SCUBA diver (or equivalency as determined by instructor), upper division science major status, thorough physical examination, ability to pass swimming test, instructor's consent. One hr. lect., 6 hrs. lab.
- 4110 Introduction to Marine Animal Behavior (6)  
Basic theoretical concepts of animal behavior, stressing the causation, development, and evolution of behavior. Emphasis is on the marine environment. Prerequisites: MSC 4103 or consent of instructor. Three hrs. lect., 3 hrs. lab./field. (F)
- 4112 Marine Birds and Mammals (6)  
Systematics, morphology, ecology, and biology of birds and mammals. Prerequisites: BIOL 3580; MSC 4103 recommended. Two hrs. lect., 6 hrs. lab./field. (Sp)
- 4113 Marine Ichthyology (6)  
The taxonomy, morphology and ecology of marine fishes. Not open to students with credit for BIOL 4570. Prerequisites: BIOL 1301 or BIOL 3580. Two hrs. lect., 6 hrs. lab./field. (Sp)
- 4124 Marine Invertebrate Zoology I (6)  
A field oriented introduction to the structure, systematics, evolution and life histories of the major marine invertebrate phyla. Prerequisites: BIOL 1301; MSC 4103 recommended. Not open to students with credit for BIOL 3521-22. Two hrs. lect., 6 hrs. lab/field. (F)
- 4125 Marine Invertebrate Zoology II (4.5)  
A field oriented introduction to the structure, systematics, evolution and life histories of the minor marine invertebrate phyla. Prerequisites: BIOL 1301; MSC 4103 and 4124 recommended. Not open to students with credit for BIOL 3521-22. One hr. lect., 6 hrs. lab/field. (Sp)
- 4131 Marine Botany (6)  
Introduction to the plants of the sea, marshes, and dunes, with emphasis on the morphology, taxonomy and natural history of seaweeds and vascular plants. Prerequisites: MSC 4103 recommended. Two hrs. lect., 6 hrs. lab/field.

- 4135 Physiological Ecology of Marine Algae (6)  
Biology of seaweeds and phytoplankton, modern methods in algae physiological research including respiration, enzyme activity, biochemical composition. Modern methods in algae physiological research, hands-on experience in basic electronic instrumentation, chemical separations, optical measurements, culturing methods, radioisotope techniques. Prerequisites: MSC 4103, 4131, 4144, or consent of instructor. Two hrs. lect., 6 hrs. lab/field.
- 4144 Biological Oceanography (6)  
The ocean as an ecological system. Emphasis on the complexity of organismal-environmental interaction of the plankton, the transfer of organic matter between trophic levels and nutrients cycles. Laboratory sessions will include methods in sampling, shipboard techniques, identification of the plankton, and current analytical techniques. Prerequisites: general biology, general chemistry. Two hrs. lect., 6 hrs. lab.
- 4161 Marine Fisheries (6)  
Concepts of fishery biology, including stock, recruitment, yield and abundance, age, mortality parameters. Hydrography and fishery ecology, management problems, world fisheries, mariculture, collection and analysis of fishery data. Prerequisites: MATH 1130, MSC 4104 or consent of instructor. MSC 4103 recommended. Two hrs. lect., 6 hrs. lab. (Alt. F)
- 4173 Topics in Marine Science (1.5-6)  
The study of a selected area in marine biology (morphology, physiology, ecology, etc.). Subjects will vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: Consent of instructor. (On demand)
- 4174 Topics in Oceanography (1.5-6)  
The study of a selected area in oceanography. The subjects will vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.
- 4177 Microscope Techniques (4.5)  
Principles and techniques of light and electron microscopy. Brightfield, darkfield, phase contrast and interference contrast light microscopy; episcopic and diasopic illumination systems; photomicrography; preparation of materials for and operation of the scanning electron microscope. Prerequisites: 1 quarter college physics and consent of instructor. Two hrs. lect., three hrs. lab. (F)
- 4570 Ichthyology (4)  
(See BIOL 4570 for course description.)
- 4590 Biology of Marine Mammals (5)  
(See BIOL 4590 for course description.)
- 4900 Independent Study (1.5-6)

## Courses Offered through the Department of Geological Sciences

- 4141 Geological Oceanography (6)**  
A study of the structures, physiography and sediments of the sea bottom and shoreline. Not open to students who have completed GEOL 4141. Prerequisite: GEOL 3702, and recommended: any course in general oceanography (concurrent registration satisfactory). Three hrs. lect., 3 hrs. lab. One field trip. (Alt. F)
- 4142 Physical Oceanography (6)**  
An introduction to the nature and causes of various oceanic motions including currents, waves, tides, and mixing and the physical properties of seawater including transmission of sound and light. Does not require calculus. Prerequisite: college algebra, college physics recommended. Three hrs. lect., 3 hrs. lab.
- 4143 Chemical Oceanography (6)**  
An introduction to the theoretical and practical aspects of the chemistry of the oceans, including major salts, dissolved gases, nutrient ions, carbonate system, transient tracers, and shipboard sampling techniques. Prerequisites: One year college chemistry. Two hrs. lect., 6 hrs. lab.
- 4174 Topics in Oceanography (1.5-6)**  
The study of a selected area in oceanography. The subjects will vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.
- 4175 Topics in Marine Science (4.5-6)**  
An advanced undergraduate course in a special subject area: lecture, discussion, laboratory, and field components; topics change each semester. May be repeated once for credit. Prerequisites: Consent of instructor. (On demand)
- 4900 Independent Study (1.5-6)**



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## Business Administration

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### Department Information

Departments of Accounting and Computer Information Systems, Economics, Management and Finance, Marketing  
School of Business and Economics

Dean: Jay L. Tontz

Dean's Office: Music and Business Bldg., Room 2571

Phone: (510) 885-3311

*Please consult the 2001-2002 online catalog for any changes that may occur.*

- School of Business and Economics Student Service Center (MB 2525, 510-885-3323)

- Department of Accounting and Computer Information Systems (MB 2579, 510-885-3336)

*Professor Emeritus:* Edward T. Ossman

*Professors:* Doris G. Duncan, Micah Frankel, Vernon T. S. Kam (Chair), Franklin Lowenthal, Christopher W. K. Lubwama, Nancy R. Mangold, Bijan Mashaw, Gary R. McBride, Kenneth Pefkaros, Ray Roberts, Diane Satin, Philip P. Storrer, Kathleen K. Wright

*Associate Professors:* Alexander Bordetsky, Ching-Lih Jan, Y. Robert Lin

*Assistant Professor:* Xinjian Lu

*Lecturers:* Charlene Abendroth, Suzanne M. Busch, James E. Potter, Bruce L. Raine, Lily Sieux, Gregory Sinclair, F. Victor Stanton

- Department of Economics (MB 2583, 510-885-3339)  
See the undergraduate Economics chapter for a listing of



Economics faculty and a description of the Economics major and minor.

- Department of Management and Finance (MB 2591, 510-885-3322)

*Professors:* S. David Aviel, Sam N. Basu, Loretta Breuning, Samuel I. Doctors, Spyros Economides, Craig G. Johnson, John G. Kilgour, Duane R. Lambert, John B. Major, Stephen H. Miller, William L. Moore, Surendra Pradhan, Zinovy Radovitsky, Susan D. Schaefer, Allen J. Schuh, Paul D. Staudohar, Harry Waters, Jr., John J. Villarreal, William D. Whisler, Donna L. Wiley, Donald H. Wort (Chair), Richard Zock

*Associate Professors:* Hadi Behzad, Joyendu Bhadury, Alan P. Goldberg, Sharon Green, Guido Krickx, Fung-Shine Pan

*Assistant Professor:* Stephen L. Starling

- Department of Marketing and Entrepreneurship (MB 2583, 510-885-4146)

*Professor Emeritus:* Bruce MacNab

*Professors:* Chong Lee (Chair), Ricardo L. Singson, Norman Smothers, Eric Soares, Steve Ugbah

*Associate Professor:* Jagdish Agrawal

*Assistant Professors:* Cesar Maloles, Stevina Evuleocha

- Institutes and Centers

Center for Business and Environmental Studies.

*Director:* Samuel I. Doctors

Center for Economic Education.

*Director:* Jane E. Lopus

Center for New Ventures and Alliance

*Director:* Ricardo L. Singson

Human Investment Research and Education Center

*Director:* Nan Maxwell

Institute of Research and Business Development

*Executive Director:* Bruce MacNab

Smith Center for Private Enterprise Studies

*Director:* Charles W. Baird; *Associate Director:* Micah Frankel

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## Program Description

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The School of Business and Economics is committed to providing a broadly oriented professional education to prepare students for careers in business, government, and non-profit organizations. Our program is based on the realization that while many business school graduates secure their initial job through their specialization in one of the functional areas, in a relatively short period of time they progress to positions that require a broad managerial approach incorporating the perspectives of other specialties in addition to their own.

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## Features

Thus, our Business Administration Major is structured around a large core of required courses that exposes our students to the basic tools of quantitative methods and economic theory, provides them with an introduction to each of the primary functional areas of business, and still leaves them the opportunity to pursue a limited concentration in one or two of these specialized areas.

This extensive set of core courses lets students develop a substantive background in the management of organizations prior to choosing an option and enables them to change options during their program with little or no loss of progress toward their degree.

The undergraduate and the graduate programs in Business Administration are accredited by the American Assembly of Collegiate Schools of Business.

For more information and advising, contact the Business and Economics Student Service Center, MB 2525, (510) 885-3323.

The University also offers a program in Industrial Engineering (see Engineering chapter).

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All core and option requirements of the undergraduate programs of the School of Business and Economics are available on the Hayward campus. These options include Accounting, Advertising, Computer Information Systems, Finance, General Business, Human Resources Management, Managerial Economics, Marketing Management, New Ventures and Small Business Management, Organizational Communication/Public Relations, Production and Operations Management, Purchasing and Materials Management, Real Estate Management, Sales, and Telecommunications Management. Minors are also available in Advertising, Business Administration, Business Computer Telecommunications, Computer Information Systems, International Business, Marketing, and Taxation. All upper division Business Administration core courses plus selected option courses are also offered at the Contra Costa Campus. Sufficient courses in these options--Accounting, Computer Information Systems, Finance, General Business, Human Resources Management, Marketing Management, and Telecommunications Management--are scheduled at the Contra Costa Campus so that all of the upper division requirements for the options can be completed there. This set of option courses frequently overlaps the requirements of other options, so that at least one or two courses from most of the remaining options can be taken at the campus.

The School of Business and Economics has a Student Computing Lab with microcomputers and computer terminals that access the campus mainframes and the CSU statewide computer network. The Student Computing Lab is entered through MB 2519. The Contra Costa Center computer lab is equipped with both PC/Windows and Macintosh hardware which can be used as microcomputers or as access to the mainframes on the Hayward campus and to the CSU statewide computer network.

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Consult an advisor in your major department for clarification and

## Major Requirements (B.S.)

interpretation of your major requirements. The major consists of 115-123 units; the B.S. degree requires a total of 186-190 units. The Business Administration major consists of (1) lower division core requirements, (2) upper division core requirements, and (3) requirements in one option or in an approved minor from outside the School of Business and Economics.

### I. Lower Division (38 units)

- ACCT 2251 Principles of Accounting I (4)
- ACCT 2252 Principles of Accounting II (4)
- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)
- MGMT 2701 Legal Environment of Business (4)
- MATH 1810 Mathematics for Business & Social Science I (4)
- MATH 1820 Mathematics for Business & Social Science II (4)
- P/C Software Proficiency (students lacking this proficiency may take CIS 1270)
- PSYC 1000 General Psychology (5)
- STAT 2010 Statistics for Business and Economics (5)

### Notes on Mathematics/Statistics Courses

Students who plan to pursue one of the more quantitative business options (e.g., Production and Operations Management) or graduate programs are encouraged to enroll in MATH 1304 and 1305, Calculus I and II, in place of MATH 1810 and 1820.

Students who have a grade of "B" or better in MATH 1810 or its equivalent are encouraged to substitute STAT 3502 Statistical Inference I, for STAT 2010.

### II. Upper Division Core Requirements (57-61 units)

All lower division core requirements must be completed prior to enrollment in upper division courses. ACCT 3200, ECON 3551, FIN 3300, MGMT 3100 and 3600, and MKTG 3401 must be completed prior to enrollment in 4000-level courses.

- ACCT 3200 Accounting Control (4)
- CIS 3060 Computer Information Systems in Management (4)  
(Required for all options except C.I.S. and T.M.) or CIS 3270  
Fundamentals of Business Programming (4) (Required for  
C.I.S. and T.M. Options only)

- ECON 3005 Macro-Economic Theory (4)
- ECON 3551 Managerial Economics (4)

- FIN 3300 Financial Management (4)
- MGMT 3100 Introduction to Quantitative Methods in Business  
(5)

- MGMT 3600 Theories of Management (4)
- MGMT 3614 Organizational Behavior (4)
- MGMT 3620 Introduction to Production and Operations  
Management (4)
- MGMT 3680 Industrial Relations (4) (Not required in ACCT,  
C.I.S., and T.M. Options)

- MGMT 4500 Business, Government and Society (4)
- MGMT 4650 Seminar in Strategic Business Management (4)
- MGMT 4670 Multinational Business (4)

MKTG 3401 Marketing Principles (4)  
MKTG 3495 Business Communication (4)

### III. Option Requirements (16-28 units)

If you wish to have more than one option recorded on your permanent record, the pattern of courses taken to fulfill each additional option must differ by a least 3 courses and 12 units from any other option or combination of options certified for you. Business Administration majors may substitute an approved minor from outside the School of Business and Economics for the option requirement. Interdisciplinary minors (Advertising, Communication Skills, and International Business) are acceptable. Students choosing to do an approved minor in place of an option must complete all 103 units of the lower division and upper division Business Administration core courses plus the additional units necessary for their minor. The program content of their minor must be approved by the SBE minor advisor and an advisor from the area of the minor. The degree for students taking this route will be a B.S. degree, Major in Business Administration, Minor in \_\_\_\_\_. Note again that, where otherwise appropriate, units used to satisfy the requirements of a minor can also meet general education and/or major requirements. Courses taken for a minor that are to be used in place of an option must be taken for a letter grade.

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Options

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A student cannot have both an option and a minor in the same area.

### Accounting (28 units)

All business operations are involved with decision-making, and accounting is an integral part of this process. The task of accounting is to identify, measure, and communicate relevant information for decision-making purposes. Business has increased in size and complexity to the point that accounting has become one of the largest fields of study at the University. The demand for well-trained accountants remains high. The program is rigorous, challenging, interesting, and rewarding. The program will prepare students for employment in private, public, and non-profit accounting, and will aid in the preparation for all professional examinations. Required courses: ACCT 3211, 3212, 3213, 3230; CIS 4270; and choice of two from: ACCT 3220, 4220, 4232, 4250, 4370 and 4950. (Students completing both the Accounting and CIS options should replace CIS 3060 and 4270 with CIS 3270, 3281, and 3282.) Academic Renewal is allowed only once per ACCT course.

### Advertising (16 units)

Students completing this option acquire the knowledge and skills necessary for effective management of an organization's advertising program. Advertising is recognized as an important element of a firm's integrated marketing communication. This option leads to a variety of careers in advertising, such as account management, advertising creation, media planning, advertising research, and corporate advertising and promotion management. The Advertising option is offered in cooperation with the Department of Mass Communication. Required courses: MKTG 3410, 3425, and choice of two from MKTG 3445, 3460, 4412, 4415, and MCOM 4530. See also undergraduate Advertising chapter. A student cannot receive both an Advertising option and an Advertising minor.

#### Computer Information Systems (C.I.S.) (24 units)

This option prepares the graduate for positions in the computer-based data processing areas of business. Careers in computer information systems are rapidly growing. Because computers are becoming so much a part of an organization's life, there is a need for this training in nearly every area of operation--finance, production and manufacturing, marketing, personnel, accounting, auditing, purchasing, distribution, as well as the computer department itself. As a graduate, you might help the organization design, develop, program, and install new computer or telecommunication systems. You might work for organizations in many different industries. Or you might concentrate on one or a few areas in which you have a particular interest, such as banks, stock brokers, hospitals, hotels, real estate, public utilities, oil and gas, electronics, insurance, law, and government agencies. You might become involved in the development of systems which apply new techniques--such as artificial intelligence, voice recognition, and optical storage. Required courses: CIS 3271, 3281, 4271; TC 3250, and choice of two from the following: CIS 3001, 3272, 3275, 3282, 4272, 4273, 4275, 4277, and any 3000-4000 level TC course. (Students completing both the Accounting and CIS options should replace CIS 3060 and 4270 with CIS 3270, 3281, and 3282.) A student cannot receive credit for both a CIS option and minor.

#### Finance (16 units)

The Finance option is designed to prepare students for careers in the financial management of business firms, banks, related financial institutions, and in investment banking, investment management, and securities brokerage. In addition to the development of a theoretical basis of decision-making, coursework emphasizes experience in solving the problems that face the financial manager. Required courses: FIN 4300 and choice of three from the following: ECON 3310, FIN 3320, 3360, 3400, 4310, 4320, 4325, 4370, 4375, 4410, 4415, 4470.

#### General Business (16 units)

This option is based on courses from several different business fields rather than on a concentration of courses in one field. It is designed for individuals interested in management trainee positions in large firms, in graduate study in business administration, or in fields such as law or public administration. However, students planning on graduate work in accounting should complete the Accounting Option rather than General Business Option. Choice of four: CIS 4270 or TC 3250; FIN 4320; MGMT 3110, 3560, 3610, 3612, 3624, 3626, 4640; MKTG 4420,

4485 or 4490.

#### Human Resources Management (16 units)

The Human Resources Management option prepares students for careers in human resources management and labor relations in business, government, and labor organizations. Those with a strong interest in human behavior will find this to be an appropriate area of study. Coursework is concerned with management of human resources, including selection, training, evaluation, and compensation of employees. Required courses: MGMT 3610 and choice of three from the following: MGMT 3560, 3612, 3616, 4615, 4618, 4675, 4680, 4683.

#### Managerial Economics (16 units)

The Managerial Economics option concentrates on the economic aspects of business decision making. The coursework emphasizes forecasting product demand, setting product prices, estimating production costs, calculating firm profitability, evaluating investment alternatives, and assessing the effects of government regulations and industry competition on firm performance and strategy. Students selecting this option will be prepared for careers in banking, finance, economic forecasting, and business economics. The option also provides an excellent background for graduate training in economics and business. Students in this option are encouraged to take MATH 1304 and 1305 instead of MATH 1810 and 1820. Required Courses: ECON 3310 and choice of three: ECON 3370, 3375, 3500, 3680, 3685, 4306, 4315, 4400, 4520, 4590, 4700, 4705. A student cannot receive credit for both an Economics major or minor and the Managerial Economics option.

#### Marketing Management (16 units)

The task of marketing is to help an organization create and maintain satisfying relationships with its important customers. Students completing the Marketing Management option acquire the knowledge and skills necessary to understand the needs of customers and the market, to design effective marketing strategies, and to successfully implement and monitor the chosen marketing program. Global competition coupled with technological advances forces both profit and nonprofit organizations to revitalize the marketing function for their success. The growing awareness of the importance of marketing has led to an increase in the number of marketing positions available. The option prepares students for careers in advertising and promotion, brand and product management, sales and sales management, retailing, non-profit, international marketing, marketing research, new product planning, marketing logistics and public relations. Required courses: MKTG 3445, 4400, and choice of two from the following: MKTG 3410, 3415, 3425, 3435, 3440, 3460, 4412, 4415, 4417, 4420, 4425, 4450, 4470, 4485, 4490. A student cannot receive credit for both a Marketing Management option and a Marketing minor.

#### New Ventures and Small Business Management (16 units)

This option concentrates on the management of existing small and medium size businesses, the procedures for establishing new ventures either as new firms or as subdivisions of existing firms, and the problems confronting new venture managers during the critical start-up period. The option provides an excellent

preparation to those who plan to have their own firm, to be employed by small or medium size business firms with high growth potential, or to work in positions within financial institutions, government agencies, management consulting firms, and marketing agencies that deal primarily with the needs and problems of small to medium sized firms. Required courses: MKTG 4485, 4490; and choice of two from the following: ACCT 3230; MGMT 3610; FIN 4415; MKTG 3405, 3415, 3425, 3440, 3445, 3460, 4415, 4425; or one course selected in consultation, and with the approval of a New Ventures/Small Business advisor.

#### Organizational Communication/Public Relations (16 units)

This option prepares students for careers in corporate communication, non-profit marketing communication, and public relations for both profit and non-profit organizations. Required courses: select two courses from MKTG 3425, 3445, 4415, 4420, 4425, and choose two courses from either Group I (MCOM 3010, 3100, 3310, 3800, 4510, 4530) or Group II (SPCH 3510, 3515, 4800, 4810, 4830, 4840). Note: MCOM 3800 and MKTG 3445 cannot both be counted in the option.

#### Production and Operations Management (16 units)

This option provides specialized knowledge for careers in production management in manufacturing and service enterprises. Emphasis is on such areas as production planning, forecasting, inventory control, quality control, and use of computers. Special attention is given to the larger sphere of operations management which includes services, governmental organizations, and large-scale, complex systems. Students in this option should take MATH 1304 and 1305 instead of MATH 1810 and 1820. Required courses: MGMT 4640 and choice of three from the following: CIS 4270 or TC 3276; MGMT 3110, 3624, 3626, 3645, 4625.

#### Purchasing and Materials Management (16 units)

In recent years, the purchasing and materials function has undergone a complete re-evaluation by business management. It is now a function with the responsibility and the authority for making major contributions to profits. The option is designed to prepare students to buy and manage the material resources of a firm effectively. Required courses: MGMT 3624, 4625 and choice of two from the following: CIS 4270 or TC 3250; MGMT 3110, 3626, 3645, 4640, 4701. MGMT 3624 will be waived for a student who has completed 8 semester or 12 quarter units of community college purchasing courses. The student will then have to complete three electives.

#### Real Estate Management (16 units)

This option prepares students for careers in environmental and urban planning, lending and title institutions, investment, site location, real estate management, and real estate brokerage. The program is available to students with no prior work in real estate and, in addition, enables students of real estate in the community colleges to finish a baccalaureate major in Business Administration while building on the real estate courses offered by the community college. This is an advanced, comprehensive program in real estate management combined with a solid core of related business administration courses. Required courses: FIN 3400 and choice of three from the following: ECON 3500; FIN 4410, 4415, 4470.



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## Minor

### Sales (16 units)

This option was developed in response to the significant growth of career opportunities in professional selling and sales management. It prepares students to compete in the challenging and rewarding field of personal selling and management of the sales force. Required courses: MKTG 3415, 4420, and a choice of two from the following: MKTG 3460, 4417, 4425, or a 4-unit course selected in consultation, and with the approval of a Sales Option advisor.

### Telecommunications Management (24 units)

This option was developed because of the rapid growth and spread of digital electronics to enable the conversion of data, voice, image, and video into bit streams that can be transmitted over a common medium. The rapid growth of telecommunications has created a critical lack of trained network administrators. This impacts operators of telephones, television, cellular devices, and satellites. New courses keep the curriculum on the forefront of this expanding field. Required courses: TC 3250, 3320, 3321, 4266, 4277, 4300. Recommended: one course in programming selected from CIS 3271, 3275; CS 1160, 2170, 2430. A student cannot receive credit for both the Telecommunications Management option and the Business Computer Telecommunications minor.

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From Outside the School of Business and Economics  
In place of the option requirement, a student may choose to complete a minor from outside the School of Business and Economics. A second major from outside the School and interdisciplinary minors such as Advertising, Communication Skills, and International Business may also be substituted for the option requirement. The Minor program must be approved by both the Minor Advisor of the School of Business and Economics and an advisor from the area of the minor. Note that courses taken for a minor that is to be used in lieu of an option must be taken for letter grades rather than CR/NC.

The number of units required for the Business Administration major under this alternative is the combined 103 units of the lower division and upper division Business Administration cores for the non-CIS Option student plus the additional units necessary for the chosen, approved minor. Note that, where otherwise appropriate, units used to satisfy the requirements of a minor can also meet general education and/or major requirements.

The degree conferred under this alternative will be "Bachelor of Science, Major in Business Administration, Minor in . . . ."

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## Sample Programs

### Business Administration

Freshman Year	Sophomore Year
U.S. History/Institutions Requirement (8)	ACCT 2251 (4)
Area A.3 G.E. Requirement <sup>2</sup> (4)	ACCT 2252 (4)
	MGMT 2701 (4)



ENGL 1001, 1002 (8)  
MATH 1810-20 (8)  
PSYC 1000 (5)  
SPCH 1000 or 1004 (4)  
Other G.E. courses

ECON 2301-02 (8)  
STAT 2010 (5)  
PC Software Proficiency  
Other G.E. courses

#### Junior and Senior Years

The following sample programs for the options assure that prerequisite courses are taken in proper sequence. If deviations are made from the proposed programs, check individual course descriptions to assure that prerequisites are met.

#### **Option in Accounting**

##### Junior Year

###### *First Quarter*

ACCT 3211 (4)  
ACCT 3200 (4)  
ECON 3551 (4)  
MGMT 3600 (4)

###### *Second Quarter*

ACCT 3212 (4)  
CIS 3060 (4)  
MGMT 3100 (5)  
MKTG 3401 (4)

###### *Third Quarter*

ACCT 3213 (4)  
ACCT 3230 (4)  
ECON 3005 (4)  
MKTG 3495 (4)

##### Senior Year

###### *First Quarter*

ACCT elective (4)  
MGMT 3620 (4)  
FIN 3300 (4)

###### *Second Quarter*

ACCT elective (4)  
MGMT 3614 (4)  
MGMT 4500 (4)  
MGMT 4670 (4)

###### *Third Quarter*

CIS 4270 (4)  
MGMT 4650 (4)

#### **Options in Advertising, Marketing Management, New Ventures and Small Business Management, Organizational Communication/Public Relations, Sales**

##### Junior Year

###### *First Quarter*

ACCT 3200 (4)  
ECON 3551 (4)  
MGMT 3600 (4)  
MKTG 3401 (4)

###### *Second Quarter*

FIN 3300 (4)  
MGMT 3614 (4)  
MGMT 3680 (4)  
Option course (4)

###### *Third Quarter*

CIS 3060 (4)  
MGMT 3100 (5)  
MKTG 3495 (4)  
Option course (4)

##### Senior Year

###### *First Quarter*

###### *Second Quarter*

ECON 3005 (4)  
MGMT 3620 (4)  
MGMT 4670 (4)  
Option course (4)

MGMT 4500 (4)  
Option Course (4)

*Third Quarter*  
MGMT 4650 (4)

***Options in Finance and General Business***

Junior Year

*First Quarter*

ACCT 3200 (4)  
ECON 3551 (4)  
MGMT 3100 (5)  
MGMT 3600 (4)

*Second Quarter*

ECON 3005 (4)  
FIN 3300 (4)  
MGMT 3614 (4)  
MKTG 3401 (4)

*Third Quarter*

CIS 3060 (4)  
MGMT 3680 (4)  
MKTG 3495 (4)  
Option course (4)

Senior Year

*First Quarter*

MGMT 4500 (4)  
Option Courses (8)  
MGMT 4670 (4)

*Second Quarter*

MGMT 3620 (4)

*Third Quarter*

Option Course (4)  
MGMT 4650 (4)

***Option in Computer Information Systems***

Junior Year

*First Quarter*

ACCT 3200 (4)  
CIS 3270 (4)  
ECON 3551 (4)  
MGMT 3100 (5)

*Second Quarter*

CIS 3271 (4)  
CIS 3281 (4)  
MGMT 3600 (4)  
MKTG 3401 (4)

*Third Quarter*

ECON 3005 (4)  
FIN 3300 (4)  
MKTG 3495 (4)  
TC 3250 (4)

Senior Year

*First Quarter*

CIS 4271 (4)  
MGMT 3620 (4)  
MGMT 3614 (4)

*Second Quarter*

MGMT 4500 (4)  
MGMT 4670 (4)  
Option Course (4)

*Third Quarter*

MGMT 4650 (4)  
Option Course (4)

**Option in Managerial Economics**

Junior Year

*First Quarter*

ACCT 3200 (4)  
ECON 3005 (4)  
MGMT 3600 (4)  
MKTG 3401 (4)

*Second Quarter*

ECON 3551 (4)  
FIN 3300 (4)  
MGMT 3614 (4)  
MGMT 3680 (4)

*Third Quarter*

ECON 3310 (4)  
MGMT 3100 (5)  
MKTG 3495 (4)  
Option course (4)

Senior Year

*First Quarter*

MGMT 3620 (4)  
MGMT 4670 (4)  
Option course (4)

*Second Quarter*

CIS 3060 (4)  
MGMT 4500 (4)

*Third Quarter*

Option course (4)  
MGMT 4650 (4)

***Options in Human Resources Management, Purchasing and  
Materials Management, Production and Operations  
Management, and Real Estate Management***

Junior Year

*First Quarter*

ACCT 3200 (4)  
ECON 3551 (4)  
MGMT 3100 (5)  
MGMT 3600 (4)

*Second Quarter*

CIS 3060 (4)  
MGMT 3620 (4)  
MGMT 3614 (4)  
MKTG 3401 (4)

*Third Quarter*

FIN 3300 (4)  
MGMT 3680 (4)  
MKTG 3495 (4)  
Option course (4)

Senior Year

*First Quarter*

ECON 3005 (4)  
MGMT 4670 (4)  
Option course (4)

*Second Quarter*

MGMT 4500 (4)  
Option course

*Third Quarter*

MGMT 4650 (4)  
Option course (4)

***Option in Telecommunications Management***

Junior Year

*First Quarter*

ACCT 3200 (4)

*Second Quarter*

TC 3320 (4)

CIS 3270 (4)  
MGMT 3100 (5)  
TC 3250 (4)

MGMT 3600 (4)  
MKTG 3401 (4)  
ECON 3551 (4)

*Third Quarter*

ECON 3005 (4)  
FIN 3300 (4)  
MKTG 3495 (4)  
TC 3321 (4)

Senior Year

*First Quarter*

MGMT 3620 (4)  
MGMT 3614 (4)  
TC 4266 (4)

*Second Quarter*

MGMT 4500 (4)  
MGMT 4670 (4)  
TC 4277 (4)

*Third Quarter*

MGMT 4650 (4)  
Option Course (4)  
TC 4300 (4)

***Minor from Outside the School***

Junior Year

*First Quarter*

ACCT 3200 (4)  
ECON 3551 (4)  
MGMT 3600 (4)  
Minor Course (4)

*Second Quarter*

ECON 3005 (4)  
MGMT 3614 (4)  
MKTG 3401 (4)  
Minor Course (4)

*Third Quarter*

FIN 3300 (4)  
MGMT 3100 (5)  
MKTG 3495 (4)  
Minor Course (4)

Senior Year

*First Quarter*

MGMT 3620 (4)  
MGMT 3680 (4)  
Minor Courses (8)

*Second Quarter*

MGMT 4500 (4)  
MGMT 4670 (4)  
Minor Courses (8)

*Third Quarter*

CIS 3060 (4)  
MGMT 4650 (4)  
G.E. Courses or Minor Courses  
or Free Electives

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## Minors

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### Subject Area Business Administration

At least 12 units of the coursework must be completed at Cal State Hayward in order for the student to receive recognition of the minor on the Cal State Hayward transcript or diploma. A student cannot have both an option and a minor in the same area.

#### ***Minor in Advertising***

See the undergraduate Advertising chapter for a description of this minor.

***Minor in Business Administration (40 units)***

Complete either Alternative A or B

Alternative A

*I. Lower Division (20 units)*

- ACCT 2251 Principles of Accounting I (4)
- ACCT 2252 Principles of Accounting II (4)
- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)
- MGMT 2701 Legal Environment of Business (4)

*II. Upper Division (20 units)*

Students must have completed the prerequisites listed in the course description for any course they select to satisfy the following requirements.

- MGMT 3600 Theories of Management (4)
- MKTG 3401 Marketing Management (4)
- CIS 3060 Computer Information Systems in Management (4)

Any two additional upper division Business Administration courses in the core (8)

*Note:* Business Administration courses are those with Accounting, Computer Information Systems, Finance, Management, Marketing, and Telecommunications prefixes. Courses in Economics cannot be included in these 8 units.

Alternative B

*I. Lower Division (16 units)*

- ACCT 2210 Accounting for Non-Business Majors (4)
- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)
- MGMT 2701 Legal Environment of Business (4)

*II. Upper Division (24 units)*

Students must have completed the prerequisites listed in the course description for any course they select to satisfy the following requirements.

- MGMT 3600 Theories of Management (4)
- MKTG 3401 Marketing Management (4)
- CIS 3060 Computer Information Systems in Management (4)

Any three additional upper division Business Administration courses in the core (12)

*Note:* Business Administration courses are those with Accounting, Computer Information Systems, Finance, Management, Marketing, and Telecommunications prefixes. Courses in Economics cannot be included in these 12 units.

Students taking the Business Administration Minor with the intention of possibly changing to the Business Administration Major, taking a second bachelor's degree in Business Administration, or entering a master's program in Business Administration are urged to discuss their selection of courses for the Business Administration Minor with an advisor in the School of Business and Economics. Such students, for example, should

choose Alternative A to satisfy their lower division requirements.

***Minor in Business Computer Telecommunications (28-34 units)***

The minor in Business Computer Telecommunications is offered through the Accounting and Computer Information Systems Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted in the major requirements.

- I. Lower Division (8-12 units)  
ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4) and ACCT 2252 Principles of Accounting II (4)  
ECON 2301 Principles of Microeconomics (4)
- II. Upper Division (20 units)  
CIS 3270 Fundamentals of Business Programming (4)  
MGMT 3600 Theories of Management (4)  
TC 3250 Introduction to Telecommunications (4)  
TC 4266 Network Software Architecture and Operating Systems (4)  
TC 4277 Telecommunications Industry and Regulatory Issues (4)
- III. Elective Requirement (4-6 units)  
Choose at least 4 units from the following:  
CIS 3271 COBOL Programming I (4)  
CIS 3281 Systems Analysis and Design I (4)  
C S 2170 C Language Programming (2)  
C S 2430 Computer Organization and Assembly Language Programming (4)  
TC 3320 Internet Programming and Client Server Systems I (4)  
TC 4300 Telecommunications Analysis and Management (4)

***Minor in Computer Information Systems (32 units)***

The minor in Computer Information Systems is offered through the Accounting and Computer Information Systems Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted in the major requirements.

- I. Lower Division (8 units)  
ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4)  
ECON 2301 Principles of Microeconomics (4)
- II. Upper Division (24 units)  
CIS 3270 Fundamentals of Business Programming (4)  
CIS 3271 COBOL Programming I (4)  
CIS 3281 Systems Analysis and Design I (4)  
CIS 4271 Data Base Management Systems I (4)  
Two additional CIS courses (excluding CIS 3060) (8)

***Minor in International Business***

See the undergraduate International Business chapter for a description of this minor.

***Minor in Marketing (32 units)***

The minor in Marketing is offered through the Department of Marketing and Entrepreneurship. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted in the major requirements.

- I. Lower Division (12 units)
  - ACCT 2210 Accounting for Non-Business Majors (4) or ACCT 2251 Principles of Accounting I (4)
  - ECON 2301 Principles of Microeconomics (4)
  - MKTG 2485 Establishing and Managing a Small Business (4)
- II. Upper Division (20 units)
  - MGMT 3600 Theories of Management (4)
  - MKTG 3401 Marketing Principles (4)
  - MKTG 4420 Sales Management (4)
  - Two additional Marketing courses excluding MKTG 3495, 4485, and 4490 (8)

***Minor in Taxation (32 units)***

The minor in Taxation is offered through the Accounting and Computer Information Systems Department. Business Administration majors who want to have this minor listed on their transcripts must have at least 18 units in the minor that are not counted in the major requirements.

- I. Lower Division (16 units)
  - ACCT 2251, 2252 Principles of Accounting I, II (8)
  - ECON 2301 Principles of Microeconomics (4)
  - MGMT 2701 Legal Environment of Business (4)
- II. Upper Division (16 units)
  - ACCT 3220 Federal Income Tax Accounting/Individuals (4)
  - ACCT 3221 Federal Income Tax Accounting/Research and Procedure (4)
  - ACCT 4220 Federal Income Tax Accounting/Corporations and Shareholders (4)
  - ACCT 4221 Federal Income Tax Accounting/Partnerships, Estates, Trusts (4)

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Business  
Studies Option:  
Liberal Studies

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Secondary  
Level Teaching  
Program

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For the Business Studies Option in Liberal Studies, see Liberal Studies in the undergraduate section of this catalog.

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Students interested in secondary teaching should recognize that the School does not offer a subject matter preparation program in Business Education. Furthermore, although students can complete the undergraduate Business Administration major on this campus and then enroll in the fifth year credential program elsewhere, the School does not offer all of the coursework considered prerequisite to some credential programs.

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## Undergraduate Courses

*Note:* To be eligible for credit for any 3898 Cooperative Education course, registration for the course must be completed in advance of the activity (past work experience does not apply, and the activity must be a substantive expansion of the student's exposure to date.)

### Accounting

*The course prefix for the following courses is ACCT.*

- 2210** Accounting for Non-Business Majors (4)  
A survey of accounting concepts designed for students desiring a general knowledge of accounting. Emphasis placed on the use and analysis of accounting data. Not open to students who have taken ACCT 2251.  
Prerequisite: satisfactory completion of Entry-level Mathematics (ELM) requirement. (F, Sp)
- 2251, 2252** Principles of Accounting I, II (4 each)  
**2252** An introduction to accounting analysis and practice. Courses are sequential. Prerequisite: Sophomore standing, satisfactory completion of Entry-level Mathematics (ELM) requirement, and either credit for intermediate algebra or a satisfactory score on the Mathematics Diagnostic Test (MDT). (A)
- 3200** Accounting Control (4)  
Applied course with emphasis on the use of accounting information by management for decision-making purposes in the multi-goal firm, including cost estimation through the use of simple linear regression. Prerequisites: ACCT 2252; MATH 1810; STAT 2010 or equivalents and PC Software Proficiency satisfied. (A)
- 3211, 3212, 3213** Intermediate Accounting I, II, III (4 each)  
**3212, 3213** Accounting theory, practice, and problems. Balance sheets, income and other statements, working papers, valuation of assets, reserves, correction of statements, and financial reporting. Courses are sequential and require a grade not lower than "C-" to continue.  
Prerequisite: ACCT 2252 or its equivalent, with a grade not lower than "C-." (A)
- 3220** Federal Income Tax Accounting/Individuals (4)  
A broad range of tax concepts. Topics include fundamentals of individual income taxation, property transactions, fringe benefits and retirement plans, C corporations, partnerships, and limited liability companies. Emphasis on role of taxation in decision-making. Tax research and tax planning.
- 3221** Federal Income Tax Accounting/Research and Procedure (4)  
Fundamentals of income tax research methodologies and resources. Emphasis on actual research of simulated tax problems, the procedures to be followed in practicing before the Internal Revenue Service, and review of tax litigation cases. Group/individual projects. Prerequisite: ACCT 3220. (W)
- 3230** Cost Accounting (4)



Manufacturing accounting theory and problems, records and financial statements; elements of cost; elements of process, specific job order, and standard cost accounting. Concentration on the determination, collection and analysis of costs. Prerequisites: ACCT 3200; MATH 1810; STAT 2010. (A)


- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)
- 4220 Advanced Studies in Taxation (4)  
An in-depth study of special tax issues, especially involving corporations, including ethical considerations, tax research and tax planning. Each type of business entity-sole proprietorship, C corporation, partnership, S corporation, limited liability company- will be studied using a life-cycle approach (formation, operation, dissolution). Exposure to electronic applications. Prerequisite: ACCT 3220.
- 4221 Federal Income Tax Accounting/Partnerships, Estates, Trusts (4)  
Fundamentals of income taxation of partnerships, estates, and trusts. Fundamentals of estate and gift taxation. Emphasis on tax planning, with a basic review of estate planning. Prerequisites: ACCT 3220 and 4220. (Y)
- 4226<sup>□</sup> Volunteer Income Tax Assistance (VITA)- Supervisory III (2)  
Management of a group of VITA centers with emphasis upon teaching first-year supervisors to operate a VITA center effectively, the development of new VITA centers, and the coordination of publicity in geographic areas. Prerequisite: consent of instructor.
- 4227<sup>□</sup> Volunteer Income Tax Assistance (VITA)- Supervisory IV (4)  
Coordinating the operations of two or more VITA centers to achieve optimum combination of output and quality control and providing assistance to center supervisors in answering technical taxation questions, directing VITA preparers, and solving other center problems. Prerequisites: ACCT 3220 and consent of instructor.
- 4232 Cost Management in Service Organizations (4)  
Application of strategic cost management methods to service organizations, such as banks, insurance, telecommunications, distribution, retail, health care, and utility companies. Methods include activity based costing and management, life-cycle costing, target costing, cost of quality, and value-chain analysis. Extensive use of case studies and hands-on analysis using software. Prerequisite: ACCT 3230.
- 4250 Auditing (4)

Principles, techniques and procedures in auditing.  
Prerequisite: ACCT 3213 and 3230. (A)

- 4370 International Accounting (4)  
International disclosure issues, comparative analysis of financial statements, transfer pricing, multinational reporting problems, and international taxation.  
Prerequisite: ACCT 2252.
- 4900 Independent Study (1-4)
- 4915 Internship in Accounting (1-4)  
Supervised work experience with a company, CPA firm, non-profit organization, or governmental agency in a department-approved program. May be repeated for credit. Prerequisites: Vary according to agency or firm.  
(W)
- 4950 Financial Fraud: Investigation and Detection (4)  
Criminal and civil aspects of financial fraud. Methods of detection, investigation, and deterrence. Prerequisite: ACCT 2210 or ACCT 2251.

## Computer Information Systems

*The course prefix for the following courses is CIS.*

- 1270 PC Fundamentals (2)  
Fundamentals using microcomputers operating systems such as WINDOWS and DOS, including subdirectories and batch files. Hands-on business applications using spreadsheet, database, wordprocessing, and electronic mail applications. Satisfies PC Software Proficiency requirement.
- 3001 Management of Mainframe Operating Systems (4)  
Management and use of the IBM VM/CMS operating system. Special emphasis on the tools necessary to effectively use the CMS system for COBOL programming. Hands-on applications. Prerequisite: CIS 3270 or equivalent.
- 3060 Computer Information Systems in Management (4)  
Manager/user roles in planning/developing/implementing business computer systems, system components, user requirements, feasibility study, systems evaluation/acquisition, security, computer-based solutions to business problems, data base software. Project-oriented. Closed to students with credit for CIS 3281.   
Prerequisites: PC Software Proficiency satisfied and junior standing. (A)
- 3270 Fundamentals of Business Programming (4)  
Introduction to computers, both mainframe and microcomputers. Introduction to business computer system fundamentals. History of computers. The concepts of algorithm development and structured programming for business applications; development tools such as

flowcharting and pseudocoding.

- 3271 COBOL Programming I (4)  
Introduction to the COBOL programming language with application in information systems. Topics include the syntax and semantics of COBOL, programming methodology, and common algorithms for business data processing. Prerequisites: CIS 3270 or equivalent with grade not lower than "C-" or CS 2360. (A)
- 3272 COBOL Programming II (4)  
Advanced topics in business computer programming applications. Advanced features of COBOL, common data and file structures and algorithms, advanced programming methodology. Prerequisites: CIS 3271 or consent of instructor. (A)
- 3275 Object-Oriented Programming for Business (4)  
Use of object-oriented computer languages to solve business problems with emphasis on object-oriented COBOL. Concepts such as classes, objects, inheritance, and polymorphism are covered using 00 COBOL constructs. Prerequisite: CIS 3271 or equivalent COBOL programming experience.
- 3281 Systems Analysis and Design (4)  
Fundamentals of the system development life cycle. Problem definition, feasibility study, alternative solutions, cost/benefit analysis, and development and implementation of computerized business systems. Input and output design and software specifications. Prerequisite: CIS 3271 or any programming language approved by the instructor. Cross-listed with ENGR 3281.
- 3282 Object-Oriented Analysis and Design (4)  
Fundamentals and use of object-oriented analysis and design as a methodology for developing computer-based information systems. Concepts including objects, classes, object connections, inheritance, polymorphism and reuse as it applies to systems are covered in conjunction with the object model. Prerequisite: CIS 3281.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)
- 4270 Management and Accounting Information Systems (4)  
The concepts, theory, and practice of developing a management information system applied to business functions such as accounting, management, and marketing. Hardware, software, network, data base management and reporting techniques used in business functions. Systems analysis and design and prototyping with emphasis on controls and security considerations. Includes student projects. Prerequisites: ACCT 3200 and

CIS 3060 or 3281.

- 4271 Database Management Systems I (4)  
Concepts in database and database management systems. Topics include physical storage of data, logical view of data, schema and subschema, data structures, data models, and database design concepts. Includes student projects. Prerequisites: CIS 3271 and CIS 3281.
- 4272 Advanced Topics in Business Computer Systems (4)  
Advanced study of selected technical aspects of business computer systems, including hardware selection, telecommunications systems, security and control of EDP installations, and contemporary developments in mini- and microcomputers for business usage. Prerequisite: CIS 3281 or consent of instructor.
- 4273 Decision Support and Expert Systems (4)  
The differences among business computer systems and the role of a system in supporting decisions. Topics include: computer-based analytical analysis and model building, developing a hybrid system for supporting decisions, artificial intelligence techniques, the architecture of expert systems, knowledge acquisition, knowledge base, and inference engine. Includes student projects. Prerequisites: CIS 3271 and CIS 3281.
- 4275 Micro Based Information Systems (4)  
Advanced topics in microcomputer-based information systems. Topics include microcomputer operating systems, multimedia, differences among hardware/software and operating systems, and networking. Includes student projects. Prerequisites: CIS 3271 and CIS 3281.
- 4277 Database Management Systems II (4)  
Advanced topics in database management systems including data models and database design. Topics include implementation of different data models, query languages, integrity, security, and administration of database. Includes student projects. Prerequisite: CIS 4271.
- 4900 Independent Study (1-4)

## Economics

See undergraduate Economics chapter for list of Economics courses.

## Finance

*The course prefix for the following courses is FIN.*

- 3300 Financial Management (4)  
Theory and practices that underlie the financial manager's decision-making process. Capital investment analysis, capital structure, dividend policy, risk and return, and market valuation of the firm. Prerequisites: ACCT 3200;

ECON 2301-2; STAT 2010. (A)

- 3320 Financial Markets and Services (4)  
The contemporary environment of the financial system and the organization and operation of financial markets, financial products and instruments, and the financial services industry. Prerequisite: FIN 3300.
- 3360 Management of Risk and Insurance (4)  
Techniques of risk management and uses of insurance contracts for individual and business insurance planning. The operation and regulation of the insurance industry and contract provisions for property, liability, life, annuity, health, and disability insurance. Prerequisite: Junior standing.
- 3400 Fundamentals of Real Estate Management and Decision-Making (4)  
Fundamental tools of real estate decision-making and the management of real estate development, finance, investment valuation and operations. Recommended preparation: MGMT 2701.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)
- 4300 Corporate Finance (4)  
In-depth study of theories and practices of corporate financial management. Emphasis on corporate financial decision-making, including capital budgeting, capital structure, dividend policy, risk management, and international financial management. Prerequisite: FIN 3300. (A)
- 4310 Investment Analysis (4)  
Introduction to security analysis and portfolio management. Prerequisites: FIN 3300 and MATH 1820. (F, W, Sp)
- 4320 Problems in Corporate Finance (4)  
Studies of specific problems in corporate financial policy formulation and decision-making using financial data bases and models. Prerequisites: FIN 3300 and MATH 1820. (A)
- 4325 Introduction to Commercial Banking Operations (4)  
An introduction to commercial banking. The emphasis is on operations of the bank, its organization structure, accounting procedures, and financial management objectives and policies. Prerequisite: FIN 3300.
- 4370 Seminar in Financial Theory (4)  
Selected topics dealing with recent developments in financial theory and management practice. May be

repeated for credit with the approval of the department.  
Prerequisites: FIN 3300; MATH 1820; Senior or graduate standing, and consent of instructor. (A)

- 4375 International Business Finance (4)  
Financial aspects of international business including international financial markets, foreign exchange management, foreign investment, multinational capital budgeting, working capital management, financing of international business including import-export financing and international banking. Not open to students with credit for FIN 6375. Prerequisite: FIN 3300.
- 4410 Financing Real Estate Operations (4)  
Study of equity, mortgage, lease, sale and lease-back, and innovative methods of financing, including related tax effects. Prerequisites: FIN 3300 and either FIN 3400 or graduate standing. (F)
- 4415 Real Estate Investment Analysis and Advanced Appraisal (4)  
Applications of investment analysis and appraisal theory to real estate management. Prerequisite: FIN 4410. (W)
- 4470 Seminar in Advanced Topics in Real Estate (4)  
Advanced topics in real estate, including contemporary environmental, sociological, financial, economic, and political issues. Prerequisites: two of ECON 3500 and FIN 4410 and 4415. (Sp)
- 4900 Independent Study (1-4)

## Management

*The course prefix for the following courses is MGMT.*

- 2701 Legal Environment of Business (4)  
[CAN BUS 8]  
Legal and institutional setting in which business operates; the nature, sources, functions, and processes of law and legal reasoning relating to contracts, agency, torts, partnerships, and corporations; government regulations and administrative law as they apply to the legal environment.
- 3100 Introduction to Quantitative Methods in Business (5)  
A survey of linear programming, transportation models, CPM/PERT, deterministic inventory models, and decision analysis. Emphasis on problem formulation and applications. Prerequisites: MATH 1820 or 1305; STAT 2010; PC Software Proficiency satisfied. Four hrs. lect., 2 hrs. act. (A)
- 3110 Applications of Decision Making (4)  
Hands-on experience with computer-assisted applications to decision making in such areas as artificial intelligence, business policy/planning, finance, marketing, personnel administration, production systems, and systems simulations. Prerequisite: MGMT 3100.

- 3560 Business and Professional Ethics (4)  
See PHIL 3560 for course description.
- 3600 Theories of Management (4)  
Management is viewed as a process involving the utilization of human resources to accomplish organizational objectives. Critical analysis of descriptive and normative theories of formal organization, including a consideration of organization structure, communications, planning, and control. Cross-listed with ENGR 3600. (A)
- 3610 Human Resources Management (4)  
Fundamentals of strategic human resource management from the perspective of human resources professionals and general managers. Focus on how firms use human resource functions, such as recruitment and selection, training and development, performance management, compensation and benefits, to gain a competitive advantage. Prerequisite: MGMT 3600.
- 3612 Topics in Human Resources Management and/or Industrial Relations (4)  
Current topics in human resources management and/or industrial relations selected by the instructor. May be repeated for credit with the approval of the department. Prerequisite: junior or higher standing.
- 3614 Organizational Behavior (4)  
Current theory and research of individual and small group behavior in the organization. Prerequisites: PSYC 1000; MGMT 3600. (A)
- 3616 Human Resources Evaluation (4)  
Procedures in selecting, placing, and evaluating employees. Topics include interviews, ability and psychological tests, innovative assessment methods, and organizational use of testing specialists and services. Prerequisites: PSYC 1000; STAT 2010; MGMT 3600.
- 3620 Introduction to Production and Operations Management (4)  
Production and operations management in manufacturing and service enterprises; topics include: MRP II, inventory control, quality control, production planning/forecasting, productivity studies, international operations, equipment replacement, and quantitative methods and computer software applications. Prerequisites: ECON 3551 and MGMT 3100.
- 3624 Fundamentals of Purchasing and Materials Management (4)  
The major topics important to the functions of the purchasing department, including purchasing, quality control, sources, prices, negotiation, inventory management, value analysis, capital equipment procurement, and make or buy calculations. (W)
- 3626 Total Quality Management (4)  
Elements of total quality management, methods of and



techniques in quality assurance, statistical process control and acceptance sampling. Emphasis on decision making and applications in quality improvement. Prerequisite: STAT 2010. Cross-listed with ENGR 3626.

- 3645 Logistics Management (4)  
Analysis of physical distribution. Methods of logistics analysis and planning. Prerequisite: MGMT 3600.
- 3680 Industrial Relations (4)  
The study of labor-management relations: the labor force, labor law, collective bargaining, grievance procedures, and the development of industrial relations policy. (A)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)
- 4500 Business, Government, and Society (4)  
The relationships between business managers and the social, economic, and political environment within which they operate; business ethics, antitrust policy, social responsibility, and consumer protection. Prerequisites: ECON 3005 and either 3551 or 6051. (A)
- 4615 Compensation and Benefits (4)  
Wage and salary administration, wage and hour law, and employee benefits. Prerequisite: MGMT 3610.
- 4618 Human Resources Training and Development (4)  
Systems approach to human resources training and development. Topics include needs assessments, learning theories, instructional design, training methodologies, presentation techniques, and program evaluation. Students will design and present sample training and development programs. Prerequisite: MGMT 3600; MGMT 3610 is recommended.
- 4625 Management of Purchasing and Materials Organizations (4)  
Seminar on management of purchasing and materials organizations. Topics include: planning, policies, organization design, control, automation, buying for institutions, and government procurement. Prerequisites: MGMT 3600 and 3624.
- 4640 Advanced Operations Management (4)  
Detailed study of selected techniques used in materials, production, and operations management applied to manufacturing and service enterprises in both private and public sectors. Activities include case studies, computer simulation, plant tour, and presentations by industry representatives. Prerequisite: MGMT 3620.
- 4650 Seminar in Strategic Business Management (4)



Capstone course that takes a top management perspective and integrates the functional disciplines into decision-making. Emphasis on evaluating complex business situations, integrating theory with practice, and presenting comprehensive strategic business plans. Prerequisites: FIN 3300; MGMT 3600, 4500; MKTG 3401. Restricted to seniors.

- 4670 Multinational Business (4)  
A study of the leading technical, environmental, and management features peculiar to the operation of the U.S. firms in foreign countries. Prerequisites: MGMT 3600, MKTG 3401. (A)
- 4675 International Human Resources Management (4)  
Seminar on how multinational firms use human resource functions, such as recruitment and selection, training and development, performance appraisal, compensation and benefits, to compete internationally. Focus on international and comparative labor-management relations and management of multicultural teams. Prerequisite: MGMT 3680 or consent of instructor; MGMT 3610 and 4670 are recommended.
- 4680 Collective Bargaining and Labor Law (4)  
Seminar involving analysis of provisions of U.S. labor laws and collective bargaining: strategy and tactics; impasse resolution; contract administration; and grievance arbitration. Emphasis on private industry; some treatment of public employment. Prerequisites: MGMT 3680 or ECON 3685.
- 4683 Research in Labor Relations (4)  
Seminar on application of research methods to the preparation for collective bargaining and negotiating union-management agreements. Students will design and conduct a labor-relations research team project. Prerequisites: MGMT 3600, 3680.
- 4900 Independent Study (1-4)

## Marketing

*The course prefix for the following courses is MKTG.*

- 2485 Establishing and Managing a Small Business (4)  
The fundamentals of establishing and operating a small business. Not open for credit to majors in Business Administration or Economics. Prerequisite: ACCT 2210 or 2251 or consent of instructor. (W)
- 3401 Marketing Principles (4)  
A marketing management study of the major internal and external variables in the design of a marketing program. Recommended prerequisite or concurrent enrollment: ECON 2301. (A)
- 3410 Advertising Management (4)  
Managing the firm's advertising function: defining the

market; integrating advertising into the marketing mix; setting goals and budgets; selecting media; planning, scheduling, and controlling advertising campaigns; research applications; societal evaluation and regulation. Prerequisite or concurrent: MKTG 3401. (F,W)

- 3415 Personal Selling (4)  
Theory and practice of personal selling in individual and small group settings. Skills development in product knowledge, customer analysis, listening, prospecting techniques, sales presentation, closing methods, and the place of selling within business. Student Project. Prerequisite: MKTG 3401 or consent of instructor.
- 3425 Promotion (4)  
Management of marketing promotional functions including personal selling, sales promotions, advertising, and publicity/public relations. Comparison of promotions for profit/non-profit organizations, products/services, and consumer/industrial markets. Student project. Prerequisite: MKTG 3401.
- 3435 Environmental Marketing (4)  
The effects of commerce on sustainability. The societal marketing concept and how the environmental perspective can be reflected in marketing strategy formulation, including a broader product life cycle analysis and reverse logistics. Student project may be required. Prerequisite: MKTG 3401.
- 3440 Products and Pricing (4)  
The process of both consumer and industrial product development, based on marketing intelligence, product introduction, strategy and pricing throughout product life cycle. Field observation and case discussion. Prerequisite: MKTG 3401.
- 3445 Marketing Research (4)  
Training in the process and techniques of marketing research. Topics include problem formulation, research design, development of research instrument, data collection and analysis, and report writing. Hands-on experience emphasized. Prerequisite: MKTG 3401.
- 3460 Negotiation (4)  
Principles and practice in business negotiations. Topics include negotiating concepts, strategies, situational applications, and practice in applied techniques. Situations include negotiation in sales, customer relations, employee management, and career development. Prerequisites: junior standing, lower-division General Education Areas A1,2,3. Recommended: MKTG 3495.
- 3495 Business Communication (4)  
Applications of logical and creative thinking, and oral and written communications in the administrative decision-making process in business organizations. Prerequisites: ENGL 1001, junior standing, and passing the WST or ENGL 3000 or 3001 or equivalent. Credit unavailable through challenge. Enrollment priority to Business

Administration and Economics majors, then Business Administration minors. (A)

- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Units not applicable to options or minor. Prerequisites: at least 2.0 GPA; departmental approval of activity. CR/NC grading only. (A)
- 4400 Integrated Marketing Management (4)  
An integrative perspective of marketing management. Students acquire knowledge and skills in applying marketing mix variables in competitive decision making environments. Lectures, simulation, and/or cases used to emphasize integration of marketing mix variables. Prerequisites: MKTG 3401; any one course from MKTG 3410, 3425, 3440, 3445, 4417, and 4420.
- 4412 Media Planning (4)  
Media choice related to advertising and promotion strategies; media data sources, syndicated services. Researching media for a specific product, structuring optimum media mixes, developing/managing media budgets; using computers and commercial computer services in deriving media schedules. Prerequisite: MKTG 3401.
- 4415 Corporate Communications (4)  
Development of organizational image campaigns by identifying corporate culture, corporate image, intraorganizational goals. Determining media strategies, tactics, and tools for lobbying, trade organization relations, press agency, publicity, internal communications, and public opinion research included in the context of social responsibility. Student project. Recommended prerequisites: MKTG 3401; MGMT 3600, 3680.
- 4417 Consumer Behavior (4)  
Survey of theoretical foundations of consumer decision-making; in-depth analysis of contemporary factors influencing consumer behavior, including social, cultural, and psychological dimensions; extensive outside readings and case applications; student project required. Prerequisites: MKTG 3401 and PSYC 1000.
- 4420 Sales Management (4)  
Planning, hiring and training, directing, motivating and controlling of a company's sales force. Competitive analysis and internal marketing. Prerequisite: MKTG 3401. Recommended: MKTG 3415.
- 4425 Sales Training (4)  
Sales training program development and practice; application of motivation theory to sales personnel; analysis of content of sales meetings, sales conferences, and employment and exit interviews. Student project. Recommended prerequisite: MKTG 3415.

- 4450 Marketing Seminar (4)  
Selected topics emphasizing the integration of marketing literature with current business practices through seminar discussions and individual field investigations. May be repeated for credit with approval of the Department.  
Prerequisites: MKTG 3401 and consent of instructor. (Sp)
- 4470 International Marketing (4)  
Marketing management problems and techniques in international business. Prerequisite: MGMT 4670; prerequisite or concurrent: MKTG 3401.
- 4478 International Business Projects (4)  
Practical projects in international business such as international market research. May include travel to foreign countries to present and defend findings. Asian International Marketing (AIM) focuses on export to U.S. from Asian countries; Global Marketing (GLOMAR) focuses on sourcing U.S. products for foreign companies.  
Prerequisite: approval of instructor.
- 4485 Establishing New Enterprises (4)  
In-depth coverage of procedures for setting up new businesses and of problems confronting managers during the critical start-up period; extensive use of cases, situational analyses, and projects. Prerequisites: ACCT 3200; FIN 3300; MGMT 3600; MKTG 3401.  
Recommended: CIS 3060.
- 4490 Practicum in Small Business Management (4)  
Student consultant teams assisting small businesses; responsibilities include reviewing performance; isolating problems; researching solutions; presenting oral analysis to class; preparing written reports for business.  
Prerequisites: ACCT 3200; ECON 3551; FIN 3300; MGMT 3100; MKTG 3401. Prerequisite/concurrent: MKTG 3495.  
Recommended: CIS 3060.
- 4900 Independent Study (1-4)

### Telecommunications (Business Computer)

*The course prefix for the following courses is TC.*

- 3250 Introduction to Telecommunications (4)  
Application of data and voice communication techniques to business. Includes public and private networks, functions, design and standards. Role of local and wide area networks in the office environment. Laboratory component will apply concepts discussed in lectures.  
Prerequisite: CIS 3270 or CIS 3060.
- 3320, Internet Programming and Client-Server  
3321 Systems I, II (4, 4)  
Fundamentals of programming in networking environment. Managing and programming internet client-server multimedia architectures and distributed databases in the internet/intranet environment. Hands-on experience with languages such as HTML, CGI interfaces, Java script.  
Prerequisite: CIS 3270; TC 3320 is prerequisite to TC

3321.

- 4266** Network Software Architecture and Operating Systems (4)  
Network software functionality, network integration and components management, and operating system environments including NetWare, Windows, UNIX fundamentals. Hands-on experience with software descriptions of network configuration: PC scripts, UNIX Shell, LAN Scripts, API interfaces. Prerequisite: TC 3250.
- 4277** Telecommunications Industry and Regulatory Issues (4)  
Study of major companies and their market strategies, trends in the telecommunications marketplace and job market, international aspects of telecommunications. Legal problems related to wired and wireless communications. Prerequisite: TC 3250.
- 4300** Telecommunications Analysis and Management (4)  
Decision sequence for telecommunications systems. Identification of LAN, MAN, and WAN solutions to match business needs. Systems analysis approach to telecommunications. Management of LAN and WAN architecture with various techniques such as ISDN, ATM/SONET, and wireless communications. Prerequisite: TC 3250.
- 4877** Internship in Telecommunication (2)  
Supervised work experience in a department-approved program with a company, such as a telecommunications firm or telecommunications department of a business, governmental or non-profit organization. Academic assignments integrated with off-campus paid or volunteer activities. CR/NC only. May be repeated for credit. Prerequisite: TC 3250. Recommended: TC 3277.
- 4900** Independent Study (1-4)

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## Footnotes

- <sup>1</sup>Has a prerequisite not included in the option.
- <sup>2</sup>Business Administration majors should consider taking PSYC 1100 to satisfy the Critical Thinking Requirement after completing the prerequisite.
- <sup>3</sup>Not more than 12 units of VITA coursework can be counted toward undergraduate degree requirements.
- <sup>4</sup>The CIS 3060 requirement is waived for students completing both CIS 3270 and 3281 or both CIS 3281 and 3282.



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## Mass Communication

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### Department Information

Department of Mass Communication  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3011  
Phone: (510) 885-3292 FAX: (510) 885-4099

*Professors:* John Hammerback (Interim Chair), Thomas S. McCoy, Robert L. Terrell, Mary E. Trapp

*Lecturers:* Michael Ackley, Bob Bain, Diana Bennett, Larry Bensky, Tom Ferentz, Marsha Ginsburg, Lisette Poole, Cedric Puleston, Eric Ronning, Katherine Rowlands, Donna Smith, Valerie Sue, Rick Tejada-Flores

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The study of Mass Communication concerns anyone who seeks to understand the content and the evolution of contemporary culture. The caring and professional instruction of those who would work in mass communication concerns anyone who hopes to influence mass communication processes, and thus the popular dialogue, through higher education. The Department of Mass Communication is devoted both to the study of mass communication and to the development of practical skills in journalism and other media. Students seeking the bachelor of arts degree major in mass communication may complete the general major requirements. Those who seek a bit more specialization may also complete one of five options in advertising, broadcasting, journalism, photocommunication, and public relations.

### Career Opportunities

Advertising Executive • Corporate Communicator • Graphic Artist • Magazine Writer/Editor • Copywriter • Corporate Communications

Director • Critic • Film Editor • Journalist • Media Consultant •  
Media Specialist • News Director • Newscaster • Newswriter •  
Photojournalist • Public Relations Representative • Publications •  
Copy Editor • Radio Programmer • Specification Writer • Technical  
Writer • Television Producer

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## Features

Related activities available through the Department of Mass Communication include: The university paper, *The Pioneer*, and the university magazine, *Escape*, and the university broadcast media, *KSUH-radio and television*. Also within the department is a working advertising agency and an active internship program in cooperation with Bay Area media.


Instructional facilities include a large and well equipped television studio, radio station, color and black-and-white photography laboratories, a 20-station computer lab for newswriting and reporting, and desktop publishing equipment for the student newspaper. Student productions are published on the Internet.

There is also affiliation with the Association of Schools of Journalism and Mass Communication, the Association for Education in Journalism and Mass Communication, the California Newspaper Publishers Association, and the California Intercollegiate Press Association. The department also sponsors a campus chapter of the Society of Professional Journalists.



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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 52-54 units in Mass Communication, with an additional 28-32 units in other departments for a total of 80-86 units.

- I. Lower Division (8 units)
  - MCOM 2000 Mass Media in Society (4)
  - MCOM 2200 Introduction to Journalistic Writing (4)
  
- II. Upper Division (44-46 units)
  - A. All of the following (20 units):
    - MCOM 3000 History of Mass Communication (4)
    - MCOM 3010 News Reporting and Writing (4)
      - or for Broadcasting Option only, choice of:*
      - MCOM 3140 Broadcast News II (4) or
      - MCOM 3160 Radio Operations (4)
  
    - MCOM 3110 Law of Mass Communication (4)
    - MCOM 3310 Editing (4)
      - or for Broadcasting Option only, choice of:*
      - MCOM 4100 Television Documentary (4) or
      - MCOM 4200 Radio Programming and Promotion (4)
  
    - MCOM 3800 Research Methods in Mass Communication (4)
  
  - B. One workshop class chosen from the following (2 units):
    - MCOM 3220  Media Workshop - Print (2)



MCOM 3231  Media Workshop - Radio (2)  
MCOM 3232  Media Workshop - TV (2)

- C. Two courses from the following (8 units):  
MCOM 3240 Public Opinion (4), MCOM 3700 Digital Photography and Photo Essay (4), 4050 Theories of Mass Communication (4), 4110 International Communication (4), 4150 Mass Media and Government (4), 4510 Public Relations Theory and Practice (4), 4520 Advertising Theory and Practice (4)
- D. Two courses from the following (8-9 units):  
MCOM 1005 Viewing Diversity (4), 2250 Sports and Media (4), 3100 Television Production/Direction (4), 3130 Broadcast News I (4), 3340 Graphic Communication (4), 3350 Magazine Publishing in America (4), 3410 Feature Writing (4), 3500 Photojournalism (5), 4010 Public Affairs Reporting (4), 4340 Advanced Graphic Communication (4), 4450 Selected Topics in Reporting and Editing (4), 4530 Advertising-Public Relations Campaign (4)
- E. Electives selected from the following (6-7 units):  
(Note: Any other mass communication course may be used for elective credit if it is not being used elsewhere to fulfill major requirements. No course may be double-counted.)

ART/MCOM 2701 Introduction to Photography (5), 3600 Intermediate Photography (5), 3650 Color Photography (5), 3660 Portrait Photography (5), 4600 Advanced Photography (5); MCOM/ART 2700 Introduction to Photography (5), 3500 Photojournalism (5), 4620 History of Photography (4); MCOM 3101 Television Pre-production (4), 3102 Television Post-production (4), 3360 Electronic Publishing and the Internet (4), 3370 Information on the Internet (4), 3400 The Ethnic Media in America (4), 3700 Digital Documentary and Photo Essay (4), 4360 Advanced Electronic Web Publishing (4), 4500 Women in Media (4), 4540 Selected Topics in Mass Communication and Public Policy (4), 4650 Media Internship (2, 4)

### III. Courses in Supporting Fields (28-32 units)

- A. One course in computational skills (4-5 units):  
STAT 1000 Elements of Probability and Statistics (5)  
STAT 1100 Elements of Descriptive and Inferential Statistics (4)  
MATH 1110 The Nature of Mathematics (4)
- B. Three courses in language skills (12 units):  
Complete one of the following two sequences.
1. *Foreign language sequence (12)*  
The foreign language sequence may be completed by taking three sequential quarters or two sequential semesters of a foreign language with a grade of "C" or better. (Sign language is accepted as a foreign language for purposes of this requirement.)
  2. *Language and symbolic systems sequence (12 units)*

The language and symbolic systems sequence may be completed by taking three courses from the following: ANTH 2800 Introduction to Anthropological Linguistics (4), 3800 Language and Culture (4); ENGL 2005 Grammar for Writers (4), 2010 Vocabulary Building (4), 3005 Study of Language (4), 3010 Modern English Grammar (4), 3040 Linguistic History of the English Language (4); PSYC 4740 Verbal Behavior and Psycholinguistics (4); SPCH 3510 Small Group Communication (4), 3530 Interviewing Principles (4), 4810 Communication Theory (4), 4840 Organizational Communication (4)

C. Fields of Concentration (12-15 units)

Students should select three upper division courses, related in subject matter but not necessarily confined to a single department, that will provide a concentration of knowledge within an area of interest in the Mass Communication major. Ideally, this concentration will complement the student's communication skills and career choice. Any upper division course outside of MCOM must be taken for a letter grade. (Students who have not yet fulfilled their upper division general education requirements may also be able to use these classes for that purpose.)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills Requirement; and the residence, unit, and grade point average requirements.

## Option Requirements

Students are not required to complete an option in order to graduate with a B.A. degree major in mass communication. Those who wish to tailor their coursework toward a more specific career goal, and who want their concentration reflected on their degree, should complete the appropriate requirements outlined below. In addition to requirements for the option, the student must complete the remaining portion of the major required of all mass communication students.

I. Advertising Option (25 units)

The Advertising option is offered in cooperation with the Department of Marketing and Entrepreneurship, School of Business & Economics. (An Advertising option is also available within the Business Administration major. See the undergraduate section of this catalog.) Students must complete the remaining portion of the major required of all Mass Communication students.

A. Lower Division Requirements

STAT 1000<sup>2</sup> Elements of Probability and Statistics (5)  
ECON 2301<sup>3</sup> Principles of Microeconomics (4)

B. Upper Division Requirements

MKTG 3401<sup>2</sup> Introduction to Marketing Management (4)  
MKTG 3410<sup>2</sup> Advertising Management (4)  
MCOM 4520 Advertising Theory and Practice (4)  
MCOM 4530 Advertising/Public Relations Campaign (4)

II. Broadcasting Option (24 units)

In addition to the option, the student must, unless otherwise specified, complete the remaining portion of the major required of all Mass Communication students.

MCOM 3100 Broadcast Production/Direction (4)  
MCOM 3130 Broadcast News I (4)

*Select one set of two courses (8)*

MCOM 3140 Broadcast News II (4)  
MCOM 4100 Documentary Production (4)  
or  
MCOM 3160 Radio Operations (4)  
MCOM 4200 Radio Programming and Promotion (4)

*Select one of two workshops (2)*

MCOM 3231 Media Workshop-Radio (2) or MCOM 3232  
Media Workshop-TV (2)

*Electives, selected from the following (6)*

MCOM 3101 Television Pre-production (4)  
MCOM 3102 Television Post-production (4)  
MCOM 3231 Media Workshop-Radio (2)  
MCOM 3232 Media Workshop-TV (2)  
MCOM 4650 Media Internship (2, 4)

III. Journalism Option (22 units)

In addition to the option, the student must complete the remaining portion of the major required of all mass communication students.

MCOM 3220 Media Workshop-Print  
(in addition to core requirement) (2)  
MCOM 3340 Graphic Communication (4)  
MCOM 3350 Magazine Publishing (4)  
MCOM 4010 Public Affairs Reporting (4)

*Two courses selected from the following (8):*

MCOM 3240 Public Opinion (4)  
MCOM 3410 Feature Writing (4)  
MCOM 4150 Mass Media and Government (4)  
MCOM 4450 Selected Topics in Reporting and Editing (4)

IV. Photocommunication Option (29 units)

In addition to the option, the student must complete the remaining portion of the major required of all Mass Communication students.

ART/MCOM 2701 Introduction to Photography or  
MCOM/ART 2700 Introduction to Photography (5)  
ART/MCOM 3600<sup>2</sup> Intermediate Photography or  
ART/MCOM 3650<sup>2</sup> Color Photography (5)  
MCOM 3220 Media Workshop Print (2)  
MCOM 3340 Graphic Communication (4)  
MCOM/ART 3500 Photojournalism (5)

MCOM 3700 Digital Documentary and Photo Essay (4)  
MCOM/ART 4620<sup>3</sup> History of Photography (4)

V. Public Relations Option (25-26 units)

The Public Relations option is offered in cooperation with the departments of Marketing and Speech Communication. In addition to the option, the student must complete the remaining portion of the major required of all mass communication students.

PSYC 1000 General Psychology (5)<sup>5</sup>

*One statistics course (4-5):*<sup>2</sup>

STAT 1000 Probability and Statistics (5)

STAT 1100 Descriptive and Inferential Statistics (4)

MCOM 4510 Public Relations Theory and Practice (4)

MCOM 4530 Advertising/Public Relations Campaign (4)

*Select two courses from one of the two groups below (8)*

Group 1: <sup>3</sup>

MKTG 3425 Promotion (4)

MKTG 4415 Corporate Communication (4)

MKTG 4420 Sales Management (4)

MKTG 4425 Sales Training (4)

Group II: <sup>4</sup>

SPCH 3510 Small Group Communication (4)

SPCH 3530 Interviewing Principles (4)

SPCH 4810 Communication Theory (4)

SPCH 4840 Organizational Communication (4)

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## Minor Requirements

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The minor in Mass Communication consists of 34 units.

MCOM 2200 Introduction to Journalistic Writing (4)

MCOM 3100 Television Production/Direction (4)

MCOM 3110 Law of Mass Communication (4)

MCOM 3220 Media Workshop-Print (2)

MCOM 4050 Theories of Mass Communication (4)

*Select one course, (4 units) from the two below:*

MCOM 2000 Mass Media in Society (4) or

MCOM 3000 History of Mass Communication (4)

*One broadcast workshop (2 units), from the two below:*

MCOM 3231 Media Workshop-Radio (2) or

MCOM 3232 Media Workshop-TV (2)

*Select two courses (8 units) from the following list:*

MCOM 3010 News Reporting and Writing (4), 3101 Television

Pre-production (4), 3102 Television Post-production (4), 3130

Broadcast News I (4), 3140 Broadcast News II (4), 3160 Radio

Operations (4), 3240 Public Opinion (4), 3310 Editing (4), 3400

The Ethnic Media in America (4), 4110 International

Communication (4), 4500 Women in Media (4)

*Department electives (2 units)*

See also: minors in Advertising; Communication Skills; Multimedia

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## Mass Communication Option: Liberal Studies

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## Undergraduate Courses

(Art Department); and Photography (Art Department).

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Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

MCOM 2000 Mass Media in Society (4) or  
MCOM 3000 History of Mass Communication (4)  
MCOM 2200 Introduction to Journalistic Writing (4)  
MCOM 3100 Television Production/Direction (4)  
MCOM 3110 Law of Mass Communication (4)  
MCOM 3220 Media Workshop - Print (2)  
MCOM 3231 Media Workshop - Radio (2) or MCOM 3232 Media Workshop - TV (2)

One additional upper division course in Mass Communication (4)

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*The course prefix for the following courses is MCOM.*

- 1005** Viewing Diversity (4)  
Basic social science approaches to the study of local, national, and global constructions and representations of cultural diversity.
- 2000** Mass Media in Society (4)  
[CAN JOUR 4]  
Survey of the social and economic structure of the communication media; roles of audience, media, and government in shaping communication policies. (F, W, Sp)
- 2200** Introduction to Journalistic Writing (4)  
[CAN JOUR 2]  
Fundamental theory and practice of newswriting.  
Prerequisite: ENGL 1001 or equivalent, with a grade of "C" or better, and typing skill. Three hrs. lect., 2 hrs. act. (A)
- 2250** Sports and Media (4)  
The relationship between mass media and sports in America. Sports content in the major print and broadcast media, notable careers in sports media, and relevant social scientific research.
- 2700** Introduction to Photography (5)  
[CAN ART 18]  
Fundamental theory and practice of photography as a medium of communication. Involves the practical application and use of black and white photography. Cross-listed with ART 2700. Not open to students with credit for ART/MCOM 2701. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for current fee. Two hrs. lect., 6 hrs. studio act.
- 2701** Introduction to Photography (5)  
(See ART 2701 for course description)
- 3000** History of Mass Communication (4)  
An overview of the history of the mass media emphasizing

development in the United States. The effects on media of such technological developments as satellites, fiberoptics and computers. (F, W, Sp)

- 3010 News Reporting and Writing (4)  
Developing information from various sources: public records, interviews, speeches, and meetings. Story structure and flow. Understanding the reader's interests. Current events and news values of the media. Prerequisites: MCOM 2000; 2200 with a grade of "C" or better; 3000 and 3800 (or concurrent enrollment). Three hrs. lect., 2 hrs. act. (F, W, Sp)
- 3100 Television Production/Direction (4)  
Principles of producing and directing non-dramatic program materials for television. Theory, application and practice to include equipment, studio operations and program formats. Two hrs. lect., 4 hrs. act. (F, W, Sp)
- 3101 Television Pre-production (4)  
Pre-production of creative video projects intended for broadcast on CSUH cable. Determining target audience, writing proposals, audio-visual shooting/edit plan, budgeting, scheduling. Prerequisite: MCOM 3100. Repeatable once for credit. Two hrs. lect., 4 hrs. act.
- 3102 Television Post-production (4)  
Production/direction of several dramatic programs, using multiple camera studio techniques. Online editing and preparing projects for cable television. Prerequisites: MCOM 3100, 3101, or consent of instructor. Repeatable once for credit. Two hrs. lect., 4 hrs. act.
- 3110 Law of Mass Communication (4)  
Case studies of current laws and regulations relating to defamation; contempt; invasion of privacy; obscenity; copyright; media competition; and consumer protection. (F, W, Sp)
- 3130 Broadcast News I (4)  
Reporting methods for broadcast news with emphasis on field reporting, producing field stories, organizing the field crew, operation of portable audio and visual equipment, and editing broadcast news tape. Prerequisites: MCOM 2200, MCOM 3100. Two hrs. lect., 4 hrs. act.
- 3140 Broadcast News II (4)  
Application of advanced news writing styles and production techniques for the electronic media. Prerequisites: MCOM 2200, 3100, 3130. Two hrs. lect., 4 hrs. act.
- 3160 Radio Operations (4)  
Radio production techniques and station operations. Emphasis on audio production, advertising/sales, copywriting, and station management. Two hrs. lect., 4 hrs. act. (Y)
- 3220 Media Workshop - Print (2)  
A supervised laboratory experience in the preparation of materials for print media, particularly university student

publications. Prerequisite: MCOM 2200. May be repeated. Maximum number of workshop units towards graduation: ten (10). Maximum number in any workshop: six (6). Six hrs. minimum per week. (A)

- 3231** Media Workshop - Radio (2)  
A supervised laboratory experience in the preparation of materials for radio, particularly university productions. Prerequisite: MCOM 3160 or consent of instructor. May be repeated. Maximum number of MCOM workshop units towards graduation: ten (10). Maximum number in any workshop: six (6). Six hrs. minimum per week. (Y)
- 3232** Media Workshop - TV (2)  
A supervised laboratory experience in the preparation of materials for television, particularly university productions. Prerequisite: MCOM 3100. May be repeated. Maximum number of MCOM workshop units toward graduation: ten (10). Maximum number in any workshop: six (6). Six hrs. minimum per week. (F, W, Sp)
- 3240** Public Opinion (4)  
Reading and discussion focusing on the relationship of public opinion and the mass media, including an examination of the literature on attitude change. Practice in conducting and interpreting opinion surveys. Prerequisites: An introductory course in sociology or psychology, or consent of instructor. (Y)
- 3310** Editing (4)  
Theory and practice of editing for the print media. Prerequisite: MCOM 2200, 3010. Three hrs. lect., 2 hrs. act. (F, W, Sp)
- 3340** Graphic Communication (4)  
A survey of the concepts and methods of non-verbal communication with an emphasis on computer-oriented media. Provides an introduction for desktop publishing which includes design, layout, and graphic production for electronic and print media publication.
- 3350** Magazine Publishing in America (4)  
A comprehensive investigation of the magazine publishing industry in America. Study includes types of publications, their management/economic/editorial policies. Field trips to Bay Area publishers. Prerequisite: MCOM 3010. Three hrs. lect., 2 hrs. act. (Y)
- 3360** Electronic Publishing and the Internet (4)  
Introduction to the Internet computer network. Use of the Internet for student research and electronic publishing; placing student publications on the Internet. Three hrs. lect., 2 hrs. act.
- 3370** Information on the Internet (4)  
Theory and methods of information gathering and analysis on the Internet as they relate to mass communication. Students learn how to approach an on-line search for information, to use a variety of specific on-line resources, and to evaluate information retrieved from various



browsers, search engines, and web sites. Two hrs. lect., 4 hrs. act.

- 3400 The Ethnic Media in America (4)  
Reading and discussion focusing on the development and impact of the ethnic media in American society, including an examination of purpose, role, audience and support. Instruction includes visits by prominent ethnic media representatives and field trips to ethnic media in the Bay Area. (Y)
- 3410 Feature Writing (4)  
Writing feature articles, news analysis, and specialized broadcast reports distinguished from straight news reporting. Analysis of writing problems and style. Interpretive interviews and profiles. Prerequisite: MCOM 2200, 3010 or consent of instructor. Three hrs. lect., 2 hrs. act.
- 3430 Women and Film (4)  
Images of women in mainstream English-language film from 1900 to the present with emphasis on the role played by the gender of the producers, directors, editors, and screen writers. Not for Mass Communication major or minor credit. Cross-listed with WOST 3430.
- 3500 Photojournalism (5)  
The use of photography as a tool in reporting and interpreting news for print media. Processing and printing black and white photographs, camera techniques, composition, picture page design. Cross-listed with ART 3500. Prerequisite: MCOM/ART 2700. A miscellaneous course fee will be charged. Please consult the quarterly *Class Schedule* for the current fee. Two hrs. lect., 6 hrs. studio act. (Y)
- 3600 Intermediate Photography (5)  
(See ART 3600 for course description.)
- 3650 Color Photography (5)  
(See ART 3650 for course description.)
- 3660 Portrait Photography (5)  
(See ART 3660 for course description.)
- 3671 Advanced Studio Lighting (5)  
(See ART 3671 for course description.)
- 3680 Photography Career Preparation (2)  
(See ART 3680 for course description.)
- 3700 Digital Photography and Photo Essay (4)  
History of social documentary photography and the photo essay. Students will produce photo-essay projects using traditional photographic methods and equipment as well as computer technology. Final projects may be published on the Internet. Prerequisite: MCOM/ART 2700 or consent of instructor. A miscellaneous course fee will be charged. Please consult the quarterly *Class Schedule* for the current fee. Three hrs. lect., 2 hrs. act.



- 3800** Research Methods in Mass Communication (4)  
Basic research techniques for journalists, advertising and public relations practitioners, and communication researchers. Traditional and innovative methods of gathering information: library research, interviewing, interpretation of public opinion polls, interpreting the research literature. Computer database searches and analysis of data. (F, W, Sp)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Not applicable to the Mass Communication major or minor. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)
- 4010** Public Affairs Reporting (4)  
Examination of sources of information for mass media. Study to include the analysis of public records and public access broadcast channels. Dynamics of and practice in investigative reporting, interviewing and writing for these modes. Prerequisites: MCOM 2200, 3010, 3110. Three hrs. lect., 2 hrs. act.
- 4050** Theories of Mass Communication (4)  
Reading and discussion of the theoretical literature on mass communication. Surveys theories of media effects, persuasion, characteristics of audiences and channels, and the variety of human communication behavior related to mass media. Prerequisite: PSYC 1000 or SOC 1000; or consent of instructor. (Y)
- 4100** Television Documentary Production (4)  
Fundamentals of producing television documentaries using such basic story development patterns as concept, treatment, research, story focus, story boarding, scripting, performing and narration. Prerequisite: MCOM 3130 or consent of instructor. Two hrs. lect., 4 hrs. act. (Y)
- 4110** International Communication (4)  
Study of international communication systems, with attention to communication relationships between and among First, Second and Third World nations, and to international regulatory and policy-making agencies in communication. Reading and discussion on current issues, including technological developments and their impact on communication policy. (Y)
- 4150** Mass Media and Government (4)  
Interactions between the media and government. Reading on and discussion of current issues, including political elite uses of the media; reporter-official relationships; studies in power manipulation, co-optation and conflict. (Y)
- 4200** Radio Programming and Promotion (4)  
Theory and practice of radio programming and promotion, including audience and music research, music rotations, news and public affairs programming, on- and off-air

promotions, bartering, broadcast formatics, working with clients, record companies. Prerequisite: MCOM 3160 or consent of instructor. Two hrs. lect., 4 hrs. act. (Y)

- 4340 Advanced Graphic Communication (4)  
Advanced page layout, magazine ad creation, introduction to color theory and manipulation, and animation techniques. Prerequisite: MCOM 3340. Three hrs. lect., 2 hrs. act. (Y)
- 4360 Advanced Electronic Web Publishing (4)  
Development of electronic publishing techniques appropriate for the world wide web. Includes use of two and three dimensional graphics, audio, video, HTML, Java and XML languages. Prerequisite: MCOM 3360 or permission of instructor. Two hrs. lect., 4 hrs. act.
- 4450 Selected Topics in Reporting and Editing (4)  
Advanced methods for reporting and editing in mass communication. Topics to be selected from such areas as: enterprise reporting, consumer reporting, editing practices, editorial writing. Content may vary and will be announced before registration. Prerequisite: MCOM 2200, 3010. Three hrs. lect., 2 hrs. act. May be repeated for credit with consent of instructor.
- 4500 Women in Media (4)  
Study of women in the media, including both images of women in media content and an examination of careers for women in the media. Reading and discussion, including content analysis, of contemporary and historical media portrayals of women. (Y)
- 4510 Public Relations Theory and Practice (4)  
Principles of public relations as applied to the creation and production of messages for institutions and industry. Analysis of their "publics" including investigation of the psychological, sociological, economic, political and ethical foundations leading to a theory of communication. Prerequisite: MCOM 2200. (Y)
- 4520 Advertising Theory and Practice (4)  
Principles of advertising applied to the creation and production of advertising messages in their many forms including the investigation of the psychological, sociological, economic, and legal aspects. (Y)
- 4530 The Advertising-Public Relations Campaign (4)  
Current issues in advertising and public relations. Term project applying advertising or public relations principles to research, creation and production of all aspects of an actual campaign. Prerequisites: MCOM 2200 or 4520 and MCOM 3800 or MKTG 4445. (Y)
- 4540 Selected Topics in Mass Communication and Public Policy (4)  
Subjects selected from such areas as: law, ethics, regulation, legislation and access to information. Content may vary and will be announced before registration. Prerequisite: Senior Standing. May be repeated for credit

with consent of instructor.

- 4600 Advanced Photography (5)  
(See ART 4600 for course description.)
- 4620 History of Photography (4)  
A general survey of the history of photography. The technical development and the social, aesthetic and commercial impact of the medium. Cross-listed with ART 4620.
- 4650 Media Internship (2, 4)  
On-the-job experience with newspapers, industrial publications and broadcast media in the Bay Area. Twenty hours weekly. Prerequisite: Senior standing, consent of instructor. May be repeated to a maximum of 4 units. Credit/No Credit grading only. (A)
- 4900 Independent Study (1-4)

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## Footnotes

- <sup>1</sup>The maximum number of workshop units toward graduation is ten (10). Students with credit in MCOM 3230 must add those units to their workshop total. Maximum number of units in any given workshop is six (6).
- <sup>2</sup>Satisfies section III (A) of major.
- <sup>3</sup>Applicable to section III (C) of major.
- <sup>4</sup>Applicable to section III (B.2) of major



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## California Studies

- ▶ [Department Information](#)
- ▶ [Program Description](#)
- ▶ [Minor in California Studies](#)

### Department Information

Department of Geography and Environmental Studies  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3021  
Phone: (510) 885-3193

*Professors:* Herbert Eder, James S. Fay, Sherman L. Lewis,  
Richard J. Orsi

*Associate Professors:* David J. Larson (Director), Scott Stine

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The minor in California Studies offers coursework on California with emphasis on the state's history, government, geography, ethnic diversity, and environment. Such a focus on California's diverse and sizable population, economic development, and geo-social regions will better prepare graduates to address the ongoing economic, demographic, and social evolution challenging California and its political institutions.

### Minor in California Studies

The minor consists of 28 units. At least 18 of these units must be taken outside the student's major.

- I. Core Requirements (20-21 units)
  1. HIST 3500 History of California (4)
  2. POSC 3120 State and Local Politics and Government (4) or POSC 3150 Politics of California (4) or POSC 3151 Contemporary California (4)
  3. GEOG 3505 Geography of California (4)
  4. One course (4 units) on the California ethnic experience, selected from:  
  
ANTH 3505 Indians of California (4); E S 3210 Latina Women in the U.S. (4), 3805 Mexican and Latin American

Immigration (4), 4290 Latino Politics and Public Policy (4); HIST 3515 The Mexican American and the American Southwest (4); MCOM 3400 The Ethnic Media in America (4); SOC 3416<sup>1</sup> Sociology of the Mexican-American Family (4)

5. One course (4-5 units) on California environmental and scientific perspectives, selected from:

ANTH 4240<sup>1</sup> Data Analysis in Archeology (4), 4250<sup>1</sup> Field Course in Archeology (5); BIOL 3015<sup>1</sup> Natural History of Marine Organisms (4), 3031<sup>1</sup> Nature Study (4), 3210<sup>1</sup> Woody Plants of California (4), 4200<sup>1</sup> Plant Taxonomy (4); GEOG 4350<sup>1</sup> Water Resources and Management (4); HIST 3505 California Environmental History (4); POSC 4171 Public Policy and the Environment (4)

II. Electives (8 units)

Any course listed above which was not taken in the core, or any course from the following list:

ECON 3500<sup>1</sup> Regional and Urban Economics: Survey (4); GEOG 3400<sup>1</sup> Field Geography of the San Francisco Bay Region (4), 3525 Geography of California Wine Country (3), 3526 Field Geography of California Wine Country (1); GEOL 3100 Geology of the Western National Parks (4); HIST 3503 History of the San Francisco Bay Area (4), 4032 Introduction to Public History (4); POSC 3113 Political Internship (4), 3130 Urban Politics (4), 3310 Political Parties and Campaigning (4)

Any Cooperative Education course with substantial content unique to California and approved in advance by a California Studies advisor.

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## Footnotes

- <sup>1</sup> Has a prerequisite which is not applicable to the program.



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## Mathematics

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- ▶ [Minor Requirements](#)
- ▶ [Minor in Computer Science](#)
- ▶ [Mathematics Option: Liberal Studies](#)
- ▶ [Single Subject Matter Preparation Program](#)
- ▶ [Basic Skills Courses](#)
- ▶ [Undergraduate Courses](#)

### Department Information

Department of Mathematics and Computer Science  
School of Science  
Office: North Science 335  
Phone: (510) 885-3414  
E-mail: [mathcs@csuhayward.edu](mailto:mathcs@csuhayward.edu)  
<http://www.mcs.csuhayward.edu>  
Student Service Center: North Science 337  
Phone: (510) 885-4011

*Professor Emeriti:* Peter A. Fowler, Marvin R. Winzenread

*Professors:* James S. Daley, Edward L. Keller (Chair), Gary E. Lippman, Massoud Malek, Charles M. Marut, Russell L. Merris, Christopher L. Morgan, William R. Nico (Computer Science Coordinator), Edna E. Reiter (Associate Chair), Istvan Simon, Stuart Smith, William Thibault, Bruce E. Trumbo, Donald L. Wolitzer, Ytha Y. Yu

*Associate Professors:* Kathleen Hann, Dan Jurca, Farzan Roohparvar, Hwa Tang

*Assistant Professors:* Jagdish Bansiya, Edward A. Billard, Kevin Brown, Kevin E. Callahan, Leann Christianson, Julie S. Glass, Chung-Hsing OuYang, Thomas W. Roby, Assim Sagahyroon

*Lecturers:* Jane Brecha, Paula Albert, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Phil Gonsalves, Ching-Cheng Lee, David L. Pugno, Denise Sargent-Natour, Jean Simutis

*Please consult the 2001-2002 online catalog for any changes that may occur.*

## Program Description

Modern technological society has many fields that need specialists in mathematics. The Department of Mathematics and Computer Science offers a variety of courses intended for those who want to pursue a career in mathematics as well as those who wish to develop quantitative and problem-solving skills for use in other fields.

Students choose to major in mathematics for a number of reasons. Some intend to become high school, community college, or university teachers. Others seek careers in business, industry, or government, where mathematically trained people are in demand. An undergraduate major in mathematics is one of the best preparations not only for studying advanced Mathematics, but also for graduate work in Computer Science, Statistics, Operations Research, Actuarial Science, and the Natural Sciences. Most law schools are pleased to accept students with rigorous and logical training in Mathematics.

Many students combine their study of mathematics with the study of computer science. A popular option is to obtain a double major in Mathematics and Computer Science. Or students may earn a major in one of these fields and minor in the other.

The major requires six lower division courses and eleven upper division mathematics courses. The requirements are flexible enough that a student can choose one of several options according to his/her interest.

Each student is assigned a faculty advisor when (s)he declares a major and should consult this advisor regularly. A booklet containing a number of sample schedules, as well as further information about the mathematics major, is available in the Mathematics/Computer Science Student Service Center (North Science 337) or see the departmental website. Although it is not a requirement, mathematics majors are urged to take as many courses as possible in an area such as Biology, Chemistry, Economics, Management Sciences, Physics, or Statistics. These are all fields where Mathematics plays a significant role, and it is important for a mathematics major to appreciate the relevance of the subject in applications. Study of one or more foreign languages is also recommended, especially for those students anticipating graduate study.

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## Career Opportunities

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Actuary • Computer Analyst • Cryptologist • Economist • Engineer • Engineering Analyst • Financial Analyst • Market Researcher • Mathematician • Numerical Analyst • Operations Research Analyst • Personnel Representative • Programmer • Professor/Teacher • Publisher Representative • Statistician • Stockbroker • Technical Writer

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## Features

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Cal State Hayward students can participate in the Mathematics Club, which features lectures by students and faculty and offers a variety of social activities.

Each year the department awards a number of scholarships

covering a portion of fees for the subsequent year. Scholarship applications may be obtained from the department student service center office during the Winter quarter.

Qualified upper division and graduate students may be employed as graders for classes. Also, students may earn credit in mathematics by tutoring in the Mathematics Lab.

Students who intend to earn a high school teaching credential after graduation may apply most of their mathematics major courses to meet the standards of California's Single Subject Matter Preparation Program for a Single Subject Credential in Mathematics.

Math majors who continue on to earn a master's degree in mathematics may pursue a career as a community college mathematics teacher.

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## Preparation

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For Advanced Placement course equivalencies, see Registration chapter.

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## Major Requirements (B.S.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 68 units; the BS degree requires a total of 186 units.

### I. Lower Division Requirements (24 units)

This requirement consists of the following six courses:

- MATH 1304, 1305, 2304 The Calculus sequence
- CS 1160 Introduction to Computer Science and Programming Methods
- MATH 2101 Elements of Linear Algebra
- MATH 2150 Discrete Structures  
(Mathematics majors may substitute MATH 3000 for MATH 2150.)

A student who has recently taken a pre-calculus course in high school should be prepared to begin the calculus sequence. A student with three years of high school mathematics, including two years of algebra and one year of geometry, should be prepared to take MATH 1130, or possibly MATH 1300. Students who are unsure about what mathematics course to begin with should call the department office. Students may not enroll in any baccalaureate level mathematics or computer science courses unless they have met the Entry Level Mathematics (ELM) requirement, or are exempt from it. Contact the Testing Office 885-3661 for more information.

### II. Upper Division Requirements (44 units)

Every Mathematics major is required to complete one of the following options:

#### Option A (44 units)

Required courses:

- MATH 3100 Linear Algebra (4)
- MATH 3331 Differential Equations (4)



The following two sequences:

MATH 3121-3122 Abstract Algebra I and II (4, 4)

MATH 3300-3301 Analysis I and II (4, 4)

One sequence from the following five:

MATH 3151-4151 Combinatorial Mathematics (4, 4)

MATH 3215-4215 Geometry (4, 4)

MATH 3361-4361 Differential Equations (4, 4)

MATH 3750-4750 Numerical Analysis (4, 4)

MATH 3841-4841 Optimization (4, 4)

Electives: Three upper division mathematics courses (12 units), which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023, 4024).

Option B - Applied Mathematics (44 units)

Required courses:

MATH 3100 Linear Algebra (4)

MATH 3331 Differential Equations (4)

Three out of the four courses from the following two sequences:

MATH 3121-3122 Abstract Algebra I and II (4, 4)

MATH 3300-3301 Analysis I and II (4, 4)

Two sequences from the following four:

MATH 3151-4151 Combinatorial Mathematics (4, 4)

MATH 3361-4361 Differential Equations (4, 4)

MATH 3750-4750 Numerical Analysis (4, 4)

MATH 3841-4841 Optimization (4, 4)

Electives: Two upper division mathematics courses (8 units), which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023, 4024).

Option C - Mathematics Teaching (44 units)

Required courses:

MATH 3121 Abstract Algebra I (4)

MATH 3100 Linear Algebra (4)

MATH 3215 Geometry I (4)

MATH 3300 Analysis I (4)

MATH 3331 Differential Equations (4)

MATH 3600 Number Theory (4)

MATH 4040 History of Mathematics (4)

STAT 3401 Introduction to Probability Theory I (4)

One from the following three courses:

MATH 3122 Abstract Algebra II (4)

MATH 3301 Analysis II (4)

MATH 4215 Topics in Geometry (4)

Electives: Eight units of upper division mathematics, which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023, 4024).

A student who completes Option C can satisfy rather easily

the requirements for the State-approved Single Subject Matter Preparation Program in Mathematics, a program of courses designed to prepare the student for entry into the Credential Program in Mathematics, provided that judicious choices of mathematics elective courses and general education courses are made. To accomplish this, the student who completes Option C must:

1. choose MATH 4901 Senior Seminar (2) and MATH 4900 Tutoring in Mathematics (2) in the mathematics elective category.
2. complete STAT 2010 Elements of Statistics for Business and Economics (5).

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 28 units.

#### Required courses:

- MATH 1304 Calculus I (4)
- MATH 1305 Calculus II (4)
- MATH 2101 Elements of Linear Algebra (4)
- MATH 2304 Calculus III (4)

#### Two courses from the following list:

- MATH 3100 Linear Algebra (4)
- MATH 3121 Abstract Algebra I (4)
- MATH 3215 Geometry I (4)
- MATH 3300 Analysis I (4)
- MATH 3331 Differential Equations (4)

One 4-unit upper division mathematics course, which may include any cross-listed, upper division course in Statistics or Computer Science (but not MATH 4021, 4022, 4023, 4024).

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## Minor in Computer Science

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The complete description of this minor may be found in the undergraduate Computer Science section of the current Cal State Hayward catalog. It is relatively easy for a Mathematics major to complete a minor in Computer Science. To do this, the student should take the following courses in addition to those required for the mathematics major.

- CS 2360 Programming Methodology and Introduction to Software Engineering (4)
- CS 2430 Computer Organization and Assembly Language Programming (4)

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## Mathematics Option: Liberal Studies

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## Single Subject Matter Preparation Program

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Three upper division courses as follows:

- A. Two courses from the following list:  
CS 3120 Programming Language Concepts (4)  
CS 3240 Data Structures and Algorithms (4)  
CS 3430 Computer Architecture (4)  
CS 4560 Operating Systems (4)
- B. One upper division Computer Science elective. This may be a third course from (A) or any course from category IV of the requirements for the major in Computer Science.
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Area VII, Credential Track, or Area VI, Liberal Arts Track (24-25 units)

MATH 1304<sup>1</sup> Calculus I (4)  
MATH 1305 Calculus II (4)

Either MATH 2101 Elements of Linear Algebra (4)  
or MATH 2150 Discrete Structures (4)

Either MATH 2304 Calculus III (4) or STAT 2010 Elements of Statistics for Business and Economics (5) or STAT 3010 Statistical Methods in the Social Sciences (4)

Eight units of upper division Mathematics electives, selected with approval of advisor (8)

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The intent of the *Single Subject Matter Preparation Program in Mathematics* is to provide students with the mathematical background necessary for obtaining a California Secondary Teaching Credential in Mathematics. In addition to the required mathematics courses, a year of education courses and practice teaching is required before a credential can be granted. The Single Subject Matter Preparation Program totals 73 units and has been approved by the California Commission on Teacher Credentialing.

A student need not be a mathematics major to complete the Single Subject Matter Preparation Program in Mathematics. However, a student who completes the mathematics major with Option C (Mathematics Teaching) should find it relatively easy to meet the requirements of the program as noted earlier.

Core Mathematics (51 units)

MATH 1300 Trigonometry and Analytic Geometry (4)  
MATH 1304 Calculus I (4)  
MATH 1305 Calculus II (4)  
MATH 2101 Elements of Linear Algebra (4)  
MATH 2150 Discrete Structures (4)  
MATH 2304 Calculus III (4)  
MATH 3121 Abstract Algebra I (4)  
MATH 3215 Geometry I (4)  
MATH 3600 Number Theory (4)  
MATH 4040 History of Mathematics (4)  
MATH 4901 Senior Seminar (2)

STAT 2010 Elements of Statistics for Business and Economics (5)

STAT 3401 Introduction to Probability Theory I (4)

Coursework Providing Breadth and Perspective (22 units)

Additional advanced courses that require calculus as a prerequisite (8 units):

MATH 3300 Analysis I (4)

MATH 3331 Differential Equations (4)

One course in computer science (4 units):

CS 1160 Introduction to Computer Science and Programming Methods (4)

Field experiences related to mathematics (2 units):

One course chosen from the following or 60 hours of field experience approved by the Mathematics Subject Matter Preparation Advisor:

MATH 3898 Cooperative Education (2)

MATH 4900 Independent Study [in Tutoring] (2)

Eight (8) units of additional coursework, chosen from the following or from other related courses approved by the Mathematics Subject Matter Preparation Advisor:

CHEM 1101 General Chemistry (5), 1102 General Chemistry (5), 1103 General Chemistry (5); CS 1020 Introduction to Computers, 2340 Computer Organization and Assembly Language Programming (4), 2360 Programming Methodology and Introduction to Software Engineering (4); ECON 2301 Principles of Microeconomics (4), 2302 Principles of Macroeconomics (4)

MATH 3100 Linear Algebra (4), 3122 Abstract Algebra II (4), 3301 Analysis II (4); 4215 Topics in Geometry (4); MGMT 3100 Introduction to Quantitative Methods in Business (5); PHIL 1001 Introduction to Logic (4), 3002 Modern Logic (4); PHYS 1001 General Physics (5), 1002 General Physics (5), 1003 General Physics (5); STAT 3502 Statistical Inference I (4)

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## Basic Skills Courses

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*The course prefix for the following courses is MATH.*

0801, Elementary Algebra A, B, and C (4 each)  
0802, A three-quarter sequence in basic mathematics and  
0803<sup>2</sup> elementary algebra. CR/NC grading only. On successful completion of this sequence, students should register for MATH 0950. Units will not count toward the baccalaureate degree. Prerequisites-MATH 0801: ELM score of 370 or below (ELM scores are required for registration); MATH 0802: Grade of CR in MATH 0801; MATH 0803: Grade of CR in MATH 0802. (F, W, Sp)

0900<sup>2</sup> Elementary Algebra (4)  
A one quarter course in elementary algebra. CR/NC grading only. On successful completion of this course,

## Undergraduate Courses

students should register for MATH 0950. Prerequisite: ELM score of 380-470. (ELM scores are required for registration.) Not open to students who have passed MATH 0802. Units will not count toward the baccalaureate degree. (A)



- 0950 Intermediate Algebra (4)  
Operations with algebraic expressions, exponents and radicals; linear and quadratic equations; systems of equations and inequalities; linear and quadratic functions and their graphs; elementary conic sections; word problems. CR/NC grading only. Prerequisite: Grade of CR in MATH 0802 or MATH 0900 or an ELM score of 480-540. Units will not count toward baccalaureate degree.

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*The course prefix for the following courses is MATH.*

Computer Science courses offered by the Department of Mathematics and Computer Science are fully described in the Computer Science section of this catalog.

A student who has recently taken a pre-calculus course in high school should be prepared to enter calculus. A student with three years of high school mathematics, including two years of algebra and one year of geometry, should be prepared to take MATH 1130, or possibly MATH 1300. Such students, and others who are unsure about what mathematics course to begin with, should call the Mathematics and Computer Science Department for advice. Also, Assessment and Testing (885-3661) offers placement tests that can assist students in finding the appropriate starting class.

- 1110  The Nature of Mathematics (4)  
[CAN MATH 2]  
This course is designed to introduce the student to mathematics as an art and mathematics as a tool, emphasizing the place of mathematics in today's world. Will satisfy the general education requirement for nonmajors. Prerequisite: satisfactory completion of Entry-Level Mathematics requirement. (F, W, Sp)
- 1130  College Algebra (4)  
Functions and graphs: polynomials, rational functions, exponential and logarithmic functions. Prerequisite: satisfactory completion of Entry-Level Mathematics requirement. See note at beginning of course listings. (A)
- 1300 Trigonometry and Analytic Geometry (4)  
Definitions, properties and graphs of the trigonometric functions. Applications. Analytic geometry of conic sections. A preparatory course for calculus. Prerequisites: MATH 1130 or departmental permission. See note at beginning of course listings.
- 1304 Calculus I (4)  
[CAN MATH SEQ C = MATH 1304, 1305, 2304]  
Differential calculus. Limits and continuity. Exponential and logarithmic functions. Techniques and applications of differentiation. Prerequisite: MATH 1300 or departmental

permission. See note at beginning of course listings.

- 1305** Calculus II (4)  
[CAN MATH SEQ C = MATH 1304, 1305, 2304]  
Integral calculus. The indefinite integral, area, the Fundamental Theorem and techniques of integration. Applications to volume, arc length, physical and biological problems. Prerequisite: MATH 1304. (A)
- 1810** Mathematics for Business and Social Sciences I (4)  
[CAN MATH 30]  
Precalculus review, limits and continuity, differential calculus including derivatives of polynomial, exponential and logarithmic functions, integral calculus, applications to business and social sciences. Prerequisites: MATH 1130 or satisfactory score on mathematics placement test. Not open to students with credit for MATH 1803. (A)
- 1820** Mathematics for Business and Social Sciences II (4)  
Multivariable calculus, Lagrange multipliers, elementary differential equations, systems of linear equations, matrices, determinants, difference equations, elementary graph theory, applications to business and social sciences. Prerequisite: MATH 1810. Not open to students with credit for MATH 1802. (A)
- 2101** Elements of Linear Algebra (4)  
[CAN MATH 26]  
Vector spaces, linear transformations, matrices, systems of linear equations. Stress on 2 and 3 dimensions, including geometric and other applications. Prerequisite: MATH 1305 or 1820 (may be taken simultaneously with, or after, MATH 2304). (A)
- 2150** Discrete Structures (4)  
Topics in discrete mathematics. Elementary logic, set theory, and relations; induction, enumeration techniques, recurrence relations, trees and graphs. Boolean algebra, algorithm analysis. Prerequisite: MATH 1304. (A)
- 2304** Calculus III (4)  
[CAN MATH SEQ C = MATH 1304, 1305, 2304]  
Infinite series, convergence of power series. Vectors in space. Partial derivatives, chain rule, directional derivative and gradient. Curves and surfaces. Maxima and minima. Multiple integrals. Prerequisite: MATH 1305. (A)
- 3000** Introduction to Abstract Mathematics and Proofs (4)  
Introduction to methods and proof techniques in several branches of mathematics, with topics chosen from logic, set theory, abstract algebra, number theory, analysis, and graph theory. Provides a transition from lower division mathematics courses, which concentrate on computation, to upper division proof-oriented mathematics courses. Mathematics majors may substitute this course for MATH 2150. Prerequisite: MATH 2304; co-requisite: MATH 2101.

- 3100 Linear Algebra (4)  
Abstract vector spaces, linear transformations, matrices and determinants. Dual spaces and inner product spaces. Eigenvalues and eigenvectors. Prerequisites: MATH 2101 and either 2150 or 3000. (F, Sp)
- 3121 Abstract Algebra I (4)  
Equivalence relations, binary operations. Integers: divisibility, factorization, integers modulo  $n$ . Groups: subgroups, cyclic groups, permutation groups, quotient groups. Homomorphisms and isomorphisms. Selected topics as time permits. Prerequisites: MATH 2101 and either 2150 or 3000.
- 3122 Abstract Algebra II (4)  
Rings and fields: integral domains, ideals, quotient rings, polynomial rings, roots of polynomials, algebraic extensions and finite fields. Selected topics as time permits. Prerequisite: MATH 3121.
- 3151 Combinatorics (4)  
Theory of counting, including partitions, Stirling numbers, generating functions. Applications of Burnside's lemma from multiple transitivity to the Polya-Redfield Theorem. Ferrers diagrams, symmetric functions, and majorization. Prerequisites: MATH 2101 and either 2150 or 3000.
- 3215 Geometry I (4)  
An axiomatic approach to incidence, neutral, Euclidean, and non-Euclidean plane geometry. Various models, such as the Euclidean, hyperbolic, and taxicab planes, will be considered throughout the course. Prerequisite: MATH 2101 and either 2150 or 3000. (Y)
- 3300, 3301 Analysis I, II (4 each)  
The real numbers, limits, sequences and series of real numbers, Bolzano-Weierstrass theorem. Continuity, intermediate and extreme value theorems, uniform continuity, sequences of functions. Topology of  $\mathbb{R}^n$ . Differentiation, chain rule, implicit and inverse function theorems. Prerequisites for MATH 3300: MATH 2101, 2304, and either 2150 or 3000. Prerequisite for MATH 3301: MATH 3300. (Y)
- 3320 Calculus of Vector Functions (4)  
Differentiation and integration of vector valued functions; gradient, divergence, and curl; cylindrical and spherical coordinates; theorems of Green and Stokes. Prerequisite: MATH 2304 and MATH 2101 (2101 may be taken concurrently).
- 3331 Differential Equations (4)  
Methods of solution and applications of first order differential equations. Linear  $n$ -th order equations with emphasis on equations of 2nd order. Other topics may include power series solutions, Laplace transforms, linear systems. Prerequisite: MATH 2304.
- 3361 Ordinary Differential Equations (4)  
Series solution of linear differential equations with variable



coefficients, two point boundary value problems, systems of differential equations, phase plane analysis.

Prerequisites: MATH 2101 and 3331.

3401, Introduction to Probability Theory I, II (4 each)

3402 (See STAT 3401, 3402 for course description.)

3502, Statistical Inference I, II (4 each)

3503 (See STAT 3502, 3503, for course descriptions.)

3600 Number Theory (4)

Euclid's algorithm, prime numbers, congruences, theorems of Fermat and Euler, quadratic residues.

Prerequisites: MATH 2101 and either 2150 or 3000. (Y)

3750 Numerical Analysis I (4)

Basic numerical methods and analysis; practical solutions of problems from engineering, science, and mathematics.

Computer representation of real numbers, errors, root finding, interpolation, numerical integration, ordinary differential equations. Prerequisites: CS 1160, MATH 2101 and 2304. Cross-listed with CS 3750. (Y)

3841 Linear Programming (4)

Problems of maximizing or minimizing a linear function subject to linear constraints; typical applications involve planning ("programming") the allocation of limited resources to achieve an optimal result. Topics include problem formulation, solution procedures, duality theory, sensitivity analysis, special problems (e.g., transportation and assignment problems). Cross-listed with ENGR 3841. Prerequisite: MATH 2304 and competence in matrix algebra. (Y)

3898 Cooperative Education (2)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 2 units will be accepted toward the Mathematics major. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity; completion of lower division Mathematics major requirements and upper division standing. (A)

4021<sup>□</sup> Number Systems (4)

Sets; relations and operations on sets; numeration systems; number systems from the counting numbers through the real numbers; relations, operations, and algorithms for these sets of numbers. Prerequisite: Satisfactory completion of Entry-Level Mathematics requirement. (A)

4022<sup>□</sup> Informal Geometry (4)


Geometric figures and their properties, constructions, measurement, coordinates, transformations, and topological properties. Prerequisite: MATH 4021. (A)

4023<sup>□</sup> Functions (4)

Elementary functions on the real number system and their graphs; introduction to probability, statistics, and computer



programming. Prerequisites: MATH 4021 and 4022. (A)

- 4024  College Algebra and Trigonometry for Middle School Teachers (4)  
Functions and graphs: polynomials, rational functions, exponential and logarithmic functions. Definitions, properties and graphs of the trigonometric functions. Applications of algebra and trigonometry in science, business, and art. Prerequisite: MATH 4023.
- 4040 History of Mathematics (4)  
The historical development of mathematical ideas and techniques. Prerequisite: calculus or consent of instructor. (Y)
- 4121 Advanced Algebra (4)  
Theory of groups, including factor groups, Jordan-Holder Theorem, Sylow theorems. Mappings and homomorphisms. Introduction to rings and fields. Topics continued in MATH 6121. Prerequisite: MATH 3122.
- 4151 Graph Theory (4)  
Introduction to graph theory. Graphic sequences. Planar graphs and the theorems of Euler and Kuratowski. Bipartite graphs. Connectivity and spanning trees. Hamiltonian graphs. Matching, chromatic and characteristic polynomials. Cospectral graphs and the graph isomorphism problem. Algorithms. Prerequisites: MATH 2101 and either 2150 or 3000.
- 4155 Advanced Combinatorics (4)  
Selected topics from advanced counting theory, including formal power series, partially ordered sets, symmetric groups, and related algorithms. Prerequisites: MATH 3121 or 3151 or consent of instructor.
- 4170 Theory of Automata (4)  
(See CS 4170 for course description.)
- 4215 Topics in Geometry (4)  
Topics in geometry such as algebraic, differential, finite, or projective geometry, convexity, packing and tiling, polytopes, and isoperimetric problems. Prerequisites: MATH 3215 or consent of instructor. May be repeated once for credit with consent of the chair.
- 4245 Analysis of Algorithms (4)  
(See CS 4245 for course description.)
- 4250 Differential Geometry and Topology (4)  
Introduction to modern differential geometry and topology. Geometry of curves and surfaces, differential forms and vector fields, manifolds, curvature, geodesics, topological invariants. Prerequisites: MATH 3100, 3300, or consent of instructor.
- 4301 Analysis III (4)  
Manifolds and smooth maps, vector fields and differential forms, Riemann integration for functions of several variables, Fubini theorem, theorems of Green, Gauss, and

- Stokes, general Stokes theorem. Prerequisite: MATH 3301.
- 4340 Introduction to Complex Variables (4)  
Introduction to theory of functions of complex variables.  
Prerequisite: MATH 3300.
- 4350 Theory of Functions of a Real Variable (4)  
Pointwise and uniform convergence, Taylor series,  
Riemann integration, sets of measure zero, Lebesgue's  
theorem on the Riemann integral, the metric space of  
continuous functions, and selected topics. Prerequisite:  
MATH 3300.
- 4360 Introduction to Topology (4)  
Topological spaces, metric spaces, continuity,  
connectedness and compactness. Prerequisite: MATH  
3300.
- 4361 Partial Differential Equations (4)  
Differential equations of physics: the wave equation, the  
heat equation, Laplace's equation; boundary-value  
problems. Elementary Sturm-Liouville theory, Fourier  
series, Fourier and Laplace transforms, Bessel functions,  
selected topics. Prerequisite: MATH 3331.
- 4365 Dynamical Systems (4)  
Introduction to dynamical systems and applications.  
Variational calculus, Lagrangian dynamics, principle of  
critical action, Hamiltonian systems and symplectic  
mechanics, Hamilton-Jacobi equation, chaotic and  
nonlinear systems, fractals. Prerequisites: MATH 3100,  
3300, 3331, or consent of instructor.
- 4380 Geometry and Topology of Dynamical Systems  
(4)  
Introduction to geometrical and topological aspects of  
dynamical systems. Manifolds, bundles, vector fields, and  
differential forms. Lagrangian and Hamiltonian systems  
and symplectic mechanics. Prerequisites: MATH 3100 and  
MATH 3300, or consent of instructor.
- 4401 Introduction to Stochastic Processes (4)  
(See STAT 4401 for course descriptions.)
- 4750 Numerical Analysis II (4)  
Continuation of MATH 3750. Numerical solution of linear  
systems, matrix norms, approximation of functions,  
algebraic eigenvalues. Prerequisite: MATH/CS 3750.  
Cross-listed with CS 4750. (F, W, Sp)
- 4841 Topics in Optimization (4)  
Sequel to MATH 3841. Topics to be drawn from linear  
and/or nonlinear programming. Linear programming topics  
may include integer programming, game theory, network  
programming; nonlinear programming topics include  
optimality conditions and solution procedures for  
unconstrained and constrained optimization problems.  
May be repeated once for credit with consent of the chair.  
Cross-listed with ENGR 4841. Prerequisite: MATH 3841.

4900 Independent Study (1-5)

4901 Senior Seminar (2)

Exploration of topics in mathematics. Topics selected from the literature to illustrate relationships among various areas of mathematics. Oral presentations and paper required. Prerequisite: senior standing in mathematics (completion of 32 units of mathematics courses) or permission of the instructor.

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## Footnotes

- <sup>1</sup>Students with insufficient mathematics background may have to complete MATH 1300 before entering MATH 1304. Students subject to the Entry Level Mathematics requirement (ELM) must fulfill that requirement before enrolling in any baccalaureate level mathematics course.
- <sup>2</sup>Completion of MATH 0801-2-3 or MATH 0900 does not satisfy the ELM requirement. Students must also pass MATH 0950 before enrolling in a baccalaureate-level mathematics course.
- <sup>3</sup>Upper division mathematics and computer science majors will not receive credit for this course.
- <sup>4</sup>Intended for prospective elementary and junior high school teachers; Mathematics and Computer Science majors will not receive credit for this course.



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## Chemistry

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### Department Information

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Department of Chemistry  
School of Science  
Office: North Science 431  
Phone: (510) 885-3452

*Professors Emeriti:* Richard E. Bozak, John C. Shelton

*Professors:* Kevin D. Cadogan, Leroy Chauffe (Chair), Michael K. Leung, Richard T. Luibrand, Richard S. Monson, Charles T. Perrino, Larry G. Scheve

*Associate Professor:* Ann A. McPartland

*Assistant Professor:* Joy C. Andrews, Christopher M. Holman

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Chemistry, as a scientific discipline, touches all our lives in a daily manner. Chemical research and teaching affect directly and indirectly all that takes place in medicine, agriculture, nutrition and the environment. For this reason, chemistry students at Cal State Hayward take courses in Mathematics, Physics, Biology and Geology just to name a few important disciplines. The field of Chemistry is a specialized one, however, and eventually students must focus on those primary courses in upper division chemistry which prepare them for graduate school and for employment opportunities. The areas of biochemistry, analytical, inorganic, organic, and physical chemistry influence the many aspects of our scientific community and are presented at the undergraduate level at Cal State Hayward. Chemistry is a central science which no student of science can avoid and, at the same time, chemistry offers the student who wishes to specialize in it the opportunity to

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## Career Opportunities

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understand and make a contribution to most any scientific endeavor.

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Analytical Chemist • Biotechnologist • Biochemist • Biophysicist • Chemical Engineer • Geochemist • Dietitian • Food and Drug Inspector • Geophysicist • Health Physicist • Nuclear Engineer • Organic Chemist • Perfumer • Petrologist • Pollution Control Technician • Public Health Educator • Quality Control Technician • Water Purification Chemist

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## Features

The Department of Chemistry employs highly qualified and experienced technical staff to assist faculty and students in their course and research experiences.

The department also features well-equipped laboratory facilities including computers for operating programs designed to assist students in classes, to increase their computational capabilities, and to allow for remote searching of chemical literature.

The B.S. degree in Chemistry is certified by the American Chemical Society.

The university offers Cooperative Education coursework which provides chemically related employment opportunities and students may, with department approval, obtain credit for this work.

The Alchemist Club, a student affiliate of the American Chemical Society, is available to students majoring in Chemistry. They are active in many aspects of the department and provide free peer tutoring, participate in fund-raising for special projects, and take interesting field trips to local industries.

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## Preparation

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For Advanced Placement course equivalencies, see Registration chapter.

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## Major Requirements (B.S.)

### Major in Chemistry

The Bachelor of Science degree program is designed to prepare students for graduate school in Chemistry and related fields as well as for industrial employment which involves research or a high degree of technical proficiency. It is intended for students desiring the highest degree of specialization. Since requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 110 units; the B.S. degree requires a total of 186 units.

- I. Lower Division (55 units)
  - CHEM 1101, 1102, 1103 General Chemistry (15)
  - CHEM 2200 Quantitative Analysis (5)
  - MATH 1304, 1305, 2304, 2101 Calculus I, II, III, and Elements

of Linear Algebra (16)

CS 1020 Introduction to Computers or CS 1160 Introduction to Computer Science and Programming Methods (4)

PHYS 1001, 1002, 1003 General Physics (15)

II. Upper Division (55 units)

CHEM 3301, 3302, 3303 Organic Chemistry (15)

CHEM 3511, 3512, 3513 Physical Chem. Lecture (9)

CHEM 3531, 3532 Physical Chemistry Laboratory (4)

CHEM 4161, 4162 Advanced Inorganic Chemistry (6)

CHEM 4180 Inorganic Chemistry Laboratory (2)

CHEM 4240 Instrumental Methods of Analysis (4)

Advanced Chemistry Electives (15 units) 

Including:

A. At least one course chosen from the following: 4430, 4810.

B. At least two courses chosen from the following: 4311, 4340, 4411, 4412, 4521, 4601, 4602.

C. Additional courses chosen from the above list of electives or from the following: 3400, 3401, 3405, 4110, 4420, 4700, 4900. (No more than four units of 4810 and 4900 combined may be applied to the Advanced Chemistry Electives for the B.S. degree major.) Graduate courses (numbered 6000 or above) may be taken to satisfy this requirement.

III. Recommended Electives

At least one year's study of a foreign language is strongly recommended, although it is no longer required. Students contemplating graduate study later, particularly leading to the Ph.D. degree, are advised that chemistry departments at many universities require a reading knowledge of scientific German or Russian. Further, the ability to translate German chemical literature is particularly useful in some areas of specialization within chemistry. Courses in the Modern Languages and Literatures department may be applied to the G.E. requirements in Area C.

### Major in Biochemistry

The Bachelor of Science degree, major in Biochemistry, is designed to prepare students for entrance into graduate programs of biochemistry and medical schools. In addition, students completing this program are prepared to secure employment in the areas of biochemistry, biotechnology and related fields. This program is intended for students desiring the highest degree of technical proficiency in this specialized area at the undergraduate level. Since requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 115-120 units, the B.S. degree requires a total of 186 units.

I. Lower Division (63-66 units)

CHEM 1101, 1102, 1103 General Chemistry (15)

CS 1020 Introduction to Computers or CS 1160 Introduction to Computer Science and Programming Methods (4)

MATH 1304, 1305, 2304 Calculus I, II, and III (12)  
CHEM 2200 Quantitative Analysis (5)

PHYS 2701, 2702, 2703 Introductory Physics or PHYS 1001, 1002, 1003 General Physics (12-15)

BIOL 1301, 1302, 1303 Foundations of Biological Science (15)

II. Upper Division (52-54 units)

STAT 3031 Statistical Methods in Biology or STAT 3502 Statistical Inference I (4)

CHEM 3301, 3302, 3303 Organic Chemistry (15)  
CHEM 3511, 3512, 3513 Physical Chemistry (9)  
CHEM 4411, 4412, 4413 General Biochemistry (12)  
CHEM 4430 General Biochemistry Laboratory (4)  
CHEM 4431 Advanced Biochemistry Laboratory (2)

Two courses (6-8 units): CHEM 4440 (3), CHEM 4450 (3), CHEM 4460 (3), CHEM 4240 (4), BIOL 3120 (4), or BIOL 4180 (4)

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Major Requirements (B.A.)

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The Bachelor Arts degree, including the Option in Biochemistry, is intended for students who would like to use their knowledge of chemistry as a starting point for a career in medicine, molecular biology, dentistry, teaching, environmental remediation, law, or business. Graduate degrees in these fields follow naturally from the undergraduate training required of the chemistry student. The major consists of 84 units; the B.A. degree requires a total of 186 units.

I. Lower Division (48 units)

CHEM 1101, 1102, 1103 General Chemistry (15)  
CHEM 2200 Quantitative Analysis (5)  
MATH 1304, 1305, 2304 Calculus I, II, III (12)

CS 1020 Introduction to Computers, or CS 1160 Introduction to Computer Science and Programming Methods (4)

PHYS 2701, 2702, 2703 Introductory Physics (12)

II. Upper Division (36 units)

CHEM 3301, 3302, 3303 Organic Chemistry (15)  
CHEM 3511, 3512, 3513 Physical Chemistry Lecture (9)

Upper Division Chemistry Electives (12 units) including all upper-division courses except 3500 Introduction to Physical Chemistry (no more than two units of 4900 and 4810 combined may be applied to the Upper Division Chemistry Electives for the B.A. degree). Graduate courses (numbered 6000 and above) may be taken in satisfaction of this requirement.

#### Sample Program

Fall	Winter	Spring
<i>Freshman Year</i>		
CHEM 1101 <sup>2</sup>	CHEM 1102	CHEM 1103
MATH 1304	MATH 1305	MATH 2304
GE	GE	GE
<i>Sophomore Year</i>		
CHEM 3301 <sup>2</sup>	CHEM 3302	CHEM 3303
PHYS <sup>3</sup>	PHYS <sup>3</sup>	PHYS <sup>3</sup>
CHEM 2200	CS	MATH 2101 <sup>4</sup>
GE	GE	GE
<i>Junior Year</i>		
CHEM 3511	CHEM 3512	CHEM 3513
CHEM 3531 <sup>4</sup>	CHEM 3532 <sup>4</sup>	CHEM Elective
GE	GE	GE
<i>Senior Year</i>		
CHEM 4161 <sup>4</sup>	CHEM 4162 <sup>4</sup>	CHEM 4180 <sup>4</sup>
CHEM Elective	CHEM 4240 <sup>4</sup>	CHEM Elective
GE	GE	GE

## Option in Biochemistry with B.A. Degree

The option in Biochemistry is a program that allows students to concentrate on an important subdivision of chemical-biological studies. It prepares students for graduate work in Biochemistry and related fields such as molecular biology and biotechnology. It is recognized as being one of the most useful and popular programs for students who intend to fulfill premedical or pre dental requirements. The major with an option in Biochemistry consists of 109-114 units; the B.A. degree requires a total of 186 units.

### I. Lower Division (63 units)

CHEM 1101, 1102, 1103 General Chemistry (15)  
 CHEM 2200 Quantitative Analysis (5)  
 MATH 1304, 1305, 2304 Calculus I, II, III (12)

CS 1020 Introduction to Computers, or CS 1160 Introduction to Computer Science and Programming Methods (4)

PHYS 2701, 2702, 2703 Introductory Physics (12)  
 BIOL 1301, 1302, 1303 Foundations of Biological Science (15)

### II. Upper Division (46-51 units)

CHEM 3301, 3302, 3303 Organic Chemistry (15)  
 CHEM 3511, 3512, 3513 Physical Chemistry Lecture (9)  
 CHEM 4411, 4412, 4413 General Biochemistry (12)



## CHEM 4430 General Biochemistry Laboratory (4)

Two courses (6-11 units) in Biology chosen from the following:  
BIOL 3120 (4), 3140 (4), 3150 (4), 3405 (6), 4120 (4), 4170 (5), 4180 (4), 4430 (4), 4505 (4), 4510 (4)

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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Students majoring in other fields may wish to complete a coherent pattern of work in chemistry for the purpose of expanding their employment and educational opportunities. Students successfully completing this program will have the fact entered on their university records. The minor consists of 38-39 units.

CHEM 1101, 1102, 1103 General Chemistry (15)  
CHEM 2200 Quantitative Analysis (5)  
CHEM 3301, 3302, 3303 Organic Chemistry (15)  
CHEM 3500 Introductory Physical Chemistry or  
CHEM 3511 Physical Chemistry Lecture (3 or 4)

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## Physical Sciences Option: Liberal Studies

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See the Liberal Studies chapter in this catalog for a description of this option which includes Chemistry.

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## Undergraduate Courses

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*The course prefix for the following courses is CHEM.*

### Courses for Non-Science Majors

- 1000** Popular Topics in Chemistry (4)  
Nonmathematical discussions of subjects as: energy in the universe and the cell, evolution, nutrition, chemical senses, drugs, hormones, synthetics, and pollution. Designed as a general education course for non-science majors. (F, Sp)
- 1100** Introduction to College Chemistry (5)  
Elementary principles of chemistry: measurement, properties of matter, chemical symbols and formulas, chemical equations, stoichiometry, atomic structure, gas laws, solutions. Prerequisite: Satisfaction of the ELM exam requirement. Three hrs. lect., 6 hrs. lab., disc. (F, Su)

- 3010 The Making of Wine (4)  
The history, chemistry and technology of wine making.  
Production of standard types of wine from grape varieties.  
Laboratory illustrates chemical principles as applied to  
wine making. Not an elective for the chemistry major.  
Three hrs. lect., 3 hrs. lab. (Sp)

## Courses for Chemistry and Other Science Majors

- 1101, General Chemistry (5 each)  
1102, [CAN CHEM SEQ A = CHEM 1101, 1102, 1103]  
1103 Fundamental principles of chemistry, chemical structure,  
bonding, equilibrium, dynamics, and reactions. Laboratory  
includes study of chemical and physical behavior of  
elements and compounds, and qualitative and quantitative  
analysis. Prerequisites: CHEM 1100, one year high school  
chemistry, two years high school mathematics, and one  
year high school physics are recommended. CHEM 1101  
is prerequisite to CHEM 1102; CHEM 1102 is prerequisite  
to CHEM 1103. Three hrs. lect., 6 hrs. lab. each. (1101:  
F, W; 1102: W, Sp; 1103: Sp, Su)
- 1601, Basic Chemistry for the Health Sciences (4  
1602, each)  
1603 A one-year, terminal sequence in chemistry for students  
preparing for careers in health-related sciences including  
nursing. CHEM 1601: basic inorganic chemistry; CHEM  
1602: basic organic chemistry; CHEM 1603: basic  
biochemistry. Does not satisfy chemistry requirement for  
physical science, geology, physics or biology B.S. majors.  
Prerequisite: high school algebra. CHEM 1601 is  
prerequisite to CHEM 1602; CHEM 1602 is prerequisite to  
CHEM 1603. Three hrs. lect., 3 hrs. lab. each. (1601: F;  
1602: W; 1603: Sp)
- 2200 Quantitative Analysis (5)  
Elementary gravimetric and volumetric analysis;  
instrumental methods of analysis. Prerequisite: CHEM.  
1103. Three hrs. lect., 6 hrs. lab. (F, Tent. Su)
- 2301, Survey of Organic Chemistry (4 each)  
2302 Classes of organic compounds and reactions emphasizing  
subjects in biological sciences. For non-chemistry majors  
not planning advanced work in organic chemistry.  
Prerequisite: CHEM 1103, CHEM 2301 is prerequisite to  
CHEM 2302. CHEM 2301, 4 hrs. lect.; CHEM 2302, 2  
hrs. lect., 6 hrs. lab. (2301: W; 2302: Sp)
- 3301, Organic Chemistry (5 each)  
3302, An introduction to the chemistry of aliphatic, aromatic, and  
3303 heterocyclic compounds emphasizing basic principles.  
Laboratory work in basic techniques and synthesis.  
Prerequisite: CHEM 1103; CHEM 3301 is prerequisite to  
CHEM 3302; CHEM 3302 is prerequisite to CHEM 3303.  
Three hrs. lect., 6 hrs. lab. each. (3301: F, W; 3302: W,  
Sp; 3303: Sp, Su)

- 3400 Introductory Biochemistry (4)  
A survey of biochemistry emphasizing the structure and metabolism of biomolecules such as amino acids, proteins, carbohydrates, lipids and nucleic acids.  
Prerequisite: CHEM 2302 or 3303. (F)
- 3401 Introductory Biochemistry Laboratory (2)  
Introduction to laboratory techniques in biochemistry.  
Prerequisite: CHEM 3400 (may be taken concurrently) or CHEM 4411. Six hrs. lab. (F)
- 3405 Clinical Chemistry (5)  
Biochemical processes associated with disease; principles underlying the use of laboratory tests to monitor human health; quantitation of body fluid constituents such as enzymes, carbohydrates, cholesterol, hormones and other metabolites. Prerequisites: CHEM 3400 and CHEM 3401.  
Three hrs. lect., 6 hrs. lab. (Alt. W)
- 3500 Introductory Physical Chemistry (4)  
An introductory study of the fundamental physical laws, theoretical principles and mathematical relations in chemistry. Prerequisites: CHEM 1103 and PHYS 2703.  
(Alt. Y)
- 3511, 3512, 3513 Physical Chemistry Lecture (3 each)  
Fundamental physical laws, theoretical principles and mathematical relations of chemistry. Prerequisites: CHEM 2200, MATH 2304 and PHYS 1003 (or concurrent) or PHYS 2703; CHEM 3511 is prerequisite to CHEM 3512; CHEM 3512 is prerequisite to CHEM 3513. (3511: F; 3512: W; 3513: Sp)
- 3531, 3532 Physical Chemistry Laboratory (2 each)  
Experience in the measurement of physicochemical properties, digital computer analysis of experimental data, and report writing. Prerequisites: CS 1020 or CS 1160 (or concurrent); CHEM 3511 (or concurrent); CHEM 3531 is prerequisite to CHEM 3532. Six hrs. lab. each. (3531: F; 3532: W)
- 3800 Achievements of Women in Science (4)  
(See BIOL 3800 for course description.)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward the Chemistry major or minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity; completion of CHEM 2200. (A)
- 4110 Introduction to Geochemistry (5)  
(See GEOL 4110 for course description.)
- 4161, 4162 Advanced Inorganic Chemistry (3 each)  
The bonding, structure and reactivity of inorganic compounds. CHEM 4162 emphasizes the structure and chemistry of coordination compounds and complex ions,

including the application of group theory to spectral analysis. Prerequisites: CHEM 3513 and CHEM 3303 or CHEM 2302. CHEM 4161 is prerequisite to CHEM 4162. (4161: F; 4162: W)

- 4180 Inorganic Chemistry Laboratory (2)  
Laboratory experience in the preparation and characterization of selected inorganic compounds. Prerequisite: CHEM 3532 and CHEM 4162. Six hrs. lab. (Sp)
- 4240 Instrumental Methods of Analysis (4)  
Principles of operation and application of instrumental methods including visible/ultraviolet and infrared spectrophotometry, atomic emission and absorption, nuclear magnetic resonance and mass spectrometry, gas-liquid and high-performance liquid chromatography, electrochemistry, and data acquisition and instrument control using microcomputers. Prerequisites: CHEM 3512 or concurrent. Two hrs. lect., 6 hrs. lab. (W)
- 4311 Advanced Organic Chemistry (4)  
Mechanistic approaches to synthetic studies; chemistry of carbonyl compounds; chemistry of heterocyclic and polycyclic compounds with emphasis on those of natural origin or biological interest. Prerequisite: CHEM 3303. (F)
- 4340 Physical Organic Chemistry (4)  
Theoretical aspects of organic chemistry based on modern concepts; chemical and physical properties of organic compounds, mechanisms of organic reactions. Prerequisites: CHEM 3303 and CHEM 3512. (Sp)
- 4411, 4412 General Biochemistry (4 each)  
Selected topics in the chemistry and metabolism of biologically important compounds; investigation of intermediate reactions and cycles involved in metabolism; thermodynamics and kinetics of enzyme-catalyzed reactions. Prerequisites: CHEM 2200 and CHEM 3303; CHEM 3511 or 3500 or concurrent enrollment in either. CHEM 4411 is prerequisite to CHEM 4412. (4411: F; 4412: W)
- 4413 General Biochemistry (4)  
Topics in biochemistry including the chemistry of protein and amino acid metabolism and the chemistry of nucleotides and nucleic acids, with emphasis on the latter. Prerequisites: CHEM 4412. (Sp)
- 4430 General Biochemistry Laboratory (4)  
Laboratory techniques in biochemistry. Intended to supplement General Biochemistry, CHEM 4411 and CHEM 4412. Prerequisites: CHEM 4412 (or concurrent). Two hrs. lect., 6 hrs. lab. (W, Sp)
- 4431 Advanced Biochemistry Laboratory (2)  
Advanced laboratory techniques in biochemistry. The focus is on biochemical procedures not covered in CHEM 4430 (advanced electrophoresis techniques, advanced protein characterization and emphasis on the analysis of

nucleic acids). Prerequisites: CHEM 4413 (or concurrent), and CHEM 4430. Six hrs. lab. (Sp)

- 4440 Protein Structure (3)  
The basic structural motifs found in proteins such as enzymes, antibodies, membrane-bound proteins, virus-coat proteins, and nucleic acid binding proteins. Discussion will also focus on the biological significance of these structures. Prerequisite: CHEM 4413. (F)
- 4450 Nucleic Acid Chemistry (3)  
Nucleic acid structure, modification, and processing. Oligonucleotide synthesis, methods essential to the chemical characterization of nucleic acids, and virus structure and replication. Prerequisite: CHEM 4413 (W)
- 4460 Major Organ Biochemistry (3)  
The unique biochemistry of the major organs of the human body including brain, heart, liver, kidney, skeletal muscle, adipose tissue, endocrine glands, and reproductive organs. The metabolism unique to a particular organ system and to inter-relationships with the other organs of the body. Prerequisite: CHEM 4413 (Sp)
- 4521 Elements of Chemical Thermodynamics (4)  
Selected topics in classical and statistical thermodynamics, with emphasis on thermochemical calculations. Prerequisite: CHEM 3513. (Tent. F)
- 4601 Environmental Chemistry I (4)  
A study of the environmental aspects of chemistry: aqueous multiple equilibria, pH effects of solubility, carbon dioxide systems, inorganic pollutants in water and soils. Prerequisites: CHEM 1103 and CHEM 2302. Three hrs. lect., 3 hrs. lab. (F)
- 4602 Environmental Chemistry II (4)  
Additional environmental aspects of chemistry: organic pollutants in the environment, photochemical smog, hazardous waste treatment, toxicology, environmental chemical analysis. Prerequisite: CHEM 4601. Three hrs. lect., 3 hrs. lab. (W)
- 4700 Survey of Chemical Literature (2)  
Systematic introduction to the use of the chemical literature. Prerequisites: two years of chemistry. May be taken CR/NC by majors. (Sp)
- 4810 Undergraduate Research (2)  
Independent research under the guidance of a member of the Chemistry Department faculty. Prerequisites: CHEM 3532 and consent of instructor. May be repeated once for credit. Students should consult with faculty members to determine specific research opportunities.
- 4900 Independent Study (1-4)

## Footnotes

- 1**At least one Advanced Chemistry Elective must have a physical chemistry prerequisite (or corequisite). These include 4180, 4340, 4411, 4521 and 4810.
- 2**Sequence may be taken W, Sp, Su Quarters
- 3**Differs for B.A. and B.S.
- 4**Not required for B.A.



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## Modern Languages and Literatures

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- ▶ [Undergraduate Courses](#)

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### Department Information

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Department of Modern Languages and Literatures  
School of Arts, Letters, and Social Sciences  
Office: Warren Hall UM67  
Phone: (510) 885-3211

*Professor Emeritus:* Donald Warrin

*Professors:* Roland Heine (Chair), L. Iliana Holbrook, Kenneth Mikos, Teresa Myintoo, Yolanda Patterson, Helen Schulak, Vincenzo Traversa

*Associate Professor:* Rodolfo Galan

*Assistant Professor:* Edna Benitez

*Lecturers:* Jose Llanes, Yoko Shioiri-Clark

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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The Department of Modern Languages and Literatures at Cal State Hayward offers courses of study leading to a Bachelor of Arts degree with majors in French and Spanish. Academic Minors are offered in French, German, Italian, Portuguese, Russian, Sign Language, and Spanish. Elementary courses are offered also in Filipino, Japanese, Latin, Mandarin, and Vietnamese. All programs have been designed to provide students with the cultural understanding and the academic knowledge necessary for future pursuits in the teaching of foreign languages and literatures or for graduate work in the same fields. Students may utilize other languages and literatures offered in the department as part of a Special Major in various area studies.

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## Career Opportunities

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A Bachelor of Arts degree major in International Studies is administered through the Department of Political Science. The International Studies major consists of an integrated group of courses reflecting international aspects of various disciplines and requires intermediate level competency in a modern language. It is designed to provide the student with a broad base of understanding of the interrelationship of the world community, while at the same time providing the opportunity to specialize in an area of interest. An International Studies minor is also offered. See the listing under International Studies for further details.

With the growing involvement of the United States in international business and the increasingly multicultural character of American society itself, the importance of foreign languages in nearly every kind of occupation is considerable. The majors in foreign languages and literatures, therefore, may lead to teaching careers and represent direct, practical assets in other fields such as business, industry and commerce, civil service, law, library science, media, science, health services, social work, travel, and tourism.

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Teaching • Business • Industry and Commerce • Law and Law Enforcement • Library Science • Mass Communication • Health and Social Services • Travel and Tourism • Translation and Interpretation • Government Service

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## Features

The department faculty come from a wide variety of national and academic backgrounds and have traveled extensively in the countries whose languages they are teaching. Slides, films, dramatic performances, potluck dinners and other activities provide the opportunity for students to interact with one another and with their professors. For those who wish to further their interest in a foreign culture and language, the Department of Modern Languages and Literatures offers clubs. Foreign Language Clubs include the French Club, the Tomodachi Club (Japanese Cultural Club), and the Spanish Language Club.

For those who wish to accelerate their learning of another language, the department offers a Summer quarter intensive program in Spanish which covers one year's work in one quarter and yields twelve units of credit. The language laboratory is another useful feature of the department. In the laboratory students can listen to tapes which help improve their pronunciation, fluency, and comprehension. In addition, students are encouraged to take advantage of the California State University International Programs. They can take courses in a variety of universities abroad and apply them towards a degree at Cal State Hayward.

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## Preparation

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For students to enroll at the proper level of language instruction, the department recommends the following guideline: one year of high school foreign language instruction equals one quarter of Cal State Hayward instruction. Students are expected not to repeat



credit already earned in high school unless significant time has passed since the initial instruction. The department offers placement exams to facilitate student placement. Students should contact the department before enrolling in a lower division language class.

Students in foreign language majors, minors, and options may have lower division language requirements waived for those courses below the level at which they enroll.

#### Advanced Placement

A student who has successfully completed the advanced placement course in a foreign language or literature in high school and has a score of 3 or better on the Advanced Placement Examination will receive 8-12 units of credit equivalent to two or three courses of a foreign language as listed below.

If you have completed the French Language examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2101, 2102, and 2103. If you have completed the French Literature examination with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 3106 and 3108. If you have completed the German Language examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2201, 2202, and 2203. If you have completed the Spanish Language examination with a score of 3 or better, you will receive 12 units of credit equivalent to MLL 2401, 2402, and 2403. If you have completed the Spanish Literature examination with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 3400 and 4455. If you have completed one of the Latin Classics examinations with a score of 3 or better, you will receive 4 units of credit equivalent to MLL 1701. If you completed both Latin examinations with a score of 3 or better, you will receive 8 units of credit equivalent to MLL 1701 and 1702.

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Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements.

#### I. French

The French major consists of 44-68 units; the B.A. degree requires a total of 186 units. Acquisition of a reading knowledge in a second foreign language is strongly recommended.

##### A. Lower Division (0-24 units)

MLL 1101-2-3 Elementary French (12)

MLL 2101-2-3 Intermediate French (12), or equivalent

MLL 2110 French Conversation (4) is strongly recommended

##### B. Upper Division (44 units)

MLL 3101-2 Composition and Advanced Composition (8)  
and

MLL 3111 Phonology and Morphology (4) or MLL 3130  
French Culture and Civilization (4)

Thirty-two units from among the other upper division

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## Major Requirements (B.A.)

French courses (32)

## II. Spanish

The Spanish major consists of 44-72 units; the B.A. degree requires a total of 186 units. Students are expected to consult with Spanish division advisors in order to assure a well balanced program of upper division courses. Proficiency in another foreign language is strongly recommended.

### A. Lower Division (0-28 units)

MLL 1401-2-3 Elementary Spanish (12)

MLL 2401-2-3 Intermediate Spanish (12)

MLL 2410 Spanish Conversation (4)

### B. Upper Division (44 units)

1. MLL 3401-2-3 Advanced Composition & Syntax (12)

*Plus One course* selected from the following group:

MLL 3411, 3412 Spanish Linguistics, Phonetics (4)

2. Eight (8) units of Spanish American Literature from among the following courses:

MLL 3461, MLL 4495, MLL 3463, MLL 3495

3. Eight (8) units of Spanish Peninsular Literature from among the following courses:

MLL 4454, 4455, MLL 4459, 4460

4. Twelve (12) additional units should be selected from among all upper division Spanish courses. (*Note:* Courses numbered MLL 4454, 4455, 4459, 4460, and 4495 may be repeated as content changes. If repeated, the courses may be applied to more than one category of requirements: Groups 2 and 4 or Groups 3 and 4)

## Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

### I. French Minor (20-44 units)

#### A. Lower Division (0-24 units)

MLL 1101-2-3 Elementary French (12)

MLL 2101-2-3 Intermediate French (12), or equivalent

MLL 2110 French Conversation (4) is strongly recommended

#### B. Upper Division (20 units)

MLL 3101-2 Composition and Advanced Composition (8)  
and MLL 3111 Phonology and Morphology (4)

Any two other upper division French courses (8)

- II. German Minor (24-36 units)
  - A. *Lower Division* <sup>1</sup>
    - MLL 1201-2-3 Elementary German (12)
    - MLL 2201-2-3 Intermediate German (12)
  - B. *Upper Division*
    - MLL 3201 Advanced German (4)
    - MLL 3230 Germany Today (4)
    - MLL 3291 German Studies (4)
- III. Italian Minor (24-36 units)
  - A. *Lower Division (12-24 units)* <sup>1</sup>
    - MLL 1301-2-3 Elementary Italian (12)
    - MLL 2301-2-3 Intermediate Italian (12)
  - B. *Upper Division (12 units)*
    - MLL 3307<sup>2</sup> Contemporary Spoken Italian (4)
    - MLL 3308 Italy Today (4)
    - MLL 3309<sup>2</sup> Studies in Italian Lit. (in English) (4)
- IV. Portuguese Minor (24-36 units)
  - A. *Lower Division (12-24 units)* <sup>1</sup>
    - MLL 1851-2-3 Elementary Portuguese or
    - MLL 1861-72 Self-paced Elementary Portuguese (12)
    - MLL 2851-2-3<sup>2</sup> Intermediate Portuguese (12)
  - B. *Upper Division (12 units)*
    - MLL 3851 Portuguese Grammar and Composition (4)
    - MLL 3861<sup>2</sup> Topics in Portuguese Literature (4)
    - MLL 3871<sup>2</sup> Topics in Brazilian Literature (4)
- V. Russian Minor (20-44 units)
  - A. *Lower Division (8-24 units)* <sup>1</sup>
    - MLL 1501-2-3 Elementary Russian (12) or
    - MLL 1521-31 Self-Paced Elementary Russian (12)  
(an alternative method of satisfying first-year lower division requirements for the minor in Russian)
    - MLL 2501-2-3 Intermediate Russian (12) or
    - MLL 2521-32 Self-Paced Intermediate Russian (12)  
(an alternative method of satisfying first-year lower division requirements in Russian)
  - B. *Upper Division (20 units)*
    - MLL 3504<sup>1</sup> Advanced Russian (4)
    - MLL 3587<sup>1</sup> Topics in Russian Literature and Culture in English (4)
- VI. Sign Language Minor (24-36 units)
  - A. *Lower Division (12-24 units)* <sup>1</sup>
    - MLL 1901-2-3 Elementary Sign Language (12)
    - MLL 2901-2-3 Intermediate Sign Language (12)
  - B. *Upper Division (12 units)*
    - MLL 3902 Deaf Culture (4)
    - MLL 3903 Topics in American Sign Language (4)
    - MLL 3904 Sign Language: Field Work (4)
- VII. Spanish Minor (24-48 units)
  - A. *Lower Division (0-24 units)* <sup>1</sup>
    - MLL 1401-2-3 Elementary Spanish (12)

MLL 2401-2-3 Intermediate Spanish (12)

*B. Upper Division (24 units)*

MLL 3401-2-3 Advanced Composition and Syntax (12)

MLL 3411 Introduction to Spanish Linguistics (4) or

MLL 3412 Spanish Phonetics (4)

*C. One course from each of the two following areas:*

Spanish Peninsular literature:

MLL 4454, 4455, 4459, 4460 (4)

Spanish-American literature:

MLL 3461, 3463, 3495, 4495 (4)

MLL 3400 may replace one of the above required courses.

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Modern  
Languages  
Options: Liberal  
Studies

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Program for French and Spanish

Areas I and II.B (0-12 units)<sup>1</sup>

Third quarter of first year and 1st and 2nd quarters of second year college-level courses

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

Third quarter of second year (4)

Twenty units of upper division courses in the same language, with no more than 4 units taught in translation (20)

Program for Italian, Portuguese, Russian

Areas I and II.B (0-12 units)<sup>1</sup>

1000-level first year courses

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

2000-level second year courses (12)

Twelve units upper division courses (12)

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Sign Language  
Option: Liberal  
Studies

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Areas I and II.B (0-12 units)\*

MLL 1901 Elementary Sign Language I (4)

MLL 1902 Elementary Sign Language II (4)

MLL 1903 Elementary Sign Language III (4)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

MLL 2901 Intermediate Sign Language I (4)

MLL 2902 Intermediate Sign Language II (4)

MLL 2903 Intermediate Sign Language III (4)

MLL 3902 Deaf Culture (4)

MLL 3903 Topics in American Sign Language (4)

MLL 3904 Sign Language: Field Work (4)

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Undergraduate

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*The course prefix for the following courses is MLL.*

### General

- 1104 Gender in Francophone Literature and Culture (4)  
Gender issues in the francophone cultures of Europe, Africa, the Caribbean, Asia, and Quebec through literature and the arts. (In English)
- 1831 Introduction to Asian Thought (4)  
The thought of China and Japan, past and present, as expressed in literature. (In English)
- 2001 Evil and the Holocaust (4)  
The literary and cultural background of the Holocaust using both fictional and first-hand accounts.
- 2831 Asian Thought (4)  
The school of Zen in China and Japan as expressed in its philosophical texts, visual art, music, and literature. How texts demonstrate the interconnection among the arts disciplines.
- 3710 Medieval Literature (4)  
(Cross-listed with ENGL 3710)
- 3720 Renaissance Humanism (4)  
(Cross-listed with ENGL 3720)
- 3730 The Neo-Classical Tradition (4)  
(Cross-listed with ENGL 3730)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the majors and minors offered by Modern Languages. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)
- 4900 Independent Study (1-4)
- 5900 Independent Study (1-4)
- 6900 Independent Study (1-4)

### Modern Literature in English Translation

- 3119 French Literature in English Translation (4)  
(See description under French courses.)
- 3120 A Promenade through French and Francophone Culture (in English) (4)  
(See description under French courses.)
- 3140 French Films: France through the Eye of the Camera (in English) (4)  
(See description under French courses.)

- 3230 Germany Today (in English) (4)  
(See description under German courses)
- 3309 Studies in Italian Literature (in English) (4)  
(See description under Italian courses.)
- 3587 Topics in Russian Literature and Culture in English (4)  
(See description under Russian courses.)
- 3830 Japanese Literature and Culture (4)  
(See description under Japanese courses.)
- 3938 Italian American Women Through Literature (4)  
(See description under Italian courses)
- 4461 Spanish Film (in English) (4)  
(See description under Spanish courses)

*NOTE: Students may be admitted to any of the following courses by consent of instructor.*

## Chinese

- 1601, 1602, 1603 Elementary Mandarin Chinese I, II, III (4 each)  
Introduction to the speaking, understanding, reading, and writing Mandarin Chinese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1601 is prerequisite to MLL 1602, or consent of instructor; MLL 1602 is prerequisite to MLL 1603, or consent of instructor.
- 2601, 2602, 2603 Intermediate Mandarin Chinese I, II, III (4 each)  
A continuation of MLL 1603 with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of Chinese culture. (F, W, Sp) MLL 2601 is prerequisite to MLL 2602, or consent of instructor; MLL 2602 is prerequisite to MLL 2603, or consent of instructor.
- 3610 Advanced Chinese and the World Wide Web (4)  
An advanced study of Chinese language/dialects, selected literary works and business Chinese. Uses multimedia materials on the World Wide Web. May be repeated if subject matter is different. Prerequisite: MLL 2603 or consent of instructor.

## Filipino

- 1651, 1652, 1653 Elementary Filipino I, II, III (4 each)  
Introduction to speaking, reading, and writing and understanding Filipino. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1651 is prerequisite to MLL 1652, or consent of instructor; MLL 1652 is prerequisite to MLL 1653, or consent of instructor.

## French

- 1101, Elementary French I, II, III (4 each)
- 1102, Introduction to speaking, understanding, reading, and writing French. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1101 is prerequisite to MLL 1102, or consent of instructor; MLL 1102 is prerequisite to MLL 1103, or consent of instructor.
- 2101, Intermediate French I, II, III (4 each)
- 2102, A continuation of MLL 1103, with increased emphasis on the structure of the language, on vocabulary building and conversation, and on the appreciation of the cultures of the French-speaking world. (F, W, Sp) MLL 2101 is prerequisite to MLL 2102, or consent of instructor; MLL 2102 is prerequisite to MLL 2103, or consent of instructor.
- 2103
- 2110 French Conversation (4)  
Emphasis on the spoken language studied through texts. Strongly recommended for majors. Prerequisite: MLL 2103 or consent of instructor.
- 3101 French Composition (4)  
Written French and formal grammar. Prerequisite: MLL 2103 or equivalent.
- 3102 Advanced French Composition (4)  
Continuation of MLL 3101. Prerequisite: MLL 3101 or equivalent.
- 3105 French Conversation (4)  
The spoken language studied and practiced. For students with a good academic background and/or literary level beyond MLL 3102 and 3106. Prerequisite: MLL 3102 and MLL 3106, or consent of instructor.
- 3106 Introduction to Literary Studies: Prose (4)  
Background and critical appraisal of essential French prose works, from the 16th to the 20th centuries. Prerequisite: MLL 3102 or consent of instructor.
- 3108 Introduction to Literary Studies: Drama (4)  
Background and critical appraisal of important plays from the 12th to the 20th centuries. Prerequisite: MLL 3102 or consent of the instructor.
- 3109 French Medieval and Renaissance Literature (4)  
The epic, Arthurian romances, satire, the theatre, poetry, Rabelaisian humor, and essays. Selections from the Chanson de Roland, Chrétien Troyes, Villon, Rabelais, Ronsard, the Pleiade, and Montaigne. Prerequisites: MLL 3106 or 3108, or consent of instructor. May be repeated for credit if subject matter is different.
- 3111 Introduction to French Phonology and Morphology (4)  
Scientific analysis of the French language with emphasis

on the discovery of formal units and patterns in linguistic behavior. The phonemic principle. Morphological structure. Prerequisite: MLL 3102 or consent of instructor.

- 3114 17th Century French Literature (4)  
Studies in 17th Century French society and literature emphasizing the theatre (Corneille, Racine, Molière), or the non-dramatic writers (Pascal, Mme. de la Fayette, La Fontaine). Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.
- 3115 18th Century French Literature (4)  
Selected topics from 18th Century French literature emphasizing writers such as Voltaire, Rousseau, and Diderot. Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.
- 3116 19th Century French Literature (4)  
Studies in Romanticism, Realism, and Naturalism emphasizing such writers as Hugo, Lamartine, Balzac, Stendhal, Flaubert, Zola, Baudelaire, Rimbaud, and Mallarmé. Prerequisite: MLL 3106 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.
- 3117 20th Century French Literature (4)  
Studies in the modern novel, poetry, the theatre of the absurd, and existentialism. Works by Proust, Mauriac, Gide, Camus, Sartre, Beauvoir, Ionesco, and Apollinaire. Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.
- 3118 French Dramatic Performance (4)  
Preparation of scenes from French theatre and of a Guignol puppet show for performance. May be repeated once for credit. Prerequisite: MLL 1102 or equivalent or consent of instructor.
- 3119 French Literature in English Translation (4)  
An interdisciplinary study of major authors and movements in French literature, emphasizing literary, philosophical, historical and cultural backgrounds. May be repeated for credit once if subject matter is different. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall quarter, 1985.
- 3120 A Promenade through French and Francophone Culture (4)  
A multimedia exploration of the evolution of French culture from the martyrdom of Saint Denis to the present. Historical and fictional personalities reflecting French and Francophone mentality from Paris to Africa, the Caribbean, and Quebec.
- 3121 Couples: Myths and Reality (4)  
Couples in French literature and culture and their impact



on Western society. Myths from France, Quebec, French-speaking Africa and the Caribbean contrasted with psychological, sociological, historical, and political reality. Focus on current issues of gender, definition of couples, and family.

- 3130** French Culture and Civilization (4)  
A study of French culture through literary and linguistic examples, taken from the Middle Ages through the twentieth century, illustrating its artistic, political, social, and philosophical schools. Prerequisite: MLL 2103 or consent of instructor. May be repeated for credit if subject matter changes.
- 3140** French Films: France Through the Eye of the Camera (in English) (4)  
French language and culture in films dealing with childhood, war, women, male-female relationships, violence, social class. Development of French cinema in films by Jean Renoir, Cocteau, Truffaut, Godard and others. May be repeated once when content changes.
- 4100** French Literary Themes and Figures (4)  
A study of selected themes and figures in French literature emphasizing an author, genre, or movement. Prerequisite: MLL 3106 or 3107 or 3108 or consent of instructor. May be repeated for credit if subject matter is different.

## German

- 1201**, Elementary German I, II, III (4 each)  
**1202**, Introduction to speaking, understanding, reading, and  
**1203** writing German. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1201 is prerequisite to MLL 1202, or consent of instructor; MLL 1202 is prerequisite to MLL 1203, or consent of instructor.
- 2201**, Intermediate German I, II, III (4 each)  
**2202**, A continuation of MLL 1203, with increased emphasis on  
**2203** the structure of the language, on vocabulary building and conversation, and on the appreciation of German culture. (F, W, Sp) MLL 2201 is prerequisite to MLL 2202, or consent of instructor; MLL 2202 is prerequisite to MLL 2203, or consent of instructor.
- 3201** Advanced German (4)  
Advanced grammar and structure of the German language with emphasis on composition. Prerequisite: MLL 2203 or consent of instructor. (Y)
- 3230** Germany Today (in English) (4)  
An introduction to current cultural, literary, social, and political trends in Germany with emphasis on intercultural communication. Discussions and readings based on the material presented. A significant written component is required. Course may be repeated for credit if subject matter is different.

- 3291 German Studies (4)  
An interdisciplinary course with variable topics dealing with particular aspects of German literature and culture. A significant written component is required. Course may be repeated for credit if subject matter is different.

## Greek

- 1711 Ancient Greek I (4)  
A study of ancient Greek grammar to achieve skill in reading and writing both classical and New Testament (Koine) Greek.
- 1712 Ancient Greek II (4)  
A continuation of MLL 1711. Prerequisite: MLL 1711 or consent of instructor.
- 1713 Ancient Greek III (4)  
A continuation of MLL 1712. Prerequisite: MLL 1712 or consent of instructor.

## Italian

- 1301, Elementary Italian I, II, III (4 each)  
1302, Introduction to speaking, understanding, reading, and  
1303 writing Italian. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1301 is prerequisite to MLL 1302, or consent of instructor; MLL 1302 is prerequisite to MLL 1303, or consent of instructor.
- 2301, Intermediate Italian I, II, III (4 each)  
2302, A continuation of MLL 1303, with increased emphasis on  
2303 the structure of the language, on vocabulary building and conversation, and on the appreciation of Italian culture. (F, W, Sp) MLL 2301 is prerequisite to MLL 2302, or consent of instructor; MLL 2302 is prerequisite to MLL 2303, or consent of instructor.
- 3307 Contemporary Spoken Italian (4)  
Conversation, moderated group discussions, and students' reports based upon Italian texts, films, and periodicals reflecting contemporary Italy. May be repeated for credit if subject matter is different. Prerequisite: MLL 2303 or consent of instructor.
- 3308 Italy Today (4)  
Discussions and readings based on the literature reflecting cultural trends in Italy. Prerequisite: MLL 2303 or consent of instructor.
- 3309 Studies in Italian Literature (in English) (4)  
An interdisciplinary study of major Italian literary trends, works and figures. May be repeated for credit if subject matter is different. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall quarter, 1985.

- 3938 Italian American Women through Literature (4)  
A portrayal of Italian American women as emerging through literature written by men and women. Changing roles of grandmothers, mothers, and daughters and to what extent these have been influenced by inherited Italian culture patterns persisting in the U.S. In English. Cross-listed with WOST 3938.

## Japanese

- 1801, Elementary Japanese I, II, III (4 each)  
1802, Introduction to speaking, understanding, reading, and  
1803 writing Japanese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1801 is prerequisite to MLL 1802, or consent of instructor; MLL 1802 is prerequisite to MLL 1803, or consent of instructor.
- 2801, Intermediate Japanese I, II, III (4 each)  
2802, A continuation of MLL 1803, with increased emphasis on  
2803 the structure of the language, on vocabulary building and conversation, and on the appreciation of Japanese culture. (F, W, Sp) MLL 2801 is prerequisite to MLL 2802, or consent of instructor; MLL 2802 is prerequisite to MLL 2803, or consent of instructor.
- 3830 Japanese Literature and Culture (4)  
Various aspects of Japanese literature, philosophy and other cultural elements as manifested in modern fiction and poetry.

## Latin

- 1701 Elementary Latin I (4)  
Fundamentals of grammar and the reading of elementary texts. Reading is begun as early as possible and continued in conjunction with grammatical study. (Alt. F)
- 1702 Elementary Latin II (4)  
Continuation of MLL 1701. Prerequisite: MLL 1701 or consent of instructor. (Alt. W)
- 1703 Elementary Latin III (4)  
Continuation of MLL 1702. Prerequisite: MLL 1701-2, or consent of instructor. (Alt. Sp)

## Portuguese

- 1851, Elementary Portuguese I, II, III (4 each)  
1852, Introduction to speaking, understanding, reading, and  
1853 writing Portuguese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1851 is prerequisite to MLL 1852, or consent of instructor; MLL 1852 is prerequisite to MLL 1853, or consent of instructor.

- 1861- Self-Paced Elementary Portuguese (1 each)  
1872 The self-paced series in elementary Portuguese, divided into twelve mini-courses, allows students to complete one year of Elementary Portuguese at their individual paces. Regular class attendance is not required; however, students must meet with the instructor at least two times per chapter. MLL 1861-64 correspond to MLL 1851, MLL 1865-68 correspond to MLL 1852, MLL 1869-72 correspond to MLL 1853. Students may register for up to 12 units in self-paced Elementary Portuguese; however, those students who had previously earned credit for any of the MLL 1851-2-3 courses cannot earn credit for the corresponding MLL 1861-72 self-paced modules.

- 1861 The present tense of -ar verbs, word order, contractions of prepositions and articles.  
1862 The present tense of -er and -ir and some irregular verbs, indefinite and negative adverbs and pronouns.  
1863 More irregular verbs, possessives, personal information phrases.  
1864 Irregular plurals, preterites, objective pronouns, kinship and calendar terms.  
1865 Irregular preterites, imperfect tense, colors.  
1866 Future and conditional tenses, comparatives and superlatives, letter writing.  
1867 Present and past participles, perfect tenses, passive voice.  
1868 Present subjunctive, syllabication.  
1869 Past subjunctive, future perfect, que and qual.  
1870 Future subjunctive, reflexives, por and para.  
1871 Personal infinitive, simple pluperfect, diminutives and augmentatives.  
1872 Perfect subjunctives, conditional sentences with se clauses, spelling alternation in conjugations.

- 2851, Intermediate Portuguese I, II, III (4 each)  
2852, A continuation of MLL 1853, with increased emphasis on  
2853 the structure of the language, on vocabulary building and conversation, and on the appreciation of the cultures of the Portuguese-speaking world. (F, W, Sp) MLL 2851 is prerequisite to MLL 2852, or consent of instructor; MLL 2852 is prerequisite to MLL 2853, or consent of instructor.

- 3851 Portuguese Grammar and Composition (4)  
Advanced grammar and structure applied to composition in the language. Prerequisite: MLL 2853 or consent of instructor.
- 3861 Topics in Portuguese Literature (4)  
A variable subject course dealing with a particular aspect of Portuguese literature. May be repeated for credit if subject matter is different. Prerequisite: MLL 2853 or consent of instructor.
- 3871 Topics in Brazilian Literature (4)  
A variable subject course dealing with a particular aspect of Brazilian literature. May be repeated for credit if subject matter is different. Prerequisite: MLL 2853 or consent of

instructor.

## Russian

- 1501, Elementary Russian I, II, III (4 each)  
1502, Introduction to speaking, understanding, reading, and  
1503 writing Russian. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1501 is prerequisite to MLL 1502, or consent of instructor; MLL 1502 is prerequisite to MLL 1503, or consent of instructor.
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- 1521- Self-paced Elementary Russian (12)  
1531 The self-paced series in Elementary Russian, divided into eleven mini-courses, allows students to complete one year of Elementary Russian at their individual paces. Regular class attendance is not required; however, students must meet with the instructor at least two times per chapter. Two chapters equal 1 unit of credit, with the exception of MLL 1521, where three chapters equal 2 units of credit because the Cyrillic alphabet, the sound system and some basic vocabulary are introduced. MLL 1521-1523 correspond to MLL 1501, MLL 1524-1527 correspond to MLL 1502, MLL 1528-1531 correspond to MLL 1503. Students may register for up to 12 units in self-paced Elementary Russian; however, those students who had previously earned credit for any of the MLL 1501-2-3 courses cannot earn credit for the corresponding MLL 1521-1531 self-paced modules or vice versa.
- 1521 Self-paced Elementary Russian I (2)  
The Russian alphabet and sound system, and some basic vocabulary. (Y)
- 1522 Self-paced Elementary Russian I (1)  
Introduction to the genders, the gender endings of nouns and adjectives, declensions, personal pronouns, and possessive and demonstrative pronoun-adjectives. (Y)
- 1523 Self-paced Elementary Russian I (1)  
Adjectives in the nominative, locative and genitive cases. The genitive case of nouns. (Y)
- 1524 Self-paced Elementary Russian II (1)  
Introduction to the accusative and dative singular of nouns and modifiers, and first conjugation verbs. (Y)
- 1525 Self-paced Elementary Russian II (1)  
The instrumental case, possessives, numerals and second conjugation verbs. (Y)
- 1526 Self-paced Elementary Russian II (1)  
Review of the singular declension of nouns, pronouns and adjectives. Introduction to the nominative plural of nouns and modifiers. (Y)
- 1527 Self-paced Elementary Russian II (1)  
Introduction to verbal aspects in the Russian language.

(Y)

- 1528 Self-paced Elementary Russian III (1)  
The genitive and accusative plural of nouns and adjectives, age, time, and verbs of going and riding. (Y)
- 1529 Self-paced Elementary Russian III (1)  
Introduction to the imperative mood, ordinal numbers, days of the week, reflexive verbs, the dative, instrumental, and locative plural of nouns, adjectives, and pronoun-adjectives, and prepositions with the instrumental. (Y)
- 1530 Self-paced Elementary Russian III (1)  
Some verbal prefixes, verbs of position, review of declension in plural, adjectival words expressing quantity, and a survey of conjugation patterns. (Y)
- 1531 Self-paced Elementary Russian III (1)  
Verbs of motion, verbs of carrying, leading and bringing, prepositions of position and motion, short form adjectives, expressions of health, and verbs of learning, studying and teaching. (Y)
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- 2501, Intermediate Russian I, II, III (4 each)  
2502, A continuation of MLL 1303, with increased emphasis on  
2503 the structure of the language, on vocabulary building and conversation, and on the appreciation of Russian culture. (F, W, Sp) MLL 2501 is prerequisite to MLL 2502, or consent of instructor; MLL 2502 is prerequisite to MLL 2503, or consent of instructor.
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- 2521- Self-Paced Intermediate Russian (12)  
2532 The self-paced series in Intermediate Russian, divided into twelve mini-courses, allows students to complete one year of Intermediate Russian at their individual paces. Regular class attendance is not required; however, students must meet with the instructor at least two times per chapter. Generally, two chapters earn 1 unit of credit. MLL 2521-2524 correspond to MLL 2501, MLL 2525-2528 to MLL 2502, MLL 2529-2532 to MLL 2503. Students can register for up to 12 units in Self-Paced Intermediate Russian; however, those students who had previously earned credit for any of the MLL 2501-2-3 courses cannot earn credit for any of the MLL 2521-2532 series, and vice versa.
- 2521 Self-Paced Intermediate Russian I (1)  
The hypothetical mood, verbs of placing and going, comparative and superlative adjectives, verb prefixes, selected readings.
- 2522 Self-Paced Intermediate Russian II (1)  
Declension of numerals, fractions, dates, time, conjunctions of time, participles, selected readings.
- 2523 Self-Paced Intermediate Russian III (1)  
Grammatical review, nouns, adjectives, verbs, aspects.
- 2524 Self-Paced Intermediate Russian IV (1)  
Forms and use of the genitive and the accusative, direct objects of negated verbs, affirmative verbs, specific time

expressions.

- 2525 Self-Paced Intermediate Russian V (1)  
The imperative mood, aspects in the imperative, selected readings.
- 2526 Self-Paced Intermediate Russian VI (1)  
Forms and use of the dative and the instrumental, modal expressions, verbs.
- 2527 Self-Paced Intermediate Russian VII (1)  
Numerals, declensions of cardinals and ordinals, use of collective numerals, expressions of time, selected readings.
- 2528 Self-Paced Intermediate Russian VIII (1)  
Forms and use of the unprefixing verbs of motion-walking, riding, running, swimming, flying, carrying and leading, combinations with verbs of motion, perfective of unprefixing verbs of motion, special perfectives with time limitations.
- 2529 Self-Paced Intermediate Russian IX (1)  
Forms and use of the prepositional, verbs of position and positioning, prepositions and adverbs with verbs of motion and position, selected readings.
- 2530 Self-Paced Intermediate Russian X (1)  
Prefixing verbs of motion, aspects with verbs of motion, the main prefixes in the formation of prefixing verbs of motion and distinctions in meaning.
- 2531 Self-Paced Intermediate Russian XI (1)  
Formation and use of present and past active and passive participles, the passive voice, formation and use of short adjectives, the comparative and superlative degrees.
- 2532 Self-Paced Intermediate Russian XII (1)  
Formations and use of imperfective and perfective verbal adverbs, the conditional mood, indefinite and negative pronouns.
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- 3504 Advanced Russian (4)  
The Russian language is the basis for the variable subject matter of this course. Subjects may deal with listening and speaking, composition and style, and translating and reading. May be repeated for credit if subject matter is different. Prerequisite: MLL 2503 or consent of instructor.
- 3587 Topics in Russian Literature and Culture in English (4)  
An interdisciplinary course with variable subject matter which may deal with general surveys of Russian Literature and culture, comparative readings in Russian and Western European literatures, and monographic studies on various Russian authors. May be repeated for credit if subject matter is different. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall quarter, 1985. (Y)

## Sign Language

- 1901, Elementary Sign Language I, II, III (4 each)  
1902, A basic sequence in American Sign Language with  
1903 emphasis on receptive and expressive skills. Includes intensive practice, individual evaluation, and introduction to Deaf culture. (F, W, Sp) MLL 1901 is prerequisite to MLL 1902, or consent of instructor; MLL 1902 is prerequisite to MLL 1903, or consent of instructor.
- 2901, Intermediate Sign Language I, II, III (4 each)  
2902, A continuation of MLL 1903, with increased emphasis on  
2903 the structure of the language, on vocabulary building and conversation, and on the appreciation of Deaf culture. (F, W, Sp) MLL 2901 is prerequisite to MLL 2902, or consent of instructor; MLL 2902 is prerequisite to MLL 2903, or consent of instructor.
- 3902 Deaf Culture (4)  
Analysis of factors that define the deaf community/culture. Compares and contrasts deaf culture with other minority groups. Readings about the deaf in the arts, sciences and humanities. Prerequisite: MLL 2903 or consent of instructor.
- 3903 Topics in American Sign Language (4)  
Selected topics related to American Sign Language (ASL). Analysis of the structure of ASL. Conversation strategies in ASL. Cross-cultural interactions between the deaf and the hearing. Some theoretical bases of language acquisition of deaf children. Prerequisite: MLL 2903 or consent of instructor.
- 3904 Sign Language: Field Work (4)  
Application in the community: state school, special classes in public schools, agencies serving the deaf. Comparison of variations in Sign Language due to ethnic, racial, educational, regional, and age factors. Prerequisite: MLL 2903 or consent of instructor.

## Spanish

- 1400 Spanish for Bilingual Students I (4)  
Basic Spanish composition and reading for bilingual students with limited or no knowledge of the written language. Vocabulary building, spelling, elements of grammar, dialect variations from standard Spanish. Prerequisite: ability to understand spoken Spanish and to communicate at basic conversational level. Not repeatable for credit.
- 1401, Elementary Spanish I, II, III (4 each)  
1402, Introduction to speaking, understanding, reading, and  
1403 writing Spanish. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1401 is prerequisite to MLL 1402, or consent of instructor; MLL 1402 is prerequisite to MLL 1403, or consent of instructor.



- 2400 Spanish for Bilingual Students II (4)  
Designed for bilingual students already familiar with basics of Spanish writing, grammar and reading. Uses advanced elementary and intermediate level readings and writing exercises to study language structure, build vocabulary, and improve oral communication. With passing grade, may be substituted for 1403. With grade of "B-" or higher, may be substituted for 2401. Prerequisite: MLL 1400 or consent of instructor. Repeatable once with consent of instructor.
- 2401, Intermediate Spanish I, II, III (4 each)  
2402, A continuation of MLL 1403, with increased emphasis on  
2403 the structure of the language, on vocabulary building and conversation, and on the appreciation of the cultures of the Spanish-speaking world. (F, W, Sp) MLL 2401 is prerequisite to MLL 2402, or consent of instructor; MLL 2402 is prerequisite to MLL 2403, or consent of instructor.
- 2410 Spanish Conversation (4)  
A practical application of Spanish to present-day experiences. Spanish sounds and intonation; vocabulary building. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 3400 Introduction to Literary Analysis (4)  
An introduction to literary analysis; the recognition of the terminology, genres, and rhetorical figures as well as a discussion of movements and literary styles. Prerequisite: MLL 2402. May be taken concurrently with MLL 2403. (Alt. Y)
- 3401 Advanced Spanish Composition and Syntax, I (4)  
Written Spanish and formal grammar applied to advanced composition in the language. Prerequisite: MLL 2403 or consent of instructor. (F)
- 3402 Advanced Spanish Composition and Syntax, II (4)  
Continuation of MLL 3401. Prerequisite: MLL 3401 or consent of instructor. (W)
- 3403 Advanced Spanish Composition and Syntax, III (4)  
Selected authors with special attention to style. Prerequisite: MLL 3402 or consent of instructor. (Sp)
- 3411 Introduction to Spanish Linguistics (4)  
An introduction to the principles of linguistic analysis with emphasis upon examples taken from Spanish. A brief historical survey of the development of the Spanish language. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 3412 Spanish Phonetics (4)  
The fundamentals of Spanish pronunciation and intonation through the phonetic structure of the language. Attention given to each student's difficulties. Individual laboratory

work. Prerequisite: MLL 3411 or consent of instructor.  
(Alt. Y)

## Spanish Peninsular Literature and Culture

- 3418** Spanish Culture and Civilization (4)  
A study of Spanish culture through literary examples, illustrating Spain's artistic, political, social movements and philosophical ideas. Prerequisite: MLL 2403 or consent of instructor.
- 4454** Spanish Medieval Literature (4)  
Studies in Medieval and Pre-Renaissance Spanish literature from the 12th to the 15th Centuries. May be repeated for credit as subject matter changes.  
Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 4455** Studies in the Golden Age of Spain (4)  
Specific author, movement, genre or theme of the 16th and 17th Centuries. May be repeated for credit as subject matter changes. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 4459** Studies in Spanish Literature of the Modern Age (4)  
Intensive study of selected authors, genres, or literary movements from 18th Century to early 20th Century. Neo-classicism, romanticism, naturalism, the Generation of '98. Course may be repeated as content changes.  
Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 4460** Studies in 20th Century Spanish Literature (4)  
Spanish literature after the Generacion del '98; intensive study of a single literary genre, movement theme, or author from 1927 to the present. May be repeated twice as content changes. Prerequisite: MLL 2403 or upper division standing in Spanish, or consent of instructor. (Alt. Y)
- 4461** Spanish Film (in English) (4)  
Spanish cinematography from 1920 to the present, as related to cultural mythology and social and political problems of Spain. Films in Spanish with English subtitles. Prerequisite (applies to Spanish majors and minors only): MLL 2403 or consent of instructor.
- 4465** A Theme in Spanish Literature Across the Centuries (4)  
Women writers; politics in literature; the Don Juan theme; female archetypes; Spanish history as literature; religious literature. May be repeated twice for credit as theme changes. Prerequisite: MLL 2403 or consent of instructor.

## Spanish-American Literature and Culture

- 3461** Introduction to Spanish-American Literature: 1492 to 1900 (4)  
Colonial literature, romanticism, realism and modernism.

History and anthology selections. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

- 3463 Introduction to Spanish-American Literature: 1900 to the Present (4)  
Prose, poetry and drama of the 20th Century.  
Continuation of MLL 3461. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 3495 Spanish-American Culture and Civilization (4)  
A study of the culture and civilization of Spanish-America through its history, arts, and social institutions.  
Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)
- 4495 A Single Movement, Country or Theme: Spanish American Literature (4)  
Single author, country, movement or theme in Spanish-American Literature. May be repeated for credit as subject matter changes. Prerequisite: MLL 2403 or consent of instructor. (Alt. Y)

## Vietnamese

- 1751, Elementary Vietnamese I, II, III (4 each)  
1752, Introduction to speaking, understanding, reading, and  
1753 writing Vietnamese. A communicative approach to the acquisition of the language with emphasis on the appreciation of the culture. (F, W, Sp) MLL 1751 is prerequisite to MLL 1752, or consent of instructor; MLL 1752 is prerequisite to MLL 1753, or consent of instructor.
- 2751, Intermediate Vietnamese I, II, III (4 each)  
2752, A continuation of MLL 1753, with increased emphasis on  
2753 the structure of the language, on vocabulary building and conversation, and on the appreciation of Vietnamese culture. (F, W, Sp) MLL 2751 is prerequisite to MLL 2752, or consent of instructor; MLL 2752 is prerequisite to MLL 2753, or consent of instructor.

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## Footnotes

<sup>1</sup>Lower division requirements will be waived for student with prior knowledge of the language. See the "Advanced Placement" section.

<sup>2</sup>May be repeated for credit if subject matter is different.



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## Communication Skills

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- ▶ [Organizational Communication Certificate](#)

### Department Information

Department of Mass Communication  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3011  
Phone: (510) 885-3292. FAX: (510) 885-4099

*School of Arts, Letters, and Social Sciences:* Thomas McCoy (Mass Communication), E. J. Murphy (English), Daniel S. Prentice (Speech Communication)

*School of Business and Economics:* Eric Soares (Marketing and Entrepreneurship)

*School of Education:* Margaret C. Desmond (Teacher Education)

*School of Science:* Michael E. Patch (Psychology)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The minor and the certificate program in communication skills encourage students to take additional coursework in this area. Communication skills are essential for effective interaction in both work and social settings. Recruiters and placement officers for all types of organizations and all types of positions rank oral and written communication skills high among the qualities that they look for in job candidates.

### Communication Skills Minor

The Communication Skills Minor provides substantial study and training in oral and written communication and interpersonal relationships beyond the requirements for General Education. There are 12 units of prerequisites to the minor. The courses used to fulfill these prerequisites may also be used to satisfy the Communication in the English Language requirement (Area A) for General Education. There are 32 units in the minor. At least 16 units of the minor must be upper-division, and at least 18 of the 32 must have department prefixes from outside the student's major.

I. Prerequisites to the Minor (12 units)  
(These courses satisfy the Communication in the English Language requirement for General Education.)

ENGL 1001 Expository Writing (4)  
SPCH 1000 Principles of Speech Communication (4)  
PHIL 1000 Workshop in Clear Thinking or PHIL 1001  
Introduction to Logic (4)

II. Requirements for the Minor (32 units):

*Complete the following courses (12 units):*

ENGL 3005 Study of Language (4)  
MCOM 2200 Introduction to Journalistic Writing (4)  
SPCH 1004 Interpersonal Communication (4)

*Select two courses from Group A, and one course from Group B, and two courses from Group C (20 units):*

Group A. Written Presentation (8 units)

ENGL 2005 Grammar for Writers (4), 3003 Discursive Writing (4), 3020<sup>1</sup> Advanced Expository Writing (4); MKTG 3495 Administrative Communication (4); MCOM 3010 News Reporting and Writing (4), 3310<sup>1</sup> Editing (4), 3410 Feature Writing (4)

Group B. Oral Presentation (4 units)

SPCH 3411 Argumentation and Debate (4), 3510 Small Group Communication (4), 3515 Persuasion (4), 4350 Advanced Public Speaking (4)

Group C. Organizational Behavior and Small Group Interaction (8 units)

HDEV 3800 Human Development and Interaction (4); MGMT 3600 Theories of Management (4), 3614<sup>1</sup> Organizational Behavior (4); PSYC 3500<sup>1</sup> Social Psychology (4) (PSYC 3500 and SOC 3500 cannot both be counted in the minor), 3510<sup>1</sup> Attitudes and Opinions (4), 3520<sup>1</sup> Interpersonal Processes (4), 3540<sup>1</sup> Groups and Organizations (4); PUAD 4830 Organization Theory and Human Behavior (4); SOC 3500<sup>1</sup> Social Psychology (4) (PSYC 3500 and SOC 3500 cannot both be counted in the minor), 3520 Sociology of Minority Groups (4); SPCH 3520 Nonverbal Communication (4), 4810 Communication Theory (4), 4830 Intercultural Communication (4), 4840 Organizational Communication (4)

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## Organizational Communication Certificate

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The Certificate in Organizational Communication consists of 28 units and is for individuals who already have good basic communication skills and want to perfect and hone those skills. In addition it offers the student a set of courses that are strongly career oriented.

The certificate is very relevant to individuals who are already in communication-related career positions and desire both a higher level of communication skills and the accompanying certificate as vehicles to advancement. It is also particularly appropriate for two other groups. The first includes those who are on the fringe of a

communication-related career path and want better acceptance as specific career individuals. The second includes those who are not now employed and see the completion of a particular program of study from this set of courses as a certification to potential employers not only of a higher level of communication skills achievement but also of their own seriousness of purpose and commitment to a specific career area.

A. Required Courses (20 units):

ENGL 3003 Discursive Writing (4)  
MGMT 3600 Theories of Management (4)  
MCOM 4520 Advertising Theory and Practice (4)  
SPCH 3510 Small Group Communication (4)  
SPCH 4840 Organizational Communication (4)

B. Select two courses (8 units) from the following list:

MGMT 3614<sup>1</sup> Organizational Behavior (4), 3680 Industrial Relations (4); MKTG 3401 Introduction to Marketing Management (4), 3410 Advertising Management (4), 3420 Sales Analysis and Sales Management (4), 4414 Promotion Management (4), 4422 Sales Training (4); MCOM 3010<sup>2</sup> News Reporting and Writing (4), 3310<sup>2</sup> Editing (4), 4510 Public Relations Theory and Practice (4); PUAD 4830 Organization Theory and Human Behavior (4); SPCH 3515 Persuasion (4), 4830 Intercultural Communication (4)

*Note:* Students who have completed at other schools the approved equivalent of any of the specifically required five courses should make additional selections from the electives grouping in order to offset those units already completed outside Cal State Hayward. Students who find themselves to be limited in their selection from the elective group due to the number of approved equivalent courses completed at other schools should consult with an advisor for this certificate in order to identify appropriate substitutions to meet the required 28 units in residence for the certificate.

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## Footnotes

- <sup>1</sup> Has one or more prerequisites not required in the minor.
- <sup>2</sup> Has prerequisite(s) not included in the program or G.E.



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## Music

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### Department Information

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Department of Music  
School of Arts, Letters, and Social Sciences  
Office: Music and Business Bldg. 1501  
Phone: (510) 885-3135 FAX: (510) 885-3461

*Professor Emeritus:* Nathan Rubin

*Professors:* Thomas W. Acord, Roberta Brokaw, David H. Eshelman, Frank J. La Rocca, Timothy M. Smith, David B. Stein, Ellen Wassermann, William G. Wohlmacher (Chair)

*Assistant Professor:* Brian K. Breeding

*Lecturers:* Giancarlo Aquilanti, Lawrence G. Granger, Priscilla Granger, Eric E. Hansen, Denis B. Harper, Craig P. Knox, Betsy London, Ronald McKean, Jeffrey L. Miller, Jennifer S. Navarrete, Rufus Olivier Jr., Janice D. Ortega, Terence D. Richards, David P. Ridge, Jay Rizzetto, Philip Santos, Kathryn Smith, Laura D. Stanfield, Carl R. Stanley, Arthur L. Storch, Marc S. Teicholz, Richard A. Wagner, Daniel L. Zinn

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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The Music Department's primary goal is to provide students with outstanding musical and educational experiences. There is a great opportunity for enjoyment and musical growth offered by the well-rounded curriculum and wide diversity of performance groups.

Student performance groups are open to all qualified students and one need not be a music major to participate. There are more than twenty active ensembles including Symphonic Band, Jazz Workshop, University Singers, Orchestra, Opera Workshop, New Music Ensemble, Chorus, Oratorio Society, Percussion Ensemble,

Chamber Singers, and many small vocal and instrumental ensembles.

The Department of Music offers a Bachelor of Arts degree major which is fully accredited by the National Association of Schools of Music. All music majors have the advantage of continuous applied lessons with instrumental, vocal, or composition teachers on the faculty. A music minor and a music option within the Liberal Studies major are also offered.

The Music Department occupies a large, modern, fully equipped facility, with over sixty pianos, an outstanding library, studios, practice rooms, rehearsal areas, a computer music studio, and a recital hall.

The Music curriculum is designed to serve the needs of students who have career goals in performance, composition, jazz, public school or private teaching, or graduate study, as well as those who are pursuing other fields of study and choose music as an elective.

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## Career Opportunities

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Arranger • Choral Director • Composer • Concert Artist • Conductor • Disc Jockey • Freelance Performer • Jazz Musician • Lyricist • Music Producer • Music Professor/Teacher • Musical Theatre Director • Rock Musician • Symphony Member

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## Scholarships

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The Music Department annually awards a number of scholarships to entering and returning music majors. For more information, contact the Music Department office at (510) 885-3135.

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## Preparation

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For Advanced Placement course equivalencies, see Registration chapter.

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## Major Requirements (B.A.)

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The major consists of 84 units; the B.A. requires a total of 186 units.

- I. Lower Division (45 units)
  - MUS 1027, 1028, 1029<sup>1</sup> Sightsinging I, II, III (3 units)
  - MUS 1031, 1032, 1033<sup>1</sup> Music Theory I, II, III (12 units)
  - MUS 1210-1270<sup>2</sup> Applied Music (major performance media) (12 units)
  - MUS 2031, 2032, 2033 Music Theory IV, V, VI (12 units)
  - MUS 3501-05, 3509-15 Music Performance Activities (6 units)
  
- II. Upper Division (39 units)
  - MUS 3034 Music Theory VII (4 units)
  
  - One of: Music 3051, 3061, 3062 Form and Analysis; Counterpoint I, II (4 units)
  
  - MUS 3155, 3156, 3157 Music Literature and Analysis I, II, III (9



units)

MUS 3210-3270<sup>2</sup> Applied Music (major performance media)  
(12 units)

MUS 3501-05, 3509-15 Music Performance Activities (6 units)

MUS 3506 Chamber Ensembles. Four units to be taken in four  
different quarters (4 units)

## Special Requirements of the Department of Music

### I. Applied Music

A. Each Music major will declare a principal medium (keyboard, voice, orchestral or band instrument, guitar, composition) with the department and perform an audition prior to his or her first quarter registration. The audition will be heard by a committee appointed by the chair of the department. This committee will evaluate the student's applied music level and will determine probationary conditions, if any, under which a student may be admitted as a music major.

Majors entering with composition as their applied area are required to be proficient in an instrumental medium. Since composition instruction does not normally begin before the sophomore year, an entering freshman will audition and enroll for instrumental instruction as described above; or, with permission of a composition instructor, may enroll without audition for Applied Piano.

B. Probationary Standing. A student who is admitted on probation will be allowed to enroll for one and no more than three quarters of applied instruction. To continue as a music major, the student must re-audition at the completion of this study and satisfactorily remove the conditions of probation.

C. Each music major must continuously study in his or her principal medium until he or she completes the level 40 requirements outlined in the Handbook for Undergraduate Music Majors.

D. Applied instruction may not exceed 12 units in lower division and 12 units in upper division without permission from the department chair.

E. In order to receive applied instruction, an undergraduate student must be enrolled for a minimum of six units, two of which must be in any music course other than performing ensembles and applied music, and must be making satisfactory progress toward the degree.

### II. Recitals

A. Music majors are to appear each year in regularly scheduled student recitals as determined by the

department.

- B. Specific recital performance requirements are outlined in the Handbook for Undergraduate Music Majors.
- C. No recitals may be given during the last week of classes or during the final examination period.
- D. Attendance at six recitals and concerts each quarter is required of all music majors. Recital attendance cards may be obtained in the Music Department office.

### III. Performance Groups

- A. Each music major is required to be in one major music performance activity each quarter in which he or she plays his or her principal instrument.
- B. The 4 units of chamber ensemble required for the Music major should be taken in 4 different quarters.

### IV. Proficiency Tests

- A. Proficiency tests may be required in any or all aspects of music performance skills, theory, and history and literature as a basis for determining placement in sequence courses.
- B. An upper division transfer student who has completed most of his or her music major may be required to take certain courses in theory, history and literature, and performance.
- C. All new music majors (except keyboard majors) are required to take a piano proficiency exam. If the exam is not passed, the student must enroll in the appropriate level of class piano instruction until the proficiency exam or MUS 2313 is passed.
- D. All keyboard majors are required to pass a proficiency exam in sight-reading, keyboard harmony and open-score reading or pass MUS 2314, 2315, 2316.

### V. Further courses recommended

Study of a foreign language is recommended for non-credential candidates.

## Sample Schedule

Recommended sequence of music courses for four-year baccalaureate program:

#### First Year

MUS 1031 (4)	MUS 1032 (4)	MUS 1033 (4)
MUS 1027 (1)	MUS 1028 (1)	MUS 1029 (1)
MUS 1210-70 (2)	MUS 1210-70 (2)	MUS 1210-70 (2)
MUS 3500 (1)	MUS 3500 (1)	MUS 3500 (1)

#### Second Year

MUS 2031 (4)	MUS 2032 (4)	MUS 2033 (4)
MUS 1210-70 (2)	MUS 1210-70 (2)	MUS 1210-70 (2)
MUS 3500 (1)	MUS 3500 (1)	MUS 3500 (1)

### Third Year

MUS 3034 (4)	One of MUS 3051, 3061, 3062 (4)	MUS 3210-3270 (2) <sup>2</sup>
MUS 3210-70 (2)	MUS 3210-70 (2)	MUS 3500 (1)
MUS 3500 (1)	MUS 3500 (1)	MUS 3506 (1) <sup>2</sup>
MUS 3506 (1) <sup>2</sup>	MUS 3506 (1) <sup>2</sup>	

### Fourth Year

MUS 3155 (3)	MUS 3156 (3)	MUS 3157 (3)
MUS 3210-70 (2)	MUS 3210-70 (2)	MUS 3210-70 (2)
MUS 3500 (1)	MUS 3500 (1)	MUS 3500 (1)
MUS 3506 (1) <sup>2</sup>		

## Major Advising

Since requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements.

## Minor Requirements

The minor consists of 36 units.

*Note:* To be admitted to the minor program, the student must demonstrate vocal or instrumental performing ability. Applied instruction will be limited to three quarters of study.

### Required courses:

- MUS 1027 Sightsinging I (1)
- MUS 1028 Sightsinging II (1)
- MUS 1029 Sightsinging III (1)
- MUS 1031 Music Theory I (4)
- MUS 1032 Music Theory II (4)
- MUS 1033 Music Theory III (4)
- MUS 1210-70<sup>1</sup> Applied Instruction for 3 quarters (6)
- MUS 3500-50<sup>2</sup> Performance Activities for 4 quarters (4)

Class piano instruction taken from: MUS 1311-13, 1314-16, 2311-13, 2314-16<sup>1</sup> (3)

Upper division electives in music selected in consultation with departmental advisor (8 units)

## Music Option: Liberal Studies

Areas I, V.A, and V.B. (10-12 units)  
Either MUS 1000 Survey of Music Literature (4)  
or MUS 1008 Music Theory for Non-Music Majors I (4)

At least two of the following courses: (6-8)  
MUS 1005 Music of Our Time (4)  
MUS 1311 and MUS 1312 Elementary Class Piano I and II (2)

Either MUS 1000 Survey of Music Literature (4) or MUS 1008 Music Theory for Non-Music Majors I (4) (if not taken above)

MUS 1015 Basic Musicianship Through Guitar for Non-Music Majors (4)

Area VII Credential Track or Area VI Liberal Arts

## Single Subject Matter Preparation Program

### Track (24 units)

Twenty-four units from the following courses:

- MUS 1003 Music and Dance (4)
- MUS 1007 History of Jazz (4)
- MUS 1016 Basic Musicianship Through Guitar for Non-Music Majors II (4)
- MUS 1313 Elementary Class Piano III (1)
- MUS 2321 Basic Voice (1)
- MUS 2322 Basic Voice (1)
- MUS 3002 What to Listen for in Music (4)
- MUS 3501-3515 Music Performance Activities (4)

Any course in Basic Orchestral Instruments, or, with department approval, in the Applied Music Series (4)

The Single Subject Matter Preparation Program in Music has been submitted to the California Commission on Teacher Credentialing for approval as appropriate subject matter preparation for the Single Subject Teaching Credential in Music. Check with the department about its status.

### Curriculum (99-109 units)

- MUS 1027-28-29 Sight Singing I, II, III (3)
- MUS 1031-32-33 Music Theory I, II, III (12)
- MUS 2031-32-33 Music Theory IV, V, VI (12)
- MUS 3034 Music Theory VII (4)
- MUS 3155-56-57 Music Literature and Analysis I, II, III (9)
- MUS 3370 Basic Conducting (3)

Select 12 units of applied music from MUS 1210-1270 Applied Music (2 units each)

Select six units of instrumental and vocal techniques from the following:

(Students must elect courses in all instrumental families with which they are not familiar.)

- 2321 Basic Voice (1)
- 2331 Violin and Viola (1)
- 2332 Cello and Bass (1)
- 2341 Clarinet (1)
- 2342 Double Reeds (1)
- 2343 Flute and saxophone (1)
- 2355 Basic Brass (1)
- 2361 Percussion (1)

Select 4 units of composition, form and analysis, or counterpoint from the following:

- MUS 3051 Form and Analysis (4)
- MUS 3061 Counterpoint I (4)
- MUS 3062 Counterpoint II (4)

Select 12 units of applied music from MUS 3210-3270 Applied Music (2 units each)

Select one of the following (3 units):

- MUS 3380 Choral Conducting (3)
- MUS 3390 Instrumental Conducting (3)

Select 12 units of music performance activities from MUS 3500-3550 (except 3506) Music Performance Activities (1 unit each)

Four units of chamber ensemble:  
MUS 3506 Chamber Ensemble (1)

Select one of the following (3 units):  
MUS 4435 Seminar in Public School Instrumental Teaching Techniques (3)  
MUS 4440 Seminar in Public School Choral Teaching Techniques (3)

Examinations  
Complete the Basic Piano proficiency exam or MUS 1314-15-16 and MUS 2311-12-13 (6 units)

Complete the Guitar proficiency exam or MUS 2371 Basic Guitar (1 unit)

Yearly performance examinations (jury) are required for enrollment in next level of study; Final performance examination (recital) is required for completion of the Single Subject Preparation Program.

Field Experience  
TED 3001 (3 units) or documented teaching experience.

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## Undergraduate Courses

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*The course prefix for the following courses is MUS.*

### Courses for Non-Music Majors

- 1000** Survey of Music Literature (4)  
A basic course in music understanding designed for the person without formal musical training. The elements, styles, media and social and historical significance of Western music. Field trips may be required. (F, W, Sp)
- 1003** Music and Dance (4)  
A general study of major ballet and modern dance performances, performers and musicians. Intended to increase the awareness and appreciation of the relationship between these two major art forms. Course includes viewing selected dance tapes and optional attendance at live performances. Previous musical training is not necessary. Field trips may be required.
- 1004** Introduction to World Music (4)  
Survey of the music and artistic media of non-European cultures including Polynesia, Australia, Africa, Asia, Middle East and native North America. Development of musical understanding through exploration of basic universal elements of music, dance, ceremony and common human values. Previous musical training not necessary. Field trips may be required. Cross-listed with ANTH 1004.
- 1005** Music of Our Time (4)  
Survey of modern forms and styles and of the cultural and

social influences on music in the 20th Century. Popular styles such as Cajun, Blues, Reggae, Salsa, New Age, and Alternative, as well as related classical forms from the Western musical tradition. Previous musical training not necessary. Field trips may be required. (Y)

- 1006 History of Rock and Roll (4)  
A survey of important performers and styles from the 1950's to the present, and of the music's African, rhythm and blues, and classical music sources. Previous musical training not necessary. (F, W, Sp)
- 1007 History of Jazz (4)  
Periods, major performers and composers, trends, influences, stylistic features and cultural significance. Field trips may be required. (F, W, Sp)
- 1008 Music Theory for Non-Music Majors I (4)  
Fundamentals of music notation. Major and minor scale and chord formations. Emphasis on practical musicianship through rhythmic exercises and reading of songs on simple melody and rhythm instruments. Recommended for non-music majors in Liberal Studies and Multiple Subject Credential programs. Three hrs. lect., 2 hrs. act. (F, W, Sp)
- 1015 Basic Musicianship Through Guitar for Non-Music Majors I (4)  
Development of music reading and understanding through study of guitar. Recommended for non-music majors pursuing a credential program. Students provide own guitar. Three hrs. lect., 2 hrs. act. (F, W, Sp)
- 1016 Basic Musicianship Through Guitar for Non-Music Majors II (4)  
Continuation of MUS 1015, Guitar I. Development of musical understanding and music reading ability through the study of the guitar. Recommended for non-music majors who follow the Multiple Subject Credential program. Prerequisite: MUS 1015 or consent of instructor. Three hrs. lect., 2 hrs. act.
- 2120 A Panorama of Jewish Music: From the Fertile Crescent to Broadway (4)  
Jewish music through history, emphasizing recent popular styles with examples drawn from recordings, videotapes, and short readings. Musical forms, styles, and the effects of geographic diversity on recent music.
- 3000 Fundamentals of Music Theory and Composition (4)  
Fundamentals of music with emphasis on reading and writing. Notation, meter, rhythm, scales, intervals, chords, terminology, and beginning principles of composition and harmonization. Previous musical training not necessary.
- 3002 What to Listen for in Music (4)  
Development of a greater appreciation and enjoyment of music through study of the musical content of selected works. Study of the elements of music to develop critical

listening skills applicable to all styles of music. Previous musical training not necessary. Field trips may be required.(Y)

- 3600 The Music Business (2)  
A survey of business practices, legal rights, and other business concepts unique to the musician. Emphasis on self-promotion, clubs, studios, musicians' union, recording and manufacturing of CDs, copyrights, publishing, licensing, mechanicals, performance rights, media rights, and contracts.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Not applicable to the music major; a maximum of 4 units may be applied to the music minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 4450 Internship Seminar in Applied Arts Administration (2)  
(See THEA 4450 for course description.)

## Music Theory

- 1027, Sightsinging I, II, III (1 each)  
1028, Development of music reading skills applicable to all instrumental and vocal performance media. Dictation, analysis and singing of melodies and melodic exercises; study and performance of basic rhythmic materials. To be taken concurrently with Theory I, II, III. Prerequisite: Music major or minor, or consent of instructor. Two hrs. act. (F, W, Sp)
- 1031, Music Theory I, II, III (4 each)  
1032, The integrated study of tonal harmony, part-writing,  
1033 analysis and ear-training.
- I. Music fundamentals. Preliminary work with triads, seventh chords and part-writing procedures. Co-requisite: MUS 1027. (F)  
II. Continuation of MUS 1031. Intensive work with triads and dominant seventh chords. Co-requisite: MUS 1028. Prerequisites: MUS 1027, 1031. (W)  
III. Continuation of MUS 1032. Introduction to tonicization and modulation. Co-requisite: MUS 1029. Prerequisites: MUS 1028, 1032. (Sp)
- 2031, Music Theory IV, V, VI (4 each)  
2032,  
2033 IV. Continuation of MUS 1033. Diatonic sequences, rhythmic and melodic figuration. Prerequisites: MUS 1029, 1033. (F)  
V. Continuation of MUS 2031. Advanced tonal procedures, secondary dominants, diatonic modulation. Prerequisite: MUS 2031. (W)  
VI. Continuation of MUS 2032. Chromaticism.

Prerequisite: MUS 2032. (Sp)

- 2041 Jazz Theory and Improvisation (3)  
Integrated approach to jazz theory, repertoire, and improvisation. Improvisation, theoretical studies and analytical techniques. Theoretical materials will influence and shape the improvisational skills developed in small performing ensembles. May be repeated once for credit. Prerequisite: MUS 1033 or consent of instructor. Two hrs. lect., 2 hrs. act. (Y)
- 3034 Music Theory VII (4)  
Twentieth Century music up to the present; extension of tonality; non-tonal music. Analysis and compositional exercises. Prerequisite: MUS 2033 or equivalent. (F)
- 3051 Form and Analysis (4)  
The study and analysis of music written in traditional forms. Prerequisite: MUS 2033. (Y)
- 3061, Counterpoint I, II (4 each)  
3062  
I. The writing of counterpoint modeled on the style of Palestrina. Additional work modeled on other 16th century composers may be introduced at the discretion of the instructor. Prerequisite: MUS 3034. (Alt. Y)  
II. The writing of counterpoint modeled on the style of J. S. Bach. Additional work modeled on other 17th and 18th century composers may be introduced at the discretion of the instructor. Prerequisite: MUS 3034. (Alt. Y)
- 3071 Jazz Arranging (3)  
Technical features of various jazz styles; arranging for various combinations of instruments. Prerequisite: MUS 2033 or consent of instructor.
- 3082 Seminar in Computer Music (3)  
The theory and practice of computer applications in music. Production of specific computer-music projects. May be repeated for credit. Prerequisite: MUS 3081 or consent of instructor. Two hrs. lect., 2 hrs. act. (Y)
- 4054 Instrumentation (4)  
Study of the instruments of the orchestra and band; scoring for small ensembles; survey of scoring for school orchestra, band, and chorus. Prerequisite: MUS 3034.

## Music History and Literature

- 3155, Music Literature and Analysis I, II, III (3 each)  
3156, Emphasis given to style analysis; the relationship of music  
3157 to the social and cultural background of each epoch.  
Prerequisite for each: MUS 2033 or consent of instructor.

I. Music from the beginnings of Western Civilization through Medieval and Renaissance times. (F)  
II. Music of the Baroque and Classical periods. (W)  
III. Music of the Romantic and Contemporary periods. (Sp)



- 4110 Seminar in Music Literature (4)  
Research, interpretation, performance problems in selected literature for various media. Specific topic will be announced prior to the quarter seminar is offered. May be repeated twice for credit. Prerequisites: MUS 3157 and consent of instructor.

## Applied Music

- 1210- Applied Music (2 each)  
1270 Individual advanced instruction for music majors and minors. May be repeated for credit up to a maximum of 12 units. (A)

1210 Piano	1240 Flute
1211 Organ	1241 Oboe
1212 Harpsichord	1242 Clarinet
1220 Voice	1243 Bassoon
1230 Violin	1244 Saxophone
1231 Viola	1250 Trumpet
1232 Cello	1251 French Horn
1233 String Bass	1252 Trombone
1234 Harp	1253 Baritone
1235 Guitar	1254 Tuba
	1260 Percussion

- 1270 Composition -  
*Prerequisites:* (1) reasonable proficiency in at least one other area of applied music; (2) knowledge of music theory equivalent to first year theory; and (3) consent of instructor.

- 1311, Elementary Class Piano I, II, III (1 each)  
1312, A graded sequence of materials designed to develop  
1313 keyboard facility through a study of technique, repertoire, sight-reading, and harmonization. Recommended for classroom teachers. Designed for students with little or no background. Two hrs. act.
- 1314, Basic Piano Class I, II, III (1 each)  
1315, Group instruction in piano for music majors not  
1316 concentrating in piano. Prerequisites: MUS 1314 is prerequisite to MUS 1315; MUS 1315 is prerequisite to 1316. Two hrs. act. (F, W, Sp)
- 2311, Intermediate Class Piano I, II, III (1 each)  
2312, Continuation of MUS 1316. MUS 2311: Major mode formulae, prerequisites: MUS 1316 and MUS 1033 or equivalents. MUS 2312: Minor mode formulae; prerequisite: MUS 2311 or consent of instructor. MUS 2313: open score reading; prerequisite: MUS 2312 or consent of instructor. Two hrs. act. (F, W, Sp)
- 2314 Keyboard Sight-Reading (1)  
Sight-reading technique as applied to keyboard literature. Prerequisite: Music major. Keyboard concentration. Two hrs. act. (F)

- 2315 Keyboard Harmony (1)  
Harmonic formulae in all keys, sequences, transpositions and simple figured bass; sight harmonization of melodies and bass lines. Designed for keyboard concentrators at sophomore level or above. Two hrs. act. (W)
- 2316 Open Score Reading (1)  
Principles of reading and transcribing open scores at the keyboard. Examples chosen from choral, orchestral and ensemble literature. Designed for keyboard concentrators at sophomore level or above. Two hrs. act. (Sp)
- 2317 Jazz Piano and Keyboard Improvisation (1)  
Repertoire, voicings, chords, and guidelines for improvisation in the contemporary styles of the jazz pianist. May be repeated once for credit. Prerequisites: basic knowledge of notation, keyboard performance, and jazz harmony. Two hrs. act.
- 3210- Applied Music (2 each)  
3270 Individual advanced instruction for music majors. May be repeated for credit. (A)

3210 Piano	3240 Flute
3211 Organ	3241 Oboe
3212 Harpsichord	3242 Clarinet
3220 Voice	3243 Bassoon
3230 Violin	3244 Saxophone
3231 Viola	3250 Trumpet
3232 Cello	3251 French Horn
3233 String Bass	3252 Trombone
3234 Harp	3253 Baritone
3235 Guitar	3254 Tuba
	3260 Percussion

3270 Composition -

*Prerequisites:* (1) reasonable proficiency in at least one other area of applied music; (2) knowledge of music theory equivalent to first year theory; and (3) consent of instructor.

## Music Performance Activities

- 2400 Stage and Acting Basics for Singers (1)  
Techniques of movement while singing and during musical interludes. Development of operatic character types through movement. Study of music as dialogue, pacing and timing of lines, acting out of recitatives. May be repeated for credit. Prerequisite: concurrent enrollment in MUS 3505 or consent of instructor. Two hrs. act. (Y)
- 3500- Music Performance Activities (1 each)  
3550 Music activities are open to all qualified students. They may be repeated for credit. Music majors are required to enroll in one major performance group each quarter. Field trips may be required. (F, W, Sp)

01 University Chorus.  
02 University Orchestra.

- 04 University Singers.
- 05 Opera Workshop.
- 06 Chamber Ensemble. Two hrs. act.
- 09 Piano Accompaniment. Two hrs. act.
- 10 Jazz Workshop.
- 11 Symphonic Band.
- 15 University Oratorio Society.

- 4210 Vocal Diction and Literature Practicum (2)  
 Diction and performance practice of representative vocal literature in a selected language. May be repeated for credit as the language offerings change: English, Italian, French, German, others. Prerequisite: upper division standing in Music, or consent of instructor. (Y)

## Music Education

- 2321, Basic Voice (1 each)  
 2322, Class instruction in fundamentals of singing. May be  
 2323 repeated for credit. MUS 2321 prerequisite for 2322. MUS  
 2322 prerequisite for MUS 2323. Two hrs. act. (Y)

- 2331, Basic Orchestral Instruments (1 each)  
 2332, Instruction in the fundamentals of playing orchestral  
 2341- instruments; methods and materials for use in elementary  
 2343, and secondary schools. Two hours activity.  
 2355,  
 2361

- 2331 Violin and Viola (F)
- 2332 Cello and Bass (W)
- 2341 Clarinet (F)
- 2342 Double Reeds - Prerequisite: 2341 (Sp)
- 2343 Flute and Saxophone - Prerequisite: 2341 (W)

- 2355 Basic Brass  
 Fundamentals of playing brass orchestral instruments (trumpet, French horn, trombone, baritone, tuba) with attention to elementary and secondary school teaching techniques and materials. Two instruments will be studied each quarter. Two hours activity. May be repeated once for credit. Prerequisite: Music major; others by consent of instructor. (Y)

- 2361 Percussion (Y)

- 2371 Basic Guitar (1)  
 Fundamentals of playing guitar with emphasis on developing competencies sufficient to employ the instrument as a teaching tool. Prerequisite: Music major or consent of instructor. Two hours activity. (Y)

- 2500 Chamber Music in the Public Schools (2)  
 Rehearsals include coaching in the selection and preparation of literature that demonstrates musical concepts to elementary school children. Performances in local elementary schools will be scheduled during regular class meeting time. Open to music majors by audition. May be repeated for credit. (Y)

- 3370 Basic Conducting (3)  
Basic techniques of conducting including simple, compound and asymmetrical meters, expression and interpretation through observation and laboratory experience. Prerequisite: upper division standing or consent of instructor. (F)
- 3380 Choral Conducting (3)  
Special techniques of choral conducting including vocal and score reading and analysis, interpretation, and rehearsal through observation and laboratory experience. Prerequisite: upper division standing or consent of instructor; MUS 3370 or equivalent must precede MUS 3380. (Y)
- 3390 Instrumental Conducting (3)  
Special techniques of instrumental conducting including score reading and analysis, interpretation, rehearsal through observation and laboratory experience. Prerequisites: upper division standing or consent of instructor. MUS 3370 or equivalent must precede MUS 3390. (Y)
- 4435 Seminar in Public School Instrumental Teaching Techniques (3)  
Provides opportunity for students intending to become teachers to develop rehearsal techniques, organizational procedures related to public school band and orchestra programs; to become familiar with public school teaching materials; to further develop conducting techniques; and to improve secondary instruments skills. Prerequisites: Basic Conducting; two quarters each, basic strings, woodwinds, brass, one of percussion; others by consent of instructor. Field trips may be required. (Alt. Y)
- 4440 Seminar in Public School Choral Teaching Techniques (3)  
Development of rehearsal techniques and organizational procedures related to choirs and vocal ensembles in the public schools. Teaching materials and appropriate literature from various stylistic periods. Prerequisites: MUS 3370 and MUS 3380, or consent of instructor. Field trips may be required. (Alt. Y)
- 4445 Seminar in Elementary Classroom Music Teaching Techniques (3)  
Development of classroom management and teaching techniques appropriate for elementary general music and choral classes. Emphasis on the Kodaly method and related instructional materials. Prerequisite: upper division standing or consent of instructor. Field trips may be required.
- 4501, 4502 Seminar in the Art and Science of Vocal Pedagogy I, II (3 each)
- I. In-depth study of the anatomy and physiology of the vocal mechanism. Introduction to various approaches to effective vocal teaching through scientific and non-scientific writings. Beginning of application of approaches

and theories. Prerequisite: upper division standing in Music or consent of instructor. (Alt. Y)  
II. Practical application of principles and theories presented in level I. Survey of pedagogical approaches; hands-on experience in diagnosis and correction of vocal problems; principles of effective ensemble singing. Intended for singers, teaching professionals, and aspiring teachers of choral and solo singing. Prerequisite: MUS 4501 or consent of instructor. (Alt. Y)

## Miscellaneous Course

4900 Independent Study (1-4)

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## Footnotes

- <sup>1</sup>MUS 1027-29 and 1031-33 to be taken concurrently.
- <sup>2</sup>Majors entering with composition as their applied area are required to be proficient in an instrumental medium. Because composition instruction does not normally begin before the sophomore year, an entering freshman will audition and enroll for instrumental instruction as described in section I.A.; or, with permission of a composition instructor, may enroll without audition for Applied Piano.
- <sup>3</sup>See "Special Requirements of the Department of Music," Section I.E.
- <sup>4</sup>The chamber ensemble requirement may be fulfilled during any four quarters.
- <sup>5</sup>Substitutions for this requirement may be made, with the approval of the Departmental Minor advisor.
- <sup>6</sup>Upper division substitutions may be made for this requirement, with the approval of the Departmental Minor advisor.



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## Computer Science

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### Department Information

Department of Mathematics and Computer Science  
School of Science  
Office: North Science 335  
Phone: (510) 885-3414  
E-mail: [mathcs@csuhayward.edu](mailto:mathcs@csuhayward.edu)  
<http://www.mcs.csuhayward.edu>  
Student Service Center: North Science 337  
Phone: (510) 885-4011

*Professor Emeritus:* Peter A. Fowler, Marvin R. Winzenread

*Professors:* James S. Daley, Edward L. Keller (Chair), Gary E. Lippman, Massoud Malek, Charles M. Marut, Russell L. Merris, Christopher L. Morgan, William R. Nico (Computer Science Coordinator), Edna E. Reiter (Associate Chair), Istvan Simon, Stuart Smith, William Thibault, Bruce E. Trumbo, Donald L. Wolitzer, Ytha Y. Yu

*Associate Professors:* Kathleen Hann, Dan Jurca, Farzan Roohparvar, Hwa Tang

*Assistant Professors:* Jagdish Bansiya, Edward A. Billard, Kevin A. Brown, Kevin E. Callahan, Julie S. Glass, Leann Christianson, Chung-Hsing OuYang, Thomas W. Roby, Assim Sagahyroon

*Lecturers:* Paula Albert, Jane Brecha, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Phil Gonsalves, Ching-Cheng Lee, David L. Pugno, Denise Sargent-Natour, Jean Simutis

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Programs in Computer Science at Cal State Hayward are designed to prepare students for employment or for advanced

study in computer science. The student's course of study will provide a solid foundation of theoretical knowledge as well as experience with practical applications in hardware and software.

Computer Science is the study of computation and of methods for addressing, processing, storing, and transmitting information. It encompasses a broad perspective that includes what a computer is, its uses and applications, and theoretical approaches to what can be computed. The core curriculum in Computer Science, involving a blend of theory and practice, offers opportunities for problem solving in many areas and provides experience with a variety of computers, computer languages, and software packages. A typical student's experience can include scientific programming, language design and implementation, file handling and database design, data communication and networking, artificial intelligence, hardware design, and graphic implementations ranging from interface design to artistic presentations.

A strong mathematical background is important in Computer Science. High school students who are interested in computer science should take as much mathematics as possible, particularly algebra, trigonometry, and precalculus. Community college students who are planning to transfer to Cal State Hayward should take the calculus sequence, linear algebra, discrete structures, a sequence of courses in some programming language (such as C, C++, Java), and a course in computer organization and assembly language.

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## Career Possibilities

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Computer Network Support Employee • Computer Operations Manager • Computer Sales Representative • Customer Support Employee • Database Applications Program Analyst or Designer • Graphics Specialist • Programmer or Administrator • Programming Team Member, Specializing in Design, Testing, or Documentation • Scientific Applications Programmer • Software Engineer Systems Analyst • Systems Manager or Programmer • Technical Writer • Teacher/Professor

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## Features

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Computer Science students at Cal State Hayward have access to some of the most modern and powerful computer equipment available. The campus provides a network backbone, including connection to the Internet and hundreds of personal computers. The department also has equipment of its own, including a network of Unix workstations (mostly SUN SPARC stations), and three classrooms equipped for computerized demonstrations. Several computer labs on campus offer terminal access and assistance with problems. Cal State Hayward has an active Computing Club which hosts a variety of events and projects.

Each year the department offers a number of scholarships covering a portion of fees for the subsequent year. Applications may be obtained from the department during Winter. A booklet containing sample schedules, as well as further information about the computer science major, is available in the Mathematics/Computer Science Student Service Center (North Science 337). This information may be obtained electronically at

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## Preparation

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## Major Requirements (B.S.)

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For Advanced Placement course equivalencies, see [Registration chapter](#).

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Many students pursue a double major in Mathematics and Computer Science, since a number of courses are common to both majors and can be double-counted. Another popular combination is a major in computer science and a minor in mathematics.

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. Computer Science majors may complete the following 80-unit program or may elect to complete an 88-unit option in Networking and Data Communications or in Software Engineering (see "Option" section). The B.S. degree requires a total of 186 units. All courses in categories I, II, and III must be passed with a grade of "C" or better to be applied to the major.

### I. Mathematics Courses (24 units)

*Six courses are required:*

MATH 1304, 1305, 2304 Calculus I, II, III sequence (12)

MATH 2101 Elements of Linear Algebra (4)

MATH 2150 Discrete Structures (4)

STAT 3401 Introduction to Probability Theory I (4) or STAT

3502 Statistical Inference I (4)

A student who has recently taken a pre-calculus course in high school should be prepared to begin the calculus sequence. A student with three years of high school mathematics, including two years of algebra and one year of geometry, should be prepared to take MATH 1130, or possibly MATH 1300. Students who are unsure about what mathematics course to begin with, should call the department office for advice. It should be noted that students may not enroll in any baccalaureate level mathematics or computer science class unless they have met the Entry Level Mathematics (ELM) requirement or are exempt from it. Information about the ELM is available from the Testing Office at (510) 885-3661.

### II. Lower Division Computer Science (12 units)

*Three courses are required:*

CS 1160 Introduction to Computer Science and Programming Methods (4)

CS 2360 Programming Methods and Introduction to Software Engineering (4)

CS 2430 Computer Organization and Assembly Language Programming (4)

Although CS 1160 is the required introductory course for Computer Science majors, it may be difficult for students with no experience using computers. Students who do not know how to



use a word processor or who have no knowledge of computer files and operating systems should consider taking CS 1020 (Introduction to Computers) before taking CS 1160.

Students who have completed a multi-quarter course in C, C++, Java, or Pascal at another college should consult the Mathematics/Computer Science Department; they may be able to substitute their previous coursework for CS 1160 and possibly CS 2360.

### III. Upper Division Computer Science: Required Courses (16 units)

*Four courses are required:*

- CS 3120 Programming Language Concepts (4)
- CS 3240 Data Structures and Algorithms (4)
- CS 3430 Computer Architecture (4)
- CS 4560 Operating Systems (4)

### IV. Upper Division Computer Science: Concentration (16 units)

The selection of all elective Computer Science courses is important in giving the major a coherence, with depth in key areas. These electives must be chosen with the assistance and approval of a faculty advisor.

*A student must take four of the following eight courses:*

- CS 3560 Introduction to Systems Programming (4)
- CS 3590 Data Communications and Networking (4)
- CS 3660 File Management (4)
- CS 4110 Compiler Design (4)
- CS 4170 Theory of Automata (4)
- CS 4245 Analysis of Algorithms (4)
- CS 4310 Software Engineering I (4)
- MATH 3750 Numerical Analysis I (4)

### V. Electives (12 units)

Any of the following courses may be used in meeting this requirement. However, at least 4 units (other than units from CS 3898) must be from courses with the CS prefix.

- A. Any course(s) from IV not used in meeting the requirements in that category.
- B. Any upper division course in Computer Science except those used in meeting requirements III or IV. No more than 4 units of CS 4900, Independent Study, and no more than 4 units of CS 3898, Cooperative Education, may be applied to the Computer Science major requirements.
- C. Any graduate course in Computer Science (except CS 6000 and CS 6909).
- D. Any upper division course in the Department of Mathematics and Computer Science or the Department of Statistics that is applicable to the BS degree major in Mathematics.
- E. Any courses from the following list:
  - CIS 3281 Systems Analysis and Design I (4)

CIS 3282 Systems Analysis and Design II (4)  
CIS 4272 Advanced Topics in Business Computer Systems  
(4)  
CIS 4273 Decision Support and Expert Systems (4)  
PHIL 3002 Modern Logic (4)  
PHYS 3280 Electronics (4)

The student is responsible for meeting all prerequisites for any of these courses. Many of the courses in (E) have prerequisites that are not included among major requirements.

*Note:* Students contemplating graduate study in Computer Science should consult with a faculty advisor early in their programs. They should be sure to include an adequate number of theory courses in their major and should have an extensive background in Mathematics.

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## Options

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### Networking and Data Communications

Data communication and networking comprise an important, broad subfield of computer science. The Networking and Data Communications Option provides a concentration in the study of electronic networks. It emphasizes the analysis, design, and management of software that controls electronic networks. This option will enhance students' chances for immediate employment in the area while also preparing them for a flexible long-term career.

The major with this option consists of 88 units. In addition to the 24 units of mathematics courses (Section I), the 12 units of lower division computer science courses (Section II), and the 16 units of upper division computer science courses (Section III) required for a B.S. degree major in computer science, students choosing an option in Networking and Data Communications must complete the following 36 units.

Upper Division Computer Science: Concentration (16 units)

CS 3560 Introduction to Systems Programming (4)

*Choice of three courses from the following:*

CS 3660 File Management (4)

CS 4110 Compiler Design (4)

CS 4170 Theory of Automata (4)

CS 4245 Analysis of Algorithms (4)

CS 4310 Software Engineering I (4)

MATH 3750 Numerical Analysis I (4)

Networking Concentration (12 units)

CS 3590 Data Communications and Networking (4)

CS 3592 Broadband Networks and Communications (4)

CS 4590 Computer Networks (4)

Networking and Data Communication Electives (8 units)

*Choice of two courses from the following:*

CS 4520 Wireless and Mobile Networking (4)

CS 4592 Network Operations and Administration (4)

TC 4277 Telecommunications Industry and Regulatory Issues  
(4)

## Software Engineering

Software engineering is an important subfield of computer science and is an area of intense activity, both in research and in applications. The Software Engineering Option emphasizes code development as an engineering science and gives students the understanding and skills necessary to participate in the systematic analysis and development of large, real-world software projects.

The major with this option consists of 88 units. In addition to the 24 units of mathematics courses (Section I), the 12 units of lower division computer science courses (Section II), and the 16 units of upper division computer science courses (Section III) required for a B.S. degree major in computer science, students choosing an option in Software Engineering must complete the following 36 units.

Upper Division Computer Science: Concentration (16 units)

*Choice of four courses from the following:*

- CS 3560 Introduction to Systems Programming (4)
- CS 3590 Data Communications and Networking (4)
- CS 3660 File Management (4)
- CS 4110 Compiler Design (4)
- CS 4170 Theory of Automata (4)
- CS 4245 Analysis of Algorithms (4)
- MATH 3750 Numerical Analysis I (4)

Software Engineering Concentration (12 units)

- CS 3340 Introduction to Object-Oriented Programming (4)
- CS 4310 Software Engineering I (4)
- CS 4311 Software Engineering II (4)

Software Engineering Electives (8 units)

*Choice of two courses from the following:*

- CS 3520 Web Site Development (4)
- CS 4320 Software Testing and Quality Assurance (4)
- CS 4660 Database Architecture (4)
- CS 4860 Graphical User Interface, Object-Oriented Programming (4)

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## Other Degree Requirements

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In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

Students majoring in other fields may wish to complete a coherent pattern of work in Computer Science for the purpose of expanding their employment and educational opportunities. The Computer Science minor consists of 36 units, and students who successfully complete this program will have that fact entered on their university records.

- I. Lower Division Mathematics (12 units)  
MATH 1304 and 1305 Calculus I and II (8)  
MATH 2150 Discrete Structures (4)
- II. Lower Division Computer Science (12 units)  
CS 1160 Introduction to Computer Science and Programming Methods (4)  
CS 2360 Programming Methods and Introduction to Software Engineering (4)  
CS 2430 Computer Organization and Assembly Language Programming (4)
- III. Upper Division Computer Science (12 units)
  - A. *Two courses from the following list:*  
CS 3120 Programming Language Concepts (4)  
CS 3240 Data Structures and Algorithms (4)  
CS 3430 Computer Architecture (4)  
CS 4560 Operating Systems (4)
  - B. *One upper division Computer Science elective.*  
This may be a third course from the list in (A) above or any course from category IV of the requirements for the major in Computer Science.

### Mathematics Minor

Students majoring in Computer Science find it relatively easy to obtain a minor in Mathematics because there is a significant overlap in lower division requirements for the CS major/Math minor. To accomplish this, a student must complete three approved upper division mathematics electives. Two of these electives must be chosen from the following five courses: MATH 3100, 3121, 3215, 3300, and 3331; the third elective must be an upper division mathematics course (which may include any cross-listed, upper division course in Statistics or Computer Science, but not MATH 4021, 4022, 4023, or 4024). See undergraduate Mathematics chapter for details.

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## Undergraduate Courses

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*The course prefix for the following courses is CS.*

Mathematics courses offered by the Department of Mathematics and Computer Science are fully described in the Mathematics section of this catalog. (*Note:* In order to enroll in any baccalaureate-level Mathematics or Computer Science course, students must satisfy the Entry-Level Mathematics (ELM) requirement.

- 1020** Introduction to Computers (4)  
Computers, their use and place in modern society.  
Computer organization and hardware, computer software.  
Introduction to use of the computer, operating system commands, word processing, database management,

other applications, and computer programming. Internet and its use. Ethical and societal issues. Prerequisite: Satisfaction of the Entry Level Mathematics (ELM) requirement. No prior computer experience necessary; course recommended for students of any major who want to learn about computers and how to use them.

- 1160** Introduction to Computer Science and Programming Methods (4)  
An introduction to computers, problem solving, algorithms, and program design. Use of University computing facilities. Programming done in C++. Topics include control structures, arrays, functions, input and output. Prerequisite: MATH 1300 or equivalent; students with no computer experience are encouraged to take CS 1020 as preparation for this course.
- 2170** C Language Programming (2)  
Programming in the C language, especially in a Unix environment. Not open for credit to students with a previous course in C or C++ programming. Prerequisite: A previous course in programming.
- 2360** Programming Methods and Introduction to Software Engineering (4)  
A systematic approach to the design, construction, and management of large computer programs, emphasizing programming style, documentation, debugging techniques, and testing. Includes files, structured data types, information hiding, pointers, and linked lists. Prerequisite: CS 1160.
- 2430** Computer Organization and Assembly Language Programming (4)  
Functional organization of digital computers and programming in machine and assembly language. Internal representation of data, binary arithmetic, machine instructions, addressing modes, subroutine linkage, macros. Introduction to assemblers, linkers, and loaders. Prerequisite: An introductory programming course. (A)
- 3120** Programming Language Concepts (4)  
Survey and critical comparison of a variety of computer languages. Issues include syntax, semantics, control structures, data representation. Discussion of both design and implementation; of both imperative and declarative languages. Prerequisite: CS 2360 and 2430. (A)
- 3240** Data Structures and Algorithms (4)  
Definition, design, implementation of abstract data structures, including stacks, queues, generalized lists; implementation as contiguous or linked structures. Structures include tables and hashing, trees, graphs. Algorithms for manipulating structures, searching, sorting; introduction to the analysis of these algorithms. Prerequisites: MATH 2150, CS 2360, CS 2430. (A)
- 3340** Introduction to Object Oriented Programming and Design (4)  
Programming in an object-oriented language, using object-

oriented techniques and concepts. Classes, operator overloading, information hiding, inheritance, and polymorphism. Memory management. Parameterized classes. Exception handling. Object-oriented design of programs. Prerequisite: CS 3240 and knowledge of C or C++.

- 3430 Computer Architecture (4)  
Logical design of digital computers. Boolean algebra, combinational and sequential circuits, computer arithmetic, memories, integrated circuits, control processors, input/output. No electronics experience needed.  
Prerequisite: MATH 2150, CS 2430. (A)
- 3432 Digital Electronics Lab (4)  
Experimentation in digital electronics using standard TTL integrated circuits. Projects range from those involving basic digital circuits through stored program processors.  
Prerequisite: CS 3430. Two hrs. lect., 6 hrs. lab. (Y)
- 3434 Computer Interfacing Lab (4)  
Experimentation and study of a microprocessor, including architecture, programming, and interfacing. Prerequisite: CS 3430. Three hrs. lect., three hrs. lab. (Y)
- 3520 Web Site Development (4)  
Web servers and browsers. HTML, images, audio and video files, indexer, forms, CGI scripts, Java programming, Java script. Prerequisite: CS 3240.
- 3560 Introduction to Systems Programming (4)  
Introduction to systems programming in a modern environment. Introduction to fundamental concepts of operating systems; analysis of a particular operating system (organization, interfaces, system calls, files, process control and communication, resource sharing). Shell and C programming. Development tools.  
Prerequisites: CS 2430 and knowledge of C or C++. (F, W, Sp)
- 3590 Data Communications and Networking (4)  
Fundamentals of data communications: media, transmission, encoding and processing, interfacing, error detection and handling, link control, multiplexing, circuit and packet switching. Introduction to network architecture and topology: local and wide area networks. Prerequisites: CS 3430 and knowledge of C or C++. (F, W, Sp)
- 3592 Broadband Networks and Communications (4)  
Principles of broadband networks and communications. Telephone system structure, signaling, services, and protocols. Circuit, packet and cell switching. Broadband signaling and traffic management. Advanced switch technology. Case studies: SONET, SDH, Frame relay, B-ISDN, Asynchronous Mode Transfer (ATM), IP and multimedia over ATM. Prerequisite: CS 3590.
- 3660 File Management (4)  
Study of secondary storage devices; sequential files, index structures and indexed files, direct files. Multikey

processing, data compression, and algorithms for external sort and merge. Introduction to database models and query languages. Prerequisite: CS 3240. (F, W, Sp)

- 3750 Numerical Analysis I (4)  
(See MATH 3750 for course description)
- 3860 Computer Music Programming (4)  
Introduction to the concepts and software techniques of computer music. Students write programs to produce sounds, process sounds, and organize sounds into musical structures. Fundamentals of digital audio. Synthesis techniques. Reverberation and sound spatialization. Algorithmic composition. Computer languages for synthesis and scoring. The MIDI standard. Prerequisites: MATH 1300 and CS 1160.
- 3898 Cooperative Education (2)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Computer Science major. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity; completion of lower division Computer Science major requirements, and upper division standing. (A)
- 4110 Compiler Design (4)  
Design and construction of high-level language translators. Formal language theory, parsing algorithms, interpreting, code generation, optimization. Construction of a small compiler. Prerequisites: CS 3120, 3240. (A)
- 4170 Theory of Automata (4)  
Formal models of automata, language, and computability and their relationships. Finite automata and regular languages. Push-down automata and context-free languages. Turing machines, recursive functions, algorithms and decidability. Prerequisites: MATH 2101, 2150, 2304. Cross-listed with MATH 4170. (Y)
- 4245 Analysis of Algorithms (4)  
Design, analysis and implementation of algorithms. Methods of algorithm design, including recursion, divide and conquer, dynamic programming, backtracking. Time and space complexity analyses in the best, worst, and average cases. NP-completeness; computationally hard problems. Applications from several areas of Computer Science. Prerequisites: MATH 2101, 2304, CS 3240. Cross-listed with MATH 4245. (Y)
- 4310 Software Engineering I (4)  
Concepts and issues in the development of large software projects. Systematic approaches to requirements, analysis, design, implementation, testing, and maintenance of high-quality software. Prerequisite: CS 3240.
- 4311 Software Engineering II (4)  
Continuation of Software Engineering I with emphasis on the implementation stages of the life cycle, including



detailed design, pseudocode, standards, coding, documentation, and testing. Prerequisites: CS 3340, 4310.

- 4320 Software Testing and Quality Assurance (4)  
Concepts and issues in the testing and quality control of large software projects. Topics include white box, black box, unit, integration, and validation testing; quality assurance through planning, review, and use of software metrics. Prerequisite: CS 3240.
- 4430 Computer Architecture II (4)  
Advanced computer organization and design. Topics chosen from among RISC architectures, computer arithmetic, pipelining, cache memory and parallel processors. Prerequisite: CS 3430; recommended: knowledge of C programming.
- 4432 VLSI Circuit Design (4)  
Fundamental design techniques for VLSI (Very Large Scale Integrated) circuits. Theory of implementing complex integrated circuits on a microchip. Use of computer aided design tools. Prerequisites: CS 3430, 3432. (Y)
- 4520 Wireless and Mobile Networking (4)  
Network protocols and mechanisms to support mobility, e.g., Mobile-IP, M-RSVP, proxies. Issues including routing, tunneling, security, and handoffs. Wireless communication standards including AMPS, IS-95, GSM, PCS, and satellite standards. Underlying technologies including multiplexing and coding. Prerequisite: CS 3590.
- 4560 Operating Systems (4)  
Principles of operating system design and implementation. Concurrent processes, interprocess communication, job and process scheduling; deadlock. Issues in memory management (virtual memory, segmentation, paging) and auxiliary storage management (file systems, directory structuring, protection mechanisms). Performance issues. Case studies. Prerequisites: CS 3240 and CS 3430. (A)
- 4590 Computer Networks (4)  
Computer network analysis, design, and implementation. Detailed study of specific standard models (e.g., ISO), implementations (e.g., SNA, DECNET), and protocols (e.g. IP, TCP, TLI). Emphasis on network to application layers. Remote procedure calls. Programming assignments using TCP/IP. Prerequisites: CS 3560 and 3590. (Y)
- 4592 Network Operations and Administration (4)  
Network operations, administration, and management. Management Information Base (MIB). Standards including SNMP, CMIP, ASN-1. Network management programming. Network Management of Ethernet, TCP/IP, ATM. Survey and applications of existing network management systems. Prerequisites: CS 3560, 3592, 4590.
- 4660 Database Architecture (4)  
Relational, network, and hierarchical data models. Data description and data manipulation languages. Schemas, query processing, database system architecture. Integrity,



concurrency, and security techniques. Distributed databases. Prerequisite: CS 3660. (Y)

- 4750 Numerical Analysis II (4)  
(See MATH 4750 for course description)
- 4810 Artificial Intelligence (4)  
"Intelligent" computer programs and models of human intelligence. Game playing, robotics, computer vision, understanding natural language, knowledge engineering, computer learning. Prerequisite: CS 3240. (Y)
- 4840 Computer Graphics (4)  
Survey of computer graphics hardware, algorithms, techniques, and standards. Software development on color-mapped raster-scan computer graphics system. Prerequisites: MATH 2101, 2304 and CS 3240, 3430. (F, W, Sp)
- 4848 Computer Animation Programming (4)  
Principles and techniques used to produce software for computer-generated animations. Survey of traditional animation techniques. Issues in 3-D viewing, rendering, and modeling. Motion specification and interpolation. Physically-based and behavioral modeling. Prerequisite: CS 4840.
- 4860 Graphical User Interface, Object-Oriented Programming (4)  
Introduction to programming graphical user interfaces in an object-oriented environment. Survey of popular graphical user interfaces (GUI), including Macintosh, Windows 3.x and X. Object-Oriented Programming (OOP) using C++ class libraries. Prototyping tools, tool command languages. Prerequisites: CS 3240 and knowledge of C or C++.
- 4900 Independent Study (1-5)



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## Nursing

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### Department Information

Department of Nursing and Health Sciences  
School of Science  
Office: North Science 143  
Phone: (510) 885-3481

*Professors:* Martha A. Auvenshine, Brenda Bailey (Chair), Bette Felton, Arlene J. Kahn, Linda Kinrade, Pamela Parlocha, Charlotte Perry

*Associate Professor:* Theresa Gorman

*Assistant Professor:* Christine M. Wood

*Lecturer:* Julie L. Severett

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The Department of Nursing and Health Sciences offers an undergraduate program which leads to the Bachelor of Science degree with a major in Nursing. The program is designed to prepare a nurse generalist: one who is able to apply nursing knowledge and provide culturally sensitive care to clients from a range of socioeconomic backgrounds. The curriculum integrates general and professional education to prepare a professional nurse who is also a well-educated citizen. Graduates of the program have the requisite knowledge and skills to pursue graduate study in nursing.

The curriculum consists of one year of pre-nursing requirements and eight quarters of nursing courses. However, nine quarters are frequently needed to complete all nursing courses because of clinical space limitations. The prerequisite courses may be completed at Cal State Hayward or by taking equivalent courses at another college or university. Nursing courses have concomitant laboratory activities both on campus and in local hospitals, community health agencies, child care centers, and retirement communities. Students are responsible for providing their own transportation to clinical facilities. Expenses for clinical

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## Career Opportunities

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courses include the purchase of uniforms, stethoscopes, malpractice insurance, personal health insurance, laboratory equipment, course syllabi, and so forth.

The program is accredited by the State of California Board of Registered Nursing (Tel: 916-322-3350) and by the National League for Nursing Accrediting Commission (Tel: 212-363-5555). Upon completion of the nursing sequence, the student is qualified to take the National Council Licensure Examination (NCLEX-RN) and apply for the California Public Health Nursing Certificate.

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Registered Nursing in: (1) Hospitals, e.g. Medical, Surgical, Emergency Room, Operating Room, Pediatrics, Obstetrics, Mental Health, Critical Care, Oncology, Rehabilitation; (2) Community Health Agencies; (3) Home Health Services; (4) Extended Care Facilities; (5) Physician's Office; (6) Clinics & Industry

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## Preparation

Pre-nursing students must take nine specific prerequisite courses to be eligible for admission to the clinical nursing program. Courses must be completed by the end of Spring quarter for the student to be eligible for admission to the nursing program in the Fall quarter.

Students who plan to use transfer courses to satisfy prerequisite requirements must have equivalencies determined by the Cal State, Hayward Department of Nursing and Health Sciences.

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## Admission

Because Nursing has been designated as an impacted program by the Board of Trustees, a special admission procedure has been instituted to assure that all students have an opportunity to be considered for admission to the Nursing major for Fall quarter. General Information on the program, admission criteria and application procedures may be obtained from the Department of Nursing. To be considered for admission to the Clinical Nursing courses, students must complete two application forms: 1) The "CSU Application for Admission" and, 2) the "Nursing Supplemental Application." These forms must be filed in November for admission in the Fall quarter of the following academic year. In addition, all students must take the NLN Pre-Admission Examination. To be eligible for admission, a student must complete the following prerequisite courses to NURS 2012-13:

- A. With a minimum of 2.4 GPA ("D" grades are not acceptable):
  - BIOL 2010 Human Physiology and Anatomy I (5)
  - BIOL 2020 Human Physiology and Anatomy II (5)
  - BIOL 3005 Introduction to Microbiology (5)
  
- B. With a "C" or better:
  - CHEM 1601 Basic Chemistry for Health Sciences (4)
  - CHEM 1602 Basic Chemistry for Health Sciences (4)
  - ENGL 1001 Expository Writing I (4)
  - NURS 3500 Principles of Nutrition and Medical Nutrition

## Major Requirements (B.S.)

Therapy (4) or BIOL 3070 Human Nutrition (4)

*and two courses from*

PSYC 1000 General Psychology (5)

SOC 1000 Introduction to Sociology (4)

ANTH 1000 Introduction to Anthropology (4) or ANTH 1300  
Introduction to Cultural Anthropology (4)

Licensed Vocational Nurses, Medical Corps-persons, and other health-care personnel wishing to gain admission to more advanced clinical nursing courses must seek advisement from the Department of Nursing prior to applying to the program.

The major consists of 141-143 units; the B.S. degree requires a total of 186 units.

- I. Pre-nursing Courses (39-40 units) (2.4 GPA minimum)  
BIOL 2010, 2020, 3005 (15)  
CHEM 1601, 1602 (8)  
ENGL 1001 (4)

*Nutrition (1 course)*

BIOL 3070 or HSC 3500 (4 units)

*Social Science (2 courses)*

ANTH 1000 or 1300, PSYC 1000, SOC 1000 (8-9 units)

- II. Other Non-Clinical Courses (29-30 units):  
BIOL 4160 (4)  
HIST/NURS 4710 (4)  
NURS 3110, 3401 (5)  
SPCH 1004 (4)

*Group Communication (1 course)*

HDEV 4880, MGMT 3614, PSYC 3500, PSYC 3520, SPCH 3510 (4)

*Human Growth & Development*

HDEV 3800 or PSYC 4420 (4)

*Statistics (1 course)*

STAT 1000 or STAT 1100 (4-5)

- III. Nursing Clinical Courses (73 units)  
Level I NURS 2012, 2013, 2305, 2306, 2307, 2308 (24)  
  
Level II NURS 3001, 3002, 3003, 3201, 3202, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413 (29)  
  
Level III NURS 4203, 4207, 4208, 4301, 4302 (20)

### RN Advanced Placement Track

The Registered Nurse Advanced Placement Track is a 5 quarter program, although it may take 6 quarters to complete the program due to clinical space limitations. The first three quarters focus on selected theories and concepts taught on Levels I and II of the generic nursing program. Students join the generic program for

Research Synthesis Nursing Leadership, Community Health, and Preceptorship.

#### Eligibility

To be eligible for the RN Advanced Placement Track, a student must:

1. Have a valid California RN License.
2. Be a graduate of an ADN or Diploma program (within the last 5 years); or have recent nursing practice within the United States.
3. Pass each of the three NLN Profile II Mobility Exams.

#### Application

Individuals interested in the Advanced Placement Track must complete the same prerequisites and follow the same application procedures as those described for the Clinical Nursing coursework.

#### Requirements

The RN Advanced Placement Track consists of 101-103 units; the B.S. degree requires a total of 186 units.

*I. Prerequisite Courses (35-36 units) for NURS 3505 (2.4 GPA minimum)*

BIOL 2010, 2020, 3005 (15)  
CHEM 1601, 1602 (8)  
ENGL 1001 (4)

*Social Science (2 courses)*

ANTH 1000 or 2300, PSYC 1000, SOC 1000 (8-9)

*II. Other Non-Clinical Courses (29-30 units)*

BIOL 4160 (4)  
HIST/NURS 4710 (4)  
NURS 3110<sup>1</sup> (3)  
NURS 3401<sup>1</sup> (2)  
SPCH 1004 (4)

*Human Growth and Development (1 course)*

HDEV 3800, PSYC 4420 (4)

*Group Communication (1 course)*

HDEV 4880, MGMT 3614, PSYC 3500, PSYC 3520, SPCH 3510 (4)

*Statistics (1 course)*

STAT 1000 or 1100 (4-5)

*III. Clinical Nursing Courses (37 units)*

Bridge Year: NURS 3202, 3503, 3505, 3507, 3509 (19)

Level III: NURS 4207, 4208, 4301 and either 4302 or a combination of 4305 and a 4-unit elective course (18)

#### Clinical Course Progression Policies

- I. Clinical Course Progression
  - A. Courses with the NURS prefix must be successfully completed or challenged in the proper sequence.
  - B. In order to progress within the Nursing Major the student must:
    1. earn a grade of "C" or better or "CR" in courses with a NURS prefix,
    2. earn a grade of "C-" or better in BIOL 4160; before beginning Level II clinical courses.
    3. be enrolled concurrently or have earned a grade of "C" or better in NURS 3201 before beginning any other Level II courses.
    4. earn a grade of "C" or better in NURS 3202 before beginning any subsequent Level III nursing courses.
  - C. A student loses eligibility for preferential admission to subsequent nursing courses if a grade of "D," "F," "NC," or "W" is received in any NURS prefix course or in BIOL 4160. The policy also holds true for students who receive a Departmental Warning in a clinical course.
  - D. A student may not continue in a clinical practice course and will receive an "NC" grade after he or she is notified of clinically unsafe behavior(s).
  - E. A student who has two failures ("NC," "D," "F") in any of the NURS prefix courses will be dropped from the Nursing major. In the calculation of failures, the first grade assigned in any NURS prefix course which received Academic Renewal is included.
- II. Academic Renewal of Core Theory Courses
  - A. Eligibility criteria
    1. For a course with a "D," faculty will make every effort for prompt renewal.
    2. For a course with an "F," there is no consideration for prompt renewal.
    3. Only one Academic Renewal is permitted while a student is in the Nursing major.
    4. Failure of an exam or paper while promptly renewing a course is considered a second failure and the student is dropped from the major.
  - B. Guidelines, prompt renewal
    1. The original grade remains on the transcript.
    2. The student will be given an alternate exam or paper which must be completed before the beginning of the next quarter.
    3. Students who pass the alternate exam or paper must register for the repeated course on an Individual Study

basis in the next quarter to receive Academic Renewal.

### III. Reentering Clinical Nursing Sequence

1. A written request for readmission to the clinical nursing sequence must be submitted to the chair of the Department of Nursing and Health Sciences. This must be done before Registration at the beginning of the academic year.
2. A student who withdraws or interrupts the clinical nursing sequence for physical and/or emotional reasons must present evidence (e.g., doctor's letter) that his/her current health status is satisfactory to physically and/or emotionally care for patients in any clinical setting. The final decision for reentry into the clinical nursing sequence will rest with the Executive Committee of the Department of Nursing and Health Sciences.
3. A student is not guaranteed that a request to repeat a clinical nursing course will be granted. This will depend on availability of clinical nursing practice space. First priority for repeating a course is given to students who withdrew or dropped the course. Second priority is given to those students who failed the course. The student must meet all requirements in effect upon return to clinical nursing courses.

#### Major Advising

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements.

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Undergraduate Courses

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*The course prefix for the following courses is NURS.*

#### 2012 Nursing Theory I (4)

Concepts and principles useful in planning nursing care through the nursing process. Open only to students in the Nursing Major. Prerequisites: department permission; BIOL 2010, 2020, 3005 with a GPA of 2.4; ENGL 1001; CHEM 1601, 1602; two courses from: PSYC 1000, SOC 1000, ANTH 1000 or 1300 with a grade of "C" or better; BIOL 3070 or HSC 3500; concurrent enrollment in NURS 2013. (F)

#### 2013 Nursing Theory I Laboratory (4)

Concurrent enrollment in NURS 2012. Must be taken Credit/No Credit. Department permission required. Twelve hrs. lab. (F)

- 2305 Common Problems in Ambulatory Clients (4)  
Introduces the nursing process with well individuals in various stages of the life cycle. Emphasis is on common health problems seen in ambulatory care settings. Prerequisites: NURS 2012 and NURS 2013; department permission; concurrent enrollment in NURS 2306. (W)
- 2306 Clinical Nursing Practice I (4)  
Concurrent enrollment in NURS 2305. Open only to students in the Nursing Major. Must be taken Credit/No Credit. Department permission required. Twelve hrs. lab. (W)
- 2307 Common Problems in Hospitalized Adults (4)  
Focuses on the continued promotion of adaptation through the nursing process. Emphasis is on common health problems seen in hospitalized adults. Prerequisites: NURS 2305 and 2306; department permission; concurrent enrollment in NURS 2308.
- 2308 Clinical Nursing Practice II (4)  
Concurrent enrollment in NURS 2307. Open only to students in the Nursing Major. Department permission required. Must be taken Credit/No Credit. Twelve hrs. lab. (Sp)
- 3001 Level II Nursing Skills I (1)  
Prerequisites: NURS 2307, 2308, and 3110; BIOL 4160; department permission. Three hrs. lab. (F)
- 3002 Level II Nursing Skills II (1)  
Prerequisites: NURS 3001 and 3201; department permission. Three hrs. lab. (W)
- 3003 Level II Nursing Skills III (1)  
Prerequisites: NURS 3002; department permission. Three hrs. lab. (Sp)
- 3110 Pharmacology (3)  
Introduction to drugs and therapeutics. Prerequisites: BIOL 2020, 3005. (W)
- 3201 Nursing Theory II (4)  
Introduces the nursing process with acutely ill hospitalized patients in various stages of the life cycle. Concepts and theories addressed include role, social action, adaptation, communication, teaching/learning, systems and research. Prerequisites: NURS. 2307, 2308 and 3110; BIOL 4160; department permission. (F)
- 3202 Nursing Leadership (4)  
Integrates the knowledge base of all previous course concepts for increasing independence in professional nursing practice. Open only to students in the Nursing Major. Department permission required. Prerequisites: department permission, NURS 3001, 3002, 3201, 3401; may be taken concurrently with NURS 3402-3413. Prerequisite for RN Advanced Placement Track: may be taken concurrently with NURS 3509. (F)



- 3204 Nursing Skills Laboratory I (1)  
Prerequisites: NURS 2307, 2308 and 3110; BIOL 4160; department permission. Must be taken Credit/No Credit. Three hrs. lab. (F)
- 3206 Nursing Skills Laboratory II (1)  
Prerequisites: NURS 3204; department permission. Must be taken Credit/No Credit. Three hrs. lab. (W)
- 3208 Nursing Skills Laboratory III (1)  
Prerequisites: NURS 3206; department permission. Must be taken Credit/No Credit. Three hrs. lab. (Sp)
- 3401 Legal Responsibilities of Health Care Providers (2)  
Overview of American legislative and judicial system and its effect on consumer health care. The professional nurse is viewed as an advocate of a client in his consumption of health care. Prerequisite: NURS 3201; department permission. (W)
- 3402 Principles of Perioperative Nursing (1)  
Theoretical basis of the physiological and psychosocial effects and stressors that patient/clients confront before surgery (preop), during the actual surgical experience (intraop) and after surgery (postop) in the PACU (post-anesthesia care unit) and in an acute care hospitalized setting. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. (F, W, Sp)
- 3403 Perioperative Nursing Practicum (2)  
Concurrent enrollment in NURS 3402 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)
- 3404 Principles of Perinatal Nursing (1)  
Application of the theories and concepts of the physiological and psychosocial aspects related to the nursing care of the childbearing family at risk during the antepartum, intrapartum and postpartum periods. Emphasis is placed on adaptation and restoration of wellness. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. (F, W, Sp)
- 3405 Perinatal Nursing Practicum (2)  
Concurrent enrollment in NURS 3404 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)
- 3406 Principles of Psychiatric/Mental Health Nursing (1)  
Theories of human behavior and the purposeful use of self are combined to provide a theoretical framework for the holistic care of mentally ill clients and their families. Prerequisites: NURS 2307, 2308, 3201 (may be

concurrent), 3110; BIOL 4160; department permission. (F, W, Sp)

**3407** Psychiatric/Mental Health Nursing Practicum (2)  
Concurrent enrollment in NURS 3406 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

**3408** Principles of Pediatric Nursing (1)  
The physiological and psychological nursing care of children during active illness episodes. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. (F, W, Sp)

**3409** Pediatric Nursing Practicum (2)  
Concurrent enrollment in NURS 3408 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

**3410** Principles of Medical Nursing (1)  
The nursing process applied to the adult patient and his/her family experiencing multipathophysiological processes that are treated with medical interventions. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160. Department permission. (F, W, Sp)

**3411** Medical Nursing Practicum (2)  
Concurrent enrollment in NURS 3410 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

**3412** Principles of Geriatric Nursing (1)  
Theories, demographics and adjustments related to aging. Geriatric physical assessment and interventions with focus on musculoskeletal, genitourinary, neurologic and sensory systems. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. (F, W, Sp)

**3413** Geriatric Nursing Practicum (2)  
Concurrent enrollment in NURS 3412 required. Must be taken Credit/No Credit. Prerequisites: NURS 2307, 2308, 3201 (may be concurrent), 3110; BIOL 4160; department permission. Six hrs. lab. (F, W, Sp)

**3500** Principles of Nutrition and Medical Nutrition Therapy (4)  
Functions and sources of nutrients. Health disorders caused by lack or excess of nutrients. Nutritional needs throughout the life cycle. Specialization and career opportunities of nutritionists and dietitians. Concepts of medical nutrition therapy and basics of nutritional assessment.

**3503** Physical Assessment (3)  
Physical examination of adults through lectures,

demonstrations, media, and clinical sessions in which students practice physical examination skills on each other. Physical examination skills are subsequently demonstrated by each student for a faculty preceptor. Department permission required.

- 3505** Advanced Principles I (4)  
Advanced concepts of wellness, adaptation, change and systems. Roy Adaptation Model as applied to the nursing process. Open only to R.N. students in the Nursing Major. Department permission required. Prerequisites: BIOL 2010, 2020, 3005 with a GPA of 2.4; ENGL 1001, CHEM 1601, 1602 and two courses from: PSYC 1000, SOC 1000, ANTH 1000 or 2300 with a grade of "C" or better; current California R.N. Licensure. (F)
- 3507** Advanced Principles II (4)  
Expansion of concepts presented in NURS 3505. Concepts of teaching/learning, communication and social action. Addresses the effects of hospitalization on the client, particularly body image and role process applications. Prerequisite: NURS 3505. Open only to R.N. students enrolled in the Nursing Major. (W)
- 3509** Advanced Principles III (4)  
Synthesis of advanced concepts, with the addition of advocacy, dying, sexuality, research and chronicity using the Roy Model for nursing process. Prerequisite: NURS 3507. Open only to R.N. students enrolled in the Nursing Major. (Sp)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. Not applicable toward the Nursing major. CR/NC grading only. Prerequisites: at least a 2.0 GPA; department approval of activity.
- 4203** Research Synthesis (2)  
Applies the research process in critiquing nursing research and using the findings in clinical practice. The concepts of quantitative and qualitative research. Prerequisites: department permission; NURS 3001, 3002, 3003, 3201, 3202, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413; RN Advanced Placement Track: NURS 3509.
- 4207** Principles of Community Health Nursing (2)  
Significance of community and community resources for promoting and maintaining the level of wellness of the individual and family is stressed. Open only to students in the Nursing Major. Concurrent enrollment in NURS 4208. Prerequisites: department permission, NURS 3001, 3002, 3003, 3201, 3202, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413; RN Advanced Placement Track: NURS 3509. (F, W, Sp)
- 4208** Practicum of Community Health Nursing (4)  
Concurrent enrollment in NURS 4207. Open only to

students in the Nursing Major. Credit/No Credit grading only. Prerequisites: department permission, NURS 3001, 3002, 3003, 3201, 3202, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413; RN Advanced Placement Track: NURS 3509. Twelve hrs. lab. (F, W, Sp)

- 4301** Preceptorship Seminar (2)  
Nursing theory emphasizing the prevention of disease and maintenance of health. Open only to students in the Nursing major. Concurrent enrollment required in NURS 4302. Prerequisites: department permission, NURS 3001, 3002, 3003, 3201, 3202, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413; RN Advanced Placement Track: NURS 3509. (F, W, Sp)
- 4302** Preceptorship Practicum (10)  
Nursing practice which emphasizes the prevention of disease and maintenance of health. Credit/No Credit grading only. Open only to students in the Nursing major. Concurrent enrollment in NURS 4301. Three hrs. supervised practice per unit. Prerequisites: department permission, NURS 3001, 3002, 3003, 3201, 3202, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413; RN Advanced Placement Track: NURS 3509. (F, W, Sp)
- 4305** Preceptorship Practicum for the RN-BSN Student (6)  
Nursing practice which emphasizes the prevention of disease, maintenance of health, curative and restorative aspects of nursing. Credit/No Credit grading only. Open only to students enrolled in the RN-BSN Advanced Placement Track of the Nursing major. Prerequisites: department permission, NURS 3509. Eighteen hrs. act.
- 4710** History and Trends in Nursing (4)  
(See HIST 4710 for course description.)
- 4900** Independent Study (1-4)

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## Footnotes

- 1** Substitution for these courses may be made based on evaluation of transcripts and course descriptions of previous course work.



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## Creative Video

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### Department Information

Departments of Art, English, Mass Communication,  
Theatre and Dance  
School of Arts, Letters, and Social Sciences  
Office: Robinson Hall 205  
Phone: (510) 885-3129

*Professor: Ric Prindle (Program Director)*

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The field of video production, for television as well as for corporate and educational uses, is expanding rapidly and there is much demand by employers for people with these skills. Other programs and courses at Cal State Hayward focus on documentary and news production (MCOM); stage acting (THEA); fiction writing for the printed page and the Internet (ENGL). This program introduces a new dimension to each of these areas: fictional or creative video. The new minor enables these departments to collaborate and actually create several videos of broadcast quality each year, giving students the opportunity to learn skills by practicing them.

### Minor Requirements

*Complete 28 units from the following:*

ART 3820 Multimedia II: Digital Video and Audio (5)  
(has a prerequisite that is not included in the program)

ENGL 2070 Beginning Workshop in Fiction (4)  
ENGL 3077 Writing from Life to Video (4)  
MCOM 3100 Television Production/Direction (4)  
MCOM 3101 Television Pre-production (4)  
MCOM 3102 Television Post-production (4)

THEA 1020 Discover Acting (3) or THEA 2005 Acting  
Fundamentals: Improvisation (3)

THEA 3050 Teleplay Acting and Production Workshop (4)  
THEA 3052 Acting for the Camera (4)

# Certificate Program

The certificate program in Creative Video consists of 27-28 units.

I. Required Courses (11 units)

ENGL 2070 Beginning Workshop in Fiction (4)  
MCOM 3100 Television Production/Direction (4)  
THEA 1020 Discover Acting (3) or THEA 2005 Acting  
Fundamentals: Improvisation (3)

II. Electives (16-17 units)

*Select four courses from the following:*

ART 3820 Multimedia II: Digital Video and Audio (5) (has a  
prerequisite that is not included in the program)  
ENGL 3077 Writing from Life to Video (4)  
MCOM 3101 Television Pre-production (4)  
MCOM 3102 Television Post-production (4)  
THEA 3050 Teleplay Acting and Production Workshop (4)  
THEA 3052 Acting for the Camera (4)



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Program for Adult College Education  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4061  
Phone: (510) 885-PACE (7223)  
Fax: (510) 885-4785

*Director:* Professor Emeritus James L. Nichols

*Associate Director and Liberal Studies Advisor:* Nancy Sadoyama

*Human Development PACE Advisors:* Rainer Bauer and D. Xeno Rasmusson

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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PACE is an innovative program which enables adult working students to earn a Bachelor of Arts degree with a major in Human Development or Liberal Studies in a reasonable period of time while they maintain their full-time jobs. PACE classes are the same as those taken by students pursuing their degrees through the traditional university format. The only difference is the carefully structured course sequence as well as the flexible method of delivery which may include course materials on video or audiotape or online. The PACE Program is also available at the Contra Costa Campus in Concord.

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Graduates in Human Development enjoy a wide variety of professional career opportunities. Among these are business, consulting, counseling and social services, probation/corrections, and education. The Human Development major is an excellent preparation for graduate programs in law, clinical psychology, public administration, and business administration.

Liberal Studies graduates go on to a broad range of careers and occupations in community services, business, and government. By

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## Features

completing requirements on the Credential Track, many enter the elementary (K-8) teaching profession. The Liberal Studies major is also excellent preparation for law school and graduate work in numerous fields such as public administration.

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PACE students are provided 12 to 13 units per quarter. Classes are usually held one or two evenings per week from 6:30 to 10:00 p.m. and six to eight all-day Saturdays per quarter. Saturday courses consist of lectures, films, guest speakers, and group discussions.

Students who come into the program with all entry requirements met, including sufficient transfer units, can complete the B.A. in a minimum of seven quarters for the Liberal Studies General Track. Credential Track students will need some additional coursework. PACE courses are reserved for students formally admitted into PACE; however, those who register after regular Registration are not guaranteed a place in PACE classes.

Both Liberal Studies and Human Development majors now have the opportunity to complete a Business Administration Minor through PACE by attending two summers. Liberal Studies majors may choose instead a Business Studies Option, Human Development Option, or another option or minor offered by the university. (Note the Business Option or Minor is not allowed for the Liberal Studies Credential Track as per the California State Commission on Teacher Credentialing.)

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## Preparation

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The best preparation for entry into the PACE Program is normally completion of lower division General Education requirements. PACE welcomes inquiries from community college counselors. Pre-admission advising for potential transfer students is also available if previous college transcripts are supplied. Specific entry requirements are:

1. Completion of at least 60 semester units (or 90 quarter units) of transferable coursework with a minimum grade point average of 2.00.
2. Completion of the following specific course requirements is required for Liberal Studies majors and recommended for Human Development majors:

Three English courses (two in composition); one oral communication course; one Critical Thinking course; one Math or Statistics course; one Math, Statistics, or Computer Science course; one Life Science (Biology) course; one Physical Science course; one Art, Music, or Theatre course; one course in the history, theory, or appreciation of the arts; two Arts or Humanities courses; three Social Science courses; one course in Western Heritage

*Note:* One science course must have a lab.

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## Admission

Application to PACE is a two-stage process. First is application to the university. Call the PACE Office for an application packet or for more information.

Admission applications should be marked "PACE" at the top of the first page. Two official copies of transcripts from all previous colleges must be sent to Admissions. Students wishing to inquire about the status of their application to Cal State Hayward may call the Application Hotline at 885-3828. Admission to the university does not constitute admission into PACE.

Once a student is admitted to the university, his or her documents will be sent to the PACE Office where they are then forwarded to either Human Development or Liberal Studies for review. In this second stage applications are evaluated for admission into the PACE Program; the student will be notified by mail. Students who have not yet completed PACE entry requirements are encouraged to do so and re-apply to the program by contacting the PACE Office.

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See the Human Development or Liberal Studies section of this catalog.

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Major  
Requirements



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HELP



## Criminal Justice Administration

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- ▶ [Major Requirements \(B.S.\)](#)
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- ▶ [Minor Requirements](#)
- ▶ [Undergraduate Courses](#)

### Department Information

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Department of Criminal Justice Administration  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4069  
Phone: (510) 885-3590

*Professors:* Benjamin G. Carmichael (Chair), Marc G. Neithercutt

*Associate Professor:* Patricia L. Zajac

*Assistant Professors:* Stephanie A. Marquez, Matthew Petrocelli

*Lecturers:* Keith Inman, Charles Nice, Michael J. Peretti, Neil R. M. Stratton

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

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The Department of Criminal Justice Administration offers an undergraduate program designed for the development of knowledge and understanding of practices, theory, and concepts of justice administration, as well as to prepare students for professional careers in justice administration, law enforcement, and corrections. The major includes two specialized options and the student selects one depending on her/his career interest.

The Law Enforcement and Administration option affords the opportunity to work in government agencies and private organizations offering challenging positions in crime prevention, investigation, and control. It is designed for students interested in careers with federal, state, and local law enforcement agencies, or in law enforcement within the private sector. Employment opportunities include administrators of institutional programs, consultants to groups in mobilizing resources to combat social problems, and social scientists working toward understanding individual and group behavior and social control by means of law.

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## Career Opportunities

The Corrections option is designed for students interested in careers in probation, parole, correctional institutions, and affiliated forms of work. It primarily focuses on probational services including investigation of case histories, assessment of treatment needs, advisement to the court, and the operation of diverse types of correctional programs.

Many local, state, federal and private agencies employ Cal State Hayward criminal justice graduates. Senior majors may qualify for internship placement in criminal justice agencies throughout the Bay Area.

Local level agencies include municipal police departments, county sheriffs' offices, probation departments, halfway and pre-release houses, group homes, crisis centers, juvenile halls, welfare fraud units, computer crime analysis, and retail and industrial security agencies. State level agencies include: the Highway Patrol, Department of Corrections, Department of Motor Vehicles, and Departments of Justice, Fish and Game, and Forestry. Federal level agencies include the Border Patrol; F.B.I.; Secret Service; Bureau of Alcohol, Tobacco and Firearms; Internal Revenue Service; National Park Service; Customs; Postal Inspection Service; and Federal Prisons.

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Battered Shelter Counselor • Community Agency Counselor • Community Service Coordinator • Consumer Affairs Director • Corrections Officer • Crisis Counselor • Deputy Insurance Commissioner • Equal Opportunity Representative • FBI Agent • CIA Agent • Group Worker • Insurance Investigator • Investigator • Parole Officer • Park Ranger • Police Administrator • Police Officer • Security Manager • Social Worker • Vocational Rehabilitation Officer

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## Preparation

It is strongly recommended that students complete the lower division (1000-2000) courses before taking the upper division courses.

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## Major Requirements (B.S.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 78 units; the B.S. degree requires a total of 186 units. Credit/No Credit (CR/NC) grading is not permitted for classes used to meet the major requirements.

- I. Lower Division (34 units)  
(Lower division courses in the major can be satisfied by successful completion of equivalent courses at a community college.)

CRJA 2100 Elementary Criminal Law (4)  
CRJA 2200 Basic Criminal Investigation (4)  
CRJA 2400 Evidence in Corrections and Law Enforcement (4)

CRJA 2500 Administration of Justice (4)  
CRJA 2600 Police Community Relations (4)  
PSYC 1000 General Psychology (5)  
SOC 1000 Introduction to Sociology (4)  
STAT 1000 Elements of Probability and Statistics (5)

II. Upper Division Core (16 units)

CRJA 3200 Research Methods in Criminal Justice (4)  
CRJA 3700 Ethics and Justice Administration (4)  
CRJA 4127 Crime Theory (4)  
POSC 3410 Law and Society (4)

III. Option (28 units)

Students select one option to complete. In addition to the 28 units of option core courses, 12 units of electives must be taken.

A. Law Enforcement and Administration Option Core (16 units)

Students who elect to take Option A must complete each of the following four courses:

CRJA 3300 Crime Prevention and Control (4)  
CRJA 3400 Advanced Criminal Investigation (4)  
CRJA 3610 Police Organization and Management (4)  
CRJA 3800 Comparative Evidence and Its Evaluation (4)

Under this option, students must complete a total of 12 additional upper division units from the specialized elective area.

B. Corrections Option Core (16 units)

Students who elect to take Option B must complete each of the following four courses:

CRJA 3100 Corrections and Criminal Justice (4)  
CRJA 4121 Probation and Parole (4)  
CRJA 4700 Community Based Corrections (4)  
SPCH 3530 Interviewing Principles and Practices (4)

Under this option, students must complete a total of 12 additional upper division units from a specialized elective area.

C. Specialized Electives for Both Options (12 units)

Both Option A and Option B students must choose 12 units of elective coursework in a single specialized study area, provided that the course or courses chosen have previously not been taken as part of an option. Upon faculty advisement and approval, additional courses may also apply.

*Area 1. Criminal Justice System*

CRJA 3100 Corrections and Criminal Justice (4)  
CRJA 3300 Crime Prevention and Control (4)  
CRJA 3400 Advanced Criminal Investigation (4)  
CRJA 3500 Criminal Identification (4)  
CRJA 3610 Police Organization and Management (4)  
CRJA 3800 Comparative Evidence and Its Evaluation (4)

CRJA 4121 Probation and Parole (4)  
CRJA 4123 The Crime Victim (4)  
CRJA 4124 Sex Crime Investigation (4)  
CRJA 4125 Women in Criminal Justice (4)  
CRJA 4126 Seminar in Criminal Justice Administration (4)  
CRJA 4128 Internship in Criminal Justice (4)  
CRJA 4700 Community Based Corrections (4)

*Area 2. Offender Treatment/Reform*

CRJA 3100 Corrections and Criminal Justice (4)  
CRJA 4121 Probation and Parole (4)  
CRJA 4123 The Crime Victim (4)  
CRJA 4126 Seminar in Criminal Justice Administration (4)  
CRJA 4128 Internship in Criminal Justice (4)  
CRJA 4700 Community Based Corrections (4)  
PSYC 4360 Psychopharmacology (4)  
PSYC 4410 Abnormal Psychology (4)  
PSYC 4610 Psychology of Personality (4)  
SPCH 3520 Nonverbal Communication (4)

*Area 3. Legal Aspects*

ACCT 4950 Financial Fraud (4)  
CRJA 3500 Criminal Identification (4)  
CRJA 4126 Seminar in Criminal Justice Administration (4)  
POSC 3417 Survey of American Law (4)  
POSC 3441 American Constitutional Law I (4)  
POSC 3442 American Constitutional Law II (4)  
POSC 4450 Administrative Law (4)  
PHIL 3503 Philosophy of Law (4)  
PHIL 3510 Human Rights and Social Justice (4)

*Area 4. Social and Cultural Perspectives*

ANTH 3720 Medical Anthropology (4)  
CRJA 4125 Women in Criminal Justice (4)  
CRJA 4126 Seminar in Criminal Justice Administration (4)  
E S 3700 Special Topics in Ethnic Studies (4)  
MCOM 3240 Public Opinion (4)  
MLL Three upper division courses in a single foreign language (4-4-4)  
PHIL 3510 Human Rights and Social Justice (4)  
PUAD 4800 Public Administration and Society (4)  
PUAD 4830 Organization Theory and Human Behavior (4)  
SOC 3520 Sociology of Minority Groups (4)  
SOC 3730 Juvenile Delinquency (4)  
SOC 3750 Alcohol and Drug Abuse (4)  
SOC 4740 Criminology (4)

*Area 5. Internship*

At least two quarters (8 units) of approved Internship placement and CRJA 4126 Seminar in Criminal Justice Administration (4)

## Requirements

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## Minor Requirements

complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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The minor consists of 33 units. The purpose of the minor is to provide interested students with the opportunity to study the central areas of criminal justice. The selected courses will offer instruction in law, law enforcement, ethics, corrections and the courts. The minor allows those students with career plans in the social services and business administration to acquire knowledge of criminal justice, a career area with high employment prospects. Credit/No Credit (CR/NC) grading is not permitted for classes used to meet minor requirements.

- I. Lower Division (12 units)
    - CRJA 2100 Elementary Criminal Law (4)
    - CRJA 2200 Basic Criminal Investigation (4)
    - CRJA 2500 Administration of Justice (4)
  - II. Lower Division Statistics Requirement (5 units)
    - STAT 1000 Elements of Probability and Statistics (5)
  - III. Upper Division Requirements (16 units)
    - CRJA 3100 Corrections and Criminal Justice (4)
    - CRJA 3300 Crime Prevention and Control (4)
    - CRJA 3610 Police Organization and Management (4)
    - CRJA 3700 Ethics and Justice Administration (4)
- 

## Undergraduate Courses

*The course prefix for the following courses is CRJA.*

- 2100** Elementary Criminal Law (4)  
[CAN AJ 4]  
The nature and functions of criminal law and the principles and rules underlying its administration. Classification of criminal statutes and crimes. (Y)
- 2200** Basic Criminal Investigation (4)  
[CAN AJ 8]  
The principles and methods of investigation used to acquire and to disseminate information about crimes. (Y)
- 2400** Evidence in Corrections and Law Enforcement (4)  
[CAN AJ 6]  
The role of science and law in the utilization of physical and social evidence in justice administration. (Y)
- 2500** Administration of Justice (4)  
[CAN AJ 2]  
Survey of the various components of the American criminal justice system, emphasizing police, court and corrections administration. An historical, philosophical overview of

justice administration. (Y)

- 2600 Police Community Relations (4)  
The relationship between justice administration and the public with particular emphasis on police relations with ethnic and sexual minorities, and juvenile and adult offenders. (Y)
- 3100 Corrections and Criminal Justice (4)  
Legal aspects of juvenile and adult corrections. Investigative techniques in corrections, including probation and parole. Analysis of concepts of rehabilitation, punishment and revenge. (Y)
- 3200 Research Methods in Criminal Justice (4)  
The application of scientific research methods to selected data and statistics in justice administration. Use of scientific methodology in interpreting crime and correctional data. Prerequisite: STAT 1000 or equivalent. (Y)
- 3300 Crime Prevention and Control (4)  
Concepts of planning and implementation of crime prevention and control systems. The role of security in urban society and civilian involvement in crime prevention. (Y)
- 3400 Advanced Criminal Investigation (4)  
A continuation of CRJA 2200. The exploration of investigative problems in major crimes. Analysis of role of criminal investigator and the legal use of scientific aids to investigation. Case history, examination and analysis. Prerequisite: CRJA 2200 or consent of instructor. (Y)
- 3500 Criminal Identification (4)  
Personal identification in criminal and civil investigation. Photography in criminal identification, classification and filing of fingerprints. Handwriting and voice identification. Identification of the unknown dead and skeletal remains. (Y)
- 3610 Police Organization and Management (4)  
Application of principles of organization and management to the study of police agencies and crime investigation; relationship of police agencies to other public agencies. (Y)
- 3700 Ethics and Justice Administration (4)  
The development and application of social theories to the study and analysis of ethical decision-making; studies dealing with problems of integrity through organization, management, and leadership, with emphasis on public agencies, particularly the criminal justice system.
- 3800 Comparative Evidence and Its Evaluation (4)  
The forensic comparative process; studies of microscopic characteristics of various types of physical evidence. Topics include firearms and tool identification, impression evidence, technical photography and preparation of laboratory findings for court. (Y)

- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated once. A maximum of 8 units of CRJA 3898 and/or 4128 may be applied to electives in the major. Prerequisites: at least a 2.0 GPA; departmental approval of activity; junior or senior standing. (A)
- 4121** Probation and Parole (4)  
Historical and theoretical perspectives on the organization and functions of probation and parole. Emphasis on the process and function of the resocialization and reorganization of offender. Special study of probation and parole as services within the criminal justice system; principles and practices at county, state and federal levels.
- 4123** The Crime Victim (4)  
The criminal justice system from the perspective of the victim and the victim's needs/concerns. Various facets of victimology including: victimization data, victim compensation, psychological impacts of crime on victims, and alternatives to current remedies.
- 4124** Sex Crime Investigation (4)  
Theoretical foundations related to sexual crimes. Basic skills necessary to investigate sexual assault cases, collection and preserving physical evidence, interviewing and interrogation of subjects and victims, and successful preparation of cases for presentation. (Y)
- 4125** Women in Criminal Justice (4)  
Women as victims, offenders and prisoners; gender sentencing differentials; women in criminal justice professions such as policing, corrections, and courts.
- 4126** Seminar in Criminal Justice Administration (4)  
Intensive seminar on selected issues in criminal justice administration. May be repeated for a maximum of 12 units when content differs. Prerequisite: consent of instructor.
- 4127** Crime Theory (4)  
Major social, psychological and biological theories of crime causation. Historical and current applications of theory to justice administration and offender treatment and rehabilitation.
- 4128** Internship in Criminal Justice (4)  
Practical experience in a department-approved criminal justice agency (public or private). Academic assignments integrated with volunteer or paid activities. Prerequisite: departmental approval of activity. Junior or senior standing. A maximum of 8 units of 3898 and/or 4128 may be applied to electives in major.
- 4700** Community Based Corrections (4)  
The role of local, state and federal government in the development of community-based correctional programs. Alternatives to incarceration of the criminal. Topics include



halfway houses of correction, community furlough and ex-offender employment. (Y)

4900 Independent Study (1-4)



HOME



HELP

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HOME



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## Department Information

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## Program Description

# Philosophy

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- ▶ [Philosophy Option: Liberal Studies](#)
- ▶ [Undergraduate Courses](#)

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Department of Philosophy  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4006  
Phone: (510) 885-3225, FAX: (510) 885-2123

*Professor Emeritus:* Joaquin A. Zuniga

*Professors:* Marek W. Bielecki, William J. Langan (Chair), Steve F. Sapontzis

*Associate Professor:* Paul C. Bassen

*Assistant Professors:* Jennifer L. Eagan, Terrence M. Kelly, Roberta L. Millstein

*Lecturers:* Russell Abrams, Kathleen Blamey, Ted Stolze

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The Department of Philosophy offers programs leading to a B.A. degree major in Philosophy in two different areas, one in philosophy proper, the other in religious studies. Through a broad range of courses in either program, the student encounters the great ideas of our heritage, both Western and Eastern, and gains a knowledge of the foundation of almost all other subjects.

Many different kinds of students choose the major in philosophy proper. Some intend to become professional philosophers or to do graduate work in philosophy. Others take philosophy as a preparation for another professional area. Traditionally, for example, philosophy has been one of the chief roads to professional law schools. Philosophy also serves as a good general liberal arts education. Many of the long-established university disciplines are founded on philosophical principles: political science, sociology, education, aesthetics, physics, and other subjects.

As is true of those selecting the regular major in Philosophy, a

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## Career Opportunities

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great variety of concerns motivates students to choose the Option in Religious Studies. The aim of many religious studies students is to prepare for entrance into theological seminary. Others are attracted to the program because of their interests in the history of Western culture, in comparative religion, or in such subjects as the psychology of religion or the sociology of religion. Again, like the regular major in philosophy, the Religious Studies Option serves as a good liberal arts education.

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Analyst • Business Executive • Clergy • Critic • College Professor • Customer Service Representative • Editor • Employee Assistance Representative • Foreign Service Officer • Journalist • Personnel Representative • Philosopher • Lawyer • Professor/Teacher • Public Relations Specialist • Salesperson • Stockbroker • Theologian • Writer

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The regular major consists of 56 units; the Philosophy major with an option in Religious Studies consists of 68 units; the B.A. degree requires a total of 186 units.

### I. Philosophy Major (56 units)

#### A. One course in ethics (4 units):

PHIL 3100 Ethics (4) or PHIL 3150 Contemporary Ethics (4)

#### B. Four courses in the History of Western Philosophy (16 units):

PHIL 3601 Ancient and Medieval Philosophy (4)

PHIL 3602 Rationalism and Empiricism (4)

PHIL 3603 Kant and Idealism (4)

PHIL 3604 Roots of Contemporary Philosophy (4)

#### C. One course in contemporary philosophy (4 units):

PHIL 3605 Studies in Contemporary Philosophy (4)

#### D. Two courses in metaphysics or epistemology (8 units):

PHIL 3301 Theory of Knowledge (4)

PHIL 3311 Metaphysics (4)

PHIL 3321 Philosophy of the Human Sciences (4)

PHIL 3332 Philosophy of Science (4)

#### E. One seminar in philosophy (4 units):

PHIL 4606 Seminar in Philosophy (4)

#### F. Five additional Philosophy electives (20 units)

Philosophy courses including those not chosen from the above lists and those repeatable for credit, at least three of which must be upper division.

### II. The Option in Religious Studies (68 units)

#### A. One course in ethics (4 units)

PHIL 3100 Ethics (4) or PHIL 3150 Contemporary Ethics (4)

B. Three courses in the history of Western philosophy (12 units):

PHIL 3601 Ancient and Medieval Philosophy (4)

PHIL 3602 Rationalism and Empiricism (4)

PHIL 3603 Kant and Idealism (4)

C. Three courses in contemporary philosophy (12 units):

PHIL 3604 Roots of Contemporary Philosophy (4)

PHIL 3605 Studies in Contemporary Philosophy (4)

PHIL 4606 Seminar in Philosophy (4)

D. Two courses in metaphysics or epistemology (8 units):

PHIL 3301 Theory of Knowledge (4)

PHIL 3311 Metaphysics (4)

PHIL 3321 Philosophy of the Human Sciences (4)

PHIL 3332 Philosophy of Science (4)

E. Three courses in comparative religion and philosophy of religion (12 units):

PHIL 1401 Religions of the World (4)

PHIL 3400 Philosophy of Religion (4)

PHIL 3401 Contemporary Religious Thinkers (4)

PHIL 3403 Philosophies of the East (4)

PHIL 3410 Comparative Themes in Eastern and Western Philosophy (4)

F. Courses in Supporting Fields (20 units)

*Five courses from the following:*

ANTH 3840 Magic, Witchcraft, and Religion (4), 3890 Shamanism (4); ENGL 4720 Mythology (4); E S 3185 African American Religion (4), 3310 Native American World View (4); HIST 3114 History of Early Christianity (4), 3123 History of Medieval Christianity (4), 3132 Renaissance Magic (4), 3134 The Reformation (4); HDEV 3600 Development of Religious and Secular World Views (4); SOC 3610 Sociology of Religion (4); WOST 3510 Women in Myth and Prehistory (4); Other relevant courses approved by the Religious Studies advisor.

*Note:* The courses in supporting fields may be applied to the general education-breadth requirements. The student's advisor should be consulted.

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

I. Cognitive Science Minor (28 units)

The cognitive science minor consists of 28 units, with at least 20 units from two or more departments other than the

student's major. The 28 units must include at least 12 units of the core courses. The remaining units must be selected from the listed electives.

A. Core (12 units)

At least 12 units selected from the following courses:

ANTH 1800 Introduction to Anthropological Linguistics (4)

One lower division programming course: CS 1020, or 1160 (4)

CS 4810<sup>1</sup> Artificial Intelligence (4)

PHIL 3341 Philosophy of Cognition and Artificial Intelligence (4)

PSYC 4740<sup>1</sup> Psycholinguistics (4)

B. Electives (16 units)

ANTH 3800 Language and Culture (4); BIOL 4510<sup>1</sup> Neurobiology (4); CS 3120<sup>1</sup> Programming Languages (4), 4110<sup>1</sup> Compiler Design (4), 4170<sup>1</sup> Theory of Automata (4); ENGL 3005<sup>1</sup> Study of Language (4); HDEV 4510 Cognitive Development (4), 4520 Language Acquisition and the Symbolic Function (4); PHIL 2300 Metaphysics and Knowledge (4), 3002 Modern Logic (4), 3301 Theory of Knowledge (4), 3332 Philosophy of Science (4); PSYC 4210<sup>1</sup> Theories of Learning (4), 4220<sup>1</sup> Cognitive Processes (4), 4320<sup>1</sup> Physiological Psychology (4), 4345<sup>1</sup> Sensation and Perception (4)

II. Philosophy Minor (28 units)

One of the following (4 units):

PHIL 1600 Introduction to Philosophy (4)

PHIL 2300 Metaphysics and Knowledge (4)

PHIL 3100 Ethics (4)

Two courses in the history of Western philosophy, from the following (8 units):

PHIL 3601 Ancient and Medieval Philosophy (4)

PHIL 3602 Rationalism and Empiricism (4)

PHIL 3603 Kant and Idealism (4)

PHIL 3604 Roots of Contemporary Philosophy (4)

PHIL 3605 Studies in Contemporary Philosophy (4)

Four additional philosophy courses, of which at least three must be upper division (16 units)

III. Religious Studies Minor (36 units)

A. Core (12 units)

PHIL 1401 Religions of the World (4)

PHIL 3400 Philosophy of Religion (4)

PHIL 3401 Contemporary Religious Thinkers (4)

B. Electives in Philosophy (12 units)

Two courses in the history of western philosophy, chosen from the following (8 units):

PHIL 3151 Environmental Ethics (4), 3601 Ancient and Medieval Philosophy (4), 3602 Rationalism and Empiricism (4), 3603 Kant and Idealism (4), 3604 Roots of Contemporary Philosophy (4), 3605 Studies of Contemporary Philosophy (4)

One additional course relevant to religious studies (4 units)

C. Electives in Supporting Fields (12 units)

*Three courses, chosen from the following:*

ANTH 3840 Magic, Witchcraft and Religion (4), 3890 Shamanism (4); ENGL 4720 Mythology (4); E S 3310 Native American World View (4); HIST 2123 History of Medieval Christianity (4), 3114 History of Early Christianity (4), 3132 Renaissance Magic (4), 3134 The Reformation (4); HDEV 3600 Development of Religious and Secular World Views (4); SOC 3610 Sociology of Religion (4); WOST 3510 Women in Myth and Pre-history (4)

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Area I (4 units)

*One course from the following (4 units):*

PHIL 1501 Introduction to Social and Political Philosophy (4), 1600 Introduction to Philosophy (4), 2300 Metaphysics and Knowledge (4)

Area VII Credential Track or Area VI Liberal Arts Track (24 units)

*One course from the following (4 units):*

PHIL 3605 Studies in Contemporary Philosophy (4), 3701 Philosophy of Education (4), 4606 Seminar in Philosophy (4), 4912 Senior Project (4)

*Five additional Philosophy courses (excluding PHIL 1000, 1001, 3001, and 3002) at least four of which must be upper division (20 units).*

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*The course prefix for the following courses is PHIL.*

### Lower Division Critical Thinking Courses

- 1000** Workshop in Clear Thinking (4)  
Development of clarity and focus in thinking, with attention to rigor, modes of explanation, validity of reasoning, etc. (A)
- 1001** Introduction to Logic (4)  
[CAN PHIL 6]  
Beginning study of the forms of valid inference, including informal fallacies, syllogistic logic and symbolic logic. (A)

### Lower Division Philosophy Courses

- 1101** Contemporary Social and Ethical Issues (4)  
Topics of contemporary concern, e.g. human rights, roots of social injustice, affirmative action, sexism and racism. May be repeated for credit when content varies. (Y)
- 1103** Science, Ethics, and Technology (4)  
The ethical implications of various technologies, such as

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Philosophy  
Option: Liberal  
Studies

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Undergraduate  
Courses

biotechnology, medical technologies, environmental technologies, and informational technologies.

- 1401 Religions of the World (4)  
Comparative study of religions from around the world, such as Hinduism, Buddhism, Taoism, Judaism, Christianity and Islam. (Y)
- 1501 Introduction to Social and Political Philosophy (4)  
Selected problems in social and political philosophy such as: freedom of speech, multi-culturalism and relativism, affirmative action, racism, sexism, violence and the roots of social injustice. (Y)
- 1600 Introduction to Philosophy (4)  
[CAN PHIL 2]  
Problems raised in the classical philosophical traditions, such as the role of reason in human life, the nature of the self, the existence and significance of God, the nature of morality, the meaning or purpose of existence. (Y)
- 1605 Introduction to Asian Thought (4)  
The thought of China, India, and Japan, past and present, as expressed in philosophical texts.
- 2020 Self, Family, Culture (4)  
Normative and descriptive approaches to understanding diverse ways in which Self dwells in Family and Community. Emphasis on methodological similarities and differences between philosophical and non-philosophical approaches as a way of preparing the ground for a meaningful interdisciplinary encounter. (A)
- 2024 Philosophy of Women's Experience (4)  
(See WOST 2024 for course description)
- 2027 Law, Economics, and Justice (4)  
The normative dimensions of the relationship between law and economics. Free market and welfare state arrangements evaluated in terms of leading theories of justice.
- 2028 Philosophy, Technology, and Culture (4)  
Explores the philosophical issues raised by the impact of technology on culture including ethical issues raised by mass culture and the impact of technology on philosophical worldviews.
- 2029 Philosophical Perspectives on the Problem of Evil (4)  
The moral, hermeneutic, and epistemological issues raised by the problem of evil. The Holocaust as a historical locus of reflection.
- 2300 Self, Nature, and God (4)  
Topics such as the mind-body problem, freedom versus determinism, and the nature of truth, faith, and reason.
- 2605 Asian Thought (4)

Buddhist thought of India, Southeast Asia, and Japan as expressed in its philosophical texts, visual art and music, and literature; demonstration of the interconnections among these disciplines.

## Upper Division Critical Thinking Courses

- 3001** Critical Thinking (4)  
Development of ability to think clearly and rationally, while focusing on one or more topics of contemporary philosophical concern, such as freedom of speech, education and multi-culturalism, affirmative action, racism, sexism, truth and justice. (A)
- 3002** Modern Logic (4)  
Advanced course in symbolic logic. Students without a mathematical background are encouraged to first take PHIL 1001. (Y)

## Upper Division Philosophy Courses

- 3100** Ethics (4)  
Major theories about ethics or morality and their relation to different social systems, institutions and cultures of the world. (Y)
- 3150** Contemporary Ethics (4)  
Problems and theories in contemporary ethical and moral thinking, such as: knowledge, multicultural education and relativism; fairness and affirmative action policies; violence, social injustice and freedom; and distributive justice, racism and sexism. May be repeated for credit when content varies. (Y)
- 3151** Environmental Ethics (4)  
Philosophical conceptions of nature and the environment, and human responsibilities towards it, drawn from different historical and cultural traditions. (Y)
- 3152** Biomedical Ethics (4)  
Ethical issues in biology and medicine, such as euthanasia, abortion, truth-telling, genetic engineering, cloning, distribution of medical resources. (Y)
- 3201** Aesthetics (4)  
Theories of art, such as imitation, formalism and expressionism; the contrast between representational and abstract art. (Y)
- 3211** Philosophy and Literature (4)  
Examination of philosophical views about such things as the meaning of existence, morality, social justice, human identity, love, and death that are contained implicitly in world literature and drama. (Y)
- 3213** Ethics in Literature (4)  
Fiction, film, and philosophy are the materials for this exploration of different accounts of morality. The fictional



sources, from ancient through modern times, provide examples. Any necessary background to philosophical reading supplied in lectures. (Y)

- 3214 Philosophy and Myth in Latin American Literature (4)  
Philosophical themes, including idealism and the search for enlightenment, as illustrated in selected works of Latin American and some Mexican-American fiction. The cosmological book of the Maya, Popol Vuh, critically examined as literary philosophy, along with contemporary interpretative essays.
- 3301 Theory of Knowledge (4)  
An exploration of such issues as skepticism, relativism, truth, and the nature of understanding. May be repeated for credit when content varies. (Y)
- 3311 Metaphysics (4)  
An exploration of the nature of matter, mind, space, time, truth, and the real. May be repeated for credit when content varies. (Y)
- 3315 Time and Becoming (4)  
Scientific concepts of time and their contrast with individual and social experiences of temporality. (Y)
- 3321 Philosophy of the Human Sciences (4)  
Philosophical study of theories, methods and problems in the social and behavioral sciences. May be repeated for credit when content varies. (Y)
- 3322 The Phenomenon of Language (4)  
The phenomenon of language, including the languages or discourses employed by various disciplines that study it, such as linguistics, anthropology, psychology, sociology, and philosophy itself. (Y)
- 3331 History of Science (4)  
A general survey of the history of science, including origins of scientific thought, the scientific revolution, the legacy of Darwin, and selected topics from nineteenth and twentieth century science. (W)
- 3332 Philosophy of Science (4)  
The nature of scientific explanation, scientific methods, and conceptual revolutions in science. Cross-listed with HIST 3332. (Sp)
- 3335 Science, Technology and Values (4)  
Nature of scientific reasoning and its relation to technology. Historical development of modern technology. Examples of technological systems: communications, data processing, materials, energy generation. Impact on the environment and on human society. Relation to moral reasoning. Cross-listed with SCI 3335.
- 3341 Philosophy of Cognition and Artificial Intelligence (4)  
Philosophical study of the nature of cognition and of

human and machine intelligence. Explores such questions as: "What is thinking?" "What is intelligence?" "Can computers understand ordinary language?" Recent trends and prospects of the quest for truly intelligent machines. (Y)

- 3400 Philosophy of Religion (4)  
Philosophical issues such as the existence of God, the problem of evil, the paradox of free will, the nature of religious experience and mysticism. May be repeated for credit when content varies. (Y)
- 3401 Contemporary Religious Thinkers (4)  
The religious philosophies of one or more major thinkers of the Twentieth Century from different cultures or religious traditions of the world. May be repeated for credit when content varies. (Y)
- 3403 Philosophies of the East (4)  
Eastern thought as expressed in its great religious philosophies such as Confucianism, Taoism, Hinduism and Buddhism. (Y)
- 3410 Comparative Themes in Eastern and Western Philosophy (4)  
Critical and comparative study of themes from Western philosophy and from Indian, Chinese and other Eastern philosophies. May be repeated for credit when content varies. (Y)
- 3502 Social and Political Philosophy (4)  
Intensive study of the philosophical theories underlying or justifying public policy issues, such as individual freedom and government protection of the rights of others; freedom of speech and religious, racial or sexual prejudice; affirmative action and reverse discrimination; and violence, personal responsibility and the roots of social injustice. (Y)
- 3503 Philosophy of Law (4)  
Introduction to the main schools of jurisprudence and legal philosophy. Cross-listed with POSC 3503. (Y)
- 3510 Human Rights and Social Justice (4)  
Historical perspective on philosophical foundations of human rights with special reference to the struggles for social and racial justice and women's rights. (A)
- 3560 Business and Professional Ethics (4)  
Team-taught by a philosopher and a social scientist. Explores current ethical issues in business and other professions: preferential hiring vs. equal opportunity, environmental regulation vs. property rights, truthfulness in business communications, economic efficiency vs. social responsibility. Cross-listed with MGMT 3560.
- 3601 Ancient and Medieval Philosophy (4)  
Western philosophy from the ancient Greeks (including Socrates, Plato and Aristotle) through the philosophers and theologians of the Middle Ages (including St. Augustine and St. Thomas Aquinas). (F)

- 3602 Rationalism and Empiricism (4)  
Seventeenth and eighteenth century Western philosophy, especially rationalism (Descartes, Spinoza, Leibniz) and empiricism (Locke, Berkeley, Hume). (W)
- 3603 Kant and Idealism (4)  
Kant, nineteenth century German idealists, especially Hegel, and reactions to them. (Sp)
- 3604 Roots of Contemporary Philosophy (4)  
Study of one or more twentieth century philosophical traditions, such as logical positivism, analytic philosophy (including Wittgenstein), pragmatism, existentialism, phenomenology, process philosophy, the Frankfurt School. May be repeated for credit when content varies. (F)
- 3605 Studies in Contemporary Philosophy (4)  
Various figures or topics in contemporary philosophy. May be repeated for credit when content varies. (W)
- 3611 Twentieth Century Latin American Philosophy (4)  
Leading Latin American philosophers from the recent past to the present. Theories of humankind, value, and personal identity. Major contemporary movements, such as positivism and liberation theology. The place of the latter in current Chicano thought. (Y)
- 3701 Philosophy of Education (4)  
Philosophical analysis of contemporary theories and methods of education through examination of major works offering contrasting perspectives on the nature of knowledge, competing value systems, and ethical and multicultural concerns in the educational process. Seminar approach emphasizing student participation and presentations. (Y)
- 3925 Moral Values in the Modern World (4)  
A problems-oriented course in ethics focusing on issues of current moral concern, e.g., abortion, affirmative action, animal rights, feminism, euthanasia.
- 4606 Seminar in Philosophy (4)  
Intensive study of an individual philosopher, school, movement or problem in philosophy. May be repeated for credit when content varies. (Sp)
- 4900 Independent Study (1-4)
- 4912 Senior Project (4)  
Supervised research and preparation of an essay on a significant philosophical problem. Prerequisite: consent of a faculty member.



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## Economics

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### Department Information

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Department of Economics  
School of Business and Economics  
Office: Music and Business Bldg. 2583  
Phone: (510) 885-3339

*Professors:* James C. W. Ahiakpor (Chair), Charles W. Baird, Alexander E. Cassuto, Gregory B. Christensen, Shyam J. Kamath, Kurt R. Leube, Anthony K. Lima, Jane E. Lopus, Nan L. Maxwell, Lynn C. Paringer, Stephen Shmanske, David J. St. Clair, Jay L. Tontz

*Associate Professor:* Leo Kahane

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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The Economics major prepares the student for a broad variety of careers including those in law, journalism, banking and insurance, government, teaching, and research. In addition, the study of economics has become essential in today's dynamic and complex business environment.

An economics education provides the student with a logical way of approaching various problems and issues and provides qualitative skills valued highly by employers. The student learns techniques for analyzing contemporary economic problems and develops the ability to exercise sound judgement in evaluating public policy issues. Many of these skills are useful in daily decision-making irrespective of career choice. The broad background developed with the Economics major encourages the student to become an interested, understanding observer of the events of today's and tomorrow's world.

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## Career Opportunities

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Analyst • Business Executive • Economist • Employment Researcher/Planner • Financial Consultant • Foreign Service Officer • Financial Analyst • Management Analyst • Market Research Analyst • Policy Analyst • Professor/Teacher • Public Policy Analyst • Securities Analyst • Statistical Analyst • Statistician • Stockbroker

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## Features

The weekly Workshop in Economics Research (ECON 4895) provides a forum for presenting and debating faculty research and for inviting U.S. and international specialists in economics and management to discuss their research and published work. Some of the visiting speakers are sponsored by the Smith Center for Private Enterprise Studies which was started with a donation of more than \$1,000,000 from Owen and Erma Smith of Castro Valley. (The Smith Center also awards scholarships to selected Cal State Hayward economics majors who wish to pursue Ph.D. studies in economics.) Undergraduate Economics students are required to attend the workshop for three quarters for credit, usually in the senior year.

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## Preparation

For Advanced Placement course equivalencies, see Registration chapter.

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 72-73 units; the B.A. degree requires a total of 186 units. Students receiving a B.A. degree major in Economics from this university must complete at least 20 units of Economics in residence.

- I. Lower Division Core (21 units)
  - MATH 1810, [1820](#) Mathematics for Business & Social Sciences I, II, or
  - MATH 1304, [1305](#) Calculus I, II (8) [2](#)
  - ECON 2301 Principles of Microeconomics (4)
  - ECON 2302 Principles of Macroeconomics (4)
  - STAT 2010 [2](#) Elements of Statistics for Business and Economics (5)
  
- II. Upper Division Core (28 units)

Complete the following courses as soon as possible after the lower division Requirements have been satisfied:

  - ECON 3000 Micro-Economic Theory (4)
  - ECON 3005 Macro-Economic Theory (4)
  - ECON 3170 History of Economic Thought (4)
  - ECON 3310 Money, Banking, & Fin Intermediaries (4)
  - ECON 4000 Seminar in Micro-Economic Theory (4)
  - ECON 4400 Introduction to Econometrics (4)
  - MKTG 3495 Administrative Communication (4)

*Note:* Double majors in Economics and Business Administration may substitute ECON 3551 for ECON 3000 and an additional upper division Economics elective (excluding ECON 3552) for ECON 4000.

### III. Electives (23-24 units)

Complete 23-24 additional units to include:

ECON 4895 Workshop in Economic Research. (Must be taken 3 times, preferably during the senior year)

Choose (A) or (B) <sup>4</sup>

A. Five courses in Economics, excluding ECON 3551 and 3552 (20)

B. Four courses in Economics, excluding ECON 3551 and 3552 (16) plus one course from:

MGMT 3100 Quantitative Methods in Bus (5)

STAT 3502 Statistical Inference I (4) [Students substituting STAT 3502 for STAT 2010 cannot use STAT 3502 in option (B).]

STAT 3503 Statistical Inference II (4)

STAT 4610 Non-parametric Statistical Methods for the Social Sciences (4)

*Note:* Students who plan to attend graduate school in Economics or Business Administration should complete alternative (B).

## Sample Program

### Freshman

History & Institutions Requirement

ENGL 1001

MATH 1130, 1810, 1820, or 1304, 1305

### Sophomore

ECON 2301, 2302, STAT 2010

### Junior

ECON 3000, 3005, 3170, 3310, 4000, 4400

Two ECON electives

MKTG 4495

### Senior

ECON 4895 each quarter

Four ECON electives

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## Other Degree Requirements

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In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 40 units. Please note: A student cannot have both a Managerial Economics option under the Business Administration major and an Economics minor.

- I. Lower Division (16 units)  
MATH 1810, <sup>5</sup> 1820 Math for Bus. and Soc. Sciences I, II or MATH 1304, 1305, Calculus I, II<sup>5</sup> (8)  
ECON 2301 Principles of Microeconomics (4)  
ECON 2302 Principles of Macroeconomics (4)
- II. Upper Division (24 units)  
Complete the following courses as soon as possible after the lower division requirements have been satisfied:
- ECON 3000 Micro-Economic Theory (4)  
ECON 3005 Macro-Economic Theory (4)  
ECON 3310 Money, Banking, & Financial Intermediaries (4)  
ECON 4000 Seminar in Micro-Economic Theory (4)  
Two elective courses in Economics (8)

*Note:* Business Administration students may substitute ECON 3551 and either ECON 3552 or MGMT 3620 for ECON 3000 and 4000.

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## Double Major

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Students majoring in economics should consider the advantages of a double major, particularly Economics and Business Administration, Economics and Statistics, or Economics and Mathematics. Other double majors are possible by an appropriate selection of elective courses.

However, since both mathematics and Statistics courses are required for the major in Economics, and Economics is required for a major in Business Administration, it is relatively simple to obtain a double major in Economics and Mathematics, Statistics, or Business Administration.

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## Managerial Economics Option

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An option in Managerial Economics is provided in the Business Administration major for business students with an interest in economics. (See Business Administration.)

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## Economics Option: Liberal Studies

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- Area I (8 units)  
ECON 2301 Principles of Microeconomics (4)  
ECON 2302 Principles of Macroeconomics (4)
- Area VII Credential Track or Area VI Liberal Arts Track (24 units)  
ECON 3000 Micro-Economic Theory (4)  
ECON 3005 Macro-Economic Theory (4)  
Four additional upper division Economics courses (excluding ECON 3551 and ECON 3552) (16)



## Undergraduate Courses

*The course prefix for the following courses is ECON.*

- 1000** Economics of Public Issues (4)  
Examination of selected current public issues; e.g., shortages of food and fuel, pollution, slums, airline fares, stagflation, income distribution, and the function of property rights. Designed for non-economics majors and not open to students who have taken ECON 2301. (F, W, Sp)
- 1180** Income, Wealth, and Poverty (4)  
Broad-based examination of theories that are used to explain how income is generated and distributed. Theories of income determination within market-based economies to explain income differentials, inequalities, wealth, and poverty at both the individual and country levels.
- 1190** Philosophy, Law, and Economics (4)  
Introduction to the many interdependencies among philosophy, law, and economics; the role of property rights in a market economy; social problems arising from defective legal concepts; historical development of thinking on law and economics from Ancient Rome to the present.
- 2301** Principles of Microeconomics (4)  
[CAN ECON 4]  
Basic micro-economic concepts; introductory analysis of the determination of prices and output in different market situations; public policy. Prerequisites: sophomore standing and either credit for intermediate algebra or satisfactory score on the Entry-Level Math (ELM) Test. (A)
- 2302** Principles of Macroeconomics (4)  
[CAN ECON 2]  
Basic macro-economic concepts; introductory analysis of the determination of national income and employment; money and banking; fiscal policy in a global context. Prerequisite: either credit for intermediate algebra or satisfactory score on the Entry-Level Math (ELM) Test. (A)
- 3000** Micro-Economic Theory (4)  
Analysis of supply and demand; production and costs; price and output determination; factor pricing and income distribution; optimum resource allocation. Prerequisites: MATH 1820 or MATH 1305, and ECON 2301 with grade not lower than C. (W)
- 3005** Macro-Economic Theory (4)  
Measurement and analysis of the determination of national income and employment; general price level; stabilization and growth. Prerequisites: ECON 2301, 2302, with grade not lower than "C" in 2302. (A)
- 3140** Topics in Economic History (4)  
History of economic development of a specific area or region of the world. Topics include U.S. history, African history, Eastern or Western European history, Middle Eastern history. With department permission, may be

repeated once for credit with a different instructor or different topics. Prerequisite: ECON 2301 or consent of instructor.

- 3170** History of Economic Thought (4)  
The key theories and individuals in the history of economic thought including Adam Smith, David Ricardo, and Karl Marx. Prerequisites: ECON 2301 and 2302.
- 3180** Selected Topics in Economic Thought (4)  
Particular economic theorists, methodologies, schools of thought, and themes in the history of economics. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 2301, 2302.
- 3190** Market Processes-Theory and Applications (4)  
Austrian School analysis of socio-economic phenomena including methodology of the social sciences, theory of subjective value, entrepreneurship, competition as a discovery procedure, spontaneous orders, the division of knowledge, the capital structure, and trade cycles. Historical applications used throughout. Prerequisites: ECON 2301, 2302 or consent of instructor.
- 3200** Comparative Economic Systems (4)  
Comparative study of different economic systems proposed or used to deal with the economic organization of society. Prerequisite: ECON 2301.
- 3310** Money, Banking, and Financial Intermediaries (4)  
Essentials of commercial and central banking; financial intermediaries; monetary policy. Prerequisite: ECON 3005 or consent of instructor. (A)
- 3370** Public Sector Economics (4)  
Public sector economics; taxation, welfare economics, public goods, the rationale of government activity and collective choice. Prerequisites: ECON 2301 and 2302.
- 3375** Public Choice: The Economics of Politics (4)  
Economic theory applied to political institutions and decision-making within governments. Allocations under various property right systems; coalitions and voting behavior; theory of constitutions; theory of bureaucracy; political economy of income redistribution, crime, violence, discrimination, federalism, nationalism, anarchy. Prerequisite: ECON 2301.
- 3500** Regional and Urban Economics: Survey (4)  
Economic analysis as applied to urban and regional economic problems and policies. Prerequisite: ECON 2301. (W)
- 3551** Managerial Economics and Business Strategy (4)  
The actions and reactions of business firms and consumers in a variety of market environments, emphasizing their strategies for optimization. Prerequisites:

ECON 2301 and STAT 2010. Prerequisite or concurrent: MATH 1820 or 1305. Course not recommended for Economics majors.

- 3552 Introduction to Production Economics (4)  
Analysis of production and cost theory and its use in managerial decision making. Includes applications of production theory to inventory control, capacity constraints, production planning, quality control and equipment replacement. Specific techniques covered include linear programming, Monte Carlo simulation, and decision tree analysis. Course not recommended for Economics majors. Prerequisites: ECON 3551 and MGMT 3100.
- 3680 Labor Economics (4)  
Theory of the operation of labor markets, with the application of this theory to current manpower problems and the level of employment. Prerequisite: ECON 2301.
- 3685 Law and Economics of Labor Institutions (4)  
Development of the labor sector in the American economy with emphasis on labor institutions, labor legislation, and public policy toward labor organizations. Prerequisite: ECON 2301.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward the Economics major or minor. Prerequisites: At least 2.0 GPA; departmental approval of activity. Credit/No Credit grading only. (A)
- 4000 Seminar in Micro-Economic Theory (4)  
Readings and discussion of advanced topics in analysis of market behavior, factor pricing and income distribution, general equilibrium, capital and interest, and property rights. Prerequisite: ECON 3000. (Sp)
- 4306 Environmental Economics (4)  
Readings, reports and discussion on economic aspects of environmental problems and alternative proposed solutions: pollution, congestion, population. Prerequisite: ECON 2301. (Sp)
- 4315 Monetary Theory (4)  
Review of current literature on the demand for and supply of money; effects of monetary policy on inflation, unemployment, interest rates, and balance of payments. Prerequisite: ECON 3310.
- 4400 Introduction to Econometrics (4)  
Applications of statistical techniques to obtain quantitative estimates of relationships suggested by economic analysis. Prerequisites: ECON 2301, 2302, STAT 2010.
- 4520 Industrial Organization and Public Policy (4)  
Factors determining industrial organization and economic behavior; operation of antitrust laws; public regulation.

Prerequisite: ECON 3000 or 3551.

- 4590** Selected Topics in Economic Analysis (4)  
Application of economic analysis to past/contemporary economic issues. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 2301 and 2302 or consent of instructor.
- 4700** International Trade (4)  
Comprehensive coverage of the modern theory of international trade, foreign investment, the nature and effects of protection, multinational enterprise, world economic growth and international trading systems. Prerequisites: ECON 2301, 2302.
- 4705** International Finance (4)  
Comprehensive coverage of the organization, operation and theory of foreign exchange markets, Eurocurrency and offshore financial markets, balance of payments and international adjustment, international capital flows and different types of international monetary systems. Prerequisites: ECON 2301, 2302. (formerly ECON 4105)
- 4710** International Economic Development (4)  
The factors and theories underlying international economic development with a focus on the nature and causes of development in specific areas and nations in Africa, Asia, Europe, North America and South America. Prerequisite: ECON 2301. (formerly ECON 4110)
- 4895** Workshop in Economic Research (1)  
Workshop activity in the preparation, presentation, and evaluation of student and faculty research projects. Content varies. May be repeated each quarter for credit. Prerequisite: at least junior standing. (F, W, Sp)
- 4900** Independent Study (1-4)

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## Footnotes

<sup>1</sup>MATH 1130 is the prerequisite to MATH 1810. This prerequisite cannot be bypassed. MATH 1130 must be satisfied by either (a) passing MATH 1130, or (b) achieving a college algebra-level score on the Mathematics Placement Test (MPT). Note that completing MATH 1810-20 or their Cal State, Hayward-accepted transfer equivalents, including the two-course calculus substitution, does not waive MATH 1130 as a required prerequisite.

<sup>2</sup>Students who plan to attend graduate school in Economics or Business Administration or those with quantitative orientations should take the MATH 1304, 1305 series instead. The following electives are also recommended: MATH 2101 and 2304, and a course in linear algebra or analysis (such as MATH 3100 or 3300).

<sup>3</sup>Students who have a grade of "B" or better in MATH 1810 or MATH 1304 or their equivalents are encouraged to

substitute STAT 3502 for STAT 2010.

- 4 Students intending to attend graduate school in Economics or Business Administration should complete alternative (b).
- 5 MATH 1130 is the prerequisite to MATH 1810. This prerequisite cannot be bypassed. MATH 1130 must be satisfied by either (a) passing MATH 1130 or (b) passing a Cal State, Hayward accepted transfer equivalent for MATH 1130, or (c) achieving a college algebra level score on the Math Placement Test. (MPT). Note that completing MATH 1810-20 or their Cal State Hayward-accepted transfer equivalents, including the two course calculus substitution does not waive MATH 1130 as a required prerequisite.
- 6 Students who plan to attend graduate school in Economics or Business Administration or those with quantitative orientations should take the MATH 1304, 1305 series instead. The following electives are also recommended: MATH 2304, and a course in linear algebra or analysis (such as MATH 3100 or 3300).



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## Physical Science

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### Department Information

Department of Chemistry  
School of Science  
Office: North Science 431  
Phone: (510) 885-3452

*Professor: Leroy Chauffe (Coordinator), (510) 885-3452*

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The Physical Science major is designed to give the student a broad perspective in the physical sciences. It also serves as an excellent background for professional training in law, business or medicine. Students intending to continue into graduate school in the physical sciences should choose the chemistry, geology, or physics major programs. Prospective high school science teachers should consider the Environmental Sciences major.

### Career Opportunities

Aerial Photograph Interpreter • Bottle House Quality Control Technician • Cloth Tester • Criminalist • Crude Oil Tester • Environmental Analyst • Environmental Research Project Manager • Food Tester • Gas Analyst • Geographer • Laboratory Assistant • Laboratory Inspector • Laboratory Technician • Laboratory Tester • Materials Scientist • Pharmaceutical Salesperson • Photo-Optics Technician • Physical Geographer • Pollution Control Technician • High School Teacher

### Major Requirements (B.S.)

The major consists of 81- 88 units; the B.S. degree requires a total of 186 units.

- I. Core (57- 64 units)
  - MATH 1304 Calculus I (4)
  - MATH 1305 Calculus II (4)
  - CHEM 1101 General Chemistry (5)
  - CHEM 1102 General Chemistry (5)
  - CHEM 1103 General Chemistry (5)

GEOL 2101 Physical Geology (5)  
GEOL 3040 Fundamentals of Meteorology (4)  
PHYS 1800 Astronomy (4)

*Choose one of the following course sequences, (A) or (B):*

A. PHYS 1001 General Physics (5)  
PHYS 1002 General Physics (5)  
PHYS 1003 General Physics (5)  
MATH 2304 Calculus III (4)

B. PHYS 2701 Introductory Physics (4)  
PHYS 2702 Introductory Physics (4)  
PHYS 2703 Introductory Physics (4)

*Choose one (4 units):*

PHIL 3332 Philosophy of Science (4) or PHIL 3331 History of Science (4)

*Choose one (5 units):*

BIOL 1001 Introduction to Biology (4) and BIOL 1002 Lab (1) or  
BIOL 1303 Foundations of Biological Science (5)

II. Electives (24 units)

Twenty- four additional units (at least 19 must be upper division). The following courses in Chemistry, Geology and Physics are recommended:

CHEM 2200, 2301, -2, 3301, -2, -3, 3400, 3500, 3511, 3512, 3513  
GEOL 3030, 3110, 3400, 3610, 3611, 3701, 3730, 3810  
PHYS 3101, 3180, 3230, 3280, 3281, 3301, 4001

Other courses applicable to the major may be accepted with prior approval of the Physical Science Coordinator.

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Areas I and III (17-19 units)

BIOL 1001 Introduction to Biology (4)  
PHYS 1700 Elementary Physics (4)  
PHYS 1780 Elementary Physics Laboratory (1)

*One of the following (4-5 units):*

CHEM 1100 Introduction to College Chemistry (5), 1101 General Chemistry (5), 1601 Basic Chemistry for the Health Sciences (4)

*One of the following (4-5 units):*

BIOL 2010 Human Physiology and Anatomy I (5); 2030 Survey of the Plant Kingdom (4); 2040 Survey of the Animal Kingdom (4); 3015 Natural History of Marine Organisms (4); 1002 Introduction to Biology Lab (1) and 3020 Genetics, Evolution, and Humanity (4); 3031 Nature Study (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (23-26 units)

PHYS 1800 Astronomy (4)  
PHYS 1880 Astronomy Laboratory (1)  
GEOL 2101 Physical Geology (5)

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Physical  
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GEOL 3030 Earth and Life Through Time (5)

*Electives from the following (8-11 units):*

CHEM 1102 General Chemistry (5), 1103 General Chemistry (5), 1602 Basic Chemistry for the Health Sciences (4), 1603 Basic Chemistry for the Health Sciences (4); GEOL 1201 Introduction to Oceanography (4), 1202 Oceanography Laboratory (2), 2300 Natural Disasters (4), Conservation of Natural Resources (5), 3020 Gemstones (4), 3040 Fundamentals of Meteorology (4), 3050 Volcanoes and Plate Tectonics (4), 3051 Volcanoes Laboratory (2), 3100 Geology of Western National Parks (4), 3110 Principles of Geomorphology (4), 3200 Regional Field Geology (1-2), 3400 General Oceanography (4), 3810 Structural Geology (5), 4320 Hydrogeology (4); PHYS 3700 The Big Bang and Other Cosmologies (4)



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## Education: Interdisciplinary

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### Department Information

Interdisciplinary Studies Cluster  
School of Education and Allied Studies  
Office: Arts and Education Bldg. 109  
Phone: (510) 885-7418

*Professors:* Emily Lowe Brizendine (ISC Coordinator)

*Associate Professor:* Nan P. Chico (Coordinator of Online Teaching and Learning Option), Bijan Gillani (Coordinator of Graduate Programs in Educational Technology Leadership)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### General Information

The Interdisciplinary Studies Cluster (School of Education and Allied Studies) program is built on the recognition that there are some issues that cross disciplines or professional areas within the School of Education. It develops cross-disciplinary courses and experiences for students at the same time it provides a base for those subjects, programs, and faculty not currently embraced by any one department. It promotes interdisciplinary collaboration among students and faculty in the School of Education, builds partnerships, and broadens program offerings for current and new students. By involving faculty from three or more departments in common endeavors, the Interdisciplinary Studies Cluster actively encourages cross-departmental renewal and innovation.

See Education: Interdisciplinary in the graduate section for descriptions of 5000-level courses.

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### Undergraduate Courses

*The course prefix for the following courses is EDUI.*

- 3000** Tutoring/Mentoring in Classrooms and Community Settings (3)  
An introduction to the theories and methods of tutoring students in classrooms and community settings. Application of psychological and educational learning principles to the tutoring process. Development of tutor

communication and mentoring skills, as well as diagnostic/prescriptive tutoring methods.

- 3010** Service Learning as an Educational Practice (4)  
An introduction to the use of community service as a vehicle for students to learn basic core curriculum competencies of math, English/language arts, history/social sciences, and science. The theoretical and pedagogical underpinnings of the service learning movement in schools. Includes a service learning experience in a school setting (K-12). (F, W, Sp)
- 3020** Service Learning Experience (1)  
Supervised experience in a community service activity in a school setting. Emphasis is on participating in school improvement and services to youth. Prerequisite: EDUI 3000 or EDUI 3010. May be taken up to three times for credit. Three hrs./week (F, W, Sp)



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## Physics

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### Department Information

Department of Physics  
School of Science  
Office: North Science 231  
Phone: (510) 885-3401

*Professors:* Robert H. Good, Charlie Harper (Chair), Frank Martino, Daryl W. Preston

*Associate Professor:* Gary Weston

*Assistant Professor:* Thomas J. Bensky

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

In physics, one attempts to discover, formulate, explain, and apply the basic laws of nature. You could be a physicist and work in areas as diverse as astrophysics, relativity, properties of materials, or the standard model of fundamental particles and interactions. Principles of physics provide the foundation for other sciences as well as engineering. Some of the examples of modern technological development from the application of physical principles include radio and television, computers, laser scanners, and communication by fiber optics. In addition, physicists explore problems in astronomy and theories for the origin and evolution of the universe.

The Bachelor of Science degree major program is designed to give students an understanding of the fundamentals of physics including concepts of atomic and nuclear physics, classical mechanics, wave motion and sound, electromagnetism and optics, heat and thermodynamics, relativity, quantum mechanics, and elementary particles and their interactions.

## Opportunities

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Power Administrator • Geologist • Geophysicists • Laboratory Assistant • Laser Technician • Metallurgist • Meteorologist • Mineralogist • Oil Well Manager • Park Ranger • Petrologist • Pharmacologist • Pollution Control Technician • Seismologist • Stratigrapher • Technical Writer • Thermodynamic Physicist

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## Features

With relatively small classes and teaching as a major emphasis of faculty members, the physics major involves a considerable amount of individualized instruction. In addition, research done by faculty members often includes student participation.

Hands-on experience is the central theme of the programs and a full range of equipment including microcomputers exists in the department for use in laboratory experiments and classroom demonstrations. Upper division students use modern equipment to conduct experiments in such areas as fiber optics, laser spectra, atomic and molecular spectra, the Zeeman effect, Compton scattering, the Hall effect, the Franck-Hertz experiment, and gamma-ray spectra.

Physics majors have an opportunity to be inducted into the national physics honors society, Sigma Pi Sigma. Additionally, students may join the Society of Physics Students (SPS).

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## Preparation

For Advanced Placement course equivalencies, see Registration chapter.

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## Major Requirements (B.S.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 97 units; the B.S. degree requires a total of 186 units.

- I. Lower Division (42 units)
  - PHYS 1001, 2, 3 General Physics (15)
  - CHEM 1101, 2, 3 General Chemistry (15)
  - MATH 1304, 1305, 2304 Calculus I, II, III (12)
  
- II. Upper Division (55 units)
  - MATH 3331 Differential Equations I (4)
  - PHYS 3101, 3102 Analytic Mechanics I,II (8)
  - PHYS 3180 Computational Physics (4)
  - PHYS 3250 Modern Physics (4)
  - PHYS 3280 Electronics (4)
  - PHYS 3281, 3282 Experimental Physics I, II (8)
  - PHYS 3301, 3302 Quantum Mechanics I, II (8)
  - PHYS 4001, 4002 Electromagnetism I (8)
  - PHYS 4150 Statistical Mechanics (4)
  - PHYS 4250 Selected Topics (3)

## Sample Program

*Fall*

*Winter*

*Spring*

First Year		
PHYS 1001 (5)	PHYS 1002 (5)	PHYS 1003 (5)
CHEM 1101 (5)	CHEM 1102 (5)	CHEM 1103 (5)
MATH 1304 (4)	MATH 1305 (4)	MATH 2304 (4)
Second Year		
PHYS 3101 (4)	PHYS 3102 (4)	PHYS 3180 (4)
MATH 3331 (4)		
Third Year		
PHYS 3250 (4)	PHYS 3281 (4)	PHYS 3282 (4)
PHYS 3280 (4)	PHYS 3301 (4)	PHYS 3302 (4)
Fourth Year		
PHYS 4001 (4)	PHYS 4002 (4)	PHYS 4150 (4)
PHYS 4250 (1)	PHYS 4250 (1)	PHYS 4250 (1)

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

## Minor Requirements

The minor in physics is designed to provide a general background in physics for students majoring in other areas. It is of particular value to students majoring in such sciences as biology, chemistry, computer science, geology, and mathematics. A minor in physics will broaden student's understanding of physical science and will expand employment opportunities, including teaching at the secondary school level. The minor consists of 47 units.

- PHYS 1001, 1002, 1003 General Physics (15)  
(With departmental approval. PHYS 2701, 2702, 2703 may be substituted.)
- MATH 1304, 1305, 2304 Calculus (12)
- MATH 3331 Differential Equations (4)
- PHYS 3101 Analytic Mechanics (4)
- PHYS 3180 Computational Physics (4)
- PHYS 3250 Modern Physics (4)
- At least one upper division physics course (4)

## Undergraduate Courses

*The course prefix for the following courses is PHYS.*

- 1001**, General Physics (5 each)
- 1002**, [CAN PHYS SEQ B = PHYS 1001, 1002, 1003]
- 1003** All major fields of physics are covered in this sequence. This sequence is designed for physics, physical science, geology (B.S.), and chemistry (B.S.) majors. MATH 1304, 1305, 2304 are corequisites or prerequisites. Each course is a prerequisite of the one following. Four hrs. lect., 3

hrs. lab., each. (1001: F; 1002: W; 1003: Sp)

1001 Newtonian Mechanics and Oscillations

1002 Thermodynamics and Electromagnetism

1003 Optics and Modern Physics

- 1500 How Things Work (4)  
A conceptual look at how popular and common things work, what they mean in an everyday way, and how they all fit together in one working unit. Not for physics major credit.
- 1600 Evolution of the Universe (4)  
Construction of an evolutionary synthesis and history from the Big Bang to the present. A model of events for the formation of the universe, our solar system, and the earth. Not for physics major credit.
- 1700 Elementary Physics (4)  
A non-mathematical survey of the basic physical laws (rules) of nature with emphasis on the origin, meaning, significance, and limitations of these laws. Topical areas include mechanics, wave motion, electricity and magnetism, heat and thermodynamics, relativity, quantum theory, and elementary particle theory. Not applicable to the physics major. (A)
- 1780 Elementary Physics Laboratory (1)  
A lab designed to accompany PHYS 1700 and to introduce students to some equipment used in physics. The experiments are hands-on activities in mechanics, wave motion and sound, temperature and heat, electricity, light, and radioactivity. Not applicable to the physics major. Three hrs. lab. (A)
- 1800 Astronomy (4)  
A descriptive survey of astronomy, astrophysics, and cosmology. Emphasis is on the physical nature and evolution of galaxies, stars, and planets. Not applicable to the physics major. (A)
- 1880 Astronomy Laboratory (1)  
A lab designed to accompany PHYS 1800 and PHYS 3700. Experiments are hands-on activities involving positions and motions of the moon, planets, and stars. Some night observations are included. Not applicable to the physics major. Three hrs. lab. (A)
- 2005 The Science of Energy (4)  
A descriptive course covering energy resources, production, and consumption in the 21st century. Energy input and output of physical systems such as household appliances and modes of transportation. Not for physics major credit. (W)
- 2021 Physics in the 21st Century (4)  
A descriptive survey of state-of-the-art topics in physics, projected research, and their impact on life in the 21st

century. Topics selected from such areas as atomic physics, astrophysics, optical engineering, high-energy and particle physics, telecommunication, nuclear science, and condensed matter. Not for physics major credit.

- 2023 Physics of Perception (4)  
A descriptive survey covering properties and uses of mechanical (e.g., sound), electromagnetic (e.g., light) and matter (e.g., electron microscope) waves. Applications to observational astronomy, telecommunication, medical diagnoses, and our perception of the world in which we live. Not for physics major credit.
- 2701, 2702, 2703 Introductory Physics (4 each)  
[CAN PHYS SEQ A = PHYS 2701, 2702, 2703]  
2703 A three-quarter sequence in general physics, designed primarily for students taking the B.S. biological sciences (including pre-professional students), chemistry (B.A.), and geology or for non-science majors requiring a good foundation in physics. Knowledge of algebra and trigonometry required. For students who are not majoring in physics. Three hrs. lect., 3 hrs. lab each. (2701: F, W; 2702: W, Sp; 2703: Sp, Su)
- 2701 Force, Mass and Motion  
Prerequisite: Trigonometry or MATH 1300.
- 2702 Heat, Sound, Electricity and Magnetism  
Prerequisite: PHYS 2701.
- 2703 Light and Modern Physics  
Prerequisite: PHYS 2702.
- 3101 Analytic Mechanics I (4)  
An intermediate introduction to Newtonian and advanced mechanics with applications: conservation laws, conservative and non-conservative systems, the central force problem, Kepler's laws of planetary motion, and two-particle collisions. Prerequisite: PHYS 1003; MATH 3331 recommended. (F)
- 3102 Analytic Mechanics II (4)  
Further study in mechanics with applications: small oscillations, the linear harmonic oscillator, anharmonic oscillators, coupled oscillators and normal modes, mechanical wave motion, hydrostatics, and hydrodynamics. Prerequisites: PHYS 3101; MATH 3331 recommended. (W)
- 3180 Computational Physics (4)  
Computer simulation methods applied to the physics of particles, fields, and waves; use of numerical methods to solve physics problems involving matrices, systems of equations, integral and differential equations; introduction to interfacing and data acquisition techniques.  
Prerequisites: PHYS 3101; MATH 3331 recommended.  
Two hrs. lect., 6 hrs. lab. (Sp)
- 3250 Modern Physics (4)  
An introduction to relativity, quantum nature of radiation,

wave properties of particles, atomic and nuclear physics, and elementary particles. Prerequisites: PHYS 3101 and 3180; MATH 3331 recommended. (F)

- 3280 Electronics (4)  
Analog and digital devices and circuits. Emphasis is on developing familiarity with instrumentation circuits. Diodes, transistors, linear amplifiers and logic devices. Optical, thermal, and acoustic transducers as detectors in sensor circuits. Prerequisites: PHYS 1003 or consent of instructor. Cross-listed with ENGR 3280. Two hrs. lect., 6 hrs. lab. (F)
- 3281 Experimental Physics I (4)  
Laboratory safety, research literature, writing scientific reports, oral presentations, experimental design, and statistical treatment of experimental data. Microcomputer interfacing, uses of microcomputers in experimentation and control. Experiments involving transmission lines and electromagnetism, atomic physics, molecular physics, condensed matter, and nuclear physics with emphasis on spectroscopy. Prerequisites: PHYS 3180, 3250, and 3280. Two hrs. lect., 6 hrs. lab. (W)
- 3282 Experimental Physics II (4)  
Further study in experimental physics. Experiments involving transmission lines and electromagnetism, atomic physics, molecular physics, condensed matter, and nuclear physics with emphasis on spectroscopy. Prerequisites: PHYS 3180, 3250, and 3280; PHYS 3281 is recommended. Two hrs. lect., 6 hrs. lab. (Sp)
- 3301 Quantum Mechanics I (4)  
An introduction to quantum mechanics: the Schrodinger wave equation, constant potential problems in one- and three-dimensions, and the linear harmonic oscillator. Prerequisites: PHYS 3101, 3180, and 3250; MATH 3331 recommended. (W)
- 3302 Quantum Mechanics II (4)  
Further study in quantum mechanics: angular momentum, hydrogen atom, and approximation methods. Prerequisites: PHYS 3102, 3180, and 3301; MATH 3331. (Sp)
- 3700 The Big Bang and Other Cosmologies (4)  
A descriptive course on the cosmological origin and evolution of the universe. Historical review of cosmological models and discussion of current theories. Stellar and galactic origin and evolution, stellar energy, the early universe, open and closed universes, and the search for extra-terrestrial life. (A)
- 3800 Achievements of Women in Science (4)  
See BIOL 3800 for course description.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A



maximum of 4 units will be accepted toward the physics major; a maximum of 2 units will be accepted toward the minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity.

- 4001 Electromagnetism I (4)  
An intermediate treatment of electricity and magnetism including Maxwell's equations; electrostatics, currents, magnetism and electromagnetic induction. Prerequisites: PHYS 1003 and 3180; MATH 3331. (F)
- 4002 Electromagnetism II (4)  
Further development based on Maxwell's equations; special relativity in electromagnetism; electromagnetic waves and wave guides; radiation from charges and antennae; ac circuitry. Prerequisites: PHYS 3180, and 4001; MATH 3331. (W)
- 4150 Statistical Mechanics (4)  
Applications of the laws of thermodynamics and distribution laws; unified approach to thermodynamics and statistical mechanics. An introduction to the methods of classical and quantum statistics with applications: ideal and real gases, solids, photon gas, Boson gas, Fermion gas, and critical phenomena. Prerequisites: PHYS 3180 and 3302. (Sp)
- 4250 Selected Topics (1)  
The study of an area of physics that is not normally available in other courses and/or an extension of topics covered in other courses. May be repeated for credit with different topics. Prerequisites: senior standing in physics. (F,W,Sp)
- 4900 Independent Study (1-4)



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## Educational Psychology

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### Department Information

Department of Educational Psychology  
School of Education and Allied Studies  
Office: Art & Education Bldg., 369  
Phone: (510) 885-3011

*Professors Emeriti:* David H. Frey, John A. Guthrie, Alvin H. Jones, Jr.

*Professors:* Theodore G. Alper, Jacki L. Anderson, Steven E. Crapo, Mary P. diSibio, Ann Halvorsen, Frederick E. Heslet, Phyllis G. Kaplan, Donald P. McKillop (Chair), Harry M. Overline, Beatrice O. Pressley, Dan Romero, Douglas G. Sprague, Derald W. Sue, Arthurlene Towner

*Associate Professor:* Greg Jennings

*Assistant Professors:* Bonnie S. Ho, Steve Williams

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Special Education Option: Liberal Studies

The department offers the core requirements for the Special Education Option in Liberal Studies, Area VII (see the Liberal Studies section for a full description of the Liberal Studies major; see Educational Psychology in the graduate section for descriptions of 5000-level courses).

Core Requirements (14 units)  
(See the Educational Psychology chapter in the graduate section of this catalog for course descriptions.)

- EPSY 5021 Introduction to Educating ALL Students in Diverse Classrooms (4)
- EPSY 5121 Counseling, Communication, and Collaboration (4)
- EPSY 5125 Educational Practices: Mild-Moderate Disabilities (4)
- EPSY 5136 Educational Practices: Moderate-Severe Disabilities (4)

While the department offers primarily graduate courses, it also offers the following courses for undergraduates who are interested

in Counseling, Clinical Child Psychology, and Educational Psychology. Seniors interested in transitioning to a master's degree program in any of these areas may want to consider applying for graduate credit while still an undergraduate (see Baccalaureate Degree Requirements chapter). Courses listed at the 5000 and 6000 level under Educational Psychology in the Graduate section of this catalog may also be taken for graduate credit with the same approved petition, but instructor's approval is required prior to registration.

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## Undergraduate Courses

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*The course prefix for the following courses is EPSY.*

- 1000** Strategies for Academic Excellence (3)  
Strategies for excellence and survival in organizations with special emphasis on the university environment. Time and skills management, interpersonal communications, and the self in systems and groups. CR/NC grading only.
- 1001** Career Planning for College Students (2)  
For students who are unclear about their career goals. Discussion, individual and small group activities designed to increase students' self-knowledge in terms of interests, abilities, and values, as well as information about the world of work and effective decision making techniques. Credit/No Credit only. Not applicable to General Education-Breadth Requirements. (A)
- 3210** Movement Analysis and Awareness (3)  
(See DANC 3210 for description.)
- 4000** Acting and Psychotherapy (3)  
Integration of theories of acting with theories of psychotherapy. Application of acting techniques to psychotherapy practice, and application of psychotherapeutic techniques to the development of acting skills. (Y)
- 4325** Lesbian and Gay Lifespan Development (4)  
(See HDEV 4325 for description.)



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## Political Science

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### Department Information

Department of Political Science  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4092  
Phone: (510) 885-3221

*Professor Emeritus:* James L. Nichols

*Professors:* David Sadofsky Baggins, James S. Fay, Sherman L. Lewis, Emily Stoper

*Associate Professor:* Norman A. Bowen

*Assistant Professor:* Arthur L. Burris, Kim Geron

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The political science curriculum helps students to acquire an organized body of knowledge about government and to think analytically about public policy, law, and politics. The political science degree prepares graduates to enter careers in government, public service, public administration, public policy analysis, legislative advocacy, business, international relations, and teaching. Many Cal State Hayward political science graduates continue their academic careers in law school, or in the pursuit of graduate degrees in political science or public policy analysis.

### Career Opportunities

Administrative Assistant • Attorney • Campaign Aide/Manager • Diplomat • FBI/CIA Agent • Foreign Service Officer • International Relations Specialist • Journalist • Labor Organizer/Union Representative • Law Clerk • Legislative Advocate/Lobbyist • Legislative Aide • Paralegal • Legal Assistant • Police Officer •

Politician • Polling Specialist • Private Investigator • Public Administrator • Public Information Officer • Research Specialist • Secret Service Agent • Teacher

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## Features

The political science major offers a Pre-Law Option for students planning a career in law. For students contemplating a career in public administration, the Public Affairs and Administration Option is designed to meet their needs. The Political Science department offers a Major, a Minor, and a Liberal Studies Option. Special features of the Political Science major include: the Intercollegiate Model United Nations Club; field trips to Sacramento and to State and Federal courts; guest political speakers; pre-law advising; local, Sacramento, Washington, and political campaign internships; College Democratic and Republican clubs; and the Political Science Club.

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## Preparation

For Advanced Placement course equivalencies, see Registration chapter.

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The regular major consists of 56 units; the Pre-Law Option consists of 60 units; the Public Affairs and Administration Option consists of 64-65 units. The B.A. degree requires a total of 186 units.

### The Traditional Political Science Major

#### I. Lower Division (4-16 units)

##### A. POSC 1201 American Political Institutions (4)

##### B. Students may take an additional 4-12 units of lower division courses, chosen from the following:

POSC 1000 Introduction to Political Science (4), 1100 Critical Thinking About Political Issues (4), 1202 Public Policy/California Politics (4), 1300 Politics of Developing Countries (4), 1400 Introduction to Public Affairs and Administration (4), 1500 Conflict in World Politics (4), 2000 Political Forum (1), 2001 Politics, the Self, and Society (4)

#### II. Upper Division (40-52 units)

##### A. POSC 3010 Political Inquiry: Scope and Methods (4)

##### B. One course in each of the following five fields (20)

1. American Government and Public Administration (includes courses listed under Public Policy and Administration)
2. Public Law

3. Comparative Government and Politics
4. International Relations
5. Political Theory

C. POSC 4910 Political Science Seminar (4)

D. Twelve (12) to twenty-four (24) additional units from upper division political science courses

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

#### Pre-Law Option

*Also see "Pre-Law Students" later in this chapter.*

Students taking this option will focus their coursework in legal studies. Completion of this program will lead to a B.A. degree, major in Political Science with an Option in Pre-Law. The total required for the major with Pre-Law Option is 60 units. The total required for the B.A. degree is 186 units.

Two quarters before you expect to graduate, complete a major check sheet and inquire about other requirements for graduation. The following is an outline indicating specific courses and options necessary for completing the option in pre-law.

#### I. Foundation Courses (20 units)

- POSC 1201 American Political Institutions (4)
- POSC 1202 Public Policy/California Politics (4)

One lower or upper division course in International Relations (4)

One lower or upper division course in Comparative Government (4)

One upper division course in Political Theory (4)

#### II. The Political and Policy Context of the Law (16 units)

*Choose 16 units from the following:*

H SC 3350 Health Legislation and Government Programs (4); MGMT 4500 Business, Government and Society (4); any Political Science course listed under the headings "American Government and Politics" or "Public Policy and Administration."

#### III. Public Law (20 units)

*Choose 20 units from the following:*

ANTH 3440 Anthropology of the Law (4); MGMT 2701 Legal Environment of Business (4), 4680 Collective Bargaining and Labor Law (4); PHIL 3503 Philosophy of Law (4); any

Political Science course listed under the heading "Public Law."

IV. Capstone (4 units)

POSC 4910 Political Science Seminar (4)

Public Affairs and Administration Option

Students taking this option will concentrate their coursework in American political institutions, public policy, and administrative processes. Completion of this program will lead to a B.A. degree major in Political Science, with an Option in Public Affairs and Administration.

Since several courses overlap (ECON 2301, 2302, ACCT 2210 or 2251, ACCT 2270, MGMT 4500), the department encourages students who pursue this option to consider combining it with the Minor in Business Administration.

The major with this option consists of 64-65 units; the B.A. requires a total of 186 units. The course requirements for this option are as follows:

I. Lower Division (24-25 units)

ECON 2301 Principles of Microeconomics (4)

ECON 2302 Principles of Macroeconomics (4)

POSC 1201 American Political Institutions I (4)

POSC 1400 Introduction to Public Affairs and Administration (4)

At least one course from two of the following groups (8-9 units):

*Group I*

STAT 1000 Elements of Probability and Statistics (5)

STAT 2010 Elements of Statistics for Business and Economics (5)

*Group II*

ACCT 2210 Accounting for Non-Business Majors (4)

ACCT 2251 Principles of Accounting (4)

*Group III*

CS 1020 Introduction to Computers (4)

CS 1160 Introduction to Computer Science and Programming Methods (4)

STAT 3900 Statistical Package for Social Sciences (4)

Or any substitute approved by the Political Science department.

II. Upper Division (40 units)

A student must take 36 units of upper division coursework chosen from the following three groups:

*Group I - Public Affairs and Administrative Processes*  
(at least 12 units)

ECON 3370 Public Finance (4); POSC 3800 Public Policy Analysis (4), 3870 Introduction to Public Personnel (4), 4450 Administrative Law (4), 4861 Politics of Budgeting (4); PUAD 4800 The Study of Public Administration (4), 4830

Organization Theory & Human Behavior (4)

*Group II - Political Institutions and Processes* (at least 8 units)

Choose 8 units from any Political Science courses listed under the heading "American Government and Politics."

*Group III - Public Affairs and Public Policy* (at least 8 units)

H SC 3350 Health Legislation & Government Programs (4);  
MGMT 4500 Business, Government and Society (4); any  
Political Science course listed under the heading "Public  
Policy and Administration," if not used under Group I.

*Capstone Course (4 units)*

POSC 4910 Political Science Seminar (4)

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## Pre-Law Students

The study of law is a postgraduate professional program, requiring three years of full-time study beyond the completion of the bachelor's degree. No specific pre-law undergraduate program is required for admission to law schools. However, students wishing to focus on legal studies at Cal State Hayward, may complete the Pre-Law Option in the Political Science major.

Students intending to enter law school commonly complete undergraduate majors in political science, economics, business, or history. The pre-law student's undergraduate plan of study should include among its objectives a facility in the proper use of written and spoken English, a sampling of undergraduate law courses, one or more critical/logical thinking courses, and a basic understanding of government and economics. Some law schools recommend that students take a basic accounting course, particularly if they are interested in business or tax law.

Students planning to enter law school should consult a pre-law advisor. Dr. David Baggins of the Department of Political Science, who is an attorney, serves as the university pre-law advisor. Several other departments also have pre-law advisors.

Most accredited law schools require that applicants complete the Law School Admission Test. The LSAT is typically given in September, December, February, and June at one or more testing centers in the Bay Area. Pre-law students should obtain LSAT registration materials and law school applications early in their senior year. Copies of these materials can be secured from the Office of Assessment and Testing Services and from the Department of Political Science. The Political Science department library has a copy of the Law School Guidebook and many law school catalogs.

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## Minor Requirements

The minor consists of 24 units of Political Science courses of which at least 16 units must be in upper division. The purpose of the Minor in Political Science is to provide a general background in political science to complement majors in such areas as business administration, environmental studies, science, humanities, and the other social sciences. The student should consult with a Political Science department advisor or the chairperson in selecting courses.



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## Political Science Option: Liberal Studies

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## Undergraduate Courses

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Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

1. Four (4) units from the following:  
POSC 1201<sup>1</sup> or 3100<sup>1</sup> or their equivalent
2. Twenty (20) additional Political Science units of which sixteen (16) must be upper division

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*The course prefix for the following courses is POSC.*

### Lower Division Courses

- 1000** Introduction to Political Science (4)  
Introduction to the study of politics and government, surveying the concepts and approaches of political science. (Y)
- 1100** Critical Thinking About Political Issues (4)  
An examination of important political issues in the context of evidence, logic, proof, premises, analogies, and other aspects of critical thinking. (Y)
- 1201** American Political Institutions (4)  
Development of political institutions and ideals in the U.S. Key elements of the political system, including the Constitution, Presidency, Congress, Courts, parties, elections, and bureaucracy. Combined with POSC 1202 meets code requirements in U.S. history, U.S. Constitution and California government. (A)
- 1202** Public Policy/California Politics (4)  
Issues in American public policy, focusing on contemporary controversies (environment, poverty). California state and local government. Basic methodology including how to interpret public opinion data, electoral polls, statistics about public policy. Combined with POSC 1201, meets U.S. History and Institutions requirement. Prerequisite: POSC 1201. (A)
- 1300** The Politics of Developing Countries (4)  
Problems facing the Third World. Topics include: decolonization, the military, leadership and democracy, liberation movements, nationalism, ethnic conflict, development strategies, tradition and modernization, religion, population, the environment, grass roots movements. Third World strategies to effect change in the world system. (Y)
- 1400** Introduction to Public Affairs and Administration (4)  
Politics and administration of public policy, the policy-making process, administrative leadership and ethics, bureaucratic institutions, organization dynamics, intergovernmental relations, citizen influence and input in

public affairs and administration. (Y)

- 1500 Conflict in World Politics (4)  
Causes of conflict. Topics include Iraq and Desert Storm, Bosnia, the Middle East, and Third World conflicts. Analysis of foreign aggression, civil war, terrorism, ethnic struggle, nationalism, boundary disputes, military force, sanctions, peacekeeping, mediation, disaster relief, and economic aid. (Y)
- 2000 Political Forum (1)  
Student and faculty presentations and discussions on matters of broad political interest. Course may be repeated up to eight times; up to four units may be applied to the political science major or minor. CR/NC grading only. (F, W, Sp)
- 2001 Politics, the Self, and Society (4)  
How political institutions and theories in different nations shape and are shaped by individuals and the social order. Emphasis on Western and Eastern Europe and selected developing nations.

## Upper Division Courses

### *American Government and Politics*

- 3020 Values in Politics, Administration, and Law (4)  
Issues involving values in U.S. politics, administration, and law, using a case study method. Questions raised in the course include: When is political action corrupting? Can law provide justice? Does administration undermine democracy? When is political violence justified to overcome injustice?
- 3100 American National, State and Local Government (4)  
Relationships of various governments in the United States; the organization, processes and problems of national, state and local government. Meets code requirements in the U.S. Constitution and in California state and local government. May not be taken for credit in the political science major or by students who have already had POSC 1201 or equivalent. (Y)
- 3101 American Government in Simulation (4)  
The institutions of the U.S. national government, such as the Congress, the courts and party conventions, studied through the use of simulations, both electronic and classroom, in which all students participate.
- 3111 The American Presidency (4)  
Study of the American Presidency both historically and analytically with an emphasis on roles and powers; the struggle between the President and Congress; the leadership role of the President in government, political parties, and public opinion. (Y)
- 3112 Congress and the California Legislature (4)  
Background and recruitment of Congressmen and state

legislators, elections, the rules of the game, constituent representation, the committee system, leadership, relations with the Executive Branch, lobbyists, and reform proposals. Field trip to the California legislature. Emphasis on sources of information about Congress for the concerned citizen. (Y)

- 3113 Political Internship (2-4)  
Practical experience on a legislative or executive staff or in a campaign organization. May be repeated once for credit with permission of instructor. (F, W, Sp)
- 3120 State and Local Politics and Government (4)  
The structures, processes, policies, political culture and power distributions of governments of states, cities, suburbs, small towns, metropolitan areas and neighborhoods. Special reference to California and San Francisco Bay Area institutions and problems. Satisfies the California state and local government code requirement. (Y)
- 3130 Urban Politics (4)  
Styles and structures of city government; community power studies; community control and metropolitan government; problems of crime, welfare, finance, education, pollution, planning; emphasis on the Bay Area. (Y)
- 3150 Politics of California (4)  
Political culture, electoral systems, and public policy in California. Field trip to the California Legislature. Satisfies code requirement in California state and local government. (Y)
- 3300 Voting and Public Opinion (4)  
Nature and causes of voter turnout and vote choice. Determinants and effects of public opinion. Methodology used for measurement and analysis of these subjects. Prerequisite: STAT 1000 or 1100.
- 3310 Political Parties and Campaigning (4)  
Party organizations in U.S. and California, historical changes in party operations, political machines and patronage, money in politics, party labels, the differences and similarities between the major parties, minor parties, the new style of campaigns, professional campaign management firms, the prospects for reform. (Y)
- 3330 Interest Groups, Lobbying, and Political Reform (4)  
Private power and American public policy; the nature and sources, strategy and tactics of pressure group power in the American political process. Business, labor, agriculture, the professions, minority groups, and religion as organized groups influencing political decision making. (Y)
- 3333 Ethnic and Minority Politics (4)  
Contemporary and historic analysis of ethnic and minority participation in the political process. Voting, elections, interest groups, political machines, office holders, activists, strategies, and common participatory patterns. Cross-listed

with E S 3333.

- 3340 Women and Politics (4)  
Public policy relating to American women; impact of the women's movement on public policy and political behavior; women as voters, political activists, political office-holders; the function of sex roles in the political system. (Y)
- 3350 American Politics in the Era of Vietnam and Watergate (4)  
Analysis of the Watergate and Vietnam crises in American politics. Origins and course of the Vietnam war; rise of presidential power; congressional, media, and popular reaction; fall of the Nixon Administration; long-term effects on the American political system and on American foreign policy. (Y)
- 3360 Culture and Politics in the United States (4)  
How political personality is formed by cultural experience in the U.S. Influences such as generational effects, gender, region, ethnicity and sexual identity. News reporting, literature, movies and television as sources of the development of political personality.

*Public Policy and Administration*

- 3170 Public Policy and the Family (4)  
The evolution of and current controversies over American government policies on the family, including abortion, family planning, marriage, divorce and custody, child care subsidies, wife battering, child abuse, and welfare. Impact of policies on the poor and minority groups, as well as on middle class whites. (Y)
- 3370 Citizen Action (4)  
How can citizens help solve the most important problems of our society? Power, competition and compromise in democracy and reform; case studies. The flow from policy knowledge and values to advocacy and action.
- 3800 Public Policy Analysis (4)  
Surveys the formulation, implementation, and impact of public policy dealing with social and economic problems. Examines and evaluates the causes and content of government policy in various areas such as civil rights, social welfare, urban affairs, crime, education, health, environment, energy, taxation. (Y)
- 3801 Welfare Politics (4)  
Women's significant contributions to the evolution of American welfare politics. Reform of welfare, social security, health care as shaped by gender, race/ethnicity, and class politics. Impact of policy changes on gender, race/ethnicity, and class relations. International restructuring of welfare politics.
- 3870 Public Personnel Management (4)  
Politics, history, values and contemporary issues related to employment in the public sector. Topics include discriminatory practices, affirmative action efforts, training and development programs, comparable worth pay

systems, collective bargaining, and constitutional rights of employees. (Y)

- 4171 Public Policy and the Environment (4)  
Politics of human-environment relationships. Sustainability, biodiversity, population, consumption, technology, energy, water, resources, recycling, pollution, and urban systems. Cultural values, paradigm change, science, risk analysis, market pricing, competition of networks, and citizen action. Significant written assignment integrates theory and practice. (Y)
- 4172 Public Policy and Health (4)  
Research and reports on the development and administration of public policy with regard to medicine and health care; problems of organization and financing of health care services, health insurance, medical research, and health worker programs in the United States. (Y)
- 4861 Politics of Budgeting (4)  
Politics and governmental budgeting; executive-legislative relationships, interest group activities, and citizen demands; the budget as an instrument for management, planning, and policy-making at federal, state, and local levels. (Y)

*Comparative Government and Politics*

- 3201 Political Systems of Western Europe (4)  
The governments and politics of Great Britain, France, Germany, and other Western European nations. Development and expansion of the European Union. (Y)
- 3204 Political Systems of Asia (4)  
An analysis of politics in selected Asian countries. The degree of emphasis on particular countries and areas such as China, India, Japan, and Southeast Asia varies. (Y)
- 3222 Government and Politics of Eastern and Central Europe (4)  
The politics of the formerly communist states of Eastern and Central Europe. Countries covered include Russia, Ukraine, Poland, Romania, the Balkans and others. New democratic institutions and economic development. Links with Western Europe. (Y)
- 3230 Government and Politics in the Middle East (4)  
Introduction to the study of contemporary politics in the Middle East. Comparative approach, analyzing the political, social, religious and economic aspects of the area.
- 3260 Government and Politics of Africa South of the Sahara (4)  
The governments of the nations of Africa south of the Sahara, with special reference to comparative colonial policies, nationalist movements, political parties, and the problems of nation building; comparative economic systems and the roll of the military. (Y)
- 3280 Political Systems of Latin America (4)  
Political development, instability, and revolution in a

comparative framework. Case studies of political development in major countries; group conflicts, ideology, administrative problems, and the role of violence. (Y)

*Public Law*

- 3410 Law and Society (4)  
Rise of the American legal system and evolution of values in the law. Courts in the political system and the policy impact of modern legal initiatives. (F, W, Sp)
- 3417 Survey of American Law (4)  
The basic elements of the American legal system, its essential values, and its impact on society. Personal injury, contracts, criminal law, regulation, and international law. Emphasis on case law as the basis for exploring the legal system. (Y)
- 3441 American Constitutional Law I (4)  
The American Constitution as a model of government. The role of democracy, federalism, assumptions regarding human nature, citizenship, separation of powers, capitalism, and issues of empire building. (Y)
- 3442 American Constitutional Law II (4)  
The Bill of Rights as interpreted by Court decisions since its adoption. Topics include freedom of speech, religion, equal protection, and personal privacy. Emphasis on the relationship among rights, politics, judicial behavior and public policy. (Y)
- 3460 Environmental Law (4)  
Legislative, judicial, and administrative controls over public and private actions impacting on the environment. Examination of statutory, administrative, and judicial decisions relating to the environment and of government actors and agencies making these decisions. (Y)
- 3470 International Law (4)  
The rules that govern governments and world bodies. Includes treaties, law of the sea, environmental protection, use of force, terrorism, and markets. Focus on the movement toward global community. Not open to students with credit for POSC 3951.
- 3503 Philosophy of Law (4)  
(See PHIL 3503 for course description.)
- 4450 Administrative Law (4)  
Administrative function in American national and state systems: foundations of administrative power; judicial supervision of administration; status of regulatory and quasi-judicial agencies; delegation of legislative and executive powers. Cross-listed with PUAD 4450. (Y)

*International Relations*

- 3500 World Problems and Global Response (4)  
Arms control, human rights, development, debt, women's rights, world population, environmental protection, and technology transfers. Analysis of key actors (United Nations, specialized agencies, national governments, non-

governmental organizations) and policy alternatives.  
Student opportunity to work with local organizations. (Y)

- 3505 American Foreign Policy (4)  
National security, economic and development assistance policies since World War II. Current policy choices and the constitutional conflict between Congress and the President. Rule of the State Department, the military, the CIA, and non-governmental organizations (labor, business, and veterans). (Y)
- 3506 Russian Foreign Policy (4)  
Historical, ideological, geopolitical, and economic roots of Russian and Soviet foreign policy. Origins and conclusions of the Cold War in retrospect. Russian relations with former Soviet lands, Eastern and Western Europe, the United States, and developing nations. The Soviet and Russian roles in the arms race and arms control. (Y)
- 3507 European Integration and Security (4)  
Origins of European integration. The European Union, Conference on Security and Cooperation in Europe, NATO, and the European Parliament. Border restrictions. Pan European laws and regulations. The expansion of the European Union and NATO to Central Europe. Tensions with neighbors. (Y)
- 3508 Politics of Filipino-American Relations (4)  
Filipino-American relations within the context of Filipino nationalism and America's rise as a superpower.
- 3510 War and Peace (4)  
Major power security concerns, regional alliances, and Third World countries. Analysis of nuclear, chemical, biological, and conventional arms proliferation and arms control. Military doctrine and weapons systems, conflict resolution, peacekeeping, and peace movements. Student opportunity to work with local organizations. (Y)
- 3520 International Relations (4)  
The conduct of relations among states. The international system, national power, sovereignty, nationalism, ideology; use of diplomacy, propaganda, economic influence, military force; problems of neocolonialism, multinational corporations, racial tensions, nuclear deterrence, war, the role of the United Nations. (Y)
- 3521 Politics of the Global Economy (4)  
International trade and development assistance. Focus on GATT, the World Trade Organization, the G7 nations, and the International Monetary Fund. Problems of transnational corporations, labor standards, and migration. Global liberalism compared with collectivist economies. Ecological, participatory, regional and nationalist challenges. (Y)
- 3550 The United Nations and World Community (4)  
Historical, institutional and theoretical background of the contemporary United Nations and related agencies; focus on participation of selected countries in the UN structure and operations with regard to current international



problems and issues. May be repeated for credit by students participating in Model UN. (Y)

*Political Theory*

- 3020 Values in Politics, Law, and Administration (4)  
(See American Government and Politics section for description.)
- 3703 American Political Thought (4)  
Significant American political ideas and thinkers from the Pilgrims to the present. Includes, among others, Jefferson, Madison, Calhoun, King, and Gingrich. (Y)
- 3704 Marxism in Theory and Practice (4)  
The writings of Marx and the characteristics of Marxism in the 20th century. (Y)
- 3711 Greek, Roman and Medieval Political Thought (4)  
Major Western political ideas from the Greeks through the 15th century. Emphasis upon major political theorists in the development of classical Greek and Roman, Medieval Christian, and Renaissance political theory. Cross-listed with HIST 3711. (Y)
- 3712 Early Modern Political Thought (4)  
Major Western political ideas from 1500 to 1800. Emphasis upon major figures in the development of modern scientific, natural rights, nationalistic, and power theories. Cross-listed with HIST 3712. (Y)
- 3713 Contemporary Political Thought (4)  
Major Western political ideas in the 19th and 20th centuries. Emphasis upon central figures in the development of Democratic, Marxist, Socialist, and various other contemporary bodies of political theory. (Y)
- 3715 The State and the Family (4)  
The relationship between the public and private spheres. The relationship between the state and family as perceived by political theorists. The home as a metaphor for public life; the patriarchal and other modes of government and the family; the interdependence of the family, the economy, and the state; the family as haven of resistance in a hostile political environment. Classical political theory texts and contemporary writings.
- 3716 Citizenship, Community, and Democratic Theory (4)  
The duties and rights of citizenship, personal and ethnic identities, and evolving democratic theory. Specific issues raised by contemporary politics: national service, immigration policy models of citizenship participation, dismantling the welfare state, utopian and contemporary notions of community, and affirmative action. Classical and contemporary texts.
- 3717 Theories of Imperialism (4)  
Major theories and debates about imperialism, its history, its modern manifestations, and its status and future in the



post-Cold War era.

*General*

**3003** The Political Film (4)

The strengths and weaknesses of film as a medium of political expression. Topics include propaganda, revolution, war, poverty, myth, documentary, campaigns, and political personality. (Y)

**3010** Political Inquiry: Scope and Methods (4)

Analysis of central concepts and research techniques in political science through examination of selected studies in the development of the discipline. (F)

**3898** Cooperative Education (1-4)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Political Science major; a maximum of 4 units will be accepted toward the Political Science minor. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

**4900** Independent Study (1-4)

**4910** Political Science Seminar (4)

Contributions of natural and social science theories, methods, results for political science; scope and method of political science; individual research on selected topics. Open to seniors only. Registration priority given to political science majors and minors. Prerequisite: POSC 3010. (Y)

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## Footnotes

- 1** POSC 1201 and 3100 may not both be taken for credit.



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## Engineering

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### Department Information

Engineering Program  
Office: Warren Hall 771  
Phone: (510) 885-2654

*Professor Emeritus:* Stuart T. Klapp

*Professors:* S. David Aviel, Bijan Mashaw, Russell L. Merris,  
Zinovy D. Radovilsky, Ytha Y. Yu

*Associate Professors:* Joyendu Bhadury (Director), Alexander  
Bordetsky, Guido A. Krickx, Farzan Roohparvar, Gary S. Weston

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Industrial Engineering is the profession concerned with solving engineering and management problems by applying scientific logic and systems methodology and by utilizing information, energy, materials, facilities, and personnel most effectively. Its objectives are to improve quality and the efficient production of goods and services and to act as the interface between technology and humans. Engineering methods and practical knowledge are used in formulating decision models for the optimum application of engineering and management principles.

### Career Opportunities

Administrative Consultant • Associate Consultant • Distribution Manager • Efficiency Expert • Industrial Engineer • Management Engineer • Manufacturing Engineer • Production Planner • Product Line Manager • Product Transition Engineer • Project Engineer • Quality Assurance Project Leader • Sales Engineer • Software Engineer • Supplier Engineer • Supplier/Quality Assurance Engineer • Technical Writer

## Features

Students may elect to prepare for a specific professional concentration by judicious selection of electives in consultation with their faculty advisors. Professional concentrations may include production and service engineering, systems engineering, and quality management. Students interested in Industrial Engineering at Cal State Hayward may complete the first two years at a local community college. In so doing, it is important to determine, prior to taking courses, if the community college courses chosen have been articulated with the Cal State Hayward Industrial Engineering curriculum. Selected upper division courses in the Cal State Hayward Industrial Engineering program will be taught by faculty of other California State University campuses using distance learning facilities. In addition, some laboratory courses and the senior projects will be offered in conjunction with local businesses. The Industrial Engineering Option is offered at both the Hayward and Contra Costa Campuses.

## Preparation

Prospective Engineering students should complete four years of high school mathematics, a year each of high school chemistry and physics with labs, and a computer programming course if available. A technical drawing course is strongly recommended if available. Students should complete the calculus sequence in their freshman year of college because all the sophomore-level engineering courses have calculus prerequisites. Several of the sophomore-level classes also have physics and chemistry prerequisites which should be completed in the freshman year if possible.

## Major Requirements (B.S.)

### Option in Industrial Engineering

The major with this option consists of 136 units. The B.S. Degree requires 196-204 units.

- I. Lower Division (74 units)
  - CHEM 1601 Basic Chemistry (4)
  - CS 1160 Introduction to Computer Science and Programming Methods (4)
  - ECON 2301 Principles of Microeconomics (4)
  - ENGR 1010 Introduction to Engineering (2)
  - ENGR 1440 Introduction to Design and Manufacturing (4)
  - ENGR 2010 Electric Circuit Theory (3)
  - ENGR 2060 Materials Engineering (4)
  - ENGR 2110 Engineering Statics (3)
  - ENGR 2120 Engineering Dynamics (3)
  - ENGR 2140 Strength of Materials (3)
  - ENGR 2230 Work Design and Measurement (4)
  - ENGR 2390 Industrial Costs and Controls (4)
  - MATH 1304 Calculus I (4)
  - MATH 1305 Calculus II (4)
  - MATH 2304 Calculus III (4)
  - PHYS 1001, 1002, 1003 General Physics I, II, III (15)
  - PSYC 1000 General Psychology (5)

Most of the lower division ENGR courses are available at local community colleges. Community college students should take them prior to transferring to Cal State Hayward. Lower division Cal

State Hayward students may take these courses at their local community colleges through cross-registration agreements if they are not available at Cal State Hayward.

- II. Upper Division Core Requirements (46 units)
- ENGR 3140 Engineering Economy (4)
  - ENGR 3190 Human Factors Engineering (4)
  - ENGR 4100 Production Planning and Control (4)
  - ENGR 4200 System Simulation (4)
  - ENGR 4300 Quality Engineering (4) (MGMT/ENGR 3626 may be substituted with director's approval.)
  - ENGR 4610 Senior Project (1, 1)
  - MATH 3331 Differential Equations (4)
  - MATH/ENGR 3841 Linear Programming (4)
  - PHYS 3280 Electronics (4)
  - STAT 3502 Statistical Inference I (4)
  - STAT 3503 Statistical Inference II (4)
  - STAT/ENGR 4401 Introduction to Stochastic Processes (4)

III. Electives (16 units)

Select sixteen units from the following list with advisor's approval:

CIS/ENGR 3281; ENGR 3560, 4080, 4090, 4130, 4160, 4180, 4310, 4330, 4350, 4430, 4550, 4990; MATH/ENGR 4841; MGMT 3110, MGMT/ENGR 3600.

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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Sample  
Program

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Industrial Engineering

Freshman Year

CHEM 1601 (4)  
CS 1160 (4)  
ENGL 1001 (4)  
ENGR 1010 (2)  
ENGR 1440 (4)  
GS 1010 (3)  
LIBY 1010 (1)  
MATH 1304-5, 2304 (12)  
PSYC 1000 (5)  
G.E. Critical Thinking (4)  
G.E. Oral Communication (4)  
G.E. Science (4)

Sophomore Year

ECON 2301 (4)  
ENGL 1002 (4)  
ENGR 2010 (3)  
ENGR 2060 (4)  
ENGR 2110 (3)  
ENGR 2140 (3)  
PHYS 1001-2-3 (15)  
G.E. Humanities (12)  
G.E. Social Sciences (8)

Junior Year

*Fall Quarter*

ENGR 3190 (4)  
MATH 3331 (4)

*Winter Quarter*

ENGR 2120 (3)  
ENGR 2230 (4)

MATH 3841 (4)  
STAT 3502 (4)

PHYS 3280 (4)  
ENGR elective (4)

*Spring Quarter*

ENGR 2390 (4)  
ENGR 3140 (4)  
STAT 3503 (4)  
Upper Division G.E. (4)

Senior Year

*Fall Quarter*

ENGR 4300 (4)  
ENGR 4610 (1)  
ENGR electives (8)  
Upper Division G.E. (4)

*Winter Quarter*

ENGR 4200 (4)  
ENGR 4610 (1)  
ENGR elective (4)  
Upper Division G.E. (4)  
U.S. History/Institutions (4)

*Spring Quarter*

ENGR 4100 (4)  
STAT 4401 (4)  
G.E. Performing Arts/Activities  
(4)  
U.S. History/Institutions (4)

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## Undergraduate Courses

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*The course prefix for the following courses is ENGR.*

- 1010** Introduction to Engineering (2)  
Development of the industrial economy and the profession of industrial engineering. Concepts and principles of industrial organization and management. Survey of engineering techniques and areas of application in manufacturing and service systems. Career opportunities review. One hr. lect., 2 hrs. lab.
- 1440** Introduction to Design and Manufacturing (4)  
Parameter-driven, surface bounded, solid modeling (CAD/CAM) exercises. Critical and necessary relationships among design, drafting, and manufacturing. Introduction to electronic fabrication systems and conventional machining and assembly processes. Prerequisite: high school drafting course. Two hrs. lect., 6 hrs. lab.
- 2010** Electric Circuit Theory (3)  
Application of fundamental circuit laws and theorems to the analysis of DC and to steady-state single-phase and three-phase circuits. Prerequisites: MATH 3331, PHYS 1003, or equivalents.
- 2060** Materials Engineering (4)  
Structure of matter. Physical and mechanical properties of materials including metals, alloys, ceramics, insulating materials, semiconductors, super semiconductors, and polymers. Equilibrium diagrams. Heat treatments, material selection, and corrosion phenomena. Prerequisite: CHEM 1102. Three hrs. lect., 3 hrs. lab.

- 2110 Engineering Statics (3)**  
Analysis of forces on engineering structures in equilibrium. Properties of forces, moments, couples, and resultants. Equilibrium conditions, friction, centroids, area moments of inertia. Introduction to mathematical modeling and problem solving. Vector mathematics where appropriate. Prerequisites: MATH 2304 (or concurrently), PHYS 1001, or equivalents.
- 2120 Engineering Dynamics (3)**  
Analysis of motions of particles and rigid bodies encountered in engineering. Velocity, acceleration, relative motion, work, energy, impulse, and momentum. Further development of mathematical modeling and problem solving. Vector mathematics where appropriate. Prerequisites: ENGR 2110, MATH 2304, PHYS 1001, or equivalents.
- 2140 Strength of Materials (3)**  
Stresses, strains and their relations applied to axial, torsional and flexural loads. Statically indeterminate axial members, beams and shafts. Columns, dynamic loads, repeated loads. Tension, compression, bending, shear, and torsion tests. Use of the SR-4 strain rosette for determining principal strains. Prerequisites: ENGR 2110, MATH 2304, PHYS 1001, or equivalents.
- 2230 Work Design and Measurement (4)**  
Principles of work simplification and motion analysis. Recording of work flow and methods. Work measurement and standards, time study, synthetic data, predetermined time systems, and work sampling. Allowances and performance rating, productivity measures. Work design improvement. Military standards. Prerequisites: ENGR 1440, MATH 1304. Three hrs. lect., 3 hrs. lab.
- 2390 Industrial Costs and Controls (4)**  
Estimation of manufacturing costs for production planning, cost analysis, and cost control. Planning, budgeting, and control processes. Costs, accounting data, and analysis of variances for managerial control, inventory valuation, and decision making. Techniques of forecasting, pricing, cost estimating, and cost reduction. Prerequisites: ENGR 1440, 2230; MATH 1304.
- 3140 Engineering Economy (4)**  
Economic analysis of engineering decisions. Determining rates of return on investments. Effects of inflation, depreciation and income taxes. Application of basic principles and tools of analysis using case studies. Prerequisites: ECON 2301, MATH 1305.
- 3190 Human Factors Engineering (4)**  
Analysis of factors influencing the efficiency of human work. Data on the physical and mental capacities of persons, the physical environment, work organization, and the problem of aging. Human reactions and capabilities related to specific tasks and systems. Design of machines, operations, human computer interface and work environment to match human capacities and limitations,

including the handicapped. Prerequisite: PSYC 1000 and junior standing.

- 3280 Electronics (4)  
(See PHYS 3280 for course description.)
- 3281 Systems Analysis and Design I (4)  
(See CIS 3281 in Business Administration chapter for course description.)
- 3560 Manufacturing Automation (4)  
Technical survey of topics in production automation and related systems including flowline production, numerical control, industrial robotics, material handling, group technology, flexible manufacturing systems, automated inspection, process control, and computer integrated manufacturing (CIM). Three hrs. lect., 3 hrs. lab.  
Prerequisites: ENGR 1440, 2010; 2110; CS 1160; PHYS 3280.
- 3600 Theories of Management (4)  
(See MGMT 3600 in Business Administration chapter for course description.)
- 3626 Total Quality Management (4)  
(See MGMT 3626 in Business Administration chapter for course description.)
- 3841 Linear Programming (4)  
(See MATH 3841 for course description.)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Engineering major. CR/NC grading only. Prerequisites: at least a 2.5 GPA, junior or senior standing, departmental approval of activity.
- 4080 Systems Engineering (4)  
Systems, subsystems, static, dynamic, closed and open systems. Systems design requirements. Performance measures. Process control modeling and analysis; transform methods; linear systems analysis; digital, adaptive, and steady state optimal control. Optimal search strategies. Manufacturing, maintenance, replacement and engineering applications. Prerequisites: MATH 3331, STAT 3502.
- 4090 Economic Decision Systems (4)  
Economic evaluation of information for complex decisions. Analysis of risks and uncertainties. Bayes theory and models. Decision theory, sequential decisions, and value of information applied to financial evaluation and control. Major project justification procedures. Prerequisites: ENGR 3140, STAT 3502.
- 4100 Production Planning and Control (4)  
Inventory planning and control systems. Implementation of manufacturing resource planning including demand

forecasting, production planning, master scheduling, bill-of-material, and inventory master file. Capacity requirements planning and shop floor control. Prerequisites: ECON 2301, ENGR 1440, STAT 3502. Three hrs. lect., 3 hrs. lab.

- 4130 Flexible Manufacturing Systems (4)  
Structure of flexible manufacturing systems. Planning and control for FMS. Tool management and operations control. Application of techniques related to production scheduling decisions. Cellular manufacturing and production flow analysis. Case studies of flexible manufacturing systems. Computer applications. Prerequisites: MATH 3331, STAT 3502.
- 4160 Automation of Industrial Systems (4)  
Automation in manufacturing and warehousing. Economic selection of automation systems. Projects in automation. Prerequisite: ENGR 3360. Three hrs. lect., 3 hrs. lab.
- 4180 Product-Process Design (4)  
Unification of product design, process engineering, tool development, and product manufacturing; concurrent engineering. Manufacturability constraints in terms of prototyping, designing, testing, pre-production support, processing, quality, delivery, and customer satisfaction. Prerequisites: ENGR 3140, 3560. Three hrs. lect., 3 hrs. lab.
- 4200 System Simulation (4)  
Design and analysis of manufacturing and service systems by simulation. Function of random variables. Random number and function generators, programming and characteristics of simulation languages. Three hrs. lect., 3 hrs. lab. Prerequisites: CS 1160, STAT 3502.
- 4300 Quality Engineering (4)  
Quality control, reliability, maintainability, and integrated logistic support. Statistical theory of process control and sampling inspection. Risks associated with decisions based on operating characteristics of control charts and sampling plans. Reliability and life testing methods. Economics of statistical QC. Prerequisites: MATH 1305 or 1820, STAT 3503.
- 4310 Supplier Quality Engineering (4)  
Customer-supplier partnership. Supplier selection, development, process qualification, concurrent engineering, value engineering, mistake proofing. Process characterization, repeatability, consistency, statistical process control. Supplier certification, survey, audit, rating, measurement of quality and delivery performance. Customer services, corrective action approaches. Prerequisite: ENGR 4300.
- 4330 Advanced Work Measurement (4)  
Predetermined time systems. Time formulas. Standard data systems. Use of statistical methods. Standard data systems applied to clerical, manufacturing, and micro assembly. Developing and maintaining computerized systems. Prerequisites: ENGR 2230, CS 1160, STAT



3502. Three hrs. lect., 3 hrs. lab.

- 4350** Reliability Engineering (4)  
Reliability concepts and mathematical models, mechanical device reliability, electrical device reliability, systems reliability and maintainability, reliability data, assurance program elements. Prerequisites: ENGR 4300, CS 1160.
- 4430** Facilities Planning and Design (4)  
Design concepts and input requirements in planning and design of new or renovation of existing manufacturing systems. Product, process, and flow and activity analysis techniques. Flow lines and buffering techniques. Computer-aided layout design and evaluation. Design of handling systems. Math models of location problems. Prerequisite: ENGR 3560. Three hrs. lect., 3 hrs. lab.
- 4401** Introduction to Stochastic Processes (4)  
(See STAT 4401 for course description.)
- 4550** Manufacturing Design and Implementation (4)  
A mix of industry and in-house structured group projects, using process, tool, computer control, quality knowledge, and societal considerations. Projects progress through a complete manufacturing cycle from design through implementation. Field trips to manufacturing centers. Prerequisites: ENGR 4180, CHEM 1102, CS 1160, ECON 2301, MATH 3331, PHYS 1003, STAT 3502. Prerequisite or concurrent: ENGR 4300. Twelve hrs. lab.
- 4610** Senior Project (1)  
Faculty supervised projects typical of problems which graduates encounter in their professions and which involve costs, planning, scheduling and research. Formal written report, suitable for reference library, discussing methods, results and conclusions. Minimum 150 hours total time. Prerequisites: Senior standing (within 3 quarters of graduation) and director's approval. May be repeated once for credit.
- 4841** Topics in Optimization (4)  
(See MATH 4841 for course description.)
- 4900** Independent Study (1-4)
- 4990** Special Topics for Upper Division Students (1-4)  
Group study of a selected topic, the title to be specified in advance. Maximum of 4 units per quarter and 8 units total. Prerequisite: permission of instructor.



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## Preprofessional Programs

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*Please consult the 2001-2002 online catalog for any changes that may occur.*

### The Medical Sciences

A student interested in entering medicine, dentistry, optometry, pharmacy, physical therapy, veterinary science, or allied health sciences should contact the Preprofessional Health Advisory Program at the Department of Physics office, SCN 231.

The Preprofessional Health Advisory Program at the Department of Physics office will direct the student to a preprofessional advisor to receive program information and individual counseling about meeting the requirements for admission to professional schools. The composite letter of evaluation, drafted by the preprofessional advisor and approved by the chair of the committee, represents the official campus analysis of the student for professional schools. If letters of evaluation from individuals are required or desired by a professional school, they are the responsibility of the student.

The required courses for the various professional fields do not comprise a major, therefore the student is free to select any major. Accordingly, in addition to the preprofessional advisor, each student must also select a major advisor on the same basis as do all other students at the university. Admission to professional schools is highly competitive. Consequently, the major selected should be one representing an alternate career objective satisfactory to the student.

Students intending to enter the medical or dental professions should plan on completing a baccalaureate degree with an appropriate academic major. Many premedical and predental students major in biological sciences or chemistry, but majors in the social sciences and the humanities are acceptable to medical and dental schools, provided the specified courses in science have been completed.

Admission to medical and dental schools is restricted to those students who have developed a facility in the use of English and in quantitative thinking, who have mastered the fundamentals of the physical and biological sciences, and who have studied in depth one of the major fields of knowledge.

Cal State Hayward is an official test center for the Medical College Admission Test (MCAT). The MCAT is administered twice yearly, in Spring and Fall, under the auspices of the Assessment & Testing Office. Premedical students are urged to schedule this test for Spring of their junior year.

The Dental Admission Test, required of all predental students, may be taken by application in Spring or Fall. Predental students

should plan to take this test in Spring of their junior year. Contact the Assessment and Testing Office for further details.

Courses such as ANTH 3720 (Medical Anthropology), HSC (Medical Care in the U.S.), PHIL 3152 (Biomedical Ethics) and SOC 4720 (Medical Sociology) will be of value to students preparing for interviews at professional schools. Some of these courses may be counted for General Education, depending upon the major.

The sample programs below contain courses required by most professional schools and courses recommended as preparation for national tests. Consult a preprofessional advisor for program modifications.

## Sample Programs for Preprofessional Students

**Medicine** (including allopathic, osteopathic, podiatric, and veterinary medicine)

### First Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
CHEM 1101 (5)	CHEM 1102 (5)	BIOL 1301 (5)
MATH 1130 <sup>1</sup> (4)	MATH 1300 (4)	CHEM 1103 (5)
ENGL 1001 <sup>1</sup> (4)	ENGL 1002 (4)	MATH 1304 (4)

### Second Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
BIOL 1302 (5)	BIOL 1303 (5)	BIOL 3121 (5)
CHEM 3301 (5)	CHEM 3302 (5)	CHEM 3303 (5)
MATH 1305 (4)		STAT 3031 (4)

### Third Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
BIOL 3122 (4)	CHEM 3400 (4)	PHYS 2703 (4)
PHYS 2701 (4)	PHYS 2702 (4)	

### Fourth Year

Completion of Major and General Education requirements.  
Completion of courses (e.g., BIOL 3150 Principles of Physiology, CHEM 2200 Quantitative Analysis) required by particular professional schools.

## **Dentistry**

### First Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
CHEM 1101 (5)	CHEM 1102 (5)	BIOL 1301 (5)
MATH 1130 <sup>1</sup> (4)	MATH 1300 (4)	CHEM 1103 (5)
ENGL 1001 <sup>1</sup> (4)	ENGL 1002 (4)	PSYC 1000 (5)

### Second Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
BIOL 1302 (5)	BIOL 1303 (5)	BIOL 3121 (5)
CHEM 3301 (5)	CHEM 3302 (5)	CHEM 3303 (5)
		STAT 3031 (4)

#### Third Year

<i>Fall Quarter</i>	<i>Winter Quarter</i>	<i>Spring Quarter</i>
BIOL 3122 (4)	CHEM 3400 (4)	PHYS 2703 (4)
PHYS 2701 (4)	PHYS 2702 (4)	

#### Fourth Year

Completion of Major and General Education requirements.  
 Completion of courses required by particular professional schools.

#### **Allied Health Fields**

The following programs are offered by the university in the allied health fields. The Department of Biological Sciences has an Option in Biomedical Laboratory Sciences (formerly Medical Technology) in its B.S. degree major. Options in Athletic Training, Exercise Physiology, Exercise Nutrition and Wellness, and Pre-Physical Therapy are available in the Department of Kinesiology and Physical Education. The Department of Nursing and Health Sciences has a B.S. degree major in Nursing and Health Sciences and an M.S. degree in Nursing. The graduate department of Educational Psychology has an M.S. in Counseling. Both B.S. and M.S. programs in Speech Pathology and Audiology are offered as well as a Clinical Rehabilitative Services Credential. The M.P.A. degree has an option in Health Care Administration. These programs are described in the alphabetical listing in this catalog. Please contact the appropriate departments and schools for additional information.

#### Certificate in Pre-Physical Therapy

The certificate requirements, as proposed, can be met by completing 55-56 lower division units and 23-24 upper division units as shown below.

- I. Lower Division (55-56 units)
  - BIOL 1301, 1303 Foundations of Biological Sciences (5, 5)
  - BIOL 2010, 2020 Human Physiology and Anatomy I, II (5, 4)
  - CHEM 1101, 1102, 1103 General Chemistry (5, 5, 5)
  - PHYS 2701, 2702, 2703 Introductory Physics (4, 4, 4)
  - PSYC 1000 General Psychology I (5)
  - STAT 1000 Elements of Probability and Statistics (5) or STAT 1100 Elements of Descriptive and Inferential Statistics (4)
- II. Upper Division (23-24 units)
  - Completion of the following courses:
    - BIOL 3005 Introduction to Microbiology (5) or BIOL 4160 Medical Physiology (4)
    - KPE 3305 Structural Kinesiology (5)
    - KPE 3310 Biomechanics (5)
    - KPE 3320 Exercise Physiology (5)
    - PSYC 4410 Abnormal Psychology (4)

Field Observation and Voluntary Participation  
 Students enrolled in the program must complete one to three

quarters of field observation and volunteer participation in physical therapy at cooperating agencies. Evidence of such fieldwork can be gained by liaison with appropriate personnel at these agencies.

#### Additional Courses

Additional courses may be needed to meet the requirements of specific programs in Physical Therapy. Examples are given below. Students are advised to consult a preprofessional advisor.

BIOL 4160 Medical Physiology (4)  
CHEM 2301/2302 Survey of Organic Chemistry (4, 4)  
KPE 4340 Motor Development (4)  
PSYC 4420 Developmental Psychology (4)  
C S 1020 Basic Programming (4)

#### Pre-Law Studies

The study of law is a postgraduate professional program, usually requiring three years of full-time study beyond the completion of the bachelor's degree. No specific pre-law undergraduate program is required for admission to law schools. However, for students wishing to focus on legal studies at Cal State Hayward, the Political Science Department has a Pre-Law option in the Political Science Major.

Students intending to enter law school commonly complete undergraduate majors in political science, economics, business, or history. The pre-law student's undergraduate plan of study should include among its objectives a facility in the proper use of written and spoken English, a sampling of undergraduate law courses, one or more critical/logical thinking courses, and a basic understanding of government and economics. Some law schools recommend that students take a basic accounting course, particularly if they are interested in business or tax law.

Students planning to enter law school should consult a pre-law advisor. Dr. David Baggins of the Department of Political Science, who is an attorney, serves as the university pre-law advisor. Several other departments also have pre-law advisors.

Most accredited law schools require that applicants complete the Law School Admission Test. The LSAT is typically given in September, December, February, and June at one or more testing centers in the Bay Area. Pre-law students should obtain LSAT registration materials and law school applications early in their final year of college. Copies of these materials can also be secured from the pre-law advisor in the Department of Political Science and from the Office of Assessment and Testing, WA 438. The Political Science Department Library also has a copy of the Law School Guidebook and many law school catalogs.

#### Natural Resources

Students contemplating transferring to various programs in the College of Natural Resources and Sciences at Humboldt State University or the College of Natural Resources at the University of California, Berkeley, can complete a number of the prerequisite courses at Cal State Hayward.

As the requirements differ among the various programs and may change from time to time, it is important to check with the appropriate departments of Humboldt State and U.C. Berkeley

about the current information. The following courses at Cal State Hayward serve as prerequisites for most of the Natural Resources majors: BIOL 1301-2-3, CHEM 1101-2-3, MATH 1300, and either PHYS 1101-2-3 or 2701-2-3.

### Pre-Theological Studies

The American Association of Theological Schools recommends that students anticipating graduate theological education take a broad liberal arts program leading to the B.A. degree. Cal State Hayward recommends that pre-theology students complete the Religious Studies Option in the Philosophy Major. A reading knowledge of at least one language other than English must be acquired. Students should elect courses which will sharpen their conceptual processes (logic, scientific method, literary or historical research) and should have more than an introduction to the world of people and ideas, the world of nature, and the world of human affairs. It is also possible to complete a minor in religious studies. (See the minor listed in undergraduate Philosophy chapter.) Students planning to enter theological schools should consult the Department of Philosophy (MI 4006) about their major and baccalaureate degree.

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## Footnotes

- 1 See department for placement tests required prior to registration.



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## English

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- ▶ [English Option: Liberal Studies](#)
- ▶ [Single Subject Matter Preparation Program](#)
- ▶ [Competency Program In Written English](#)
- ▶ [Undergraduate Courses](#)

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### Department Information

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Department of English  
School of Arts, Letters, and Social Sciences  
Office: Warren Hall UM79  
Phone: (510) 885-3151

*Professor Emerita:* Marcelline Krafchick

*Professors:* Eileen Barrett, Zelda Boyd, Charles DeBose (Chair),  
Jacob Fuchs, Kathleen Margaret Lant, Donald Markos, Sara  
McAulay, E. J. Murphy, Marilyn Silva

*Associate Professors:* Jacqueline Doyle, Stephen D. Gutierrez,  
Keiko Tanaka, Alison M. Warriner

*Assistant Professors:* Dennis M. Chester, Judith Lopez, Ke Zou

*Please consult the 2001-2002 online catalog for any changes that  
may occur.*

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### Program Description

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Contrary to popular opinion, most students who major in English do not become public school teachers, although many do choose a career in teaching. Rather, English majors go into all areas of business and government, and wherever else the ability to read and write the English language effectively leads to opportunities for advancement and success. The English major is a widely recognized and respected preparation for graduate degrees in law, medicine, social services, and business. It also provides an excellent foundation for free-lance and broadcast journalism. The academic backgrounds of management personnel in private and public organizations attest to how appropriate the English major is for those who pursue careers in management and administration.

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## Career Opportunities

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## Preparation

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## Major Requirements (B.A.)

Advertising Copy Writer • Author/Critic • Bookstore Manager • Continuity Writer • Corporate Communications Director • Foreign Service Officer • Freelance Journalist/Writer • Greeting Card Editor/Writer • Lawyer • Librarian • Media Specialist • Newspaper Reporter • Public Information Officer • Publication Editor • Publicity Director • Publishing Agent • Radio/TV Agent • Script Writer • Teacher/Professor • Technical Writer

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For Advanced Placement course equivalencies, see Registration chapter.

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Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 64-76 units; the B.A. degree requires a total of 186 units.

I. Core Curriculum (32 units)

(While ENGL 1001 and ENGL 1002 are not listed as core requirements in the major, they are prerequisites for core classes and campus graduation requirements.)

ENGL 2030 Introduction to Critical Writing on Prose Fiction (4)

ENGL 2040 Introduction to Critical Writing on Poetry (4)

ENGL 2050 Introduction to Critical Writing on Drama (4)

ENGL 3010 Modern English Grammar (4)

ENGL 3020 Advanced Expository Writing (4)

ENGL 4251 Introduction to Shakespeare (4)

One upper division English course in British Literature before 1900 (4)

One upper division English course in American Literature before 1900 (4)

II. Courses in Supporting Fields (0-12 units)

Majors must complete, with grades of C-/CR or better, one year of a college-level foreign language or must pass a translation test administered by the English Department.

III. Option Requirements (32 units)

The Department of English offers several options for degree candidates. Majors must choose one of the following options: British and American Literature, Creative Writing, Interdisciplinary Language and Literature Studies, Language and Discourse, and New Voices in English Literature.

A. British and American Literature (32 units)

ENGL 3080 Theory and Practice of Literary Criticism (4)

ENGL 4151 Introduction to Chaucer (4)

One upper division English course in Medieval or Renaissance literature (4)

One upper division English course in Restoration or 18th Century literature (4)



One upper division English course in British literature of the 19th Century (4)

One upper division English course in American literature of the 20th Century (4)

One upper division English course in the literature of an ethnic or cultural minority (4)

One upper division English course elective (4)

B. Creative Writing (32 units)

ENGL 2070 Beginning Workshop in Poetry (4)

ENGL 3070 Intermediate Workshop in Fiction (4)

ENGL 3070 Intermediate Workshop in Fiction (a second time) (4) or ENGL 3075 Intermediate Workshop in Poetry (4) or ENGL 3071 Writing Women's Lives - A Workshop (4) or ENGL 3090 Electronic Journal Workshop (4)

ENGL 4070 Advanced Workshop in Fiction (4)

ENGL 4070 Advanced Workshop in Fiction (a second time) or ENGL 4075 Advanced Workshop in Poetry (4)

ENGL 4090 Project and Portfolio (4)

Two upper division English electives (8)

C. Interdisciplinary Language and Literature Studies (32 units)

In formal consultation with three professors—two from the English Department and one from a department other than English—and with the approval of the department chair, students may put together a program of 32 upper division units in literature, language, rhetoric, or writing drawn from various departments in the university. (16 of these units must be in English).

D. Language and Discourse (32 units)

ENGL 3005 Study of Language (4)

ENGL 3015 Introduction to Phonology (4) or ENGL 3030 Introduction to Semantics (4)

ENGL 3040 Linguistic History of the English Language (4)

ENGL 4010 Current Theories in Formal Grammar (4)

ENGL 4040 Introduction to American Dialects (4)

ENGL 4060 Topics in Language (4)

Two upper division English electives (8)

(Courses in language/linguistics from departments other than English may be used for these two elective courses with the permission of the department chair.)

E. New Voices in English Literature (32 units)

ENGL 3080 Theory and Practice of Literary Criticism (4)

ENGL 3691 Black Literature I (4)

ENGL 3692 Black Literature II (4)

ENGL 4450 Studies in British Women's Literature (4) or

ENGL 4650 Studies in American Women's Literature (4)

One upper division course in the literature of the 20th

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## Minor Requirements

century (4)

Two upper division courses in the literature of an ethnic or cultural minority (8)

One upper division elective (4)

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### I. English (32 units)

The minor in English consists of 32 units, excluding ENGL 1001 and 1002, approved by an English Department advisor.

At least one course in writing beyond the freshman level; after completing ENGL 1001, choose from ENGL 2030, 2040, 2070, 3003, 3020, 3070, 3075, 4070, 4075, 4080. (Apply units to either lower or upper division units below.)

English courses, excluding ENGL 1001 and 1002

Lower Division (0-12)

Upper Division (20-32)

### II. Creative Writing (32 units)

Any candidate for the bachelor's degree (except for English majors with the Creative Writing option) may also elect to obtain a Minor in Creative Writing. After completing ENGL 1001, (s)he must complete 32 quarter units, approved by a Creative Writing advisor.

ENGL 2070 Beginning Workshop in Fiction (4)

Select a minimum of 20 quarter units from:

ENGL 3070 Intermediate Workshop in Fiction (4)

ENGL 3071 Writing Women's Lives - A Workshop (4)

ENGL 3075 Intermediate Workshop in Poetry (4)

ENGL 3090 Electronic Journal Workshop (4)

ENGL 4070 Advanced Workshop in Fiction (4)

ENGL 4075 Advanced Workshop in Poetry (4)

ENGL 4080 The Art of Translation (4)

ENGL 4900 Independent Study in Creative Writing

(maximum of 4 quarter units) (1-4)

Upper division Modern American or British literature, or

genre courses (4-8)

*Note:* Creative writing courses may be repeated for credit. See course descriptions for limitations.

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## English Option: Liberal Studies

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

Twenty-four units of upper division English courses (3000-4000 level) not used for areas I-VI on the major.

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## Single Subject

The Single Subject Matter Preparation Program in English has

## Matter Preparation Program

been approved by the California Commission on Teacher Credentialing as appropriate subject matter preparation for the Single Subject Teaching Credential in English. It may be completed by students in any major but overlaps major requirements to the largest extent in English, but also in Mass Communication, Speech Communication, and Theatre Arts. Eighty to ninety-five units are required in the Single Subject Matter Preparation Program in English.

### I. Core Curriculum (52 units)

- ENGL 2030 Introduction to Critical Writing on Prose Fiction (4)
- ENGL 2040 Introduction to Critical Writing on Poetry (4)
- ENGL 2050 Introduction to Critical Writing on Drama (4)
- ENGL 3005 Study of Language (4) or ENGL 3040 Linguistic History of the English Language (4)
- ENGL 3010 Modern English Grammar (4)
- ENGL 3020 Advanced Expository Writing (4)
- ENGL 3080 Introduction to Critical Theory of Literature (4)
- ENGL 4040 Introduction to American Dialects (4)
- ENGL 4050 Introduction to Second Language Acquisition (4)
- ENGL 4251 Introduction to Shakespeare (4)

Select one upper division course (4 units) in the literature of an ethnic minority from:

- ENGL 3670 Asian/Filipino American Literature (4), 3680 Hispanic/Latino/U.S. Literature (4), 3691 Black Literature I (4), 3692 Black Literature II (4)

Select one upper division course (4 units) in American literature of the 19th and/or 20th centuries from:

- ENGL 4635 Studies in Mid-19th-Century American Literature (4), 4636 Studies in Late 19th-Century American Literature (4), 4637 Studies in 20th-Century American Literature (4), 4860 American Fiction to 1914 (4), 4870 The American Novel, 1914-45 (4)

Select one upper division course (4 units) in British literature of the 19th and/or 20th centuries from:

- ENGL 4411 Studies in Early 19th-Century British Literature (4), 4412 Studies in Late 19th-Century British Literature (4), 4832 British Novel, 1800-1914 (4), 4833 British Novel, 1914-1945 (4)

### II. Practicum (4 units):

- ENGL 4000 Seminar in English Education (2)
- ENGL 4005 Informational and Instructional Technology in the English Classroom (2)

### III. Supplementary Curricula (24-39 units)

Complete one of the following four supplementary curricula.

#### 1. Supplementary Curriculum for English and Related Studies (36 units)

- ENGL 2070 Beginning Workshop in Fiction (4)
- ENGL 3650 Women in Literature (4)
- ENGL 4151 Introduction to Chaucer (4) or ENGL 4260 Milton (4)
- ENGL 4710 Bible for Students of Literature (4) or ENGL 4720 Mythology (4)
- ENGL 4745 Film Criticism (4)

MCOM 2200 Introduction to Journalistic Writing (4)  
SPCH 1000 Principles of Speech Communication (4) or  
SPCH 1004 Interpersonal Communication (4)  
THEA 2310 Interpretive Reading (4)

Select one course (4 units) in British or American literature of the 20th Century from:

ENGL 4816 Modern Drama (4), 4827 20th-Century Poetry (4), 4874 The American and British Novel, 1945-75 (4), 4876 Current American and British Novel (4)

2. Supplementary Curriculum for Speech Communication (32 units)  
SPCH 1004 Interpersonal Communication (4)  
SPCH 3411 Argumentation and Debate (4)  
SPCH 3485 The Power and Use of the Human Voice (4)  
SPCH 3510 Small Group Communication (4)  
SPCH 4183 Speech and Debate Activities Workshop or  
SPCH 4350 Advanced Public Speaking (4)  
SPCH 4830 Intercultural Communication (4)  
SPCH 4880 Conflict Communication (4)

Choose one course (4 units) from the following :

SPCH 4411 Principles of Argumentation (4), 4460 American Public Address (4), 4550 Communication Criticism (4), 4610 Rhetoric of Popular Culture (4), 4850 Female-Male Communication (4), 4860 Ethnic Public Address (4)

3. Supplementary Curriculum for Mass Communication (24 units)  
MCOM 3000 History of Mass Communication (4)  
MCOM 3010 News Reporting and Writing (4)  
MCOM 3110 Law of Mass Communication (4)  
MCOM 3220 Media Workshop-Print (2)  
MCOM 3310 Editing (4)  
MCOM 4010 Public Affairs Reporting (4)
4. Supplementary Curriculum for Drama/Theatre (39 units)  
THEA 1010 All the World's a Stage (4) or THEA 3225 Theatre Today (4)  
THEA 2005 Acting Fundamentals: Improvisation (3)  
THEA 3111 Stagecraft Techniques (4)  
THEA 3112 Costume Techniques (4)  
THEA 3113 Lighting and Sound Techniques (4)  
THEA 4021 Play Direction: Sign and Symbol Theory in Production (4)

Select sixteen units minimum from the following list:

THEA 3201 Classical Greek and Roman Drama (4), 3202 European Medieval and Renaissance Drama (4), 3203 Modern European Drama (4), 3207 Modern American Theatre (4), 3208 Postmodern Theatre (4), 3226 The Woman Artist (4), 3228 Women in Dramatic Literature (4), 3232 Modern Art and Theatre (4), 4375 Ethnic and Immigrant Theatre in the United States

## Competency Program In Written English

*This program is designed for non-native speakers of English.*

English Courses (22-24 units) - After completing all developmental coursework assigned as a result of scoring below 151 on the English Placement Test (EPT), students must complete, with grades of "A," "B," "C," or "CR," the following courses:

- ENGL 0930 Basic Reading, Composition, and Grammar for Non-Native Speakers of English (4)
- ENGL 0931 Listening and Speaking Lab for Non-Native Speakers of English (2) [Optional course: SPPA 0980 Speech Laboratory for Non-Native Speakers of English (2)]
- ENGL 1001 Expository Writing (4)
- ENGL 1101 Adjunct Grammar Workshop and Lab for Non-Native Speakers of English I (2)
- ENGL 1002 Expository Writing II (4)
- ENGL 1102 Adjunct Grammar Workshop and Lab for Non-Native Speakers of English II (2)
- ENGL 3001 Advanced Writing for Non-Native Speakers of English (4) or SPPA 3005 Verbal American English Skills (4)

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## Undergraduate Courses

*The course prefix for the following courses is ENGL.*

### Developmental Writing

Students should consult the section of the catalog entitled "Appropriate Coursework Based on EPT Results" for guidelines in choosing the proper developmental writing course(s). This appears in the Registration chapter at the front of this catalog.

**0801**, The Intensive Learning Experience in Writing I,  
**0802**, II, III (4 each)

**0803** A three-course sequence in basic (remedial) writing, mandatory for students who have scored 141 and below on the English Placement Test (EPT). The workshops focus on the practice of standard written English. Classes may not be used as prerequisites to the Competency Program in Written English for Non-Native Speakers of English. Units do not count toward the baccalaureate degree. Grading is A/B/C/NC only.

**0804**, ILE I, II, III in English for Non-Native Speakers  
**0805**, (4 each)

**0806** Mandatory three-course sequence for non-native speakers who score 141 or below on the EPT. Focus on reading, vocabulary, and writing skills. Students who make exceptional progress may have one of these classes waived. Units do not count toward baccalaureate degree. Grading A/B/C/NC only.

**0910** Developmental Writing I (4)

A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to style and usage. May be repeated twice, for a total of 12 units, with the permission and advice of the instructor or department. Class may not be used as a

prerequisite to the Competency Program in Written English Proficiency for Non-Native Speakers of English. Units do not count toward baccalaureate degree. A/B/C/NC grading only.

- 0915** Developmental Writing I for Non-Native Speakers (4)  
Mandatory course for non-native speakers who score 142-146 on the EPT. A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to style and usage. Part of a two-course sequence with ENGL 0925. Units do not count toward baccalaureate degree. A/B/C/NC grading only. (A)
- 0920** Developmental Writing II (4)  
A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to organization and development. May be repeated twice, for a total of 12 units, with the permission and advice of the instructor or department. Class may not be used as a prerequisite to the Competency Program in Written English for Non-Native Speakers of English. Units do not count toward baccalaureate degree. A/B/C/NC grading only. (A)
- 0925** Developmental Writing II for Non-Native Speakers of English (4)  
Mandatory course for non-native speakers who score 147-150 on the EPT or who score 142-146 and pass ENGL 0915. A writing workshop preparatory to the written communication requirements, ENGL 1001 and 1002. Developing college essay writing skills, with special attention to organization and development. Units do not count toward baccalaureate degree. A/B/C/NC grading only.
- 0930** Basic Reading, Composition, and Grammar for Non-Native Speakers of English (4)  
Focus on reading academic texts and writing essays. Units do not count toward baccalaureate degree. Prerequisites: Satisfactory completion of 800- or 900-level classes except ENGL 0910 or 0920. A/B/C/NC grading only.
- 0931** Listening and Speaking Lab for Non-Native Speakers of English (1)  
Focus on speaking, listening to, and comprehending spoken English. Units do not count toward baccalaureate degree. Co-requisite: Enrollment in ENGL 0930. A/B/C/NC grading only.
- 0988** ESL Tutoring Support for ENGL 0910 (2)  
ESL tutoring support course for first-year students with Total scores of 142-146 on the English Placement Test. Serves ESL students in ENGL 0910 classes linked to first-year G.E. clusters. CR/NC grading only.
- 0989** Tutoring Support for ENGL 1001 (2)

Tutoring support course for first-year students with Total scores of 147-150 on the English Placement Test. Serves students in ENGL 1001 classes linked to first-year G.E. clusters. CR/NC grading only.

## Undergraduate

- 1001** Expository Writing (4)  
[CAN ENGL 2]  
The theory and practice of expository writing, including narration and description. May be repeated for credit, but only the first enrollment may be applied to the Written Communication G.E. requirement. Prerequisite: Total Score of 151 or above on the EPT or exemption from the EPT, ENGL 0920 or 0925 if Total Score on EPT is 142-150, ENGL 0803 if Total Score on EPT is 141 or below. (A)
- 1002** Expository Writing II (4)  
Further work in expository writing with emphasis on argumentation and persuasion. Introduction to the preparation and writing of the research paper. Prerequisite: ENGL 1001 with grade of C- or better. (A)
- 1014** Ancient Literature (4)  
Readings in translation of literature of ancient world, including the cultures of the Middle East, Mediterranean, and Asia. Poetry, drama, and other genres written 1000 BC-800 AD.
- 1101** Adjunct Grammar Workshop and Lab for Non-Native Speakers of English (1)  
Focus on developing accuracy and style in written English. Co-requisite: Enrollment in ENGL 1001.
- 1102** Adjunct Grammar Workshop and Lab for Non-Native Speakers of English II (1)  
Focus on developing accuracy and style in written English. Co-requisite: Enrollment in ENGL 1002.
- 2005** Grammar for Writers (4)  
Instruction in the structure and style of the standard, literary English sentence. Review of traditional grammar and usage, with attention to the integration of the sentence into its logical and rhetorical contexts. (Y)
- 2010** Vocabulary Building (4)  
Designed to help students build varied, precise vocabularies; introduces the historical development and present-day resources of the English vocabulary; special attention given to Latin and Greek word-building prefixes, suffixes and elements. Prerequisite: ENGL 1001. (Y)
- 2016** Grammar and Vocabulary for Writers (4)  
Designed to help students develop accurate grammar and usage and build varied, precise vocabularies for writing proficiency.
- 2030** Introduction to Critical Writing on Prose Fiction



- (4)  
The theory and practice of critical writing, based on readings in prose fiction. Prerequisite: ENGL 1002. (A)
- 2040 Introduction to Critical Writing on Poetry (4)  
The theory and practice of critical writing, based on readings in poetry. Prerequisite: ENGL 1002. (A)
- 2050 Introduction to Critical Writing on Drama (4)  
The theory and practice of critical writing, based on readings in drama. Prerequisite: ENGL 1002. (A)
- 2070 Beginning Workshop in Fiction (4)  
[CAN ENGL 6]  
Introduction to imaginative prose writing of various types with emphasis on basic narrative techniques. Prerequisite: ENGL 1002 and 2030, or permission of instructor. May be taken twice for credit. (A)
- 2120 "Include Me Out": The Presence of Jewishness in American Culture (4)  
The Jewish influence and presence in American culture as reflected in stories, poems, plays, humor, folklore, and popular entertainment.
- 2600 Patterns of Immigration and Migration in U.S. Literature (4)  
Literary works that represent the social, political, and cultural effects of immigration and migration in the U.S.
- 2745 Portrayal of American Groups through Film (4)  
Portrayal of American groups in American cinema, 1950 to the present. Lectures/discussion with films; reading of scripts and essays about film.
- 2999 Literary and Cultural Responses to Technology (4)  
The effects of science and technology on society as portrayed in 20th Century literature from Huxley and Orwell to Clark and Stephenson.
- 3000 Writing for Proficiency (4)  
Regular practice in those writing and proofreading skills necessary for successful performance in the Writing Skills Test. The students' work in the class, not their performance on the WST, will determine their grade for the course. May be repeated, but only 4 units may be counted toward the baccalaureate degree. Not applicable to the General Education-Breadth Requirements nor to the Liberal Studies Major. Prerequisite: ENGL 1002 or its equivalent. A/B/C/NC grading only.
- 3001 Advanced Writing for Non-Native Speakers of English (4)  
Introduces non-native speakers to writing a variety of documents for their individual fields. Includes short research paper. Prerequisite: Satisfactory completion of freshman composition. A/B/C/NC grading only.
- 3003 Discursive Writing (4)



Theory and practice of expository writing; critical reading and evaluation of formal and informal prose. Designed for non-English majors. No credit toward English major requirements. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall Quarter, 1985. Prerequisites: ENGL 1002 and junior standing. (A)

- 3005 Study of Language (4)  
Theory of language and communication; role of language in the personal and social development of the fully "human" being; origins, development, acquisition, and diversity of language; nature and function of symbolic systems; phonology, morphology, syntax, orthography, sign language, and semantics. Prerequisite: ENGL 1001 (Y)
- 3010 Modern English Grammar (4)  
A traditional philological description of the structure of standard written English. Prerequisites: ENGL 1001 and junior standing. (Y)
- 3015 Introduction to Phonology (4)  
An introduction to the methods that linguistics use to describe the sound systems of the language of the world. Particular emphasis given to English sound patterns. Prerequisite: ENGL 1001. (Y)
- 3020 Advanced Expository Writing (4)  
An advanced course in the theory and practice of expository writing. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall Quarter, 1985. Prerequisite: ENGL 1002 and junior standing. (Y)
- 3030 Introduction to Semantics (4)  
An introduction to the study of "meaning" in and through language. Major issues and approaches in semantic theory. Prerequisite: ENGL 3005. (A)
- 3040 Linguistic History of the English Language (4)  
A linguistic approach to the origin and development of English, and its relations to cognate languages. Prerequisites: ENGL 1001 and junior standing. (Y)
- 3045 Advanced Studies in English Vocabulary (4)  
Advanced studies in English vocabulary: etymology, synonymy, word-formation, and meaning-development. Particular attention to Latin and Greek etymology. Course offered in both classroom and online formats. Consult *Class Schedule* for details. May be repeated once for credit when content differs.
- 3070 Intermediate Workshop in Fiction (4)  
Imaginative prose writing, with emphasis on theory and techniques. Classroom analysis of student manuscripts and published stories; individual conferences. Prerequisites: ENGL 2070 and consent of instructor. May be repeated twice for maximum total credit of 12 units. (Y)

- 3071 Writing Women's Lives-A Workshop (4)  
Explores forms of personal narrative, with emphasis on students' own writing. Reading includes journal entries, letters, and autobiographical writings by a diverse cross-section of American women. Cross-listed with WOST 3071. Prerequisite: ENGL 1002 and junior standing.
- 3075 Intermediate Workshop in Poetry (4)  
Practice in form and technique; weekly manuscripts, class criticism, editorial conferences. May be taken three times for credit. (Y)
- 3077 Writing From Life to Video (4)  
Shaping of original material, including personal experiences, into script form for video. Some scripts will be produced as part of creative video program for CSUH Cable TV. Prerequisite: ENGL 2070.
- 3080 Introduction to Critical Theory of Literature (4)  
Examination and application of major critical approaches to literary analysis and interpretation. Prerequisites: English 2030, 2040, 2050 (or equivalents), and upper division standing in the English major.
- 3090 Electronic Journal Workshop (4)  
Team-taught workshop in electronic publishing. Students write, edit, and produce a text-and-graphics "e-zine" for worldwide distribution on the Internet. Hands-on experience in computer graphics and writing for electronic media. Prerequisites: ENGL 1002 and junior standing.
- 3400 Masterworks of British Literature (4)  
A selection of major works, in verse, drama, and prose fiction, from British literature of all ages, medieval to modern. Prerequisite: ENGL 1001 or equivalent.
- 3600 Masterworks of American Literature (4)  
A selection of works, in verse, drama, and prose fiction, from American literature of all periods, colonial to modern. Prerequisite: ENGL 1001 or equivalent.
- 3650 Women and Literature (4)  
Literary works written by women and/or images of women in literature by both female and male authors. The writings of North American authors of various ethnic and cultural backgrounds. (Y)
- 3660 Native American Literature (4)  
Native American myth, legend, and folklore, as well as nineteenth- and twentieth-century writing by Native Americans. Cross-listed with ANTH 3660 and E S 3660.
- 3670 Asian/Filipino American Literature (4)  
Five writers whose heritage is Asian/Filipino, but who are writing fiction or poetry in California. Cross-listed with E S 3670.
- 3680 Hispanic/Latino/U.S. Literature (4)  
A survey of Latino American writing in the United States.

- 3691 Black Literature I (4)  
A comprehensive history of Black writing in America from the beginnings to 1930. Cross-listed with E S 3691.  
Prerequisites: ENGL 1001 and junior standing. (Y)
- 3692 Black Literature II (4)  
A comprehensive history of Black writing in America from 1930 to the present. Cross-listed with E S 3692.  
Prerequisites: ENGL 1001 and junior standing. (Y)
- 3700 Classical Literature (4)  
Readings in classical literature in translation: epic, lyric, satirical, and dramatic poetry of the Greeks and Romans.  
Prerequisites: ENGL 1001 and junior standing. (Y)
- 3710 Medieval Literature (4)  
Literary patterns in Medieval Europe: the epic, the courtly novel, and lyric poetry, from the troubadours to Chaucer.  
Prerequisites: ENGL 1001 and junior standing. Cross-listed with MLL 3710. (On demand)
- 3715 Dante's World I (4)  
Interpretation and discussion of the main literary, mystical, and historical themes of Dante's *Inferno*. The work is read in translation, but with close reference to the original.
- 3716 Dante's World II (4)  
Interpretation and discussion of the main literary, mystical, and historical themes of Dante's *Purgatorio* and *Paradiso*. The work is read in translation, but with close reference to the original.
- 3720 Renaissance Humanism (4)  
The contribution of classical learning to the European Renaissance. Prerequisites: ENGL 1001 and junior standing. Cross-listed with MLL 3720. (On demand)
- 3725 Petrarch and Boccaccio (4)  
The legacy of Petrarch and Boccaccio. Study and interpretation of major literary themes in the works of Petrarch (*Lyric Poems*) and Boccaccio (*Decameron*) and their influence on the humanistic and Renaissance movements.
- 3730 The Neo-Classical Tradition (4)  
The development of the neo-classical spirit in Western literature of the 17th and 18th centuries, with special reference to the literatures of France and England.  
Prerequisites: ENGL 1001 and junior standing. Cross-listed with MLL 3730. (On demand)
- 3740 The Romantic Era: 1770-1830 (4)  
The dominant themes and styles of romanticism, with readings from major writers. Prerequisites: ENGL 1001 and junior standing. (On demand)
- 3745 The Gothic (4)  
The endangered heroine in English Gothic literature from *Castle of Otranto* to *Rebecca*.

- 3750 Realism and Naturalism, 1830-1910 (4)  
Major movements in the literature of Europe in the 19th and early 20th centuries, with emphasis on a major figure or figures. Prerequisites: ENGL 1001 and junior standing. (On demand)
- 3760 Literature of the Twentieth Century (4)  
Major movements in recent European and American literature, with emphasis on a major figure or figures. Prerequisites: ENGL 1001 and junior standing. (On demand)
- 3770 Gay and Lesbian Literature (4)  
Study of literary works written by and about gays and lesbians.
- 3790 Black Literature III (4)  
A study of ancient and modern Black writers from Africa, the Mediterranean, and the Caribbean. Cross-listed with E S 3790. Prerequisites: ENGL 1001 and junior standing. (Y)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 8 units will be accepted toward the English major; a maximum of 4 units will be accepted toward the English minor. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)
- 4000 Seminar in English Education (2)  
The integration of language, literature, and composition studies in the secondary-school curriculum, with on-site observation and supervised group discussion. Prerequisite: instructor's permission and junior standing.
- 4005 Informational and Instructional Technology in the English Classroom (2)  
The technological resources currently available to English teachers including word-processing, data base, and spread sheet programs. Students learn to use grade-book and test-generation programs and other interactive technologies. They evaluate the effectiveness of Laser disk, CD ROM, and other technologies. Prerequisite: ENGL 4000.
- 4010 Current Theories in Formal Grammar (4)  
Introduction to current theories in the study of formal grammar. Prerequisite: ENGL 3010.
- 4040 Introduction to American Dialects (4)  
Regional, ethnic, and class dialects of American English. Methods and materials for dialect study in general. Prerequisite: ENGL 3005. (A)
- 4050 Introduction to Second-Language Acquisition (4)  
Introduction to current theories of second-hand language

acquisition and to the application of these theories to second-language instruction. Designed primarily for students in the Single Subject-Matter Preparation Program in English. Prerequisites: ENGL 3005, 3010.

- 4060 Topics in the Study of the English Language (4)  
Intensive study of a single aspect of the English language, or of a group of closely related aspects. Students may repeat ENGL 4060 for a maximum of 12 units, when the content differs. Prerequisite: ENGL 1001. (Y)
- 4070 Advanced Workshop in Fiction (4)  
Writing of long and short fiction. For the prospective professional writer. Prerequisites: ENGL 3070, and consent of instructor. May be repeated twice for a maximum of 12 units. (Y)
- 4075 Advanced Workshop in Poetry (4)  
Writing of poetry. For the prospective professional poet. Prerequisites: ENGL 3075 and/or consent of instructor. May be repeated twice for a maximum credit of 12 units. (Y)
- 4080 The Art of Translation (4)  
Theory and practice of translation; special problems in style, form, and imagery. Prerequisite: consent of instructor. May be repeated twice for a maximum credit of 12 units. (On demand)
- 4090 Project and Portfolio (4)  
Preparation of a collection of new and revised work in fiction, drama, or poetry, to be read and approved by two creative writing instructors. Prerequisites: ENGL 4070 and permission of instructor.
- 4151 Introduction to Chaucer (4)  
A close reading of The Canterbury Tales with appropriate attention to its cultural context. Prerequisite: ENGL 2040 and junior standing.
- 4251 Introduction to Shakespeare (4)  
The dramatic conventions of the Shakespearean theatre; the Renaissance intellectual background; a survey of representative plays and poems. Prerequisite: ENGL 2040 and 2050. (A)
- 4260 Milton (4)  
A study of Milton's poetry and selected prose. Prerequisite: ENGL 2030 and 2040. (Y)
- 4265 Studies in 17th-Century British Literature (4)  
Intensive study of selected authors or topics of the later Renaissance in England from 1600-1660. Prerequisites: ENGL 2030 and 2040. (Y)
- 4325 Studies in 18th-Century British Literature (4)  
Intensive study of selected authors or topics of the Restoration and Neo-Classical periods. Prerequisite: ENGL 2030 and 2040. (Y)

- 4411 Studies in Early 19th-Century British Literature (4)  
Intensive study of selected authors or topics of the Romantic period. Prerequisite: ENGL 2030 and 2040. (Y)
- 4412 Studies in Late 19th-Century British Literature (4)  
Intensive study of selected authors or topics of the Victorian period. Prerequisite: ENGL 2030 and 2040. (Y)
- 4450 Studies in British Women's Literature (4)  
Intensive study of British women authors throughout the centuries. Prerequisites: ENGL 2030 and 2040.
- 4634 Studies in Early American Literature (4)  
Intensive study of selected authors or topics of Colonial America and the early Republic. Prerequisites: ENGL 1001 and junior standing. (Y)
- 4635 Studies in Mid-19th-Century American Literature (4)  
Intensive study of selected authors and topics of mid-19th century America. Prerequisite: ENGL 2030 and 2040. (Y)
- 4636 Studies in Late 19th-Century American Literature (4)  
Intensive study of selected authors and topics from the Civil War to 1914. Prerequisite: ENGL 2030 and 2040. (Y)
- 4637 Studies in 20th-Century American Literature (4)  
Intensive study of selected authors and topics from 1914 to the present. Prerequisite: ENGL 2030 and 2040. (Y)
- 4650 Studies in American Women's Literature (4)  
Intensive study of selected U.S. women authors throughout the centuries. Prerequisites: ENGL 2030, 2040.
- 4710 Bible for Students of Literature (4)  
Major events, characters, themes, and phases of the authorized (King James) version of the Bible and the influence of these upon the literature and language of the English-speaking peoples.
- 4720 Mythology (4)  
Cosmologies and cosmogonies: readings from literatures of the Orient, the Near East, the Mediterranean, and Europe. Prerequisites: ENGL 1001 and junior standing. (Y)
- 4734 Critical Approaches to Children's and Adolescent Literature (4)  
Analysis of children's and adolescent literature from a variety of critical perspectives (e.g., feminist, cultural, psychoanalytic). The development of literary canons and problems of censorship.
- 4740 History of Children's Literature (4)  
The development of themes, forms, and techniques in

children's literature from its folk origins to the present.  
Prerequisite: ENGL 1001. (Y)

- 4745 Film Criticism (4)  
Lecture/discussion with films. Written critical resumes of the work of American and international writer-directors. Study of film scripts, emphasizing characterization, themes, and techniques. Prerequisite: ENGL 1001. (Y)
- 4750 Multi-Ethnic Adolescent Coming-of-Age Narratives (4)  
U.S. ethnic writers' use of the adolescent "coming-of-age" narrative to define "the American Experience." Generational conflict, racial and sexual conflict, and self-actualization as presented by contemporary ethnic writers for young adults. Cross-listed with E S 4750.
- 4760 Gender and Sexual Identity in Adolescent Literature (4)  
How 19th- and 20th-century American authors of young adult literature have incorporated debates concerning gender and sexual identity into their work.
- 4770 Science Fiction and Fantasy for Children and Young Adults (4)  
Specialized study of the genres of light fantasy, animal fantasy, and science fiction written for children and young adults, using a variety of critical perspectives.
- 4810 English Drama Before 1642 (4)  
A history of the drama from its liturgical beginnings to the closing of the theaters. Prerequisite: ENGL 2040 and 2050. (A)
- 4816 Modern Drama (4)  
A history of English and American drama since 1890; Shaw, Wilde, and later dramatists. Prerequisite: ENGL 2050. (A)
- 4827 20th-Century Poetry (4)  
A study of representative British and American poets from 1914 to the present. Prerequisite: ENGL 2040 or consent of instructor. (Y)
- 4831 British Novel Before 1800 (4)  
Development of the British novel from its beginnings through the 18th century. Prerequisite: ENGL 2030 and 2040. (Y)
- 4832 British Novel, 1800-1914 (4)  
Development of the British novel through the Romantic and Victorian periods and up to the beginning of World War I. Prerequisite: ENGL 2030 and 2040. (Y)
- 4833 British Novel from 1914 to 1945 (4)  
A study of the development of the 20th century British novel from World War I through World War II. Prerequisites: ENGL 1001 and junior standing. (Y)
- 4840 The Short Story (4)

Development of the modern short story in America and Europe. Prerequisite: ENGL 2030. (A)

- 4860 American Fiction to 1914 (4)  
The development of American fiction from Cooper to Dreiser, including Poe, Hawthorne, Melville, Twain, James, and others. Prerequisites: ENGL 2030 and 2040. (Y)
- 4870 The American Novel, 1914-1945 (4)  
Development of the 20th century American novel from World War I through World War II. Prerequisites: ENGL 1001 and junior standing. (Y)
- 4874 The American and British Novel, 1945-1975 (4)  
Development of the American and British novel in the post-war period, 1945-1975. Prerequisite: ENGL 2030. (A)
- 4876 Current American and British Novel (4)  
Development of the British and American novel since 1975. Prerequisite: ENGL 2030. (Y)
- 4900 Independent Study (1-4)

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## Footnotes

**1** Students should consult the section of the catalog dealing with the English Placement Test (see Registration chapter) before registering for English 1001. Because this is the freshman-level, transferable composition course (for California community colleges, colleges, and universities), students enrolling in the course should, at the time of entry, be able to write brief essays showing adequacy in (1) selection of a controlling idea appropriate to the given writing task; (2) coherent development of that idea to a reasoned conclusion; (3) use of sentences that demonstrate some structural variety and that contain language appropriate to the audience and purpose, and (4) control of the conventions of standard, written English (relative freedom from errors such as fragments, run-together sentences, faulty agreement, and improper pronoun reference) and of mechanics (capitalization, spelling, and punctuation). The work of the course is to strengthen these skills by extensive practice in the writing of expository essays suitable for college-level credit. Students deficient in these prerequisite skills will be advised to take developmental writing courses before enrolling in English 1001.



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## Psychology

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### Department Information

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Department of Psychology  
School of Science  
Office: South Science 229  
Phone: (510) 885-3484

*Professors Emeriti:* Stuart T. Klapp, Joan E. Sieber

*Professors:* Nancy S. Harrison, Fred I. Leavitt, Eleanor K. Levine (Chair), John D. Lovell, Roy T. Matsumoto, Alan Monat, Michael E. Patch, Gene Steinhauer, Arnold E. Stoper

*Associate Professor:* Marvin Lamb

*Assistant Professors:* David A. Sandberg, Mary Kay Stevenson-Busemeyer

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Psychology is the science of behavior and mental experience. Many psychologists work primarily with normal people to understand how people think, respond to stress, learn and forget, develop into unique personalities, and interact with one another. Some psychologists study abnormal behavior. Others study the behavior and nervous systems of animals in order to find general principles that apply across species. Psychologists apply their knowledge to do therapy and counseling, to improve practices in schools, prisons, and rehabilitation centers, and to enhance performance in industry, business, and the professions.

The Psychology Department offers a major in both the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.) degrees. These are basic programs; to become a "psychologist" requires graduate

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## Career Opportunities

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## Features

training.

The B.A. program is appropriate for most psychology students. It provides a basic understanding of human behavior and motivation that is valuable in many careers in business, government, and education. It also provides the background expected for entry into graduate programs in clinical psychology, counseling psychology, school psychology, health psychology, social psychology, or experimental psychology.

The B.S. programs are designed for more specialized purposes. Students in the B.S. program must select one of the two options in that program: Industrial Psychology or Human Factors. The option in Industrial Psychology provides preparation for careers related to business, with an emphasis on personnel management. The option in Human Factors Psychology provides preparation for careers in the design of work environments to take account of human limitations and strengths, for example, the design of equipment (computers, aircraft, automobiles) or the design of industrial procedures.

In Psychology's minor program, students can choose courses to complement training in business, communication, health and medicine, law and criminology, statistics, biology, and many other fields. The department also offers a Psychology option of the Liberal Studies major. Of special interest to students in that program might be our courses in developmental psychology, personality, cognitive processes, and learning.

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B.A.: Clinical/Counseling/Child Psychologist • Community Mental Health employee • Experimental Psychologist • Human Service Worker • Police/Probation Officer • Recreation Worker • School Counselor • Social Worker • Special Education Teacher • Substance Abuse Counselor

B.S.: Advertising Account Executive • Business Executive • Career Counselor • Employee Counselor and Trainer • Human Resource Specialist • Personnel Representative • Program Evaluator • Public Relations Specialist

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The Psychology Department's facilities include a fully equipped computer lab, an animal lab, and several labs for studying human behavior. These facilities support an unusual and important characteristic of the department - its emphasis on hands-on student involvement in the study of human and animal behavior through participation in laboratory courses and faculty research, in field trips, and in community volunteer placements.

Both the Psychology Club and Psi Chi (national honor society in psychology) provide opportunities for students to get together to hear speakers and to discuss topics such as career and graduate school opportunities.

All courses required for the psychology B.A. major are offered in the evening program over each three-year cycle. However, the range of choices and flexibility of scheduling is more limited in the

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## Preparation

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## Major Requirements (B.A.)

evening program. Evening courses fulfilling requirements of the B.S. degree major, option in Industrial Psychology, are offered at the Contra Costa Campus.

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For Advanced Placement course equivalencies, see Registration chapter.

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Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 68 units; the B.A. degree requires a total of 186 units.

- I. Core Requirements (32 units)
  - PSYC 1000 General Psychology (5)
  - PSYC 3090 Methods of Investigation in Psychology (4)
  - STAT 1000<sup>1</sup> <sup>2</sup> Elements of Probability and Statistics (5)
  - STAT 3010 Statistical Methods in the Social Science (4)
  - BIOL 1001, 1002<sup>3</sup> Introduction to Biology, Lab (5)
  - PSYC 3100 Experimental Psychology (5)
  - PSYC 4200 Conditioning and Learning (4)
  
- II. Breadth Requirements (20 units)

*One from each line required:*

  - PSYC 3200, 3210, or 3220 (testing/survey and test construction/individual differences) (4)
  
  - PSYC 3500, 4420, or 4610  
(social/developmental/personality) (4)
  
  - PSYC 4220, 4345, or 4740  
(cognitive/sensory/psycholinguistics) (4)
  
  - PSYC 4310, 4320, 4350 or 4360  
(comparative/physiological/heredity/ psychopharmacology)  
(4)
  
  - PSYC 4210, 4390, or 4620 (theories of learning/theories of personality/history and systems) (4)
  
- III. Laboratory Requirements (4 units)

*Any two required:*

Two different courses from those listed below. Although courses in this series may be repeated for unit credit, two different courses are required in the Psychology major.

  - PSYC 4800 Human Learning and Cognition Laboratory(2)
  - PSYC 4801 Learning and Motivation Laboratory (2)
  - PSYC 4802 Sensation and Perception Laboratory (2)
  - PSYC 4803 Physiological Psychology Laboratory (2)
  - PSYC 4804 Social and Personality Laboratory (2)
  - PSYC 4805 Comparative Psychology Laboratory(2)
  - PSYC 4806 Developmental Psychology Laboratory (2)
  
- IV. Elective Requirements (12 units)

Twelve additional units of permissible upper division

## Major Requirements (B.S.)

psychology courses; or STAT 4000 and eight additional units of upper division psychology courses. A maximum of four units from each repeatable course (PSYC 4800, 4801, 4802, 4803, 4804, 4805, 4806, 4890, and 4900) may be used toward satisfying this requirement.

Students in the B.S. degree program must select either the Industrial Psychology option or the Human Factors Psychology option. The major with the option in Industrial Psychology consists of 87 units; the major with the option in Human Factors Psychology consists of 84-92 units; the B.S. degree requires a total of 186 units.

### I. Industrial Psychology Option (87 units)

#### A. Psychology Requirements (58 units)

- PSYC 1000 General Psychology (5)
- PSYC 3090 Methods of Investigation in Psychology (4)
- PSYC 3100 Experimental Psychology (5)
- PSYC 3400 Human Factors in the Workplace (4)
- PSYC 3250, or PSYC 4200 (behavior modification, learning) (4)
- PSYC 3200, or PSYC 3210, or PSYC 3220 (testing) (4)
- PSYC 4820 Industrial Psychology (4)

*Two courses from PSYC 4800, 4801, 4802, 4803, 4804, 4805, 4806, Advanced laboratories (4)*

*Three courses from:*

- PSYC 3240 Decision Theory (4)
- PSYC 3420 Stress and Coping (4)
- PSYC 3500 Social Psychology (4)
- PSYC 3520 Interpersonal Processes (4)
- PSYC 3540 Groups and Organizations (4)

*Twelve additional units of permissible upper division psychology courses, or eight units of Psychology courses and four units of upper division Statistics. Courses designated "Not applicable to the Psychology major" may not be used toward satisfying this requirement.*

#### B. Other Requirements (29 units)

- STAT 1000, or STAT 2010 (introductory statistics<sup>4</sup>) (5)
- STAT 3010, or MGMT 3100 (applied statistics) (4)

*Sixteen units from the following:*

- ACCT 2210 Accounting for Non-Business Majors (4)
- MGMT 3600 Theories of Management (4)
- MGMT 3610 Human Resources Management (4)
- MGMT 3680 Industrial Relations (4)
- PSYC 3010 Introduction to Industrial Psychology (1)
- PSYC 3011 Resources in Industrial Psychology (1)
- PSYC 3012 Industrial Psychologists as Trainers (1)
- PSYC 3013 Industrial Psychology and Employee Ethics (1)
- Any other PSYC 301x or 302x courses

*One course from:*

- C S 1020 Introduction to Computers (4)
- C S 1160 Introduction to Computer Science and

Programming Methods (4)  
CIS 3270 Fundamentals of Business Programming (4)  
PSYC 4100 Computer Applications in Industrial Psychology (4)  
STAT 3900 Statistical Packages for Data Analysis (4)  
STAT 3910 Statistical Software Design for Microcomputers (4)  
STAT 4000 Analysis of Variance (4)  
STAT 4515 Multivariate Analysis (4)  
STAT 4610 Nonparametric Statistical Methods for the Social Sciences (4)

II. Human Factors Psychology Option (84-92 units)

Students in this option are urged to complete a minor in Statistics, Computer Science, Mathematics, or Physics. Courses can be counted simultaneously toward a minor and a major.

A. Psychology Requirements (44 units)

PSYC 1000 General Psychology (5)  
PSYC 3090 Methods of Investigation in Psychology (4)  
PSYC 3100 Experimental Psychology (5)  
PSYC 3400 Human Factors in the Workplace (4)  
PSYC 4200 Conditioning and Learning (4)  
PSYC 4320 Physiological Psychology (4)  
PSYC 4345 Sensation and Perception (4)  
PSYC 3500 Social Psychology (4) or PSYC 3540 Groups and Organizations (4)  
PSYC 4220 Cognitive Processes (4) or PSYC 4740 Psycholinguistics (4)

*Advanced Labs:* One from PSYC 4800, 4801, 4802, 4803, or 4804 (2)

*Approved Internship:* PSYC 4430 Psychology in the Community (4) or PSYC 4900 Independent Study (4)

B. Other Requirements (32-40 units)

Four units from the following:

C S 1020 Introduction to Computers (4)  
C S 1160<sup>5</sup> Introduction to Computer Science and Programming Methods (4)

*Complete the following courses (28-36 units):*

MATH 1300<sup>6</sup> Trigonometry and Analytic Geometry (0-4)  
MATH 1304 Calculus I (4)  
MATH 1305 Calculus II (4)  
PHYS 2701, 2702, 2703, or PHYS 1001, 1002, 1003<sup>7</sup> (12-15)  
STAT 1000 and 3010 or STAT 3502 and 3503 (8-9)

C. Elective concentration (8 units)

Two additional courses, both from the same group:

*Psychology group:* PSYC 3200, 3420, 3500, 3540, 4220, 4740 (These courses cannot also be counted toward the Psychology requirements.)

*Mathematics group:* MATH 2304, 3331

*Computer programming group:* CS 2360 and four additional

units in computer programming courses in the Department of Mathematics and Computer Science.

*Statistics group:* Eight units of upper division statistics courses, not including STAT 3010, 3502, or 3503

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## Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

The minor in Psychology is designed to provide a general background in psychology to complement training for careers in business and industry, biology, the medical professions, law or criminology, communication, and many other professions. See a psychology department advisor for help in selecting courses to complement your program. The minor consists of 29-35 units.

PSYC 1000 (5)  
PSYC 1100 or 3090 (4)

Twenty additional units selected from courses meeting the Elective Requirements in the description of the B.A. major, or PSYC 3100 plus 12 additional units from courses meeting these Elective Requirements. (Notice that PSYC 3100 has 8-9 additional units of prerequisites. See the course description.)

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## Psychology Option: Liberal Studies

Area I (10 units)  
PSYC 1000 General Psychology (5)  
STAT 1000 Elements of Probability and Statistics (5)

Area VII, Credential Track, or Area VI, Liberal Arts Track (24-25 units)  
Either PSYC 1100 Critical Thinking in Psychology (4) or PSYC 3090 Methods of Investigation in Psychology (4)

- One of concentrations (A), (B) or (C) below (20-21 units):
- A. Twenty units of upper division coursework in Psychology selected from the B.A. major (20)
  - B. PSYC 4430 Psychology in the Community (4)  
Sixteen units of upper division coursework in Psychology selected from the B.A. major (16)
  - C. STAT 3010 Statistical Methods in the Social Sciences (4)  
PSYC 3100 Experimental Psychology (5)  
Twelve units of upper division coursework in Psychology selected from the B.A. major (12)

## Undergraduate Courses

*The course prefix for the following courses is PSYC.*

- 1000** General Psychology (5)  
[CAN PSY 2]  
An introduction to the scientific study of basic processes underlying human and animal behavior; sensation and perception, learning and thinking, motivation, and emotion. (F, W, Sp)
- 1100** Critical Thinking in Psychology (4)  
The role of critical thinking in the scientific study of behavior. Inductive and deductive use of experiments by which selected problems are investigated with emphasis on experimental design and common logical fallacies in interpreting empirical data. Not applicable to Psychology majors. (F, W, Sp)
- 1350** Personal Growth and Effectiveness (4)  
Selected topics in personal growth, effectiveness and empowerment. Applications to everyday situations. Cannot be used to satisfy a psychology major requirement. Students may not receive credit for both PSYC 1300 and 1350.
- 2345** Perception (4)  
Role of eyes, ears, and other sense organs in processing information about the world. Cannot be used to satisfy a psychology major requirement. Students may not receive credit for both PSYC 2345 and 4345. Prerequisites: BIOL 1001, PHYS 2003.
- 2420** Stress and Coping (4)  
Survey of theories and research about stress and coping; applications, e.g., illness, death/dying, the working place, and natural disasters. Cannot be used to satisfy a psychology major requirement. Students may not receive credit for both PSYC 2420 and 3420.
- 3010** Introduction to Industrial Psychology (1)  
Preparation for entering today's changing work environment, using psychological principles to foster productivity, and choosing and developing one's career options within the Industrial Psychology Option. Psychology majors can only apply this course to their major requirements in the Option in Industrial Psychology.
- 3011** Resources for Industrial Psychologists (1)  
Introduction to courses, books, news media, professional associations, networks, internships, special projects and other university and industry resources useful in creating a career in industrial psychology. Psychology majors can only apply this course to their major requirements in the Option in Industrial Psychology. Prerequisite: PSYC 3010.
- 3012** Industrial Psychologists as Trainers (1)  
Characteristics of valid training in the work environment, models of training, psychological theories and methods applied to training and evaluation. Areas in which training



functions are currently most needed; examples of training in sales, service, and ethics and regulations. Sources of further coursework, individual study and experience in training roles are suggested. Psychology majors can only apply this course to their major requirements in the Option in Industrial Psychology.

- 3013** Industrial Psychology and Employee Ethics (1)  
Introduction to the roles of industrial psychologists in developing, interpreting, disseminating, and enforcing standards of ethical and legal conduct within the work environment. How training, compensation, and job description influence the ethics and legality of employee behavior. Psychology majors can only apply this course to their major requirements in the Option in Industrial Psychology.
- 3090** Methods of Investigation in Psychology (4)  
Experimental, correlational, and observational methods in the study of psychology with selected examples.  
Prerequisite: PSYC 1000. (Y)
- 3100** Experimental Psychology (5)  
A laboratory course in the development, design, and execution of psychological experiments, the analysis of data, and the writing of formal research reports.  
Prerequisites: PSYC 3090 or 1100; STAT 3010, or STAT 3502, or MGMT 3100. Three hrs. lect., 6 hrs. lab. (F, W, Sp)
- 3120** Introduction to Program Evaluation (4)  
Introduction to practical, systematic procedures for assessing performance, outcomes, and impact of public, non-profit, and private programs, emphasizing the proposal process. Student groups locate and select real clients, and create and propose program evaluation plans to them.  
A/B/C/NC only. Prerequisite: PSYC 3100.
- 3200** Psychological Tests (4)  
Introduction to selecting and evaluating standardized tests of aptitude, achievement, personality, and other human traits. Validity, reliability, generalizability, and ethics.  
Prerequisites: PSYC 1000; STAT 1000, and STAT 2010, or STAT 3010. (Y)
- 3210** Principles of Survey and Test Construction (4)  
Construction of survey and test instruments; use of focus groups; sampling; data collection including interviewing and other survey research techniques; data analysis; interpretation and presentation of results. Prerequisites: PSYC 1000; STAT 1000, and STAT 2010 or STAT 3010.
- 3220** Psychology of Individual Differences (4)  
Survey of human traits (including intelligence), and examination of evidence for differences among individuals differing in sex, age, personality, race, etc. Consideration of social implications. Prerequisites: PSYC 1000; STAT 1000 and STAT 2010, or STAT 3010, or STAT 3031.
- 3230** Applied Measurement (4)



An introduction to applied measurement. Unidimensional scaling, multidimensional scaling, and policy modeling techniques. Relevance to marketing, industrial psychology and perceptual processes. Prerequisites: PSYC 3200 or PSYC 3210 or consent of instructor.

**3240 Decision Theory (4)**

An introduction to the literature and methods of decision science. The theory and decision strategies, with examples across many applications. Focus on descriptive as opposed to normative models. Students will study decision strategies and methods of modeling preference structures. Prerequisites: PSYC 1000 and STAT 1000 or equivalent.

**3250 Behavior Modification (4)**

The extension of principles and concepts emerging from the experimental analysis of behavior to problems of behavior modification outside the laboratory. Prerequisite: PSYC 1000.

**3300 Psychology of Essential Life Issues (4)**

Topics of everyday concern, including self-image, sexuality, death, happiness, personal effectiveness, and love. CR/NC grading only. Psychology majors can take this course for university credit, but cannot use it to satisfy a major requirement. Prerequisite: PSYC 1000 or consent of instructor.

**3400 Human Factors in the Workplace (4)**

Human factors in tasks involving attention, decision making, and other complex responses. Current findings, methods of research, and applications in industry and other man-machine situations. Prerequisite: PSYC 1000. (Y)

**3410 Psychology of Women (4)**

Critical examination of data affecting views of and by women, including: socialization of sex-roles, rape, marriage, the family, career barriers, development of stereotypes. Psychology majors can take this course for university credit, but cannot use it to satisfy a major requirement. Prerequisite: WOST 1000 or upper division standing.

**3413 Psychic Phenomena: Fact or Fiction? (4)**

The evidence from parapsychological research for various aspects of the paranormal, e.g., ESP, psychokinesis, mediumship, psychic healing. The material will be discussed openly and critically. CR/NC grading only. Psychology majors can take the course for university credit, but cannot use it to satisfy a major requirement.

**3420 Stress and Coping (4)**

A systematic look at the major theories and research about stress and coping, with discussion of applications. Stress and coping will be examined in the context of everyday situations, e.g., illness, death and dying, and the workplace. Prerequisite: PSYC 1000.

**3500 Social Psychology (4)**

Current theory and research on the individual in society, small groups, and interpersonal interaction. Socialization, social structure, attitude formation, and social identity. Prerequisite: PSYC 1000. (Y)

**3520 Interpersonal Processes (4)**

Selected topics on the development and maintenance of dyadic relationships; interpersonal attraction through behavior exchange, verbal and nonverbal communication, strategic social behavior and the resolution of conflict.

Prerequisite: PSYC 1000.

**3540 Groups and Organizations (4)**

The behavior of individuals in modern groups and organizations: work groups, universities, and other bureaucracies. Emphasis on theories of problem solving to create satisfying, effective, productive environments within organizations. Prerequisite: PSYC 1000.

**3550 Social Influence and Change (4)**

Selected topics in the use of persuasion and social power to effect both behavioral compliance and attitude change: Includes problems of effective leadership and intervention as well as resistance to change in applied settings.

Prerequisite: PSYC 1000.

**4100 Computer Applications in Industrial Psychology (4)**

The use of selected microcomputer software with special emphasis on problems of interest to industrial psychology. Spreadsheets, statistical programs, and software construction tools such as "Hypercard." Prerequisite: PSYC 3090.

**4200 Conditioning and Learning (4)**

Basic principles and results of conditioning and learning experimentation. Prerequisite: PSYC 3090 or 1100. (Y)

**4210 Theories of Learning (4)**

Survey of theories of learning with emphasis on experimental work arising from them; their underlying assumptions, strengths and weaknesses, practical implications, and methodological approaches to research problems. Prerequisite: PSYC 4200. (Y)

**4220 Cognitive Processes (4)**

Selected topics in thinking and information processing in humans, e.g., problem solving, language, memory and forgetting, concept formation, attention, creativity, imagery, etc. Various theories and selected experiments are described, analyzed and interpreted. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)

**4300 Motivation (4)**



Nature of primary and secondary drives. Critical analysis of the concept of motivation in relation to behavior, learning, and performance. Prerequisite: PSYC 4200. (Y)

**4310 Comparative Psychology (4)**

Survey of the similarities and differences in sensory

systems, learning, motivation, social organization, and development of closely related and relatively unrelated animals, including the human species. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)

- 4320 **Physiological Psychology (4)**  
The biological foundations of human and animal behavior, including physiological processes related to sensory and motor activity, perception, learning, thinking, motivation, and emotion. Prerequisite: PSYC 1000. (Y)
- 4345 **Sensation and Perception (4)**  
The function of the eyes, ears, and other sense organs in bringing information about the world to the brain. The use of this information in perceiving objects and events. Prerequisite: PSYC 1000.
- 4350 **Heredity and Behavior (4)**  
A consideration of genetic and environmental determinants of behavior and psychological characteristics of animals and humans. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended.
- 4360 **Psychopharmacology (4)**  
Classification of psychoactive drugs, principles of action, development and testing, effects and dangers, users and abusers, treatment abuse, therapeutic use. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended.
- 4390 **History and Systems of Psychology (4)**  
Survey of historical developments in the emergence of modern scientific psychology. Contemporary theoretical systems discussed with emphasis on how they approach the recurring problems of psychology. Prerequisites: 16 units of upper division psychology and senior standing.
- 4410 **Abnormal Psychology (4)**  
The concepts of normality, abnormality, and psychopathology. Symptom syndromes of neurosis, psychosis, and other behavior abnormalities. Methodological problems in the investigation of mental illness and psychotherapy. Prerequisite: PSYC 1000. (Y)
- 4420 **Developmental Psychology (4)**  
Psychological development across the life span. Affords a developmental perspective of perception, cognition, language, and of emotional, social, and personal behavior. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)
- 4430 **Fieldwork in Community Psychology (4)**  
Work in community agencies. Weekly seminars relate psychological principles to practice. Psychology majors can take this course for university credit, but cannot use it to satisfy any major requirement except as an internship in Human Factors Psychology option, B.S. degree major. May be repeated once for credit. CR/NC grading only. Prerequisites: Consent of instructor. One hr. lect., 6 hrs. act.

- 4500 Industrial Psychology (4)**  
Applications of industrial psychology concepts and methods to actual cases (e.g., hiring, evaluation, motivation, training, compensation, safety, marketing, total quality management, stress management, morale, ethics/dishonesty, reorganization, human factors). Lecture, case study, individual and group projects. Prerequisite: Senior standing in Industrial Psychology option. Not open to students with credit for PSYC 4820.
- 4610 Psychology of Personality (4)**  
Critical review of method and content in the study of personality. Historical development of the field, with attention to recent applications of scientific method to problems of personality. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended. (Y)
- 4620 Theories of Personality (4)**  
Undergraduate seminar: survey and analysis of some major theories of personality, including systematic analysis of theory construction. Prerequisite: PSYC 4610, or consent of instructor.
- 4630 Introduction to Psychotherapy and Clinical Methods (4)**  
The clinical area of applied psychology, including review of concepts involved in the interview process, principles of psychotherapy, and methods of clinical research. Prerequisite: PSYC 4410 or 4610.
- 4660 The Psychology of the Healthy Personality (4)**  
Topics include models of psychological health, maintenance of health across the life span, and the dilemmas women and minorities face in maintaining health in the face of discrimination. Prerequisite: PSYC 1000 or consent of instructor.
- 4740 Psycholinguistics (4)**  
Basic psychological aspects of human verbal behavior and related phenomena. The acquisition and development of language, perception of language, and effect of language on thought. Prerequisite: PSYC 1000; PSYC 3090 or 1100 strongly recommended.
- 4800 Human Learning and Cognition Laboratory (2)**  
Selected experiments in human learning, verbal learning, abilities, and problem solving. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.  Prerequisites: PSYC 3100; and PSYC 4200, or 4220, or 4740. Six hrs. lab.
- 4801 Learning and Motivation Laboratory (2)**  
Selected experiments in conditioning, learning and motivation, with an emphasis on subhuman species. Experiments will be designed, executed, analyzed and reported. May be repeated up to three times for credit.  Prerequisites: PSYC 3100 and 4200. Six hrs. lab.
- 4802 Sensation and Perception Laboratory (2)**  
Selected experiments from psychophysics, perception,

vision, audition, and olfaction. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.<sup>5</sup> Prerequisites: PSYC 3100; and PSYC 4320 or 4345. Six hrs. lab.

- 4803** Physiological Psychology Laboratory (2)  
Selected experiments in physiological processes, related sensory and motor activity. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.<sup>5</sup> Prerequisites: PSYC 3100 and 4320. Six hrs. lab.
- 4804** Social and Personality Laboratory (2)  
Selected experiments in social psychology and personality problem areas. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.<sup>5</sup> Prerequisites: PSYC 3100; and PSYC 3500 or 4610. Six hrs. lab.
- 4805** Comparative Psychology Laboratory (2)  
Selected experiments on social organization, communication, perception, activity patterns, learning and behavioral development in animals (insects, fish, reptiles, birds, mammals). Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.<sup>5</sup> Prerequisites: PSYC 3100; and PSYC 4310 or 4350. Six hrs. lab.
- 4806** Developmental Psychology Laboratory (2)  
Selected experiments from a human developmental perspective. Experiments will be designed, executed, analyzed, and reported. May be repeated up to three times for credit.<sup>5</sup> Prerequisites: PSYC 3100 and 4420. Six hrs. lab.
- 4890** Proseminar (2)  
An undergraduate seminar providing an introduction to current topics in psychological research. Topics will vary each quarter. May be taken for credit up to three times. Prerequisites: Senior standing in Psychology major and consent of instructor.
- 4900** Independent Study (1-4)

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## Footnotes

<sup>1</sup>May also be used toward satisfying the General Education Requirement in Mathematics.

<sup>2</sup>May be taken CR/NC.

<sup>3</sup>May also be used to satisfy the General Education Requirement in Life Science.

<sup>4</sup>May be used to satisfy the General Education requirement in Mathematics.

<sup>5</sup>Preferred course for students who want additional computer courses.

- 6 Students with appropriate background can go directly to MATH 1304. These students are excused from MATH 1300.
- 7 MATH 2304 is required as a prerequisite to PHYS 1003.
- 8 Although courses in the 4800-4806 series may be repeated for credit, two different courses are required for the psychology major.



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## Environmental Science

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### Department Information

School of Arts, Letters, and Social Sciences:  
Department of Geography and Environmental Studies

School of Science: Departments of Biological Sciences, Chemistry, and Geological Sciences

Office: Department of Biological Sciences, NS 429  
Phone: (510) 885-3471

*Associate Professor:* Nancy Fegan (Geological Sciences)

*Assistant Professors:* Joy Andrews (Chemistry), Michael Lee (Geography and Environmental Studies)

*Director:* Susan Opp (Biological Sciences)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The Bachelor of Science degree major in Environmental Science is an interdisciplinary program offered by faculty in the Departments of Biological Sciences, Chemistry, Geological Sciences, and Geography and Environmental Studies. The major is administered by an Environmental Science Program Committee, consisting of one voting faculty representative selected by each department in the program, and a Program Director, chosen from among the representatives of the four participating departments. The purpose of the Environmental Science major is to provide interdisciplinary scientific preparation for students wishing to pursue knowledge and employment in the fields of environmental consulting, oversight, and research. Additional objectives of the program include satisfaction of the Single Subject Matter Preparation Program for a teaching credential in science (pending approval, check with the director), and provision of sufficient depth of preparation for graduate studies in environmental sciences. In contrast to the B.A. degree major in Environmental Studies, the B.S. degree major in Environmental Science requires students to take a structured core of science courses from a variety of disciplines, as well as a specialized upper division option in biology, chemistry, geology, or environmental systems and

## Career Opportunities

resource management.

Air Quality Control • Atmospheric Scientist • Biological Consultant • Bioremediation • Chemical Consultant • Ecosystem and Habitat Restoration • Environmental Consultant • Environmental Field or Lab Technician • Environmental Health Scientist • Environmental Manager • Environmental Policy • Environmental Protection and Regulation • Geochemist • Hazardous Waste Mitigation and Remediation • Industrial Hygienist • Interpretive Naturalist • Park Ranger • Pollution Control Technician • Risk Manager • Soils Scientist • Solid Waste Management • Technical Writer • Urban Planner • Waste Water Treatment • Water Management • Water Treatment • Wildlife Manager

## Major Requirements (B.S.)

It is important to consult an advisor in your major program for clarification and interpretation of your major requirements. The major in Environmental Science consists of 121-124 units; the B.S. degree requires a total of 186 units.

### I. Course Prerequisites and Other Admission Requirements

Students entering the Environmental Science program as first year students are expected to have the same high school preparatory courses as other science majors. Admission to the degree program is open to all students admitted to Cal State Hayward. Transfer students may have lower division course deficiencies that must be completed after entry to the program. Continuation in the program is contingent on satisfactory progress in the university as described in the catalog.

### II. Lower Division Core (58 units)

BIOL 1301, 1302 Foundations of Biology (5, 5)  
CHEM 1101, 1102, 1103 General Chemistry (5, 5, 5)  
CHEM 2301, 2302 Survey of Organic Chemistry (4, 4)  
GEOG 2100 Physical Geography (4)  
GEOL 2101 Physical Geology (5)  
PHYS 2701, 2702, 2703 Introductory Physics (4, 4, 4)  
MATH 1304 Calculus I (4)

### III. Upper Division Core (28 units)

BIOL 3110 Principles of Ecology (4)  
ENVT 4100 Environmental Impact Analysis (4)  
GEOG 3000 Resource Management (4)  
GEOL 3030 Earth and Life Through Time (5)  
GEOL 4320 Hydrogeology (4)  
STAT 3010 Statistical Methods in the Social Sciences (4) or  
STAT 3031 Statistical Methods in Biology (4)  
ENSC 4800 Seminar in Environmental Science (3)

### IV. Electives (8 units)

*Complete two electives from the following:*

ECON 2301 Principles of Microeconomics (4)  
ECON 4306 Environmental Economics (4)  
HIST 3505 California Environmental History (4)



PHIL 3151 Environmental Ethics (4)  
POSC 3460 Environmental Law (4)  
POSC 4171 Public Policy and Environment (4)

V. Options

A student must declare an option by the time he/she has completed 44 units of the Core courses; this establishes the student's home department. Students may elect to change their option with the notification of their advisor and home department. Options are available in Biology, Chemistry, Geology, and Environmental Systems and Resource Management, and are designed to provide in-depth study of a specific field. Each option requires 27-30 units within the discipline, in a combination of required courses and electives. The student cannot use courses in the department of his/her option to satisfy G.E. requirements.

A. Biology (29 units)

BIOL 1303 Cell and Molecular Biology (5)  
BIOL 3405 Microbiology (6)  
BIOL 3898 Cooperative Education (2)

Electives from the following courses or other approved courses (16 units):

BIOL 3115 Marine Biology (4) or M SC 4103 Marine Ecology (6), 3116 Freshwater Biology (5), 3120 Principles of Genetics (4), 3210 Woody Plants (4), 3521 Biology of Invertebrate Animals I (5), 3522 Biology of Invertebrate Animals II (5), 4200 Plant Taxonomy (4), 4300 General Entomology (4), 4560 Wildlife Ecology (4), 4570 Ichthyology (4), 4580 Natural History of the Vertebrates I (5), 4581 Natural History of the Vertebrates II (5); M SC 4104 Quantitative Marine Science (6), 4144 Biological Oceanography (6)

B. Chemistry (29 units)

CHEM 2200 Quantitative Analysis (5)  
CHEM 3400 Introduction to Biochemistry (4)  
CHEM 4601 Environmental Chemistry I (4)  
CHEM 4602 Environmental Chemistry II (4)

Electives from the following courses or other approved courses (12 units):

CHEM 3401 Biochemistry Lab (2), 3500 Physical Chemistry (4), 3898 Cooperative Education (Internship) (2), 4110 Introduction to Geochemistry (5), 4900 Independent Study (1-4)

C. Environmental Systems and Resource Management (27-30 units)

ENVT 4910 Internship in Environmental Studies (3-4)

Three courses from the following (12-14 units by advisement):

GEOG 3410 Air-Photo Interpretation (4), 3420 Field Instruments and Observation (4), 3605 Computer Cartography (5), 4425 Remote Sensing of Earth Environments (4), 4600 Introduction to Geographic Information Systems (5), 4605 Environmental Applications of GIS (4)

Three courses from the following (11-13 units by advisement):

ENVT 4800 Senior Seminar in Environmental Studies (3);  
GEOG 3100 Regional Climatology (4), 3110 Principles of  
Geomorphology (4) or GEOG 3115 Physical Landscape  
Analysis (4), 3450 Literature and Research Aids (5), 4125  
Field Course in Physical-Biotic Geography (4), 4130  
Biogeography (4), 4320 Energy Resources and  
Management (4), 4350 Water Resources and  
Management (4)

D. Geology (28-29 units)

GEOL 3610 Mineralogy (4)  
GEOL 3700 Rocks (5)  
GEOL 3730 Stratigraphy (3)  
GEOL 3810 Structural Geology (5)  
GEOL 3910 Field Methods (3)

Electives from the following courses or other approved  
courses (8-9 units):

GEOL 3110 Principles of Geomorphology (4), 3400  
General Oceanography (4), 4010 Introductory  
Geophysics (5), 4110 Introductory Geochemistry (5),  
4400 Writing for Geoscientists (3), 4900 Independent  
Study (1-4)

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## Undergraduate Courses

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*The course prefix for the following courses is ENSC.*

- 2800** Environmental Problems of California (4)  
Human impact on the biologic and geologic environment in  
California. Resource needs, waste issues, species  
diversity, and ecosystem degradation.
- 4800** Seminar in Environmental Science (3)  
Advanced study of environmental issues based on papers  
presented by students. Topics to change with each course  
offering. Team-taught by faculty from different departments  
in Environmental Sciences. Prerequisites: completion of  
Environmental Sciences core and senior or graduate  
standing.
- 4900** Independent Study (1-4)



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## Department Information

## Program Description

## Undergraduate

# Public Administration

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Department of Public Administration  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4124  
Phone: (510) 885-3282

*Professor Emeritus:* Richard W. Vrmeer

*Professors:* Carl J. Bellone, Jong S. Jun (Associate Chair), Mary M. Timney, Dvora Yanow (Chair)

*Associate Professors:* George F. Goerl, Jombo ("Jay") Umeh (Internship Coordinator)

*Assistant Professors:* Ann L. Abbott, Linda Dennard, Jennifer Eagan

*Lecturers:* Hillare Bell, Donald Blubaugh, Harold Campbell, Carol Edlund, Michael Garvey, Mary Ann Huckabay, Alton Jelks, Will L. Johnson, Thomas Lewcock, Stephen Morgan, Mark Nickerson, Edward Schilling, Emily Wagner, Laura Wonnacott

*Graduate Coordinator:* Jong S. Jun

• *Institute for Governmental Research and Training:* Jong S. Jun (Director)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The Department of Public Administration offers primarily graduate courses. See the Public Administration chapter in the graduate section of this catalog. (Note: An undergraduate option in Public Affairs and Administration is offered by the Department of Political Science.) The Department of Public Administration also offers the management courses for the B.A. degree major in Arts Administration.

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*The course prefix for the following courses is PUAD.*

## Courses

- 4450 Administrative Law (4)  
See POSC 4450 for course description.
- 4800 Public Administration and Society (4)  
The historical and political context of public administration; politics and economics of public bureaucracy; managing governmental organizations; public finance and national economy; values, ethics, and public interest; interface between professional administrators and citizens. (A)
- 4805 Public Policy in the Arts (4)  
The role of the arts in public life; public arts; arts and the public good; arts and economic development; the arts, social criticism and public policy; public policy and the politics of the arts, arts policy development, implementation, and evaluation.
- 4830 Organization Theory and Human Behavior (4)  
Classical and emerging theoretical perspectives of human organizations; organizational design and tomorrow's organizations; self and organization; environment and planned change; participative goalsetting and organizational effectiveness. Prerequisite for "Classified Graduate" standing in the MPA program. (A)
- 4832 Organization Theory and Behavior in the Arts (4)  
Applications of contemporary organizational theory to arts organizations; organizational design for creative organizations; organizational environments; integrating organizational demands with creative requirements; organizational behavior and the creative process; multiple role demands; self, reflexivity and personal praxis; mutual goal setting; changing organizations.
- 4843 Fund Raising Dynamics (2)  
Methods of effective fundraising; measuring organizational readiness for successful fundraising; building a case for investment; finding donors; determining appropriate fundraising strategies; planning a successful campaign; evaluating results.
- 4844 Financial Management and Budgeting in Arts Organizations (4)  
Goal setting and developing financial plans in arts organizations; fund raising; financial accountability and management; governmental and nongovernmental budgeting, strategic planning, financial management.
- 4865 Legal Issues in Arts Administration (2)  
Legal issues and requirements of arts organizations; federal tax exempt status, state nonprofit corporation; articles of incorporation; bylaws; legal liability of board, staff, and financial operations; liability releases.
- 4870 Board Development and Planning (2)  
Roles and responsibilities of board and trustees; defining and developing policy; clarifying board and staff roles; defining the functions of the board; recruiting, nominating and orienting new members; developing effective board relationships; holding effective board meetings; strategic

planning.

**4880** Issues in Arts Administration (2)

An investigation of a specific problem area defined by the instructor that is of current interest in the field of arts administration. May be repeated with change in topic; only two units may be applied to Arts Administration major.

**4900** Independent Study (1-2)

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### Department Information

Department of Geography and  
Environmental Studies  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3021  
Phone: (510) 885-3193; FAX: (510) 885-2353

*Professor:* Herbert M. Eder

*Associate Professors:* David J. Larson (Chair), Scott Stine

*Assistant Professors:* Karina Garbesi, Michael Lee, Gang Li,  
David Woo

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

The Environmental Studies major is designed to provide an interdisciplinary and multidisciplinary overview of the environmental studies field, coupled with an in-depth study of one subfield. The core requires coursework in the sciences and social sciences and students may build options based on one or several related fields in these categories.

As part of the Environmental Studies major, students must select a 20-24 unit program of electives. Five options allow students latitude in providing specialization to a particular field of interest: Human Environment, Physical Environment, Ecology and Life Sciences, Environmental Health, and Land Use Planning and Management. Courses in these options must be distributed across three departments.

Environmental Studies majors are provided internship opportunities through assignments in public and private agencies on projects related to citizen action, environmental planning, or in research. Ten to twenty hours weekly are required. Supervision and evaluation are by agency personnel and the course is conducted by the instructor. The internship may be repeated once

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## Career Opportunities

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for credit.

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Administrator • Citizen Activist • Conservator • Consumer Affairs Specialist • Educator • Energy Impact Assessor • Historic Preservationist • Journalist • Lawyer • Legislator • Librarian • Mediator • Statistician

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## Scholarship

Richard and Evelyn Thoman Scholarship in Geography and Environmental Studies

One \$500 scholarship awarded for the academic year for full-time undergraduate or graduate studies. Awards are limited to students with upper division or graduate standing. A grade point average of 3.0 or higher is required, and demonstrated scholastic and creative ability in the field of Geography or Environmental Studies.

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 94-103 units; the B.A. degree requires a total of 186 units.

I. Lower Division (35-38 units)

BIOL 1001-2 and 2030 or 2040 or 1301 or 1302 (9-10)  
CHEM 1000 or 1100 (4-5)  
GEOL 1001 and 1002 (6)  
ECON 2301<sup>1</sup> (4)  
ENVT 2000 (4)  
GEOG 2100 or 2410 (4)  
STAT 1000 or 2010 or C S 1020 or 1160 (4-5)

II. Upper Division (39-41 units)

BIOL 3031 or 3110 (4)  
ECON 4306 (4)  
ENVT 4100, 4300, 4800, and 4910 (14-16)  
GEOG 3000 (4)  
GEOG 3450<sup>2</sup> (5)  
POSC 3460 and 4171 (8)

III. Program of Electives (20-24 units)

Students must select one of the following options. Five or six courses, totaling 20-24 units, distributed across at least three departments, in one of the following five options:

*A. Ecology/Life Sciences*

BIOL 3015 Natural History of Marine Organisms (4); BIOL 3031<sup>3</sup> Nature Study (4) or BIOL 3110<sup>3</sup> Principles of Ecology (4); BIOL 3115 Marine Biology (4), 3116 Fresh-Water Biology (5), 3210 Woody Plants of California (4), 4130 Biogeography (4); GEOG 4125 Field Course in Physical-Biotic Geography (4); MSC 4103 Marine Ecology (6); SOC 3100 Human Ecology (4)

*B. Environmental Health*

ANTH 1001 Mankind and Food (4), 3720 Medical Anthropology (4); BIOL 3070 Optimal Nutrition (4), 3410 Epidemiology (3), 4010 Microbes and Humanity (4); GEOG 3340 Urban Planning (4); HDEV 2001 Human Development in Contemporary Society (4); HSC 3200 Environmental Health (4); SOC 3100 Human Ecology (4)

*C. Human Environment*

ANTH 1000 Introduction to Anthropology (4), 1001 Mankind and Food (4), 2300 Cultural Anthropology (4), 3000 Anthropology in the Modern World (4); ART 4081 The City: A Collective Work of Art (4); GEOG 2300 Cultural Geography (4), 2310 Economic and Resource Geography (4), 3300 Historical Cultural Geography (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 3360 Historical Geography of United States (4), 3505 Geography of California (4), 4325 Field Course in Cultural-Urban Geography(4); HDEV 2001 Human Development in Contemporary Society (4); HSC 3200 Environmental Health (4); PSYC 3500 Social Psychology (4); REC 3700 Community Organization in the Urban Setting (4), 4700 Environmental Recreation (4); SOC 3100 Human Ecology (4), 3200 Introduction to Population Analysis (4), 4450 Urban Sociology (4); STAT 3010 Statistical Methods in the Social Sciences (4)

*D. Land Use Planning and Management*

GEOG 2100 Physical Geography (4), 2310 Economic and Resource Geography (4), 3000 Resource Management (4), 3115 Physical Landscape Analysis (4), 3340 Urban Planning (4), 3410 Air Photo Interpretation (4), 3420 Field Instruments and Observation (4), 3505 Geography of California (4), 3600 Cartographic Principles and Graphic Communication (4), 4320 Energy Resources and Management (4), 4350 Water Resources and Management (4), 4425 Remote Sensing of Earth Environments (4); POSC 1400 Introduction to Public Affairs and Administration (4); POSC 3120 State and Local Politics and Government (4) or POSC 3130 Urban Politics (4), 3800 Public Policy Analysis (4), 4147 Public Policy and the Environment (4); PUAD 4800 The Study of Public Administration (4), 4830 Organization Theory and Human Behavior (4); REC 3700 Community Organizations in the Urban Setting (4), 4300 Physical Setting of Leisure Services (4), 4700 Environmental Recreation (4)

*E. Physical Environment*

GEOG 2100<sup>5</sup> Physical Geography (4), 3120 Climatic Change (4), 3115 Physical Landscape Analysis (4), 4125 Field Course in Physical-Biotic Geog. (4); GEOL 2101 Physical Geology (5), 3030 Earth and Life Through Time (5), 3040 Fundamentals of Meteorology (4), 3100 Geology of the Western Nat'l Parks (4), 3110 Principles of Geomorphology (4); GEOL 1201 Introduction to Oceanography (4) or GEOL 3400 General Oceanography (4); PHIL 3331 History of Science (4), 3332 Philosophy of Science (4)

Other Degree Requirements

In addition to major requirements, every student must also



## Minor Requirements

complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

The minor is designed to encourage and enable students enrolled in any major to organize their elective courses around a broad study of the environment and its problems from both a social and scientific perspective. The minor consists of 36 units arranged in an integrated pattern, as approved by an advisor. The core program includes three sequential courses (totaling 12 units) which are required of all students in the minor. The remaining 24 units are electives selected from the list below.

I. Core Courses (12 units)

- ENVT 2000 Introduction to Environmental Studies (4)
- ENVT 4300 Environmental Field Studies (5)
- ENVT 4800 Senior Seminar in Environmental Studies (3)

II. Electives in Natural Science (8 units minimum)

Two courses outside the major department, chosen from the following list, which will be expanded as relevant new courses develop:

BIOL 3110 Principles in Ecology (4); GEOL 1001 Introduction to the Earth Sciences (4), 1002 Problems in Environmental Geology (6) and GEOL 1201 Introduction to Oceanography (4), 2101 Physical Geology (5), 3040 Fundamentals of Meteorology (4); GEOG 2100 Physical Geography (4), 3120 Climatic Change (4)

III. Electives in Social Science (8 units minimum)

Two courses outside the major department, chosen from the following list, which will be expanded as relevant new courses are developed:

ENVT 4100 Environmental Impact Analysis (4); GEOG 2300 Cultural Geography (4), 3000 Resource Management (4), 3340 Urban Planning (4); POSC 3460 Environmental Law (4), 4171 Public Policy & the Environment (4); SOC 3100 Human Ecology (4)

IV. Additional Electives (8 units minimum)

Chosen from list II or III (above) or from the following list and Independent Study projects. No more than 5 units may be in the department of the undergraduate major:

ART 3080 Modern Architecture (4), 4081 The City: A Collective Work of Art (4); BIOL 3031 Nature Study (4), 3115 Marine Biology (4), 4010 Microbes and Humanity (4), 4130 Biogeography (4); MSC/BIOL 4103 Marine Ecology (6); GEOG 2310 Economic and Resources Geography (4), 3320 Geography of World Agriculture (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 4320 Energy Resources and Management (4), 4350 Water Resources and Management

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## Environmental Studies Option: Liberal Studies

(4); GEOL 3400 General Oceanography (4); SOC 3200  
Introduction to Population Analysis (4), 4450 Urban  
Sociology (4)

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### Area III.B (4 units)

ENVT 2000 Introduction to Environmental Studies (4)

### Area VII Credential Track, or Area VI, Liberal Arts Track (24 units)

ENVT 4100 Environmental Impact Analysis (4)

ENVT 4300 Environmental Field Studies (5)

ENVT 4800 Senior Seminar in Environmental Studies (3)

### *Twelve units selected from the following:*

ECON 4306 Environmental Economics (4); ENVT 4910  
Internship in Environmental Studies (2-4); GEOG 3000  
Resource Management (4), 3120 Climatic Change (4), 3115  
Physical Landscape Analysis (4), 3320 Geography of World  
Agriculture (4), 3330 Urban Geography (4), 3340 Urban  
Planning (4), 3360 Historical Geography of the United States  
(4), 3400 Field Geography of the San Francisco Bay Region  
(4), 4320 Energy Resources and Management (4), 4325 Field  
Course in Cultural-Urban Geography (4), 4350 Water  
Resources and Management (4); GEOL 2300 Natural  
Disasters (4), 3000 Conservation of Natural Resources (5),  
3030 Earth and Life Through Time (5), 3110 Principles of  
Geomorphology (4); HSC 3200 Environmental Health (4);  
POSC 3460 Environmental Law (4), 4171 Public Policy and  
the Environment (4); SOC 3100 Seminar in Human Ecology  
(4)

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## Undergraduate Courses

*The course prefix for the following courses is ENVT.*

- 2000** Introduction to Environmental Studies (4)  
Survey of important local, national, and world  
environmental problems, emphasizing a multidisciplinary  
approach. (A)
- 4100** Environmental Impact Analysis (4)  
The language and changing dynamics of the environmental  
review process. Contents and standards of environmental  
impact reports and their role in the planning process. (W)
- 4300** Environmental Field Studies (5)  
Weekly visits to various sites throughout the Greater Bay  
Area to observe environmental processes. Natural areas,  
industrial facilities, environmentally related agencies.  
Prerequisites: ENVT 4100 and senior standing in  
Environmental Studies. One hr. lect., 8 hrs. field. (Sp)
- 4800** Senior Seminar in Environmental Studies (3)  
Problem-oriented around selected topics of environmental  
concern, and requiring projects or reports. Prerequisites:  
ENVT 2000, 4300; restricted to seniors completing the  
major or minor in Environmental Studies. (Sp)

4900 Independent Study (1-4)

4910 Internship in Environmental Studies (2-4)  
Assignments in public and private agencies on projects related to citizen action, environmental planning, or in research. Ten to twenty hours weekly. Supervision and evaluation by agency personnel and the course instructor. Students exchange ideas and experiences in weekly group sessions which are conducted by the instructor. May be repeated once for credit. Prerequisite: ENVT 2000 and consent of instructor.

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## Footnotes

- <sup>1</sup> Prerequisite for ECON 4306
- <sup>2</sup> Fulfills Writing Skills graduation requirement for students who began the degree in Fall 1985, or earlier.
- <sup>3</sup> If not taken as a required core course alternative.



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## Recreation

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### Department Information

Department Information  
Department of Recreation and Community Services  
School of Education and Allied Studies  
Office: Art and Education Bldg. 246  
Phone: (510) 885-3043

*Professors:* Susan E. Sunderland (Chair), Doris Yates

*Associate Professor:* Melany Spielman

*Lecturers:* Ken Hanley, Andrea Laird, Michael Shumate

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The recreation curriculum, along with other university requirements, is designed to provide students with a sound liberal arts education and preparation for professional positions in any of several recreation, leisure, and human service fields. The purpose of the curriculum is to develop understanding of the importance of recreation and leisure in today's society. Students are provided educational opportunities which will develop their ability to organize, plan, and manage recreation, human services, and community service resources in diverse communities.

### Career Possibilities

Adventure Recreation Specialist • Camp Counselor/Director • Commercial Recreation Assistant • Community Education Director • Community Recreation Supervisor • Convention Manager • Employee Fitness Director • Facility Manager • Industrial Recreation Leader • Military Recreation Specialist • Park Naturalist • Park Ranger • Recreation Program Director • Recreation

Therapist • Resort Director • Senior Citizen Program Director •  
Student Activities Coordinator • Youth Sports Director

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## Features

Department faculty have developed an advisement program designed to assist students in making appropriate academic and career decisions. Faculty are knowledgeable about major requirements and overall university requirements for graduation. In addition, faculty provide information to students regarding career opportunities in recreation, leisure services, park management, and community services.

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## Major Requirements (B.S.)

Consult an advisor in your major department for clarification and interpretation of your major requirements. The regular major consists of 89 units; the major with an option in Environmental Recreation consists of 101 units; the major with an option in Therapeutic Recreation consists of 106 units; the B.S. degree requires a total of 186 units.

- I. Core Requirements (61 units)  
KPE 4650; REC 1000, 2200, 2500, 3000, 3300, 3700, 3800, 4000, 4005, 4100, 4300, 4890 or 4895, 4910 or 4911
- II. Recreation Electives (20 units)  
Select 20 units from the following: HDEV 3800; PSYC 4410; REC 1001, 2020, 2100, 3100, 3200, 3202, 3205, 3305, 3400, 4010, 4600, 4601, 4605, 4700, 4705, 4800, 4900
- III. Performing Arts and Activities Requirements (8 units)  
Activity courses must be in two or more of the following fields: Art, Mass Communication, Music, Kinesiology and Physical Education, Recreation and Community Services, Theatre Arts, or other approved activity area.

### Suggested General Education or Free Elective Coursework

ACCT 2210, 2251, 2252, 2701, 4280; ANTH 3000, 3400 (has prerequisite), 3410, 3425, 3430, 3500, 3505, 3720, 3740, 3745, 3840, 3870; BIOL 3031, 3060, 3070, 3110; CRJA 3300, 3610, 3700; ECON 3370, 3375; EPSY 5021, 6124, 6126, 6137, 6139, 6786; ENVT 4100, 4300; E S 3170, 3180, 3305, 3800; GEOL 1001, 1002, 2101, 3000, 3040, 3050, 3051; HSC 3200, 3300, 3350, 3400, 4601, 4602; HIST 3000, 3400, 3500, 3503, 3563; HDEV 3600, 3800, 3850, 4001, 4200, 4201; MGMT 3600, 3610, 3614, 4610; MKTG 2485 or approved substitute; MCOM 4510; POSC 3100, 3120, 3130, 3170, 3330, 3800, 3870, 4171; PSYC 3220, 3400, 3420, 3500, 3510, 3520, 3540; PUAD 4800, 4830; SOC 3410, 3412, 3419, 3420, 3421, 3425, 3520, 3530, 3700, 3705, 3710, 3715, 3720, 3730, 3745, 3750, 4450, 4705, 4716, 4717, 4740, 4750; T ED 3500, 4320, 4600, 5021, 5180, 5240, 5241, 5242; WOST 3100, 3400

### Environmental Recreation

The Environmental Recreation Option prepares students for professional positions in environmental, outdoor, and adventure recreation agencies. Courses will provide students with an awareness of career opportunities and the importance of the prudent use of outdoor recreation resources. Courses will enhance students leadership skills and improve verbal and non-verbal communication skills. Courses will cultivate management and administrative skill and allow students to participate and experience outdoor recreation. A major with this option consists of 101 units. In addition to courses required of all Recreation majors, students must complete the following:

- I. Required Courses (apply to Recreation electives in major)
  - REC 3305 Outdoor Living Skills (4)
  - REC 4700 Environmental Recreation (4)
  - REC 4705 Adventure Recreation (4)
- II. Communication Requirement
  - Select 4 units from the following:*
  - SPCH 1000, 1004, 3510 (has prerequisite not included in option), 3520, 4830
- III. Environmental Knowledge
  - Select 8 units from the following:*
  - ANTH 3000, 3500; BIOL 3031, 3110; SOC 4450
- IV. Instruction and Leadership Requirement (4 units)
  - (apply to Recreation electives in major)*
  - REC 3400 Outdoor Leadership (4)
- V. Development of Outdoor Recreation Skills Requirement
  - Select 4 units from the following (apply to Performing Arts and Activities requirement in major):*
  - REC 2001, 2002, 2003, 2004, 2800

### Recreation Therapy

The Recreation Therapy option is designed to prepare students majoring in Recreation to work with people who have special needs in clinical, residential, and community-based agencies. This option is specifically designed to meet the standards developed by the National Council for Therapeutic Recreation Certification (NCTRC) and the California Board of Park and Recreation Personnel Certification. Successfully completing this curriculum will provide students with knowledge competencies necessary to qualify for both the National and State Therapeutic Recreation Certification Exams. The Recreation major with an option in Recreation Therapy consists of 106 units; the B.S. degree requires a total of 186 units. In addition to courses required of all Recreation majors, students must complete the following:

- I. Required Courses (39 of the 44 units apply to regular major requirements)
  - BIOL 2010 Human Physiology and Anatomy I (5)
  - HDEV 3800 Human Development and Interaction (4) (applies to Recreation electives)
  - PSYC 4410 Abnormal Psychology (4) (applies to Recreation

electives)

REC 4600 Recreation Therapy Documentation and Assessment (4) (applies to Recreation electives)

REC 4601 Recreation Therapy Treatment and Program Planning (4) (applies to Recreation electives)

REC 4602 Advanced Recreation Therapy Modalities (3) (applies to Performing Arts/Activities requirement)

REC 4603 Recreation Therapy Programming (3) (applies to Performing Arts/Activities requirement)

REC 4605 Special Populations: Psychomotor Disabilities and Implications (4) (applies to Recreation electives)

REC 4895 Recreation Therapy Intern Placement (1) (applies to Recreation core)

REC 4911 Recreation Therapy Internship (12) (applies to Recreation core)

## II. Elective Courses

*Select 12 units from the following:*

CRJA 3100; EPSY 5021, 5610, 5620; HDEV 4300, 4400, 4510, 4700; PSYC 3220, 3250, 3420, 3500, 3520, 3550, 4300; SOC 3419, 3425, 3520, 3715, 3720, 3730, 3750, 4720, 4740

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## Other Degree Requirements

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In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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### Environmental Recreation (44-46 units)

*Note: Courses marked by stars have prerequisites not included in minor.*

#### I. Core Requirements (16 units)

REC 2500 Fieldwork or ENVT 4910 Internship in Environmental Studies (4)

REC 3305 Outdoor Living Skills (4)

REC 4700 Environmental Recreation (4)

REC 4705 Outdoor Adventure Recreation (4)

#### II. Communication Requirement (4 units)

*One course from:*

SPCH 1000 Principles of Speech Communication (4), 1004 Interpersonal Communication (4), 3510\* Small Group Communication (4), 3520 Non-Verbal Communication (4),

4830 Intercultural Communication (4)

III. Resource Management Requirement (4 units)

*One course from:*

GEOG 2310 Economic and Resource Geography (4), 3000 Resource Management (4), 4320\* Energy Resources and Management (4), 4350\* Water Resources and Management (4); ECON 4306\* Seminar in Environmental Economics (4); ENVT 4300 Environmental Field Studies (4), 4100 Environmental Impact Analysis (4); MKTG 2485 Establishing and Managing a Small Business (4); MGMT 3600 Theories of Management (4); REC 3700 Community Organizations in the Urban Setting (4), 4000 Administration of Leisure (4), 4800 Commercial Leisure Services (4)

IV. Environmental Ethics, Values and Philosophy (4 units)

*One course from:*

ENVT 2000 Introduction to Environmental Studies (4); PHIL 3151 Environmental Ethics (4); REC 1000 Nature of Recreation and Community Services (4), 3000 Philosophy of Leisure (4), 3600 Recreation Lands and Opportunities (4)

V. Environmental Knowledge (8-10 units)

*Two courses from the following lists:*

ANTH 2300 Cultural Anthropology (4), 3000 Anthropology in the Modern World (4), 3500 North American Indians (4); BIOL 3015\* Natural History of Marine Organisms (4), 3031\* Nature Study (4), 3035\* Endangered and Threatened Species in Bay Area and California (4), 3110\* Principles of Ecology (4), 3115\* Marine Biology (4), 3130\* Principles of Evolutionary Biology (4), 4560\* Wildlife Ecology (4), 4590\* Biology of Marine Animals (5), 4630\* Biological Photography (4);

GEOG 3400\* Field Geography of the San Francisco Bay (4), 3505 Geography of California (4); GEOL 1001 Introduction to the Earth Sciences (4), 2101 Physical Geology (4), 2300 Natural Disasters (4), 3030 Earth and Life Through Time (5), 3100 Geology of the Western National Parks (4), 3110\* Principles of Geomorphology (4), 3300\* Principles of Geology (4), 3400 General Oceanography (4); SOC 3100\* Seminar in Human Ecology (4), SOC 3431 Seminar in World Development (4), 4450\* Urban Sociology (4)

VI. Instruction and Leadership (4 units)

*One course from:*

REC 3400 Outdoor Leadership (4); TED 5413 Environmental Education in the Curriculum (4), 5414 Field Trips and Community Resources for Environmental Educators (4), 6414\* Organizations for Resident Outdoor Education (4), 6416\* Development of Environmental Education (4), 6417\* Field Study in Environmental Education (4).

VII. Development of Outdoor Recreation Skills (4 units)

*One or two courses from:*

REC 2001 Fly Fishing (2), 2002 Introduction to Sea



Kayaking (2), 2003 Mountain Biking for Leisure (2), 2004  
Rock Climbing for Personal Growth (2), 2800 Lifelong  
Leisure Aquatic Activities (4)

## Recreation (26-28 units)

### I. Core Courses (14-16 units)

REC 1000 Nature and Scope of Recreation and Community  
Services(4)

REC 2200 Programming for Recreation and Community  
Services Activities (4)

REC 2510 Community Leadership (2) or REC 2500 Program  
Fieldwork (4)

REC 3000 Philosophy of Leisure Studies (4)

### II. Electives (12 units)

*Select three courses from the following:*

REC 3100, 3200, 3205, 3700, 3800, 4000, 4100, 4300, 4600,  
4605, 4700, 4800

## Youth Services Administration

See Youth Services Administration chapter for minor  
requirements.

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## Certificate Program

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## Youth Services Administration

See Youth Services Administration chapter for certificate program  
requirements.

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## Recreation Option: Liberal Studies

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Area VII, Credential Track, or Area VI, Liberal Arts  
Track (25 units)

REC 1000 Nature and Scope of Recreation and Community  
Services (4)

REC 4890 Internship Placement Studies (1)

REC 4910 Recreation and Community Services Internship (8,  
12)

Upper division courses in Recreation and Community Services  
with approval of department advisor (8, 12)

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## Undergraduate Courses

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*The course prefix for the following courses is REC.*

**1000** Nature and Scope of Recreation and Community  
Services (4)

[CAN REC 2]

An introductory multi-disciplinary and multi-cultural  
investigation of the implications of recreation, leisure and  
learning in the development of individuals and  
communities. Effect of recreation and community services  
on human behavior including the effects of ethnicity,  
dominant culture, age and multi-cultural exposure on  
leisure participation. Survey of institutions and  
organizations providing recreation and community services

to individuals and groups.

- 1001** Personal Leadership Through Outdoor Adventure Challenge (4)  
Through experiential-based self-discovery and group dynamics, participation in individual and physical challenges, students develop team-building, goal-setting, problem-solving, decision-making skills, leadership, trust and self-esteem. Awareness of psychological, emotional and cultural barriers. Oral and written assignments required.
- 2001** Fly Fishing for Health and Wellness (2)  
Equipment and design of rods, reels, lines and terminal tackle. Theory and practice of casting techniques and fly presentation. Weekend intensive. Field trip required. Equipment supplied. CR/NC grading only. Four hrs. act.
- 2002** Introduction to Basic Sea Kayaking. (2)  
Introduction to sea kayaking as an environmentally sensitive, lifelong leisure pursuit. Development of paddling, bracing skills, rescue procedures, trip planning, navigation, and understanding of surf zones. Weekend intensive class. A miscellaneous course fee will be charged. Consult quarterly Class Schedule for current fee. CR/NC grading only. Four hrs. act.
- 2003** Mountain Biking for Leisure (2)  
Introduction to mountain biking on back country trails. Emphasis on environmentally responsible riding, bicycle maintenance, trail riding techniques for various terrain, trail etiquette, map reading and trip planning. Experiential weekend intensive class. Mountain bicycle required. No previous skills required. A miscellaneous course fee will be charged. Consult the quarterly Class Schedule for the current fee. CR/NC grading only. Four hrs. act.
- 2004** Rock Climbing for Personal Growth (2)  
Instruction in basic climbing techniques, belaying, repelling, equipment, strategy, planning and safety. Leadership and team concepts demonstrated through practical climbing experiences. Weekend intensive. A miscellaneous course fee will be charged. Consult the quarterly Class Schedule for the current fee. CR/NC grading only. Four hrs. act.
- 2020** Leadership for College and Community Settings (2)  
Theory and practice in evaluating leadership and communication in group settings. Emphasis on exploring the theoretical foundations of individual and group relationships and applying these concepts to working effectively with diverse populations in college and community settings. Prerequisite: instructor's approval.
- 2100** Recreation and Youth (4)  
Participation and non-participation of youth in recreation and related activities. Impact of environments and technology on behavior, decision making, life choices, self-esteem and attitudes. Effects of urban, suburban, and rural environments on discipline, cultural tolerance, and youth

development.

- 2200 Programming for Recreation and Community Services (4)  
Emphasis on learning, appreciating and experiencing community recreation, education and service program activities including cultural arts and crafts, creative dramatics and dance, group singing, outdoor and social recreation activities. Factors influencing and planning processes and techniques. Planning and conducting activities for groups with special attention to people with disabilities and to ethnic and cultural diversity. (Y)
- 2500 Program Fieldwork (4)  
Field experiences in recreation and community service agencies. Supervision of students by agency and university personnel. One hundred hours of field experience. Repeatable with department consent. CR/NC grading only.
- 2510 Community Service Learning (2)  
Supervised leadership in community education/recreation agencies. Open to both majors and non-majors. Variable hour requirement depending on number of units enrolled. CR/NC grading only. Repeatable with department consent.
- 2800 Lifelong Leisure Aquatic Activities (4)  
Basic principles, practices, skills and techniques of sailing, kayaking, canoeing, rowing, and windsurfing. Participation in these activities and swim test required. Boat maintenance, safety and basic navigation. A miscellaneous course fee will be charged. Consult the quarterly Class Schedule for the current fee. CR/NC grading only. Three hrs lect., 2 hrs. act.
- 3000 Philosophy of Leisure Studies (4)  
Analysis of the roots of current practices, theories and philosophies in the fields of leisure, recreation, human and community service agencies. Leisure cultural differences. Scope and function of adult and community education. Development of one's own philosophy.
- 3100 Lifelong Leisure Transitions (4)  
Lifelong leisure behaviors and trends. Life transitions and implications for leisure behavior and recreation participation. Emphasis on recreation and education of the adult.
- 3200 Wellness Through Leisure (4)  
Theories and concepts of wellness, health and self-efficacy. The importance of leisure, recreation, the environment, education and culture in the development of wellness. Self-responsibility in the pursuit of holistic wellness through leisure.
- 3202 Women and Leisure (4)  
Exploration of women and their leisure and recreation pursuits from a creative, historical and cultural perspective. Leisure's role in contributing to the quality of life of women. Women's leisure expression as a reflection of societal change.

- 3205** Volunteer Administration (4)  
The skills necessary to manage volunteers and volunteer-based programs in youth and human service organizations. Volunteer recruitment, training, and retention; development and work of boards and committees; long-range planning, program development, public relations, and funding sources and community relations.
- 3300** Leadership in Recreation and Community Services (4)  
Identification and analysis of successful leadership techniques. Emphasis on group work and dynamics, communication, budgeting and cultural and ethnic diversity. Leadership supervision of employees, volunteers, and clients using cooperative team building techniques.
- 3305** Outdoor Living Skills (4)  
Introduction to backpacking equipment and clothing, map orientation, wilderness survival and first aid, trip planning and logistics. Practical outdoor experience in developing leadership, group dynamics, problem-solving, and team building skills. Requires one weekend backpacking trip. A miscellaneous course fee will be charged for materials (or facilities). Please consult the quarterly Class Schedule for the current fee. Three hrs. lect., 2 hrs. act.
- 3400** Outdoor Leadership (4)  
Emphasis on experiential leadership skills and techniques required to conduct outdoor recreation programs for diverse populations. Assessment of individual abilities in the context of the environmental setting. The application of effective communication for problem-solving and decision making.
- 3600** Introduction to Recreation Lands and Opportunities (4)  
Resources, agencies, experiences and career opportunities offered through national, state, county, regional and municipal recreation and parks districts. Outdoor recreation concepts, management philosophies and policies governing public resources and lands.
- 3700** Community Organizations in the Urban Setting (4)  
Identification and analysis of political, social and ecological resources that have an impact on community recreation and services. Impact of demographics on community services. Community survey methods and techniques.
- 3800** Introduction to Recreation Therapy (4)  
Introduction to theory and techniques used in the practice of therapeutic recreation. Activity analysis, disability awareness, mainstreaming and integration, empowerment, learned helplessness, risk management, and quality assurance.
- 4000** The Administration of Leisure Services (4)  
Techniques of organizational leadership. The skills and duties required of supervisors and administrators. The

structure of leisure service agencies. Prerequisite: REC 1000.

- 4005 Computers in Recreation and Community Services (4)  
Computer practicum for recreation and community services. Includes program and facility management, league management, demographic and data review, desk top publishing for flyers, brochures and promotional materials.
- 4010 Facilitating Outdoor Leadership Programs and Adventure Based Counseling (4)  
Current principles, procedures, techniques and foundations in facilitating outdoor adventure based counseling and leadership programs. Developing curriculum, group preparation, implementing and processing safe adventure experience using low and high element ropes courses and natural resources.
- 4100 Professional Issues in Recreation (4)  
Issues having an impact on recreation and community service. Topics include, but are not limited to: ethics, diversity, multi-culturalism, at-risk youth, seniors, persons with disabilities, and environmental health and safety.
- 4300 Facilities Management and Administration (4)  
Recreation and park facilities at the local and regional level. Risk and resource management, standards of care, feasibility studies, budget planning and design process, bond issues and needs assessment. Relationship of recreation to open space, urban sprawl, land and turf use. The role of recreation in the protection of resources.
- 4600 Recreation Therapy Documentation and Assessment (4)  
Assessment procedures and instruments used to assure competence in assessment of client function in leisure. Documentation, assessment, regulations in different settings (i.e., community, hospital, and clinical settings), protocols and development of individual treatment plans. 50 hours practicum required.
- 4601 Recreation Therapy Treatment and Program Planning (4)  
Theory, techniques and modalities used in recreation therapy. Foundations of leisure counseling and leisure education. Systems theory of program design including individual and group program plans, risk management and quality assurance. 50 hours of practicum required.
- 4602 Advanced Recreation Therapy Modalities (3)  
Theory and application of leisure modalities including leisure education, activity adaptation, and equipment modification. Repeatable once with consent of instructor.
- 4603 Recreation Therapy Programming (3)  
Non-competitive activities to promote self-esteem and self efficacy. Active student learning and participation to demonstrate effective programming techniques.

Repeatable once with consent of instructor.

- 4700 Environmental Recreation (4)**  
The impact of governmental policies on the recreation environment. The depletion of resources and its impact on the quality of life. Environmental barriers to recreation participation. Recreation and the changing environment. Recreation resource management practice. The human impact on the environment through recreation participation.
- 4705 Outdoor Adventure Recreation (4)**  
Lecture, discussion, and participation in outdoor recreation activities. Includes rock-climbing, sailing, sea kayaking, orienteering, hiking, and mountain biking. Classes on five Saturdays, dates and locations to be announced. A miscellaneous course fee will be charged. Consult the quarterly Class Schedule for the current fee. Three hrs. lect., 2 hrs. act.
- 4800 Commercial Leisure Services (4)**  
Leisure services provided by businesses. Activities, program leadership, and supervision in such areas as apartment complexes, theme parks, resorts, private camps, country clubs, and other special facilities. Cross-listed with Physical Education 4800.
- 4890 Internship Placement Studies (1)**  
Directed individual study of professional practices in recreation and community education agencies. Open only to students who plan to enroll in REC 4910 or 4911 during the following quarter. Prerequisite: minimum 2.0 GPA overall and in major. May be repeated with consent of instructor. CR/NC grading only.
- 4895 Recreation Therapy Intern Placement (1)**  
Directed individual study of professional practices in Recreation Therapy Agencies. Open only to students who plan to enroll in REC 4911 during the following quarter. Prerequisites: minimum 2.0 GPA overall and in major. May be repeated with consent of instructor. CR/NC grading only.
- 4900 Independent Study (1-4)**
- 4910 Recreation and Community Services Internship and Senior Project (12)**  
Field experience in recreation or community education agency. Supervision by agency and university personnel. Minimum of 400 hours and senior project. Prerequisite: REC 4890, senior standing, consent of instructor and minimum 2.0 G.P.A. overall and in major. May be repeated with consent of instructor. CR/NC grading only.
- 4911 Recreation Therapy Internship and Senior Project (12)**  
Field experience in recreation therapy agency. Supervision by agency and university personnel. Minimum of 400 hours and senior project. Prerequisite: REC 4895, senior standing, consent of instructor and minimum 2.0 GPA overall and in major. May be repeated with consent of

instructor. CR/NC grading only.



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## Ethnic Studies

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### Department Information

Department of Ethnic Studies  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4099  
Phone: (510) 885-3255

*Professors:* Michael J. Clark, Colleen V. Fong, Carlos S. Navarro, Roxanne Dunbar Ortiz, Barbara Paige, Noel K. Samaroo

*Lecturers:* Wendell Brooks, Viba Chandra, Richard Oyama, Terry Wilson

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

The Department of Ethnic Studies is central to the university's commitment "to educational excellence for a diverse society." It offers a major, minors, and courses that are interdisciplinary in nature and provide a holistic approach to the study of the United States' multi-racial, multicultural, and multigender immigrant society. The department's faculty provide areas of study that integrate social science and literary theory, as well as anthropological and sociological concepts within a historical and humanistic perspective. The underlying goal of Ethnic Studies is to provide a better understanding of diversity in American culture and thought.

The Ethnic Studies major consists of a core of Ethnic Studies courses, support courses in other departments in the university, and Options in African American, Asian American, Mexican American/Latino, and Native American Studies. The curriculum is multidisciplinary as well as interdisciplinary. The major helps the student qualify for graduate work in social sciences, law, and humanities, and for work in municipal, state, and federal government. Of equal importance are the advantages the major provides to work in community service organizations concerned with opportunities and problems of various ethnic and racial groups.



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## Career Opportunities

Affirmative Action Specialist • Business Executive • Community Development Specialist • Corporate Communications Director • Curator • Customer Service Representative • Employee Relations Representative • Employment Interviewer • Foreign Service Officer • Journalist • Immigration Specialist • Personnel Representative • Public Relations Representative • Salesperson • Teacher • Trainer • Tutor • Writer

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 60 units; the B.A. degree requires a total of 186 units.

### I. Core Courses (16 units)

*Choose four courses from:*

- E S 1001 Ethnic Experience in America I: Minorities (4)
- E S 2002 Ethnic Experience in America II: Patterns of Immigration and Migration (4)
- E S 3000 Ethnic Writers (4)
- E S 3030 Immigrant and Refugee Women (4)
- E S 3700 Special Topics in Ethnic Studies (4)
- E S 3810 History of Minority Education (4)
- E S 4000 Research Seminar in Ethnic Studies (4)

### II. Area Breadth Courses (24 units)

*Choose two courses from each of two options and one course from each of the remaining two (with approval of advisor):*

- African American Studies (See African American Studies Option)
- Asian American Studies (See Asian American Studies Option)
- Mexican American/Latino Studies (See Mexican American/Latino Studies Option)
- Native American Studies (See Native American Studies Option)

### III. Support Courses (8 units)

*Choose one course each from two departments on the following list:*

- CRJA 2600 Police Community Relations (4)
- MCOM 3400 The Ethnic Media in America (4)
- PHIL 3510 Human Rights and Social Justice (4)
- PE 3730 Racism in Sports (4)
- POSC 3130 Urban Politics (4)
- POSC 3330 Interest Groups, Lobbying, and Political Reform (4)
- SOC 3520 Sociology of Minority Groups (4)
- SOC 4450 Urban Sociology (4)
- SPCH 4830 Intercultural Communication (4)

### IV. Option Courses (12 units)

*Choose one of the following options. Choose three courses in the option's area of study, in consultation with an advisor.*

#### A. African American Studies Option

E S 1100 Introduction to African American Studies (4), 2100 Blacks in the Americas (4), 2125 The Black Aesthetic (4), 2300 Blacks in Film (4), 2305 African American Folklore (4), 3003 African American Women Writers (4), 3105 African American Identity (4), 3110 Racism in America (4), 3120 The Civil Rights Movement (4), 3130 Slavery in America (4), 3145 African American Music (4), 3165 African American Sexuality (4), 3180 The World of the Black Child (4); ENGL/E S 3691 Black Literature I (4), ENGL/E S 3692 Black Literature II (4); HIST/E S 3567 Blacks in the United States (4); SOC 3415 Sociology of the African American Family (4)

B. Asian American Studies Option

E S 1500 Introduction to Asian American Studies (4), 2552 Chinese Experience in the United States (4), 2553 Southeast Asians in the United States (4), 2555 Filipino Experience in the United States (4), 3030 Immigrant and Refugee Women (4), 3551 Asian American Men and Women (4), 3555 Asian American Family Patterns (4)

C. Mexican American/Latino Studies Option

E S 1200 Introduction to Mexican American/Latino Studies (4), 3001 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present (4), 3202 Latino Writers (4), 3210 Latinas in the United States (4), 3243 Mexican American/Latino Perspectives in Film (4), 3290 Community Development (4), 3800 Peoples of Central America (4), 3805 Mexican and Latin American Immigration (4), 4290 Latino Politics and Public Policy (4); HIST/E S 3515 The Mexican American and the American Southwest (4); SOC 3416 Sociology of the Mexican American Family (4)

D. Native American Studies Option

ANTH 3500 North American Indians (4), 3505 Indians of California (4); E S 1300 Introduction to Native American Studies (4), 3305 Contemporary Native American Life (4), 3310 Native American World View (4), 3330 Native American Liberation Movements (4)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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### African American Studies Minor (24 units)

The African American Studies minor offers the student majoring in another discipline the opportunity to obtain knowledge and understanding of America's largest racial minority and its relationship to the larger society. Students considering careers in teaching, government service, foreign affairs, business, health-science related fields, and law may find the minor compatible.

I. Lower Division (8 units)

Two of the following courses:

E S 1100 Introduction to African American Studies (4), 2100 Blacks in the Americas (4), 2125 The Black Aesthetic (4), 2300 Blacks in Film (4), 2305 African American Folklore (4), 3105 African American Identity (4)

II. Upper Division (16 units)

E S 4000 and a minimum of 12 units from the following:

E S 3003 Black Women Writers (4), 3105 African American Identity (4), 3120 The Civil Rights Movement (4), 3130 Slavery in the Americas (4); HIST/E S 3567 Blacks in the United States (4); PHIL 3510 Human Rights and Social Justice (4); SOC 3415 Sociology of the African American Family (4), 3520 Sociology of Minority Groups (4)

### Asian American Studies Minor (24 units)

The Asian American Studies minor offers the student majoring in another discipline the opportunity to acquire knowledge and understanding of one of the major ethnic groups in the United States and its developing relationship to the larger society.

Students considering careers in teaching, government service, foreign affairs, business, health-sciences related fields and law may find the minor compatible with their career goals.

I. Eight units from the following:

E S 1500 Introduction to Asian American Studies (4)

Plus one of the following:

E S 2552 Chinese Experience in the United States (4), 2553 Southeast Asians in the United States (4), 2555 Filipino Experience in the United States (4), 3551 Asian American Women and Men (4)

II. Eight units from the following:

E S 2552<sup>□</sup> Chinese in the United States (4), 2553<sup>□</sup> Southeast Asians in the United States (4), 2555<sup>□</sup> Filipinos in the United States (4), 3030 Immigrant and Refugee Women (4), 3551 Asian American Women and Men (4), 3555 Asian American Family Patterns (4); THEA 3311 Filipino Theatre (4)

III. Eight units selected with an advisor in Asian American Studies from the following list:

ANTH 3535 Southeast Asia (4), 3545 The Anthropology of China (4), 3550 Modern Japan; E S 1001 Ethnic Experience in America I: Minorities (4), 2002 Ethnic Experience in America II: Patterns of Immigration and Migration (4), 3000 Ethnic Writers (4), 3110 Racism in America (4), 3120 Civil Rights Movement (4), 3810 History of Minority Education (4); MLL 1601, 1602, 1603 Elementary Mandarin Chinese (4, 4, 4), MLL 1651, 1652, 1653 Elementary Filipino (4, 4, 4), MLL 1801, 1802, 1803 Elementary Japanese (4, 4, 4), MLL 1751, 1752, 1753 Elementary Vietnamese (4), MLL 2601, 2602, 2603 Intermediate Mandarin Chinese (4, 4, 4), MLL 2801, 2802, 2803 Intermediate Japanese (4, 4, 4); GEOG 3505 Geography of California (4), 3540 Geography of Eastern Asia (4), 3550 Geography of Southeast Asia (4); HIST 3312 Modern China (4), 3323 Modern Japan (4), 3500 History of California (4), 3503 History of San Francisco Bay Area (4); POSC 3204 Political Systems of Asia (4); SOC 3417

Sociology of the Asian American Family (4); WOST 3420  
Minority Women in America (4)

## Ethnic Studies Minor (24 units)

### I. Core Courses (12 units)

E S 1001 Ethnic Experience in America I: Minorities (4)

E S 2002 Ethnic Experience in America II: Patterns of  
Immigration and Migration (4)

Either E S 3000 Ethnic Writers (4) or E S 4000 Research  
Seminar in Ethnic Studies (4) or E S/WOST 3030 Immigrant  
and Refugee Women (4)

### II. Electives

12 upper division units as approved by a member of the  
Ethnic Studies Department. (At least one course must be  
taken in three of the four existing major options: African  
American Studies Option, Asian American Studies Option,  
Native American Studies Option, and Mexican  
American/Latino Studies Option.)

## Mexican American/Latino Studies Minor (24 units)

The Mexican American/Latino minor offers the student majoring in  
another discipline the opportunity to acquire knowledge and  
understanding of one of the oldest, yet continuing, immigrant  
groups in the United States, and its developing relationship to the  
large society. Students considering careers in teaching,  
government service, foreign affairs, business, health-sciences  
related fields and law may find the minor compatible with their  
career goals.

### I. Sixteen units from the following core courses:

E S 1200 Introduction to Mexican American/Latino Studies (4)

Plus 12 units from the following:

E S 3000 Ethnic Writers (4), 3201 Mexican American/Latino  
Renaissance: Ethnicity from the 1960's to the Present (4),  
3202 Latino Writers (4), 3210 Latinas in the United States (4),  
3243 Mexican American/Latino Perspectives in Film (4), 3805  
Mexican and Latin American Immigration (4), 4290 Latino  
Politics and Public Policy (4); HIST/E S 3515 The Mexican-  
American and the American Southwest (4); SOC 3416  
Sociology of the Mexican American Family (4)

### II. Eight units from the following courses:

(Eight units from the core list may be substituted for elective  
courses with approval of an Ethnic Studies advisor.)

ART 3055 Ancient American Art (4), 3010 Latin American Art  
(4); E S 1001 Ethnic Experience in America I: Minorities (4),  
2002 Ethnic Experience in America II: Patterns of Immigration  
and Migration (4), 3105 Black Identity (4), 3120 The Civil  
Rights Movement (4), 3310 Native American World View (4),  
3505 Contemporary Native American Life (4), 3800 Peoples  
of Central America (4), 4000 Research Seminar in Ethnic  
Studies (4); MLL 2401-2-3 Intermediate Spanish (4, 4, 4),  
3461 Introduction to Spanish American Literature 1492-1900  
(4), 3463 Introduction to Spanish-American Literature 1900-  
Present (4), 3495 Spanish-American Culture and Civilization

(4); GEOG 3510 Geography of Mexico, Central America and the Caribbean Islands (4); HIST 3500 History of California (4); POSC 3150 Politics of California (4), 3151 Contemporary California (4), 3333 Ethnic and Minority Politics (4)

Any course (including Special Topics, or Independent Study courses) approved by an Ethnic Studies advisor can be substituted for a core, or elective course.

### Native American Studies Minor (24 units)

The Native American Studies minor offers the student majoring in another discipline the opportunity to acquire knowledge and understanding of the original peoples of the United States as well as the entire Western Hemisphere and Pacific. This academic minor addresses historical, political, cultural, and intellectual issues of Native nations, providing an interdisciplinary basis for understanding the historical and contemporary problems not only of Native peoples, but of the United States as a colonial and military power.

I. Eight units from the following:

E S 1300 Introduction to Native American Studies (4)

Plus one of the following:

ANTH 1000 Introduction to Anthropology (4), 1300 Cultural Anthropology (4); E S 1001 Ethnic Experience in America I: Minorities (4), 1200 Introduction to Mexican American/Latino Studies (4); 2002 Ethnic Experience in America II: Patterns of Immigration and Migration (4), SOC 1000 Introduction to Sociology (4)

II. Twelve units from the following:

E S 3305 Contemporary Native American Life (4), 3310 Native American World View (4), 3330 Native American Liberation Movements (4), 3800 The Peoples of Central America (4)

III. Four units from the following:

ANTH 3240 Archeology of North America (4), 3500 North American Indian (4), 3505 Indians of California (4); E S 3000 Ethnic Writers (4), 3030 Immigrant/Refugee Women (4), 3110 Racism in America (4), 3120 Civil Rights Movements (4), 3202 Latino Writers (4), 3805 Mexican and Latin American Immigration (4); HIST 3500 History of California (4), 3511 The Westward Movement (4); T ED 5038 Multicultural Education (4)

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## African American Studies Option: Liberal Studies

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Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

E S 1100 Introduction to African American Studies (4)  
HIST/E S 3567 Blacks in the United States (4)

Either E S 3110 Racism in America (4) or E S 3120 The Civil Rights Movement (4)

*Three courses (12 units) from the following:*

E S 3105 African American Identity (4), 3130 Slavery in the Americas (4), 3145 African American Music (4), 3165 African American Sexuality (4), 3180 The World of the Black Child (4),

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Ethnic Studies  
Option: Liberal  
Studies

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Area VII, Credential Track, or Area VI, Liberal Arts  
Track (24 units)

E S 1001 Ethnic Experience in America I: Minorities (4)  
E S 2002 Ethnic Experience in America II: Patterns of  
Immigration and Migration (4)

Either E S 3000 Ethnic Writers (4) or E S 4000 Research  
Seminar in Ethnic Studies (4)

Three additional upper division Ethnic Studies courses,  
representing three of the following areas: African American  
Studies, Native American Studies, Asian American Studies, and  
Mexican American/Latino Studies (12 units)

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Undergraduate  
Courses

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*The course prefix for the following courses is E S.*

### General Ethnic Studies Courses

- 1001** Ethnic Experience in America I: Minorities (4)  
Historical and contemporary examination of the African  
American, Asian American, Hispanic American, and the  
Native American experience in America. A multidisciplinary  
survey of the immigration patterns, adaptations to  
Europeans, and present day cultural, social, and political  
conditions. (F, Sp)
- 1005** Viewing Diversity (4)  
Basic social science approaches to the study of local,  
national, and global constructions and representations of  
cultural diversity.
- 2002** Ethnic Experience in America II: Patterns of  
Immigration and Migration (4)  
A comparative approach to immigration and migration. The  
changing character of immigration and migration in the  
United States and its sociocultural and policy implications.  
Not open to those with credit for E S 1002.
- 2120** Jewish Values and Thinkers in America (4)  
Development of Jewish values, thinking, and religious  
traditions. The role that religious values and concerns have  
played among American Jews. Source documents,  
images, literature, symbols, rituals, social mores, and  
cultural identities.
- 3000** Ethnic Writers (4)  
A critical examination of the novels of twentieth century  
minority American writers. Advanced principles of  
composition and style. Fulfills the University Writing Skills  
Requirement for students who began work on the present  
degree before Fall quarter 1985. Prerequisite: ENGL 1001

or equivalent. (Y)

- 3030** Immigrant and Refugee Women (4)  
Changes and continuities in the lives of immigrant and refugee women, especially with reference to the conditions leading to their departure from their countries of origin and adaptation and resettlement in the United States. Cross-listed with WOST 3030.
- 3333** Ethics and Minority Politics (4)  
(See POSC 3333 for course description.)
- 3420** Minority Women in America (4)  
(See WOST 3420 for course description.)
- 3700** Special Topics in Ethnic Studies (4)  
Topics of current interest in Ethnic Studies. May be repeated for a maximum of 8 units. Prerequisite: Consent of instructor.
- 3810** History of Minority Education (4)  
Interdisciplinary analysis of the development and the rise of a multi-ethnic society. Focus on the development of educational opportunities for minorities and women.
- 4000** Research Seminar in Ethnic Studies (4)  
Nature and application of the scientific method in Ethnic Studies research. Descriptive and analytic procedures employing statistical, historical, and comparative methods. Use of research instruments such as interview, questionnaire, and observation. Prerequisite: completion of two upper division Ethnic Studies courses.
- 4750** Multi-Ethnic Adolescent Coming-of-Age Narratives (4)  
(See ENGL 4750 for course description.)
- 4900** Independent Study (4)

### African American Studies Courses

- 1100** Introduction to African American Studies (4)  
A historical, multidisciplinary overview of the field. Focus on the socio-political and cultural experience of African Americans in the United States. (Y)
- 2100** Blacks in the Americas (4)  
The historical, cultural, socioeconomic and political dimensions of the Black presence in the Americas, i.e., North and South America, and the Caribbean; 1619 to date. Emphasis on cross-cultural analysis with the objective to further understand the present day dynamics among these diverse groups in the "New World." (A)
- 2125** The Black Aesthetic (4)  
Survey of African American literature, music, dance, theatre, etc. Emphasis on black art forms in the Americas.
- 2300** Blacks in Film (4)



A critical examination of historically significant black films, from 1915 to the present. Comparative and interdisciplinary in approach. The impact of the minstrel theatre tradition on early black films, the role of independent film producers and directors in creating alternative and more multidimensional images of blacks, and the more recent crossover tradition in American films. Representative films from each decade.

- 2305 African American Folklore (4)  
Survey of major genres of African American folk culture, i.e., tales, songs, jokes, etc. Focus on African American folk tradition, as artifact and performance form.
- 3003 African American Women Writers (4)  
Literary works by African American women. Emphasis on the interaction of race, gender, and literary theory. Analysis of recent topical trends in Black American female literature, and the changing structure of the American literary canon.
- 3105 African American Identity (4)  
A study of the unique psychology which evolved as a result of the Black experience in America and how it is related to the basic processes of human behavior. (Y)
- 3110 Racism in America (4)  
An examination of racist attitudes, behavior, and policies of America and Americans. (Y)
- 3120 The Civil Rights Movement (4)  
The historical, socioeconomic and political development of the major civil rights movements in the United States. (Y)
- 3130 Slavery in the Americas (4)  
The African slave trade and slavery. Emphasis on the relations among the institutions of slavery, racism and capitalism. (A)
- 3145 African American Music (4)  
Organization and development of the types, forms and styles of music as they relate to the history of the African American. (Y)
- 3165 African American Sexuality (4)  
The historical impact of African sexual attitudes and practices on both the European and the slave. The subsequent social and structural development in this society of contemporary African American sexual attitudes and behaviors. Within this context, a critical analysis of longheld African American sexual stereotypes and related problems. (Y)
- 3180 The World of the Black Child (4)  
The impact of a variety of socializing agents on the mental and emotional development of the Black child in this society. Emphasis on a critical examination of the growing body of research and related theory and its practical application to Black children.



- 3185 African American Religion (4)  
Analysis of Black religion; its genesis, institutional structure, leadership recruitment function and relationship to other African American institutions. Emphasis upon religion as a major element of African American culture. (Y)
- 3567 Blacks in the United States (4)  
(See HIST 3567 for course description.)
- 3691 Black Literature I (4)  
(See ENGL 3691 for course description.)
- 3692 Black Literature II (4)  
(See ENGL 3692 for course description.)
- 3790 Black Literature III (4)  
(See ENGL 3790 for course description.)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 3981 Development of African Civilization (4)  
A survey of the historical, political and socioeconomic aspects of African civilization; contributions to human thought and the arts.

## Asian American Studies Courses

- 1500 Introduction to Asian American Studies (4)  
Introduction to the Asian American experience from an interdisciplinary perspective including: the popularized version of Asian Americans as a "model minority," the theoretical, the statistical, the historical, and the personal. Critical analysis and discussion of the position Asian Americans hold in society.
- 2552 The Chinese Experience in the United States (4)  
Theoretical and descriptive study of the Chinese experience in the United States from the nineteenth century "bachelor" societies to the most recent immigrants and refugees. Special attention given to diversity among Chinese Americans-by generation, social class, gender, year and condition of entry, and place of residence.
- 2553 Southeast Asian Experience in the United States (4)  
Various causes of Southeast Asian migration to the United States, particularly post-1975. Comparisons between various Southeast Asian groups in regard to the conditions under which they left their homelands, resettlement and adjustment in the United States, and their relationships with mainstream institutions.

- 2555 Filipino Experience in the United States (4)  
Historical and contemporary experiences of Filipinos in the United States within the context of American national and foreign policy from various theoretical and descriptive perspectives.
- 3551 Asian American Women and Men (4)  
Through a survey of changing images and roles of Asian women and men in the United States, course explores how gender has been socially constructed. Conceptions of masculinity and femininity will be treated as relational and comparisons will be made between Asian Americans and other racial groups.
- 3555 Asian American Family Patterns (4)  
The family is conceptualized as an adaptable institution. How changes in larger society-immigration, race relations, gender roles-affect the Asian family in the United States. Topics include "bachelor" communities, picture brides, and interracial relationships. Not open to students with credit for SOC 3417. Cross-listed with SOC 3555.
- 3670 Asian/Filipino American Literature (4)  
(See ENGL 3670 for course description.)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

### Mexican American/Latino Studies Courses

- 1200 Introduction to Mexican American/Latino Studies (4)  
A historical, multidisciplinary overview of the field. Focus on the socio-political and cultural experiences of Chicanos/Latinos in the United States.
- 3201 Mexican American/Latino Renaissance: Ethnicity from the 1960's to Present (4)  
A historical examination of the rise of ethnicity in the United States from the 1960's through the present, with a specific emphasis on the Mexican American/Latino Renaissance. Ethnicity as a phenomenon within the intellectual and cultural patterns of thought in the post modern period in the United States and Latin America.
- 3202 Latino Writers (4)  
The writings, literary topics, and especially the novels of twentieth century Chicano writers.
- 3210 Latinas in the United States (4)  
Examines historically, culturally, and theoretically the condition of Latinas in the United States.

- 3243** Mexican American/Latino Perspectives in Film (4)  
Integrated combination of film screenings, lectures, classroom discussions, and readings on the Mexican American/Latino experience and theory of cinema. Students screen seminal film works in the areas of documentary, narrative and experimental film making, and develop critical perspectives as a reflection of the values of society.
- 3290** Community Development (4)  
Supervised field work in Mexican American/Latino communities. Provides a variety of learning experiences in community agencies, organizations, or educational institutions. Regular meetings with faculty sponsor and written reports required. Repeatable for maximum 12 units credit.
- 3805** Mexican and Latin American Immigration (4)  
An examination of Mexican, Puerto Rican and Latin American immigration to the United States from a comparative political-economic perspective.
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 4290** Latino Politics and Public Policy (4)  
Contemporary social issues and public policy questions in the Mexican American/Latino community. Areas include race relations, immigration, feminization of poverty, education, housing, unemployment, juvenile delinquency, and criminal justice.

### Native American Studies Courses

- 1300** Introduction to Native American Studies (4)  
Survey of the Native American experience in North America. Topics covered: History, education, religion, socioeconomic conditions, and psychology. Results of cultural contact. (Y)
- 3305** Contemporary Native American Life (4)  
Social and economic conditions of contemporary American Indian Life. Stereotypes, discrimination, poverty, and their effects on individuals. Contemporary social movements. (Y)
- 3310** Native American World View (4)  
A comparative study of Native American belief systems, world views, and religions, analyzing their roles and importance in Indian life. (Y)

- 3330** Native American Liberation Movements (4)  
Study of Native American movements aimed at liberation from the effects of European conquest. Social and political problems of political domination. Prerequisite: E S 1300 or consent of instructor.
- 3660** Native American Literature (4)  
(See ENGL 3660 for course description.)
- 3800** Peoples of Central America (4)  
The developmental relationship between United States' communities of Central America origin and contemporary Central America. Focus on historical, socioeconomic, and cultural factors, as well as nationalistic movements, economic dependence, migration patterns (to the United States) and social change.
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Ethnic Studies major; a maximum of 4 units will be accepted toward the minor. CR/NC only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

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## Footnotes

- 1** If not taken to fulfill (I.) above.



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## Science

- ▶ [Department Information](#)
- ▶ [General Information](#)
- ▶ [Program Description](#)
- ▶ [Undergraduate Courses](#)

### Department Information

For general information regarding Science courses:

School of Science  
Office: North Science 131  
Phone: (510) 885-3441

For information regarding the Single Subject Matter Preparation Program in Science for prospective high school science teachers:

Department of Geological Sciences  
Office: North Science 329  
Phone: (510) 885-3486

*Assistant Professor: Diane Williams (Geological Sciences)*

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### General Information

The School of Science offers three interdisciplinary curricula: 1) the Single Subject Matter Preparation Program for prospective high school science teachers, 2) interdisciplinary science courses which meet a variety of needs (General Education, Writing Skills, etc.), and 3) the Physical Science major (see the Physical Science chapter). The first two items are covered in this section of the catalog.

### Program Description

The following Single Subject Matter Preparation Program in Science has been approved by the California Commission on Teacher Credentialing as appropriate subject matter preparation for the Single Subject Teaching Credential in Science. It may be completed by students in any major, but will overlap major requirements to the largest extent in Environmental Science and secondarily in Biological Science, Chemistry, Geology, and Physics. The Single Subject Matter Preparation Program in Science requires 89-109 units.

- I. Required Courses (60-63 units)  
BIOL 1301-2-3 Foundations of Biological Sciences (15)

BIOL/CHEM/GEOL/PHYS 3800 Achievements of Women in Science (4)  
CHEM 1101-2-3 General Chemistry (15)  
GEOL 1001 Introduction to the Earth Sciences (4)  
GEOL 1002 Environmental Geology Laboratory (2)  
MATH 1300 Trigonometry and Analytic Geometry (4) or MATH 1304 Calculus I (4)  
PHIL/SCI 3335 Science, Technology and Values (4)  
PHYS 1001-2-3 General Physics (15) or PHYS 2701-2-3 Introductory Physics (12)

II. Concentration (33-46 units)

*Select ONE concentration.*

A. Biological Sciences I (33-34 units)

Courses for the student who is considering a B.A. in Biology.

BIOL 2010 Human Physiology and Anatomy I (5) or BIOL 3150 Principles of Physiology (4-5)  
BIOL 3001 Concepts in Molecular Biology (4)  
BIOL 3005 Introduction to Microbiology (5)  
BIOL 3031 Nature Study (4)  
BIOL 3060 Human Sexuality (4)  
BIOL 3110 Principles of Ecology (4)  
BIOL 3120 Principles of Genetics (4)  
BIOL 3130 Principles of Evolutionary Biology (4)

B. Biological Sciences II (34-36 units)

Courses for the student who is considering a B.S. in Biology or Environmental Science

BIOL 3110 Principles of Ecology (4)  
BIOL 3121 Principles of Genetics (5)  
BIOL 3122 Principles of Developmental Genetic Analysis (4)  
BIOL 3130 Principles of Evolutionary Biology (4)  
BIOL 3150 Principles of Physiology (4)  
BIOL 3405 Microbiology (6)

Select one of the following (4-5 units):

BIOL 3521 (5), 3522 (5), 4560 (4), 4580 (5), 4581 (5)

Select one of the following (4-5 units):

BIOL 3201 (5), 3203 (5), 3210 (4), 4200 (4), 4320 (4)

C. Chemistry (34 units)

CHEM 2200 Quantitative Analysis (5)  
CHEM 3301-2-3 Organic Chemistry (15)  
CHEM 3400 and 3401 Introductory Biochemistry and Lab (6)  
CHEM 4601-2 Environmental Chemistry (8)

D. Geoscience (46 units)

GEOL 2101 Physical Geology (5)  
GEOL 2300 Natural Disasters (4)  
GEOL 3030 Earth and Life Through Time (5)  
GEOL 3040 Fundamentals of Meteorology (4)  
GEOL 3400 General Oceanography (4)  
GEOL 3610 Mineralogy (4)

GEOL 3700 Rocks (5)  
GEOL 3730 Principles of Stratigraphy (3)  
GEOL 3810 Structural Geology (5)  
GEOL 3910 Geologic Field Methods (3)  
PHYS 3700 Big Bang and Other Cosmologies (4)

E. Physics (44 units)

MATH 1305 Calculus II (4)  
MATH 2304 Calculus III (4)  
MATH 3331 Differential Equations (4)  
PHYS 3101 Analytic Mechanics I (4)  
PHYS 3180 Computational Physics (4)  
PHYS 3250 Modern Physics (4)  
PHYS 3280 Electronics (4)  
PHYS 3281 Experimental Physics I (4)  
PHYS 3301 Quantum Mechanics I (4)  
PHYS 4001 Electromagnetism I (4)  
PHYS 4150 Statistical Mechanics (4)

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## Undergraduate Courses

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*The course prefix for the following courses is SCI.*

- 1005** Technology and the Future (4)  
Survey of social development of key technologies that shape our society and future. Historical development of technology and emphasis on future developments and emerging technologies. Scientific, environmental, and policy issues. Cross-listed with GEOL 1005.
- 3010** Writing in Sciences (4)  
Writing course designed to improve written composition of students majoring in science. Open to all students who wish to improve writing skills. Recommended course for students in sciences who fail the WST and are required to take a second tier writing course.
- 3020** Writing in Math/Computer Science (4)  
Writing course designed to improve written composition of students majoring in Math and Computer Science. Open to all students who wish to improve writing skills. Recommended course for students in Math and Computer Science who fail the WST and are required to take a second tier writing course.
- 3335** Science, Technology, and Values (4)  
(See PHIL 3335 for course description.)
- 3501** Scientific Applications of Geographic Information Systems (4)  
Using maps to display scientific data. Using computer assisted mapping techniques to analyze datasets from environmental science, geological sciences, biological sciences, geography, and/or psychology. Using computer programming tools and statistical program packages to display spatial data. Prerequisites: a statistics course and a lab science course.
- 4900** Independent Study (1-4)



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## Filipino and Filipino American Studies

- ▶ [Department Information](#)
- ▶ [Program Description](#)
- ▶ [Minor in Filipino and Filipino American Studies](#)
- ▶ [Footnote](#)

### Department Information

Filipino and Filipino American Studies Program  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3089  
Phone: (510) 885-4818

*Professors:* Edgardo De La Cruz (Theatre and Dance), Ricardo Singson (Small Business Institute)

*Assistant Professors:* Cesar Maloles (Marketing), Efren Padilla (Sociology)

*Director:* Efren Padilla

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The Filipino and Filipino American Studies Minor serves several purposes. First, this minor strengthens the study of Asian civilizations and U.S. ethnic minority groups at Cal State Hayward by focusing on Filipinos and Filipino Americans. Second, students interested in taking courses related to Filipino and Filipino American experiences will be able to count these courses toward a minor. Third, the minor provides a foundation of cultural and social knowledge for students who plan to take business courses which deal with Filipino American communities and/or who plan to participate in international student exchanges with universities in the Philippines. Currently, students may participate in exchange programs between Cal State Hayward and selected universities in the Philippines such as De La Salle University, University of Northern Philippines, Silliman University, and the University of the Philippines (Diliman).

### Minor in Filipino and Filipino American Studies

The minor consists of a minimum of 28 units of coursework selected from the following lists of *core* and *elective* courses. No more than 12 units of coursework completed in a single department may be applied to the minor; and no more than 8 units of coursework applied toward a major may be counted for the minor. With the approval of the Filipino Studies advisor, a

maximum of eight units, including independent study or directed research, may be substituted for the Electives requirement.

- I. Core Courses (12 units)
  - E S 2555 Filipino Experience in the United States (4)
  - SOC 3507 Filipino American Communities (4)
  - SOC 3550 Filipino Labor/Immigration (4)
  
- II. Electives in Filipino and Filipino American Studies (8 units)
  - ANTH 3710 Anthropology and Museums (with emphasis on Filipino artifacts) (4); ENGL 3670 Asian/Filipino American Literature (4); MLL 1651, 1652, 1653 Elementary Filipino I, II, III (4, 4, 4)-Only one language course can be credited towards the Filipino and Filipino American Studies electives;
  - THEA 3311 Filipino Theatre (4)
  
- III. Electives in Related Fields (8 units)
  - ECON 4710<sup>1</sup> International Economic Development (4); E S 3551 Asian American Women and Men (4), 3555 Asian American Family Patterns (4); GEOG 3550 Geography of Southeast Asia (4); MKTG 4450<sup>1</sup> Marketing Seminar (4), 4490<sup>1</sup> Practicum in Small Business Management (4); POSC 3204 Political Systems of Asia (4); SOC 3425 Prejudice and Discrimination (4), 3510 Sociology of Identity (4), 3520 Sociology of Minority Groups (4); SPCH 4830 Intercultural Communication (4); WOST 3030 Immigrant and Refugee Women (4), 3550 Women, Work, and Family Life (4)

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## Footnote

- <sup>1</sup> Requires Filipino and Filipino American content and approval of an advisor.



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## Social Science

- ▶ [Department Information](#)
- ▶ [Program Description](#)

### Department Information

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Department of History  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4031  
Phone: (510) 885-3239

*Assistant Professor:* Jessica Weiss (History)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

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The Single Subject Matter Preparation Program in Social Science has been approved by the California Commission on Teacher Credentialing as appropriate subject matter preparation for the Single Subject Teaching Credential in Social Science. It may be completed by students in any major, but overlaps major requirements in several Social Science fields such as History, Political Science, Geography, and Economics. Seventy-three units are required in the Single Subject Matter Preparation program in Social Science.

#### I. Core Curriculum (49 units)

History (24 units)

- HIST 1014 World Civilizations I (4)
- HIST 1015 World Civilizations II (4)
- HIST 1016 World Civilizations III (4)
- HIST 1101 History of the United States to 1877 (4)
- HIST 1102 History of the United States since 1877 (4)
- HIST 3500 History of California (4)

Political Science (8 units)

- POSC 1201 American Political Institutions (4)
- POSC 1202 Public Policy/California Politics (4)

Geography (4 units)

- GEOG 1000 Introduction to Geography (4)

Economics (8 units)

- ECON 2301 Principles of Microeconomics (4)
- ECON 2302 Principles of Macroeconomics (4)

Behavioral Science (4 units)

One of the following: ANTH 1000, PSYC 1000, SOC 1000

Capstone Course (1 unit)

HIST 4500 The California History-Social Science  
Framework (1)

## II. Breadth Requirements (24 units)

History (4 units)

One of the following: HIST 3411, 3412, 3413, 3414, 3415,  
3416, 3417

Political Science (4 units)

One of the following: POSC 3111, 3112, 3410

Geography (4 units)

One of the following: GEOG 3500, 3505

Multiculturalism (4 units)

One of the following: E S 3810; SOC 3520; WOST 3420

Electives (8 units)

Eight upper division units in one or more Social Sciences selected from the following departments: Anthropology, Economics, Geography and Environmental Studies, History, Human Development, Political Science, Psychology, Sociology and Social Services, Social Sciences courses in Ethnic Studies. These courses may not include courses used to satisfy requirements above.

## III. Assessment Requirements

No more than 8 units may be taken on a CR/NC basis. No more than 8 units with a grade below "C" may be submitted in fulfillment of any program requirement. To successfully complete the program, a student must have a minimum 2.5 GPA in courses taken to fulfill program requirements or complete additional coursework to be determined by the program advisor. Students must successfully complete the "capstone course" in the final quarter of their participation in the program.



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## General Studies

- ▶ [Department Information](#)
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Curriculum and Academic Programs  
Office: Warren Hall, Room 859  
Phone: (510) 885-3716

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*The course prefix for the following courses is GS.*

- 1010** General Education Activities (1)  
Integrates thematic and basic subject course content.  
Builds communities to support attainment of expected G.E.  
course outcomes through group and individual strategies.  
Identifies learning styles of individual students. Integrates  
academic support services. Must be taken three times for  
credit, once each quarter of the frosh year. A-F grading  
only. Two hrs. act.
- 1200** Applied Computer Operations and Technology  
(2)  
Provides a foundation in hardware/software applications;  
exposure to basic concepts of mainstream operating  
systems and new media technology; hands-on approach to  
tools and techniques available for learning. Restricted:  
Summer Bridge students only. One hour lect., 2 hrs. lab.



## Sociology

- ▶ [Department Information](#)
- ▶ [Program Description](#)
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- ▶ [Sociology Option: Liberal Studies](#)
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### Department Information

Department of Sociology and Social Services  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3095  
Phone: (510) 885-3173

*Professor Emeritus:* Basil J. Sherlock

*Professors:* Asoke K. Basu, Diane R. Beeson (Chair), Benjamin P. Bowser, Benjamin G. Carmichael, Robert G. Dunn, Juan L. Gonzales Jr., Terry Jones, Sonjia P. Redmond, Karl L. Schonborn, Young I. Song, Willem W. Van Groenou

*Associate Professors:* Nan P. Chico, Efren N. Padilla

*Assistant Professors:* Rebecca A. Van Voorhis

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

Cal State Hayward offers a major in Sociology which leads to the Bachelor of Arts degree. The major contains two options: (1) Sociology and (2) Social Services.

The Sociology option is designed for students with career interests in the public sector or business or entry into law school, public administration, or graduate work in Sociology. In the Sociology Option, students take a series of courses at three distinct levels: global, community, and interpersonal.

The Social Services Option is designed to prepare students for beginning practice in a social services agency or going on to graduate study in social work, counseling or public administration. In the Social Services option, students take a variety of courses including two quarters of field placement, where they work for credit in a social services agency.

The core requirements for all majors include courses in social

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## Career Opportunities

theory and research methods. The research methods sequence includes training in applied social research and computer applications for the social sciences.

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Correctional Officer • Criminologist • Employee Relations Representative • Employment Counselor • Human Resource Representative • Industrial Sociologist • Market Research Analyst • Migration Specialist • Occupational Analyst • Parole Officer • Public Health Statistician • Public Relations Representative • Research Assistant • Social Ecologist • Social Worker n Urban Planner • Urban Sociologist • Vocational Rehabilitation Counselor

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## Features

The department faculty includes both sociologists and social workers who have expertise in the areas of family and interpersonal relationships, social theory, drug and alcohol abuse, applied social research, aging, urban sociology, social conflict, international development, social psychology, medical sociology, and minority and immigrant groups. Students should be aware that the range of choices and flexibility of scheduling is more limited in the evening.

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 61 units; the B.A. degree requires a total of 186 units.

- I. Lower Division (4 units)
  - SOC 1000 Introduction to Sociology (4)
  
- II. Upper Division (40-52 units)
  - A. Core Requirements (16 units)
    - SOC 3310 Current Sociological Theory (4)
    - SOC 3425 Prejudice and Discrimination (4) or SOC 3520 Sociology of Minority Groups (4)
    - SOC 4111 Methods of Sociological Research I (4)
    - SOC 4112 Methods of Sociological Research II (4)
  
  - B. Option Requirement (36 units)
    - Elect Option 1 or Option 2
  
    1. *Sociology Option (36 units)*
      - a. Two courses on international perspectives: SOC 3100 Seminar in Human Ecology (4), SOC 3200 Introduction to Population Analysis (4), SOC 3431 Seminar in World Development (4), SOC 3550 Filipino Labor/Immigration (4), SOC 4450 Urban Sociology (4)
  
      - b. Two courses on social diversity: SOC 3410 Sociology of the Family (4), SOC 3415 Sociology of the African American Family (4), SOC 3416 Sociology of the Mexican American Family (4), SOC 3420 Social Inequality (4), SOC 3425<sup>1</sup> Prejudice and Discrimination (4), SOC 3507 Filipino American Communities (4), SOC

3520 Sociology of Minority Groups (4), SOC 3555  
Sociology of the Asian American Family (4)

c. Two courses on the social sources of individual behavior: SOC 3413 Sociology of Parenting (4), SOC 3500 Sociology Psychology (4), SOC 3750 Alcohol and Drug Abuse (4), SOC 4740 Criminology (4)

d. Option electives: Complete 12 units from upper division Sociology courses. Up to 12 units of upper division Statistics, selected under advisement, may be counted as Sociology electives.

2. *Social Services Option (36 units)*

SOC 3700 Introduction to Social Services (4)

SOC 3710 Social Policy (4)

SOC 4121 Field Practice (8) (4 units each)

SOC 4711 Practice Theory I (4) (2 units each)

SOC 4716 Social Work Theories and Methods or

SOC 4717 Advanced Social Work (4)

SOC 3720 Human Behavior & Social Environment (4)

Option electives: Complete 8 units from upper division Sociology courses. Up to 8 units of upper division Statistics courses, selected under advisement, may be counted as Sociology electives.

III. Courses in Supporting Fields (5-17 units)

STAT 1000 Elements of Probability and Statistics (5)

Option Electives (see above for Statistics substitutions for Sociology electives) (0-12)

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 28 units and must be declared by the end of Junior year.

I. Lower Division (4 units)

SOC 1000 Introduction to Sociology (4)

II. Upper Division (8 units)

SOC 3000 Introduction to Sociological Research (4)

SOC 3310 Sociological Theory (4)

III. Electives (16 units)

Select 16 units from any other 3000 or 4000 level sociology courses. Statistics 1100 or any other Statistics course may be substituted for one Sociology course in course in III.

Minor/Certificate Program in Youth Services



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## Sociology Option: Liberal Studies

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## Undergraduate Courses

### Administration

See the Youth Services Administration chapter in this catalog for description.

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### Area I (4 units)

SOC 1000 Introduction to Sociology (4)

### Area VII (Credential Track) or Area VI (Liberal Arts Track) (24 units)

SOC 3310 Sociological Theory (4)

SOC 3000 Introduction to Sociological Research (4) or SOC 4111 Methods of Sociological Research I (4)

Four additional upper division Sociology courses (16)

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*The course prefix for the following courses is SOC.*

- 1000** Introduction to Sociology (4)  
[CAN SOC 2]  
Introductory analysis of (a) the structure and functioning of human groups and (b) interrelations between groups; changes in (a) and (b). (A)
- 1100** Critical Thinking about Social Problems (4)  
Factual and evaluative considerations in the definitions, explanation, and resolution of social problems. Analysis and criticism of current approaches to social problems focusing on logical procedures and fallacies in thinking.
- 1505** Introduction to Youth and Human Services Organizations (2)  
The private, non-profit youth and human services organizations available in most communities, their history, philosophy, and programs. The role of professional leadership and the skills and attitudes necessary for success. (F, Sp)
- 2421** Popular Culture (4)  
An examination of television, music, sports, film, and magazines using the sociological perspective, with a focus on gender, race, class, and deviance.
- 2510** Self, Family, and Culture (4)  
Primary group relationships as influenced by cultural heritage, mass media, and economic and political circumstances. Methods of phenomenology and self-reflection in the search for effective responses to the challenges of our times.
- 3000** Introduction to Sociological Research (4)  
Methodological problems in sociology in relation to the analysis of social organizations; research strategies; utilization of associated laboratory exercises to illustrate the important aspects of the research process in sociology. Prerequisite: SOC 1000. (Y)

- 3100 Seminar in Human Ecology (4)  
Introduction to theory and research on human ecosystems, with their interrelated components of population, environment, technology, and organization. Forms of social organization which result from the interaction of the components. Prerequisite: SOC 1000.
- 3200 Population Analysis (4)  
Population growth, distribution and composition. Introduction to population theories and analytic techniques. Individually supervised student projects. Three hrs. lect., 2 hrs. lab. Prerequisite: SOC 1000.
- 3310 Sociological Theory (4)  
Critical analysis of the works of leading sociological theoreticians from the middle of the 19th century to the present. Prerequisite: SOC 1000. (Y)
- 3410 Sociology of the Family (4)  
The family with respect to its institutional, organizational and interactional character. Comparative study and analysis. Prerequisite: SOC 1000. (Y)
- 3411 Sociology of Gender (4)  
Variations in sex roles with emphasis on sociological research. Social definitions of maleness and femaleness. Popular theories purporting the superiority of either gender. Prerequisite: SOC 1000. (Y)
- 3412 Marriage and Sex (4)  
Social norms and practices surrounding marriage, love, and sex in American society. Emphasis on premarital sex, mate selection, marital compatibility, marital power, and marriage in the middle and later years. (Y)
- 3413 Sociology of Parenting (4)  
Exploration of practical and theoretical issues in contemporary parenting. Various approaches to childrearing examined and critiqued from a sociological perspective. Parent-child interaction, working mothers, nurturing fathers, single parenting, joint custody, family systems, blended families, and society's impact on parenting.
- 3415 Sociology of the African American Family (4)  
Sociological analysis of the African American family and family life. Emphasis on sociological theory and research focusing on African American families and family life. Application of social systems approach emphasizing the interrelationships of social and institutional structure with the various subsystems of the African American family. Prerequisite: SOC 1000.
- 3416 Sociology of the Mexican American Family (4)  
Family in Mexican American culture, the roles of family members in intracultural and intercultural relations. Prerequisite: SOC 1000.
- 3419 Death and Dying (4)

Trends and patterns in death and dying including historical perspectives, death in popular culture, demography of death, medical technology and dying, dying patient's perspective, survivors, and ethical dilemmas of death and dying.

- 3420 Social Inequality (4)  
Nature, origins, forms, and consequences of structured inequalities. Focus on the material circumstances, life styles, and life chances of social classes, including minorities. Prerequisite: SOC 1000.
- 3421 Sociology of Popular Culture (4)  
Sociological analysis and interpretation of the social structure and contents of popular culture, including television, music, sports, film, and magazines. Critical examination of ideological and behavioral themes and functions, e.g. class, race, gender, authority, deviance, and protest.
- 3423 Postmodern Society (4)  
The emergence of postmodern society as a new type of social order. Survey of technological, economic, social, cultural, and intellectual changes in contemporary society with an emphasis on the interrelationship of these to new modes of social and personal existence.
- 3425 Prejudice and Discrimination (4)  
Identifying overt, covert, and subtle discrimination, prejudice, stereotyping, and scapegoating on the basis of such factors as race, sex, class, disability. Legislative and social policy remedies, outcomes.
- 3431 Seminar in World Development (4)  
Critical review of social change and ideas about development as they affect villagers, the urban poor, ethnic and racial minorities, and military and industrial elites. The conflict between the rich and the poor in an international context.
- 3432 Discover India (4)  
A 23-day guided journey of cities and institutions in India to learn about cultural, ecological, historical, and social aspects of Indian civilization. Contacts with artists and scholars. Cross-listed with ANTH, ART, and HIST 3432.
- 3480 Violence and Conflict (4)  
Conduct, causes, and consequences of violent conflicts between individuals, groups, organizations, communities, societies. Resolution techniques utilizing violence, nonviolence, mediation, peacekeeping. Prerequisite: SOC 1000. (Y)
- 3500 Social Psychology (4)  
Current theory and research on the individual in society, small groups, complex organizations, and interpersonal interaction. Socialization, social structure, attitude formation, and group structure. Prerequisite: SOC 1000. (A)

- 3501 Love and Friendship (4)**  
The social origins of love and friendship. How individuals learn to love, draw out love in others. Types of love and types of marital-love relationships. Levels and types of friendship and their social significance.
- 3505 Sociology of Emotions (4)**  
Theoretical and substantive issues in the sociology of emotions. Social psychological focus on the influence on emotional experiences of social structure and the reciprocal effects of emotional expression on social conditions. Particular attention to the role of emotions in strengthening or weakening social solidarity.
- 3507 Filipino American Communities (4)**  
Sociological analysis of the construction of Filipino American communities. Emphasis on the economic realities of Filipino American communities in the Bay Area.
- 3510 Sociology of Identity (4)**  
The social nature and bases of identity formation in groups and individuals, including the changing identities of race, ethnicity, nationality, gender, sexuality, consumption, and class. Historical perspective on the problematization of identity resulting from shifts in social, cultural, economic, technological, and power relations in the United States and the world including the phenomenon of transnationalism.
- 3520 Sociology of Minority Groups (4)**  
Sociological and social-psychological theories on minority status and minority relations with special emphasis on racial, ethnic and sexual minorities in the United States.  
(Y)
- 3525 The African American Male (4)**  
Sociological analysis of the adolescent African American male in the urban United State. Application of the social systems approach with special emphasis on the role of race, class, family, and institutional structures in the adolescent African American male. Prerequisite: SOC 1000.
- 3550 Filipino Labor/Immigration (4)**  
Sociological analysis of Filipino labor and immigration. The impact on work and employment of global restructuring and postmodern condition on Filipinos particularly in North America.
- 3555 Sociology of the Asian American Family (4)**  
(See E S 3555 for course description.)
- 3610 Sociology of Religion (4)**  
Functions of religion in society, the interrelations between religion and social structure, religious authority and leadership, the nature of religious movements.  
Prerequisite: SOC 1000.
- 3620 Sociology of Education (4)**  
Institutional character of education; the relationship of education as a social institution to aspects of political,

economic and family organization; social relations within the school; school culture and roles. Prerequisite: SOC 1000.

- 3700** Introduction to Social Services (4)  
Issues regarding social service policies and the delivery of services to youth, elderly, families and other populations in need. History of social services in the U.S. Observation of agency structure, philosophy, and service delivery. Prerequisite: SOC 1000. (Y)
- 3705** Financial Administration of Youth Agencies (4)  
The budgeting process and fund-raising in voluntary youth and human services organizations. Budget development, analysis, and control; product sales; special events; foundation proposals; support campaigns; and United Way requirements and regulations. Recommended prerequisite: REC 3205. (Sp)
- 3710** Social Policy (4)  
Policy affecting social services including influence of values on public policy, and impact of these policies as they affect minorities. Prerequisites: SOC 1000. (Y)
- 3715** Seminar in Social Services for the Elderly (4)  
Special problems in providing social services for the elderly. Mental health and aging; management and social policy of aging programs and services. Prerequisite: SOC 1000.
- 3720** Human Behavior and Social Environment (4)  
The adaptive and maladaptive adjustment of individuals, groups, and communities to changes in environments. Development of a system approach to change.
- 3730** Juvenile Delinquency (4)  
Juvenile justice system and the theories seeking to explain juvenile delinquency. Various methods used to prevent, treat and rehabilitate youthful offenders. Prerequisite: SOC 1000. (Y)
- 3745** Social Deviance (4)  
Formation and composition of various subcultures whose norms and values conflict with those of wider society. Prerequisite: SOC 1000. (Y)
- 3750** Alcohol and Drug Abuse (4)  
Social issues involved in alcohol and drug abuse with assessment of sociological theories of drug abuse and prevention. Social problems associated with misuse of alcohol, narcotics, and other drugs. (Y)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Sociology major; a maximum of 4 units will be accepted toward the Sociology minor. CR/NR grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)

- 4111 Methods of Sociological Research I (4)  
The nature and application of the scientific method in social research. The use of different techniques for specific problems; descriptive and analytical procedures employing the statistical, the historical, and comparative methods. Use of such research instruments as the interview, the questionnaire, and observation. Analysis of data and reporting of results. Individual projects. Two hours lect., 4 hrs. lab. Prerequisites: SOC 1000, STAT 1000. (Y)
- 4112 Methods of Sociological Research II (4)  
The design of sociological studies. Advanced problems of sampling and measurement. Individual projects and instruction. Two hrs. lect., 4 hrs. lab. Prerequisite: SOC 4111. (Y)
- 4121 Field Practice (4)  
Placement of students with suitable community agencies for supervised instruction. May be taken twice for unit credit. Credit/No Credit grading only. Prerequisites: senior standing; SOC 3700 and consent of instructor. To be taken concurrently with SOC 4711 by Sociology Majors; to be preceded by or taken concurrently with SOC 4705 by Youth Services Administration Minors. (Y)
- 4450 Urban Sociology (4)  
Development of metropolitan areas as distinctive patterns; problems presently facing this population in urban growth, transportation, race relations, poverty, housing, and education. Prerequisite: SOC 1000. (Y)
- 4705 Senior Seminar in Youth Services Administration (2)  
A seminar focusing on theories and practices in administration of youth services organizations. To be taken concurrently with or preceded by an internship course with a youth services placement. Prerequisite: senior standing. (Sp)
- 4711 Practice Theory (2)  
Seminar utilizing theoretical material in social welfare, sociological, and social science literature, in order to compare it with the accompanying field experience. May be taken twice for unit credit. Prerequisites: senior standing; SOC 3700 and consent of instructor. To be taken concurrently with SOC 4121. (Y)
- 4716 Social Work Theories and Methods (4)  
Theories, methods, and skills of professional practice, including adversary, conciliatory, developmental, and restorative processes. Techniques of casework, group work, and community organization. Prerequisites: SOC 3700 and junior standing.
- 4717 Advanced Social Work Theories (4)  
Continuation of SOC 4716 at an advanced professional level. New methods of crisis intervention, transactional analysis, and behavior modification. Prerequisites: SOC 4716 or consent of instructor, and senior standing.

- 4720 Medical Sociology (4)  
Sociocultural and interactional components in the etiology and treatment of illness (physiological, psychosomatic and "mental"); medical and paramedical professions. Prerequisite: SOC 1000.
- 4740 Criminology (4)  
Meaning of crime, its origins and its functions; current practices in respect to the identification and treatment of criminal behavior. Prerequisite: SOC 1000. (Y)
- 4750 Child Welfare (4)  
Trends in public policy regarding programs for the protection and care of the child in American society. Conditions pertinent to the socialization of the child; the implications of these conditions for the development of such programs as foster care, adoptions, institutions, school social work, and corrections. Prerequisite: SOC 1000. (Y)
- 4900 Independent Study (1-4)

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## Footnotes

- 1** If not taken for core requirements.
- 2** Must be taken twice for credit.



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## Geography

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### Department Information

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Department of Geography and Environmental Studies  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3021  
Phone: (510) 885-3193; FAX: (510) 885-2353

*Professor:* Herbert M. Eder

*Associate Professors:* David J. Larson (Chair), Scott Stine

*Assistant Professors:* Karina Garbesi, Michael Lee, Gang Li, David Woo

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Geography is the study of the spatial distributions and spatial relations within the human-environment system. Attention is focused on historic and contemporary human activities within the context of the physical-biotic and cultural environment, and on humanity as one of the major agents of change of the earth's surface. A curriculum in Geography helps students understand the world's landscape and how it has been transformed or altered by either the earth's natural processes or human modifications.

At Cal State Hayward, students can choose between a Bachelor of Science (B.S.) degree and a Bachelor of Arts (B.A.) degree with a major in Geography. A B.S. degree major is appropriately suited for students with career objectives in the professional field of Geography. It is also highly recommended for those planning to enter a graduate school program in Geography. Obtaining a Bachelors of Arts degree major provides for a liberal education, and prepares students for positions in business, government,



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## Career Opportunities

foreign service, and especially teaching. Combining geography with coursework in other social sciences or with other science fields is excellent preparation for teachers in secondary education. Both majors require 61 units, 16 lower division and 45 upper division.

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Aerial Photo Interpreter • Agricultural Geographer • Archaeologist • Cartographer • Census Analyst • Climatologist • Community Development Specialist • Demographer • Ecologist • Economic Development Analyst • Environmental Analyst/Planner n Map Curator • Recreational Resource Planner • Seismologist n Soil Conservationist • Transportation Planner • Urban Geographer • Zoning Specialist/Surveyor

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## Features

With the arrangement of a faculty advisor, students in the Bachelor of Science program can select from the following fields of concentration: biogeography, cartography, cultural geography, economic geography, historical geography, history and philosophy of geography, physical geography, regional geography.

The department also offers a Certificate Program in Cartographic Communication for those wanting to learn skills and methods in data collection, interpretation, and analysis as well as the design, compilation, production, and reproduction of maps.

Geographic internships are available. Individual students may be assigned to public, private, or volunteer agencies.

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## Scholarship

Richard & Evelyn Thoman Scholarship in Geography and Environmental Studies  
One \$500 scholarship awarded for the academic year for full-time undergraduate or graduate studies. Awards are limited to students with upper division or graduate standing. A grade point average of 3.0 or higher is required, and demonstrated scholastic and creative ability in the field of Geography or Environmental Studies.

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## Major Requirements (B.A.)

The major consists of 61 units in geography; the B.A. degree requires a total of 186 units.

- I. Lower Division (16 units)
  - GEOG 2100 Physical Geography (4)
  - GEOG 2300 Cultural Geography (4)
  - GEOG 2310 Economic and Resource Geography (4)
  - GEOG 2410 Introduction to Maps (4)
  
- II. Upper Division (45 units)
  - GEOG 3400 Field Geography of the S. F. Bay Region (4)
  - GEOG 3450 Literature and Research Aids (5)
  - GEOG 4800 Growth of Geographic Thought (4)

One Physical Course (4 units):  
GEOG 3115 Physical Landscape Analysis

One Technical Course (4 units) selected from:  
GEOG 3410 Air-Photo Interpretation  
GEOG 3600 Cartographic Principles

One Cultural Course (4 units) selected from:  
GEOG 3300 Historical Cultural Geography  
GEOG 3330 Urban Geography

One Resource Course (4 units) selected from:  
GEOG 3000 Resource Management  
GEOG 3320 Geography of World Agriculture  
GEOG 4320 Energy Resources and Management  
GEOG 4350 Water Resources and Management

One Regional Course (4 units) selected from 3500 series,  
except GEOG 3525

Plus 12 units of electives in geography, including not  
more than 4 additional units in the 3500 series, and to  
include at least 4 units of the 4000-level series

*Note:* The following courses or their equivalents have to be  
completed if a student in the B.A. program in Geography desires  
to enter the M.A. degree program in Geography:

GEOG 3410 Air-Photo Interpretation

GEOG 3420 Field Instruments and Observation, or a  
departmental examination of competence in field observation  
and report writing

GEOG 3600 Cartographic Principles

### III. Proficiency Requirements

Proficiency in reading a foreign language, at the first-year  
level, must be demonstrated by successful completion of a  
departmental examination; or proficiency in statistics, at the  
level of a 3000-series course, must be demonstrated by  
passing an examination set by the Statistics Department; or  
proficiency in Mathematics, at the level of Calculus III, must  
be certified by the Department of Mathematics and Computer  
Science. These examinations will be given once each  
quarter during the first week of instruction. Appropriate  
coursework will be recommended to students who do not  
pass an examination.

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## Major Requirements (B.S.)

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The major consists of 61 units in Geography; the B.S. requires a  
total of 186 units.

### I. Lower Division (16 units)

GEOG 2100 Physical Geography (4)  
GEOG 2300 Cultural Geography (4)  
GEOG 2310 Economic and Resource Geography (4)  
GEOG 2410 Introduction to Maps (4)

## II. Upper Division (45 units)

GEOG 3410 Air-Photo Interpretation (4)  
GEOG 3420 Field Instruments & Observation (4)  
GEOG 3450<sup>1</sup> Literature and Research Aids (5)  
GEOG 3600 Cartographic Principles (4)  
GEOG 4800 Growth of Geographic Thought (4)

One Physical Course (4 units):  
GEOG 3115 Physical Landscape Analysis

One Cultural Course (4 units) selected from the group comprising the 3300 series

One Field Course (4 units) selected from:  
GEOG 4125 Field Course in Physical-Biotic Geography  
GEOG 4325 Field Course in Cultural-Urban Geography

Two Regional Courses (8 units) selected from the 3500 series, except GEOG 3525

Plus 4 units of electives in Geography, in the 4000 series

## III. Proficiency Requirements

Proficiency in reading a modern language, at the first-year level, must be demonstrated by successful completion of a departmental examination; or proficiency in statistics, at the level of a 3000 series course, must be demonstrated by passing an examination set by the Statistics Department; or proficiency in Mathematics, at the level of Calculus III, must be certified by the Department of Mathematics and Computer Science. These examinations will be given once each quarter during the first week of instruction. Appropriate coursework will be recommended to students who do not pass an examination.

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## Other Degree Requirements

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In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 36 units.

GEOG 2100, 2300, 3410 (12 units)

Two regional courses (3500 series) from different instructors (8 units)

Four courses from one of the following groups (16 units):

A. Human Geography Option: GEOG 2310, 3300, 3320, 3330,

## B. Physical-Biotic Resources Option: GEOG 3115, 4320, 4350

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 Certificate in  
 Cartography  
 and GIS

The Cartography and GIS Certificate Program consists of 20 units. It is designed to prepare students in methods of data collection, interpretation, and analysis as well as the design, compilation, production, and reproduction of maps, thus enabling students to be current in the field of cartography.

*Select 20 units from the following:*

- GEOG 3410 Air-Photo Interpretation (4)
- GEOG 3600 Cartographic Principles and Graphic Communication (4)
- GEOG 3605 Computer Cartography (5)
- GEOG 4425 Remote Sensing of Earth Environments (4)
- GEOG 4600 Introduction to Geographic Information Systems (5)
- GEOG 4605 Environmental Applications of GIS (4)

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 Geography  
 Option: Liberal  
 Studies

Area I (8 units)

Two of the following:

- GEOG 2100 Physical Geography (4), 2300 Cultural Geography (4), 2310 Economic and Resource Geography (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (23-24 units)

- GEOG 2410 Map Reading and Interpretation (4)
- GEOG 3400 Field Geography of the San Francisco Bay Region (4)

Either GEOG 3500 Geography of the United States and Canada (4) or GEOG 3505 Geography of California (4)

*One of the following (4 units):*

- GEOG 3115 Physical Landscape Analysis (4), 4125 Field Course in Physical-Biotic Geography (4)

*One of the following (4 units):*

- GEOG 3300 Historical Cultural Geography (4), 3320 Geography of World Agriculture (4), 3330 Urban Geography (4), 3340 Urban Planning (4), 3360 Historical Geography of the United States (4), 4325 Field Course in Cultural-Urban Geography (4)

*One of the following (3-4 units):*

- GEOG 3000 Resource Management (4), 4320 Energy Resources and Management (4), 4350 Water Resources and Management (4)

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*The course prefix for the following courses is GEOG.*

## Introductory

- 1000** Introduction to Geography (4)  
Basic aspects of modern geography: human-environment interactions; regional mosaic of the physical and cultural landscapes of the earth. (Y)
- 2100** Physical Geography (4)  
[CAN GEOG 2]  
Major components of the physical environment, including landforms, climate, vegetation, and soils. Three hrs. lect., 2 hrs. act. (F)
- 2200** Geography of Asian Americans (4)  
Asian American settlement patterns in the United States. The socio-economic profile of Asian Americans based on census data. The impact of Asian immigration on the demographic dynamics of America.
- 2300** Cultural Geography (4)  
[CAN GEOG 4]  
Thematic introduction to the cultural systems operating to change the earth's surface; contemporary topics of human population, technology, social organization, spatial interaction, communication, and ideology. One half-day field trip required. (W)
- 2310** Economic and Resource Geography (4)  
Location and linkages of economic activities as they relate to resource management. How goods and services produced by and for humans are geographically organized. Special emphasis on the historical antecedents of contemporary economic processes and international issues. (Y)
- 2400** Geography of World Development (4)  
Global wealth, poverty and inequality from a geographical perspective. Trends in important economic, environmental and sociocultural dimensions of world development. The who, why, and when and where aspects of the distribution of wealth at selected city, national and global scales.
- 2410** Introduction to Maps (4)  
Reading and interpretation of commonly used maps; map appreciation, design, and evaluation; art of map-making. Two hrs. lect., 4 hrs. act. (Y)
- 3000** Resource Management (4)  
The earth as a source of land, water, biotic, mineral and energy resources. The role of human populations in their use, development, and exploitation. (A)

## Intermediate

- 3110** Principles of Geomorphology (4)  
(See Geology section for course description.)
- 3115** Physical Landscape Analysis (4)

The geomorphic evolution of the landscape with emphasis on the late Cenozoic. Processes and landscape histories, especially as they relate to climate and climatic change. One all-day Saturday field trip required. Prerequisite: GEOG 2100. Two hrs. lect., 4 hrs. act. (Y)

- 3120 Climatic Change (4)  
Late Cenozoic changes and variations in climate with emphasis on the geological, geomorphological, and biotic records. Causes (natural and anthropogenic) and consequences (natural and cultural) of climate change. Prerequisites: GEOG 3115 or 4130 or consent of instructor. (Y)
- 3300 Historical Cultural Geography (4)  
Evolutionary perspective on the origins and expansion of cultural institutions that have shaped landscapes; processes of discovery, invention, diffusion, cooperation/competition that have humanized the earth. One all-day field trip required. Prerequisite: GEOG 2300 or equivalent. (Y)
- 3320 Geography of World Agriculture (4)  
Global agricultural systems and regions; environmental constraints and cultural practices; changing patterns of global and regional crop production. (Y)
- 3330 Urban Geography (4)  
Contemporary Western, chiefly American, urbanism as a dynamic spatial phenomenon; functional structure of cities, spatial interaction, urban settlement patterns, urban environmental quality with regional comparisons. (Y)
- 3340 Urban Planning (4)  
Overview of planning processes conducted at county and city levels. Includes legal background, administrative processes, planning issues, research methods and case studies. It is recommended that GEOG 3330 be taken before GEOG 3340. (Y)
- 3360 Historical Geography of North America (4)  
Historical-geographic processes of exploration, migration, settlement, urbanization, cultural integration, land use and resource exploitation from the 15th through the 20th centuries. (Y)
- 3400 Field Geography of the San Francisco Bay Region (4)  
A wide range of field experiences in observing, analyzing, and understanding the spatial aspects of physical and cultural interactions of the Bay Area as a region. Prerequisites: GEOG 2100 or 2300 or 2310. Eight hrs. act. (Sp)
- 3405 Field Regional Geography (1)  
Reconnaissance field study of geography of selected areas in California and adjoining regions. May be repeated but no more than two units may be applied to Geography major. Must be taken CR/NC. Thirty hrs. field/lab. (Y)

- 3410 Air-Photo Interpretation (4)  
The principles of airborne remote sensing and image interpretation for environmental resource management. Hands-on experience in photogrammetric stereoscopy and image measurement of spatial data. Two hrs. lect., 4 hrs. act. (W)
- 3420 Field Instruments and Observation (4)  
Utilization of field instruments and methods of field observation; collection and analyses of field data and its organization and presentation in graphic and written forms. Prerequisite: consent of instructor. Eight hrs. act.; field work.
- 3450 Literature and Research Aids (5)  
Seminar in the basic geographical and environmental literature, source materials and research methods. Intensive exercises in both written and oral communication. Fulfills the University Writing Skills requirement for students who began work on the present degree before Fall Quarter, 1985. (F)
- 3470 Travel and Tourism (3)  
Principles of effective travel; analyses of selected international tourist regions; problems of tour planning; environmental impact of tourist facilities and travel patterns; California as a tourist destination. (Y)
- 3500 Geography of the United States and Canada (4)  
Systematic analysis of the distinctive human-use regions of the United States and Canada emphasizing their character, personality, and economic profile. Case studies of resource use dilemmas. (Y)
- 3505 Geography of California (4)  
The natural and cultural processes which have shaped the landscape of contemporary California. California's varied environments, especially how they have been perceived, modified, and significantly altered by humans. (F, Sp)
- 3510 Geography of Mexico, Central America, and the Caribbean Islands (4)  
Historical and contemporary overview of the Middle American region, including studies of the environment, human occupancy and settlement patterns, and economic activities; problems of resource utilization. (Y)
- 3515 Geography of South America (4)  
Distinguishing characteristics among the Andean countries of Spanish heritage, the Guianas, and the largest country-Brazil. (Y)
- 3525 Geography of the California Wine Country (3)  
The physical, historical, and economic bases of California's wine industry: growing regions, wine types, distribution of vineyards and wineries, and recent developments. Optional field trips. Those students over 21 years of age who wish to participate in wine-tasting will be charged a miscellaneous course fee. Please consult the quarterly Class Schedule for the current fee. (Y)

- 3526** Field Geography of the California Wine Country (1)  
Three Saturday field trips to selected California wine producing regions. Must be taken CR/NC. Prerequisite: Concurrent or prior enrollment in GEOG 3525. (Y)
- 3540** Geography of East Asia (4)  
East Asia as a geographic region, including cultural and economic reform, transformation of regional identity. Studies of contemporary China, Japan, South Korea, and Taiwan as modern industrial powers. Regional role in geopolitics and the global economy. (Y)
- 3550** Geography of Southeast Asia (4)  
Physical resources, patterns of land use, economic development, and urbanization; problems and prospects of mainland and island countries from Myanmar to Indonesia and the Philippines. This region is an Islamic, Buddhist, Hindu, Christian cultural complex.
- 3600** Cartographic Principles and Graphic Communication (4)  
Fundamentals of map design and production. Emphasis on the humanistic and technical aspects of cartography. The essence of the map communication theory and gestalt theory of human perception; effective symbolization of spatial data. One hr. lect., 6 hrs. act. (F)
- 3605** Computer Cartography (5)  
Introduction to the principles of modern digital cartography. Hands-on experience in computer mapping. Basic concepts, software, hardware of computer cartography; spatial data structure and database management; and lab-oriented software applications. Prerequisites: GEOG 2410 and 3600. Two hrs. lect., 6 hrs. act. (W)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Geography major; a maximum of 4 units will be accepted toward the Geography minor. CR/NC grading only. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)

## Advanced

- 4125** Field Course in Physical-Biotic Geography (4)  
Problems and methods in the analysis, mapping and interpretation of the physical and biotic landscape, stressing interrelationships and change through time. Prerequisite: GEOG 2100 and consent of instructor. Eight hrs. act. (Y)
- 4130** Biogeography (4)  
(See BIOL 4130 for course description.)



- 4320 Energy Resources and Management (4)  
Distribution of sources, production trends, use patterns, potentials of water, wind, volcanic, tidal, solar, and other sources of power; emphasis upon fossil fuels and nuclear energy. Prerequisite: GEOG 2310 (Y)
- 4325 Field Course in Cultural-Urban Geography (4)  
Problems and methods of analysis of the human impact on the landscape; spatial co-variation of rural, suburban, and urban landscapes and their interaction. Prerequisite: Consent of instructor and either GEOG 2300 or 3330 Eight hrs. act. (Alt. Y)
- 4330 Sustainable Development (4)  
Oxymoron or achievable goal? The major forces that shape national resource and economic development. Case studies that examine experiences with bilateral and multi-lateral development assistance. The close relationship between sustainable development, economics, demography, resource geography and the environment. Prerequisite: GEOG 3000.
- 4350 Water Resources and Management (4)  
The historical, geographical, legal, and economic bases for the distribution and allocation of water, stressing California and the arid West; the environmental impact of water use; past and current issues and controversies in water distribution and redistribution. (Y)
- 4355 Watershed Management (4)  
Principles and practices of integrated watershed management with special focus on multiple use watersheds in urbanized settings. Land use factors that affect watershed hydrology, principal water quality problems, physical solutions, partnership approaches, compatible uses, applications of GIS. Prerequisite: GEOG 3000. Three hrs. lect., 2 hrs. act.
- 4425 Remote Sensing of Earth Environments (4)  
Introduction to remote sensing applications on earth resource management. Focus on non-photographic earth observation systems such as near-infrared, thermal-infrared, and radar. Principles of remote sensing; types of imaging systems; and digital image processing. Prerequisites: GEOG 3410 and consent of instructor. Two hrs. lect., 4 hrs. act. (Sp)
- 4600 Introduction to Geographic Information Systems (5)  
Introduction to spatial database management technology using computers to capture, store, update, manipulate, analyze, and display geographically referenced information for decision-making purposes. Prerequisite: GEOG 3605. Two hrs. lect., 6 hrs. act. (W)
- 4605 Environmental Applications of GIS (4)  
Interdisciplinary applications of GIS technology on the mapping, monitoring, analysis, management and conservation of environmental resources such as water, land use, agriculture and wildlife. Prerequisite: GEOG

4600. Two hrs. lect., 4 hrs. act. (Sp)

4800 Growth of Geographic Thought (4)  
Seminar in history and philosophy of geography; its place among the sciences and humanities, major contributors to the development of modern scientific geography.  
Prerequisite: GEOG 3450 and senior standing. (Y)

4900 Independent Study (1-4)

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## Footnotes

**1** Fulfills Writing Skills Graduation Requirement for students who began working on the degree in Summer 1985, or earlier.



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## Department Information

## Program Description

## Major

# Special Majors And Certificates

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- ▶ [Program Description](#)
- ▶ [Major Requirements \(B.A./B.S.\)](#)
- ▶ [Special Certificate](#)

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Curriculum and Academic Programs  
Office: Warren Hall 859  
Phone: (510) 885-3716

*Professor:* Leigh W. Mintz (Associate Vice President, Curriculum and Academic Programs)

*Coordinator:* Rosanne Moore

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The purpose of the Special Major and the Special Certificate programs is to allow students, with the advice and approval of knowledgeable faculty and administrators, to design their own academic programs tailored to their unique needs and interests.

An essential feature of any Special Major program is its interdisciplinary nature. At least two separate degree-granting programs must be involved. An undergraduate Special Major must be approved no later than the time when the student has 60 quarter units of work remaining to complete for the degree including at least 40 units in the Special Major. This is to insure that a significant portion of the program is planned in advance by the student and his/her faculty advisers. The diploma will read Special Major In (program title).

The Special Major program should not be seen as a device to avoid certain requirements of a regular major, nor as a means to gain admission to an impacted program. Likewise, a Special Major cannot be developed in areas such as architecture, agriculture, and home economics where the campus currently lacks the necessary faculty expertise and physical facilities. Finally, a Special Major is not a self-study, independent study, or external degree program.

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The university offers both the B.A. and B.S. degrees with a Special Major. There are no clearly defined differences between

## Requirements (B.A./B.S.)

the two degrees, although B.S. degrees tend to be applied programs, while the B.A. is usually considered a liberal arts and sciences degree. B.A. degrees require 186 units; B.S. degrees require 186-198 units. Normally, the type of degree awarded for a Special Major reflects the degrees offered by the involved departments. To be eligible for a Special Major, a student must have a cumulative GPA of at least 2.30. A Special Major must be a coherent program organized around a sound academic theme. The title of a Special Major should be short (three or five words) and should describe the central academic theme of the program, not the student's career objectives unless the two coincide.

A Special Major must be fully approved before the student has fewer than 40 quarter units to complete the major and 60 for the degree. A Special Major must contain 52-93 quarter units of which at least 36 quarter units are upper division (junior/senior level). Coursework in at least two different disciplines is required.

Courses in the Special Major are not applicable to the General Education-Breadth Requirements. (However, previously completed transfer evaluations will not be reevaluated). A student can take courses for G.E. purposes in departments involved in the major. However, any individual course used for G.E. cannot also be used in the major, except for courses which are exempt under the G.E. policy. (See the B.A./ B.S. Degree Requirements chapter.) Only one course from a department involved in the major can be applied to G.E.

A Special Major must comply with the standard graduation requirements for all students listed in the catalog chapter entitled Undergraduate Graduation Requirements. (These include minimum units in residence, minimum units of credit, minimum 2.00 grade point averages, the U.S. history and institutions requirement, and the Writing Skills requirement if the student started working on the present degree on or after Fall quarter, 1977.)

### Procedure

A student who contemplates developing a Special Major must have an overall and CSUH grade point average of at least 2.30 ("C+," Satisfactory). Forethought and planning need to precede any formal action. An information packet is available from the Office of Curriculum and Academic Programs, WA 859, or by calling (510) 885-3716.

The prospective Special Major student must prepare a one page prospectus of at least 200 words describing the theme or central academic focus of the proposed program (including the departments to be involved), the reasons why the objective cannot be fulfilled through a regular major, the academic and experiential background the student will bring to the program, the occupational goals of the student in relation to the proposal, the approximate time frame for completion of the major and the degree, and other pertinent information. A sample prospectus for a hypothetical Special Major is included in the information packet. The student must also contact three faculty advisers in the involved departments, secure their support, and nominate them as his/her Special Major committee. (One of these faculty should be designated as chair of the committee.)

## Special Certificate

The prospectus and the names of the three faculty advisers (and their departments) must be submitted to the Office of Curriculum and Academic Programs before the student has fewer than 40 units left to complete in the proposed major and 60 units in the degree.

If the proposal appears academically sound and logistically feasible, the Associate Vice President, Curriculum and Academic Programs (AVP hereafter) will forward copies of it to the proposed faculty committee members along with an explanation of the Special Major policies and procedures, copies of the student's transcripts, and a form for development and approval of the specific program of courses.

The three-person committee and the student must meet at a mutually acceptable time to design the program (i.e. to prepare the list of required and elective courses). When this is done, the form is completed, signatures of approval are affixed, and it is returned to the AVP. The AVP circulates the proposal to the deans of the involved schools for commentary. After reviewing any comments, the AVP will act on the proposal. If it is approved, a final copy is typed and the AVP and the student sign it. When the student comes in to sign and receive a copy, a "Change of Major" form must also be signed. The student will also be informed of the school from which he/she will graduate.

### General Education

All students must also complete the general education-breadth and other graduation requirements for the baccalaureate degree. Normally, courses used for the Special Major can not be used for G.E., but transfer G.E. evaluations will not be redone. Check your catalog or see an advisor at the University Advisement Center for more information.

A program leading to the award of a Special Certificate must consist of at least 20 quarter units of upper-division and/or graduate courses. A minimum grade point average of 2.00 is required for all the courses comprising the Special Certificate program. The program must provide a logical and coherent pattern of preparation for a limited objective. The title of the proposed certificate should be brief (three to five words) and must carry no connotation of meeting a licensing requirement for professional practice.

### Procedure

The student develops a proposed program with the advice and approval of a faculty member knowledgeable in the field of study. A typed copy of the proposed program, with adviser and student approval, is forwarded by the adviser to the dean of the school in which the preponderance of courses will be taken. If the dean approves, he or she signs and sends the proposal to the Associate Vice President, Curriculum and Academic Programs. The Associate Vice President sends a copy of the proposal to each of the other three school deans. The deans have 10 working days to enter an objection. If none is received and the Associate Vice President judges the proposal to be sound, the program will be approved. If any school dean objects, he or she must file written objections with the Associate Vice President within the 10

days. These will be considered by the Associate Vice President in deciding whether or not to approve the program. The student is notified in writing by the Associate Vice President about the final action on his/her proposal. A copy of an approved program is filed in the student's folder in the Registrar's Office. Upon completion of the Special Certificate program, the student applies to the Registrar and pays the fee to receive the certificate.



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## Geology

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### Department Information

Department of Geological Sciences  
School of Science  
Office: North Science 329  
Phone: (510) 885-3486

*Professor Emeritus:* Elwood R. Brooks

*Professors:* Sue E. Hirschfeld, Leigh W. Mintz, Detlef A. Warnke

*Associate Professor:* Nancy E. Fegan (Chair)

*Assistant Professor:* Jeffery C. Seitz

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Geology is the study of the earth and of life and the natural processes occurring in or on the earth through time. Along with studying the impacts of human activities on the environment, students can learn about the causes of earth processes such as earthquakes, volcanoes, the formation of mountains, the effect of erosion and deposition, and the formation of rocks and minerals and their uses. Coursework combined with observations on field trips provide Cal State Hayward students with an understanding of natural processes and the human impact on the environment.

The undergraduate degree programs consist of required courses plus electives designed to meet the needs of students with objectives ranging from employment at the Bachelor's degree level, through preparation for a secondary school teaching credential, to graduate study in Geology. A B.S. major in Geology is the primary, professional program in Geology, and serves as preparation for employment in the field, usually on a technical level; those wishing to do independent geological work should plan on graduate study. The B.A. degree major is designed for persons who do not necessarily plan to become professional

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## Career Opportunities

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geologists or to go on to graduate work. (Note: Transfer from the B.A. to the B.S. program or vice versa can be accomplished.) Persons who graduate with the B.A. degree major in Geology must complete additional coursework equivalent to the B.S. requirements before they are admissible into the graduate program.

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Engineering Geologist • Environmental Geologist • Geochemist • Geologist • Geophysicist • Hydrologist • Mineralogist • Paleontologist • Park Ranger • Petrologist • Seismologist • Soils Engineer • Stratigrapher • Oceanographer

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## Features

The Geological Sciences Department offers a summer field course in the White Mountains, the northern Sierra Nevada, and other localities. Many opportunities for field and laboratory research exist throughout northern California and elsewhere.

The Cummings Geology Club, a student organization, sponsors a variety of activities including speakers, field trips, employment workshops, and student-faculty gatherings. The club is an important part of department life, providing students with opportunities to make professional contacts, to explore graduate school and professional options, and to enjoy the company of others with similar interests. For more information, contact the faculty advisor or the current club president at (510) 885-3486.

Students completing the Geology major may apply four (4) units of mathematics and eight (8) units of chemistry (or physics) to the Natural Sciences and Mathematics requirement (Area B) in their General Education Requirements. (See the General Education Evaluator and Class Schedule for more information.)

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## Major Requirements (B.S.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 112 units; the B.S. degree requires a total of 190 units.

- I. Core Courses (79-82 units)
  - CHEM 1101, 1102, 1103 (15 units)
  - GEOL 2101 (5 units)
  - GEOL 3030, 3610, 3611, 3701-2, 3730, 3810, 3910 (33 units)
  - GEOL 4800 and/or GEOL 4900 (2 units)
  - GEOL 4820 (8 units)
  - MATH 1304<sup>1</sup> (4 units)
  - PHYS 1001, 1002, 1003 or PHYS 2701, 2702, 2703<sup>2</sup> (12-15 units)

- II. Electives (30-33 units)

Thirty to thirty-three units, depending on physics sequence completed, from among the courses listed below. At least 10 units must be in 4000 level geology courses. Up to 12 of the elective units may be satisfied with appropriate courses in



Biological Sciences, Chemistry, Mathematics and Computer Science, Physics, and/or Statistics approved in advance by a faculty advisor.

GEOL/GEOG 3110

GEOL 3200 (not more than 4 units), 3400

GEOL 4010, 4110, 4120, 4310, 4320, 4400, 4800 (not more than 4 units), 4900, 4910 (not more than 4 units for 4900 and 4910 combined)

Students interested in a specific subdiscipline (e.g., applied geology, oceanography, geochemistry) are urged to consult the appropriate departmental faculty advisor to ensure an appropriate choice of electives.

*Note:* Course substitutions made after arrival at Cal State Hayward must have prior written approval of the faculty advisor.

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## Major Requirements (B.A.)

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The major consists of 76-81 units; the B.A. requires a total of 186 units.

I. Core Courses (60-65 units)

CHEM 1101, 1102, 1103 (15 units) and

PHYS 1700, 1780 (5 units)

or

CHEM 1100 (5 units) and

PHYS 2701-2-3 (12 units)

MATH 1300 (4 units)

GEOL 2101 (5 units)

GEOL 3030, 3610, 3611, 3701, 3702, 3730, 3810, 3910 (33 units)

GEOL 4800 and/or GEOL 4900 (1-3 units depending on chemistry and physics group completed) (1-3 units)

II. Electives (16 units)

Any additional geology courses at the 3000 and 4000 level, except GEOL 3040, 3050, 3051, 3100, and 3898. At least two courses must be at the 4000 level (no more than 4 units of GEOL 4900 may be applied).

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## Other Degree Requirements

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In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor

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The minor consists of 26-27 units.

## Requirements

- I. Core Courses  
GEOL 2101, 3030 (10 units)
- II. Electives  
One lower division elective, GEOL 1002 or 1201 (2-4 units)  
Three upper division Geology electives, chosen with assistance of minor advisor (12-15 units)

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## Undergraduate Courses

*The course prefix for the following courses is GEOL.*

- 1001** Introduction to the Earth Sciences (4)  
Composition, structure and evolution of the earth. Interactions of lithosphere, hydrosphere, and atmosphere. Relations of geologic systems, hazards, and resources to human environment and future. (A)
- 1002** Environmental Geology Laboratory (2)  
Investigations of environmental geologic problems in the greater San Francisco Bay area, including earthquake and volcanic hazards, flooding, landslides, and shoreline erosion. Not for Geology major credit. Prerequisite: GEOL 1001, 2101, 2300 or 3300 or concurrent enrollment in any of these courses. One hr. lect., two hrs. lab activity. (A)
- 1005** Technology and the Future (4)  
(See SCI 1005 for course description.)
- 1201** Introduction to Oceanography (4)  
Origin of ocean basins, nature of the sea floor, physical/chemical characteristics of sea water, ocean currents, marine life, relationships between humans and the sea. Not for Geology major credit. (A)
- 1202** Oceanography Laboratory (2)  
Introductory laboratory exercises in principles of oceanography, including distribution of temperature and salinity, currents, sea-floor topography, bottom sediments, waves and tides, and beach dynamics. Not applicable to the Geology majors. Prerequisite: prior or concurrent enrollment in GEOL 1201. One hr. lect., two hrs. lab activity. (A)
- 2000** Introduction to the Geology of California (4)  
The geologic history and development of California. Rocks, minerals and natural resources. Processes that shape California landforms. Plate tectonics, earthquakes, volcanism. Not for Geology major credit. (W)
- 2101** Physical Geology (5)  
[CAN GEOL 2]  
Nature and distribution of earth materials, the processes by which the materials are formed and altered, and the nature and development of the landscape. Four hrs. lect., 3 hrs. lab.; one Saturday or Sunday field trip. (F, Sp)
- 2300** Natural Disasters (4)  
Geologic processes and their effects on human

populations. Topics include earthquakes, landslides, volcanic eruptions, coastal erosion, floods, atmospheric and water pollution. Not for geology major credit. Designed for Physical Science G.E. students. (Tent. Sp)

- 3000** Conservation of Natural Resources (4)  
Interrelationships of soils, water, minerals, forests, grasslands, and wildlife. Ecology applied in the wise use of natural resources. Not for Geology major credit.  
Prerequisite: completion of one college biological or physical science course.
- 3030** Earth and Life Through Time (5)  
Principles of interpretation of earth history. Study of plate tectonics and sea-floor spreading as related to the development of continents, ocean basins, and mountain belts. Origin, evolution and diversification of life through time. Prerequisite: a course in physical or general geology is highly recommended. Three hrs. lect., 6 hrs. lab.; field trip(s). (F)
- 3040** Fundamentals of Meteorology (4)  
Utilization of physical science principles in the study of the structure and circulation of the atmosphere; weather and weather forecasting. Emphasis on aspects of interest to the prospective or in-service teacher. Not for Geology Major credit. Prerequisites: High School physics and chemistry or equivalents. (Y)
- 3050** Volcanoes and Plate Tectonics (4)  
Relationship of volcanism to plate tectonics. Catastrophes and volcanic hazards. Processes and products at historically active volcanoes worldwide: lava flows and domes, avalanches and mudflows, air-fall tephra, and pyroclastic flows and surges. Not for Geology Major credit. Concurrent enrollment in GEOL 3051 recommended.
- 3051** Volcanoes Laboratory (2)  
Crystals and igneous minerals, textures and structures of volcanic rocks, volcanic rock identification. Reading topographic and geologic maps. Geology and volcanic hazards at Cascade and other volcanoes. Not for Geology Major credit. Prerequisite: prior or concurrent enrollment in GEOL 3050. One hr. lect., 2 hrs. lab activity; field trips to active and ancient volcanoes.
- 3100** Geology of the Western National Parks (4)  
The geologic history of western North America (from the Pacific Coast through the Great Plains) as interpreted from the outstanding features preserved in the national parks and selected other park service areas. Not for Geology major credit.
- 3110** Principles of Geomorphology (4)  
Landforms as products of diastrophism, volcanism, and surficial processes; morphogenetic regions of the earth and the effect of climate on the processes that shape them; rates and stages of landscape evolution and their dependence on time, process and structure. Cross-listed with GEOG 3110. Prerequisite: GEOL 2101 or equivalent.

Three hrs. lect., 3 hrs. lab.; field trip(s). (Y)

- 3200** Regional Field Geology (1-2)  
Reconnaissance field study of geology of selected areas in California and adjoining regions. May be repeated, but no more than 4 units may be applied to Geology major. Prerequisites: one introductory geology course and permission of instructor. CR/NC grading only. Thirty hrs. field/lab. per unit. (Y)
- 3300** Principles of Geology (4)  
The earth as studied by geologists: rocks, fossils and the stories they tell. Processes that shape the earth's surface and affect its deep structures. Changes in appearance and life forms through time. Not for Geology Major credit. One all day field trip. (Alt. Y)
- 3400** General Oceanography (4)  
Biological, chemical, geological, and physical characteristics of the sea, including geology of the ocean basins, marine ecosystems, and waves and currents. Three hrs. lect., 3 hrs. lab.; field trip(s).
- 3610** Mineralogy (4)  
Principles of mineralogy, including symmetry groups and lattice structure; chemistry, growth and habit, and measurement and orientation of crystals. Laboratory emphasizes physical and optical properties of rock-forming minerals. Prerequisites: courses in general chemistry and physical or general geology are highly recommended. Two hrs. lect., 6 hrs. lab.
- 3611** Optical Mineralogy (4)  
Elements of optical crystallography utilizing indicatrix theory. Use of the light-polarizing microscope to describe and identify rock-forming minerals in thin sections. Introduction to oil-immersion methods. Prerequisite: GEOL 3610 or equivalent. Two hrs. lect., 6 hrs. lab.
- 3700** Rocks (5)  
Characteristics, occurrence, and origin of igneous, sedimentary and metamorphic rocks. Petrogenesis under various pressure/temperature conditions. Geometry and architecture of sedimentary deposits. Classification and identification of rocks in laboratory and field. Not for geology major credit. Prerequisite: GEOL 3610. Recommended: some college chemistry. Three hrs. lect., 6 hrs. lab/field.
- 3701** Igneous and Metamorphic Petrology (5)  
Characteristics, phase relations, and origin of igneous and metamorphic rocks. Plate-tectonic setting of magmatism and metamorphism. Laboratory emphasizes rock classification based upon hand-lens and microscopic examination of mineralogy and texture. Prerequisites: GEOL 3610 (or equivalent) and GEOL 3611 (concurrent enrollment satisfactory). Three hrs. lect., 6 hrs. lab.; field trip(s). (W)

**3702** Sedimentary Petrology (4)

Texture, composition, and classification of sedimentary rocks. Sedimentary processes including weathering, transportation, deposition and lithification. Laboratory analysis and identification of sediments and sedimentary rocks. Prerequisites: GEOL 3610 (or equivalent) and GEOL 3611 (concurrent enrollment satisfactory). Two hrs. lect., 6 hrs. lab.; field trips. (Sp)

- 3730** Principles of Stratigraphy (3)  
Development of geologic time scale. Depositional systems, facies, succession and age relations of strata, methods of correlation. Application of paleontologic and biostratigraphic principles. Field project required. Prerequisite: GEOL 3030. Two hrs. lect., 3 hrs. lab.; field trip(s). (W)
- 3800** Achievements of Women in Science (4)  
(See BIOL 3800 for course description.)
- 3810** Structural Geology (5)  
Geometric, kinematic and dynamic analysis of structures of igneous, sedimentary and metamorphic rocks. Laboratory emphasis on descriptive geometry and stereographic solutions to structural problems; geologic maps and structure sections. Prerequisite: GEOL 2101 or equivalent. Three hrs. lect., 6 hrs. lab.; field trip. (Sp)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. CR/NC grading only. May not be applied to Geology degree programs. Prerequisites: at least 2.0 GPA and departmental approval of activity. (A)
- 3910** Geologic Field Methods (3)  
Introduction to geologic field methods and instruments, use of aerial photographs and topographic maps in geologic mapping, preparation of geologic maps of local areas. Prerequisites: GEOL 3701 and 3702 (GEOL 3700 may be substituted for 3701 and 3702), 3730, and 3810 (any of these courses may be taken concurrently). One hr. lect., 6 hrs. field. (Sp)
- 4010** Introduction to Geophysics (5)  
Principles of geochronology; seismology, gravity and isostasy; terrestrial heat flow, magnetism and electricity. Collection and analysis of geophysical data. Prerequisites: GEOL 2101 and PHYS 2703 or equivalent. Three hrs. lect., 6 hrs. lab.; field trip required. (Alt. Sp)
- 4110** Introduction to Geochemistry (5)  
Thermodynamics of geologic systems; weathering, sedimentation, crystallization of silicate melts, hot solutions and gases, metamorphism, behavior of elements in the earth. Cross-listed with CHEM 4110. Prerequisites: GEOL 3610 (may be taken concurrently), and CHEM 1103, or equivalents. Three hrs. lect., 6 hrs. lab. (Alt. F)
- 4120** Geology of Ore Deposits (4)

Characteristics, occurrence, and origin of ore deposits with emphasis on their relationships with local geology; physical and chemical determination of ore minerals. Prerequisite: GEOL 3701 recommended. Three hrs. lect., 3 hrs. lab; field trips. (Alt. F)

4141 Geological Oceanography (M SC 4141) (6)  
(See Marine Sciences section for course description.)

4142 Physical Oceanography (M SC 4142) (6)  
(See Marine Sciences section for course description.)

4143 Chemical Oceanography (M SC 4143) (6)  
(See Marine Sciences section for course description.)

4174 Topics in Oceanography (1.5-6)  
(See Marine Sciences section for course description.)

4175 Topics in Marine Science (M SC 4175) (4.5-6)  
(See Marine Sciences section for course description.)

4310 Clays and Soils (4)  
Principles of clay mineralogy including chemistry, structure and identification. Surficial earth processes that lead to soil formation, emphasizing mechanical and chemical breakdown of primary rocks and minerals. Soil composition and classification as a function of climatic and geologic variability. Laboratory analysis of soils utilizing x-ray diffraction and SEM-EDX. Prerequisites: GEOL 3610, CHEM 1103. A miscellaneous course fee will be charged for materials; consult the quarterly Class Schedule for the current fee. Three hrs. lect., 3 hrs. lab.

4320 Hydrogeology (4)  
The hydrologic cycle, from precipitation, evapotranspiration, infiltration and runoff, to surface and groundwater. Hydrograph analysis, stream gaging and discharge determination. Groundwater occurrence, movement and evaluation. Hydrologic regions of U.S., emphasizing the western states. Prerequisite: GEOL 2101 or equivalent, and senior standing; or permission of instructor. Field trip(s). Three hrs. lect., 3 hrs. lab. (W)

4400 Writing for Geoscientists (3)  
Writing for professional geoscientists, including prose style, organization, appropriate use of technical terms, and editing and rewriting techniques. Stresses effective communication: what works and why. Prerequisites: geology upper division/graduate standing. CR/NC grading only.

4800 Seminar (1-2)  
Critical, in-depth study of selected topics of current and classical research in geology; topics not repeated in two-year interval. May be repeated, but no more than 6 units may be applied to Geology major. Prerequisite: senior standing or permission of instructor. (Y)

4820 Field Geology (8)  
Field laboratory application of techniques of geological

mapping; compilation of detailed geological maps and reports. Recommended to be taken at end of junior year. Forty-eight hours a week for 5 weeks. Prerequisites: GEOL 3701, 3702; 3730; 3810; and 3910 or equivalents and permission of instructor. (Su)

- 4850** Geological Field Studies in Hawaii (2)  
Field study of geological features and processes of the Hawaiian Islands. Volcanism, coastal processes, geomorphology. May be repeated once for credit. Students will be responsible for all travel and lodging expenses. Prerequisites: GEOL 2101 or equivalent and permission of instructor. One hr. lect., 30 hrs. field/lab.
- 4900** Independent Study (1-4)  
Must be taken CR/NC. (A)
- 4910** Senior Thesis (2)  
Independent research project with a written thesis, digital map, or similar final product to be completed by students desiring to graduate with a B.S. in geology with research experience (see department for guidelines). CR/NC grading only. Prerequisites: senior level in Geology and thesis advisor's approval.
- 4932** Geological Field Studies in Baja California (1-2)  
Field laboratory study of Cenozoic volcanic rocks and landforms adjoining the actively spreading Gulf of California. Granitic basement rocks and related unique vegetation. May be repeated once for credit. Prerequisites: one introductory geology course and permission of instructor. CR/NC grading only. Thirty hrs. field/lab per unit.

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## Footnotes

<sup>1</sup>Completion of the next calculus course, MATH 1305, is highly recommended. In particular, students planning coursework in hydrogeology (GEOL 4320) and groundwater (GEOL 6320) should develop a strong background in calculus. Additional units in calculus may be applied to elective requirement III.

<sup>2</sup>Students needing a relatively rigorous preparation in mathematics and physics (e.g., for graduate study) are strongly urged to complete the calculus-based physics sequence (PHYS 1001, 1002, 1003); this requires completion of the additional calculus courses MATH 1305 and 2304. The additional 8 units earned in calculus may be applied to elective requirement III.



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## Speech Communication

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### Department Information

Department of Speech Communication  
School of Arts, Letters, and Social Sciences  
Office: Robinson Hall 220  
Phone: (510) 885-3118

*Professors:* John C. Hammerback, Daniel S. Prentice (Chair),  
Anne L. Pym, Gale Young

*Associate Professor:* Sally K. Murphy

*Lecturers:* Deborah M. Alexander, Janet Johnson, Agha Saeed

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The Major in Speech Communication is offered to students interested in pursuing one or more of the following goals: (1) a liberal education; (2) education, knowledge, and training in areas important to concerns in business and industry, in law, and in the ministry; (3) a teaching credential; and (4) preparation for graduate study. The Department of Speech Communication offers a Bachelor of Arts major with a choice of five options: Interpersonal Communication, Organizational Communication/Public Relations, Public Communication, Intercultural Communication, and General Speech Communication.

### Career Opportunities

Business Executive • Communications Specialist • Consultant • Corporate Communications Director • Customer Service Representative • Debate Coach • Talk Show Host • Employee Relations Representative • Human Resource Administrator • Impression Management Specialist • Interviewer • Librettist • Employee Relations Specialist • Professor/Teacher • Public Information Specialist • Salesperson • Trainer • Writer



## Features

In addition to classroom study of interpersonal, intercultural, organizational, and public communication, we sponsor a Communication Laboratory open to the campus community that provides communication-related support services. Upper division Speech Communication majors and graduate students serve as tutors who help students research, organize, outline, and deliver oral presentations. We also offer on- and off-campus internship programs for credit and support a wide range of intercollegiate speech and debate activities. The Forensics Program provides opportunity in both competitive and non-competitive events. Each year the department awards to majors a Robinson Scholarship of \$250. The Rhetorical Criticism Conference, inaugurated in 1966, brings students to campus from across the United States. Student-scholars present papers to professor-critics who critically review and respond to their work. Commended papers are presented to the entire conference and published in the annual conference journal. This scholarly exchange of ideas provides not only suggestions for improvement in current work by student participants, but stimulates further scholarship in rhetorical and communication criticism.

## Major Requirements (B.A.)

Because requirements are subject to change, consult your advisor in your major department for clarification and interpretation of your major requirements. The major consists of 74-78 units in all options. The B.A. degree requires 186 units.

### I. Required Core for All Options (26 units)

#### Group A (2 units)




- SPCH 4183 Speech & Debate Activities Workshop (1) or
- SPCH 6200 Internship in Speech Communication (1)

#### Group B (12 units)

- SPCH 3411 Argumentation & Debate (4)
- SPCH 3485 Power and Use of the Human Voice (4)
- SPCH 3510 Small Group Communication (4)



#### Group C (8 units)

##### Choice of two:

- SPCH 4201  Comparative Traditions of Rhetoric (4)
- SPCH 4550  Communication Criticism (4)
- SPCH 4810  Communication Theory (4)

#### Group D (4 units)

##### Choose one:

- SPCH 4830  Intercultural Communication (4)
- SPCH 4860  Ethnic Public Address (4)

### II. Option Requirements

Thirty-two (32) units are required for all options, except Intercultural Communication which requires 36 units.

*Students must select one of the following options:*

#### A. Interpersonal Communication Option (32 units)

##### 1. Required (8 units)

- SPCH 4870 Methods of Research in Speech Communication (4)
- SPCH 4875 Senior Seminar (4)

2. Select three courses (12 units)
  - SPCH 4840 Organizational Communication (4)
  - SPCH 4850 Female/Male Communication (4)
  - SPCH 4855 Family Communication (4)
  - SPCH 4858 Intimate Communication (4)
  - SPCH 4880 Communication and Conflict Resolution (4)
  
3. Select three advisor-approved courses (12 units) outside the department from the university course inventory available from your advisor. A wide range of elective courses for this option is available. For example, students may select courses in Ethnic Studies, Human Development, Sociology, and/or Women's Studies which examine interpersonal relationships in work and family settings. A sample of such courses includes: E S 3555 Asian American Family Patterns, HDEV 4710 The Child in the Family and the Community, SOC 3415 Sociology of the African American Family, and WOST 3550 Women, Work, and Family Life.

B. Organizational Communication/Public Relations Option (32 units)

1. Required (12 units)
  - SPCH 3530 Interviewing Principles & Practices (4)
  - SPCH 4840 Organizational Communication (4)
  - SPCH 4870 Methods of Research in Speech Communication (4)
  
2. Select one course (4 units)
  - SPCH 3540 Business and Professional Presentations (4)
  - SPCH 4350 Advanced Public Speaking (4)
  
3. Select one course (4 units)
  - SPCH 4830<sup>1</sup> Intercultural Communication (4)
  - SPCH 4860<sup>1</sup> Ethnic Public Address (4)
  
4. Complete three advisor-approved courses from Group I, II or III (12 units).

*Group I - Marketing Focus:* MKTG 3401 Marketing Principles (4), 3410 Advertising Management (4), 3415 Personal Selling (4), 3425 Promotion (4), 3495 Business Communication (4), 4415 Corporate Communications (4), 4425 Sales Training (4)

*Group II - Mass Communication Focus:* MCOM 2200 Introduction to Journalistic Writing (4), 3010<sup>2</sup> News Reporting & Writing (4), 3340<sup>2</sup> Graphic Communication (4), 4050<sup>2</sup> Theories of Mass Communication (4), 4110 International Communication (4), 4510 Public Relations Theory Practice (4), 4530 The Advertising-Public Relations Campaign (4)

*Group III - Management Focus:* MGMT 3600 Theories of Management (4), 3614<sup>2</sup> Organizational Behavior (4), 4618 Human Resources Training and Development (4); PUAD 4800 Public Administration & Society (4) 4830 Organizational Theory & Human Behavior (4)

C. Intercultural Communication Option (36 units)

1. Required (12 units)

ANTH 2300 Cultural Anthropology (4)

SPCH 4830<sup>1</sup> Intercultural Communication (4) or SPCH

4860<sup>1</sup> Ethnic Public Address (4)

SPCH 4870 Methods of Research in Speech

Communication (4), or 4875 Senior Seminar (4)

2. Select one course (4 units)

SPCH 4840 Organizational Communication (4)

SPCH 4850 Female/Male Communication (4)

SPCH 4855 Family Communication (4)

SPCH 4858 Intimate Communication (4)

3. Select two courses (8 units)

E S 1000 Ethnic Experience in America I: Minorities (4)

E S 1002 Ethnic Experience in America: Patterns of  
Immigration and Migration (4)

SOC 1000 Introduction to Sociology (4)

SOC 3520 Sociology of Minority Groups (4)

4. Select three advisor-approved courses (12 units) outside the university course inventory available from your advisor. A wide range of elective course offerings for this option is available. For example, you may choose three courses focusing on one ethnic group or one course from three ethnic groups. You may choose to specialize in ethnic writers, ethnic film, family, women, or immigration issues. A sample of such courses include: E S 2125 The Black Esthetic, 2300 Blacks in Film, 2410 Mexican American/Latino Perspectives in Film, 3000 Ethnic Writers, 3003 Black Women Writers, 3145 African American Music, 3203 Latino Writers, 3940 Immigrant and Refugee Women, 3955 Asian American Family Patterns; SOC 3416 Sociology of Mexican American Family.

D. Public Communication Option (32 units)

1. Required (16 units)

SPCH 4411 Principles of Argumentation (4)

SPCH 4460 American Public Address (4)

SPCH 4600 Modern Rhetorical Theory (4)

SPCH 4860 Ethnic Public Address or upper division SPCH  
elective (4)

2. Select one course (4 units)

SPCH 4550 Communication Criticism (4)

SPCH 4610 The Rhetoric of Popular Culture (4)

3. Select three advisor approved courses (12 units) outside the department from the university course inventory available from your advisor. A wide-range of courses is available, for example: ENGL 4720 Mythology (4), 4745 Film Criticism (4); HIST 3417 The United States: Recent American History (4), HIST 3571 Women in American History (4); MCOM 3240 Public Opinion (4), 4500 Women in the Media (4); PHIL 3502 Social and Political Philosophy (4), 3510 Human Rights and Social Justice (4); POSC 3310 Political Parties and Campaigns (4), 3703 American Political Thought (4).

E. General Speech Communication Option (32 units)

1. Required (12 units)

SPCH 4870 Methods and Research in Speech Communication (4)

*Select 4 units from the following:*

SPCH 4183 Speech and Debate Activities Workshop (1-3)

SPCH 6200 Internship in Speech Communication (1-4)

*Select 4 units from the following:*

SPCH 4201 Comparative Traditions of Rhetoric (4)

SPCH 4550 Communication Criticism (4)

SPCH 4810 Communication Theory (4)

2. Select one course (4 units) from Group A, two courses (8 units) from Group B, and two courses (8 units) from Group C.

*Group A - Cultural Studies:* SPCH 4700 Topics in Speech Communication (4), 4830 Intercultural Communication (4), 4860 Ethnic Public Address (4)

*Group B - Organizational/Interpersonal Studies:* SPCH 3530 Interviewing Principles and Practices (4), 3540 Business and Professional Presentations (4), 4700 Topics in Speech Communication (4), 4840 Organizational Communication (4), 4850 Female/Male Communication (4), 4855 Family Communication (4), 4858 Intimate Communication (4), 4880 Communication and Conflict Resolution (4)

*Group C - Rhetorical Studies:* SPCH 4350 Advanced Public Speaking (4), 4411 Principles of Argumentation (4), 4460 American Public Address (4), 4600 Modern Rhetorical Theory (4), 4610 The Rhetoric of Popular Culture (4), 4700 Topics in Speech Communication (4).

III. Speech Communication Electives

*Select 16 units from the following:*

SPCH 2310 Oral Interpretation of Literature (4), 3515 Persuasion (4), 3520 Nonverbal Communication (4), 3530 Interviewing Principles and Practices (4), 3540 Business and Professional Presentations (4), 3898 Cooperative Education (1-4), 4183 Speech/Debate Workshop (1-3), 4201 Comparative Traditions of Rhetoric (4), 4350 Advanced Public Speaking (4), 4411 Principles of Argumentation (4), 4460 American Public Address (4), 4500 Critical Discourse in Multicultural America (4), 4550 Communication Criticism (4), 4600 Modern Rhetorical Theory (4), 4610 The Rhetoric of Popular Culture (4), 4700 Topics in Speech Communication (4), 4810 Communication Theory (4), 4830 Intercultural Communication (4), 4840 Organizational Communication (4), 4850 Female/Male Communication (4), 4855 Family Communication (4), 4858 Intimate Communication (4), 4860 Ethnic Public Address (4), 4870 Methods of Research in Speech Communication (4), 4875 Senior Seminar (4), 4880 Communication and Conflict Resolution (4)

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## Minor Requirements

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## Speech Communication Option: Liberal Studies

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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The minor consists of at least 32 units in Speech Communication, of which at least 20 must be upper division, to be selected in consultation with a minor adviser. The following courses (20 units) are required for the Speech Communication Minor:

- SPCH 1000 Principles of Speech Communication (4)
- SPCH 1004 Interpersonal Communication (4)
- SPCH 3411 Argumentation and Debate (4) or
- SPCH 3510 Small Group Communication (4)
- SPCH 4201 Comparative Traditions of Rhetoric (4)
- SPCH 4830 Intercultural Communication (4)

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#### Area I (4 units)

- SPCH 1000 Principles of Speech Communication (4)

#### Area II.B (4 units)

- SPCH 4830 Intercultural Communication (4)

#### Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

- SPCH 1004 Interpersonal Communication (4)

#### *Performance Category* - Two of the following (8 units):

- SPCH 3411 Argumentation and Debate (4)
- SPCH/THEA 3485 Power and Use of the Human Voice (4)
- SPCH 3510 Small Group Communication (4)
- SPCH 3515 Persuasion (4)
- SPCH 3530 Principles of Interviewing (4)
- SPCH 4350 Advanced Public Speaking (4)

#### *Theory Category* - Two of the following (8 units):

- SPCH 4201 Comparative Traditions of Rhetoric (4)
- SPCH 4600 Modern Rhetorical Theory (4)
- SPCH 4810 Communication Theory (4)

#### *Context Category* - One of the following (4 units):

- SPCH 4411 Principles of Argumentation (4)
- SPCH 4460 American Public Address (4)
- SPCH 4550 Communication Criticism (4)
- SPCH 4610 The Rhetoric of Popular Culture (4)
- SPCH 4840 Organizational Communication (4)
- SPCH 4850 Female/Male Communication (4)
- SPCH 4858 Intimate Communication (4)
- SPCH 4860 Ethnic Public Address (4)
- SPCH 4855 Family Communication (4)
- SPCH 4880 Communication and Conflict Resolution (4)

## Undergraduate Courses

*The course prefix for the following courses is SPCH.*

- 1000** Principles of Speech Communication (4)  
[CAN SPCH 4]  
Theory, practice, and evaluation of oral communication. Emphasis on ethical responsibility, careful selection and development of ideas, and logical organization of expository/argumentative/ persuasive discourse. (A)
- 1004** Interpersonal Communication (4)  
[CAN SPCH 8]  
Study of principles of oral communication in different interpersonal contexts; dyads, interviews, and exercises in listening and speaking intended to develop competence in oral communication. (A)
- 1010** Introduction to Communication Studies (4)  
Theories, concepts and contexts for the study of human communication. Introduction to the methods of study of communication in private, work and public relationships. How culture influences human use and understanding of messages.
- 1201** Native Voices in Today's World (4)  
Interdisciplinary exploration of the communication practices of native peoples of traditional and contemporary cultures in Africa, Europe, Asia, and the Americas as the peoples relate to one another, their traditions, sacred images, and rituals.
- 3411** Argumentation and Debate (4)  
A course stressing those elements of logic and rhetoric making up responsible argumentative discourse. Practice in presentation and evaluation of argumentative speeches and forensic debates. Prerequisite: SPCH 1000, or consent of instructor. (F)
- 3485** Voice and Speech Improvement (4)  
The acoustic features of the voice-resonance, pitch, rate, intensity, and articulation. Designed to improve the normal speaking voice through practice, and to understand the power of the voice in human communication.
- 3510** Small Group Communication (4)  
Principles and methods of public and group discussion in problem solving and learning situations. Development of individual skills in discussion preparation, participation, and leadership through practical application. Small group dynamics. Prerequisite: SPCH 1000, or consent of instructor. (Y)
- 3520** Nonverbal Communication (4)  
Correlation between verbal and nonverbal communication systems. Principles, theories, and effects of physical appearance, space, body posture, facial displays and paralanguage on the process of human communication. (Y)

- 3530 Interviewing Principles and Practices (4)  
Combining communication theory and practice, students plan, manage, and interpret professional interviews. Students develop skills in conducting and evaluating interviews for employment, problem solving, and performance appraisal.
- 3540 Business and Professional Presentations (4)  
Principles, techniques, and presentational skills for professional and business speaking. Topics include oral reports, proposals, briefings, training modules, motivational speaking, and audio-visual presentations. Emphasis on presentation development, delivery skills, and preparation and use of audio-visual aids and multimedia.
- 3555 Managing Meetings (4)  
Management of formal business meetings for maximum efficiency in all varieties of democratic groups. Development of personal qualities of confidence and expertise to participate, function as a leader, or hold office in deliberative assemblies. Understanding the philosophical procedures underlying the discipline of parliamentary procedure.
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Speech Communication major; a maximum of 4 units will be accepted toward the Speech Communication minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 4183 Speech and Debate Activities Workshop (1-3)  
An activity course for students participating in the co-curricular presentations of the department. Includes competition in debate and various speech events plus appearance before community groups. Admission by consent of instructor. Field trips required. Six units maximum for speech communication credit. (F, W, Sp)
- 4201 Comparative Traditions of Rhetoric (4)  
A study of Greek, Roman, and non-European traditions of rhetoric and oratory with an emphasis on theories of discourse, rhetorical practices, and the influence of particular cultures on rhetorical theory and practice.
- 4350 Advanced Public Speaking (4)  
Principles of public speaking and the development and presentation of talks designed to achieve specific purposes. May fulfill teaching credential speech communication requirement. Prerequisite: SPCH 1000, or consent of instructor. (Y)
- 4411 Principles of Argumentation (4)  
The elements of argumentation emphasizing presumption and burden of proof; propositions; issues; reasoning and fallacies; models of argumentation; and criticism of



argumentation from the courtroom, legislature, and other settings. (Y)

- 4460 American Public Address (4)  
Analysis and evaluation of selected speeches by notable public figures in the United States. Focus on the rhetorical responses of women and men from diverse cultural backgrounds to various types of issues, audiences and occasions. May be repeated for credit with change in course content. (Y)
- 4500 Critical Discourse in Multicultural America (4)  
Study of ancient and modern theories of rhetorical criticism. Extensive practice in applying principles of criticism to public communication in the diverse and multicultural American society. Emphasis on development of competence in analysis and refinement of judgment. (Y)
- 4550 Communication Criticism (4)  
Study issues in the analysis and evaluation of messages to explain their influence on audiences. Frequent practice in applying critical approaches to a wide variety of messages, including speeches, essays, and conversation.
- 4600 Modern Rhetorical Theory (4)  
An intensive study of leading theories from the eighteenth century to the present, seeking to discover their substance, their relationships to one another, and their usefulness. (Y)
- 4610 Rhetoric of Popular Culture (4)  
Critical analysis of how popular culture (including clothing, sports events, television, rock concerts, ethnic festivals, advertisements, shopping malls, etc.) works rhetorically as messages and how it works discursively in our interactions with self and others. Students conduct field projects.
- 4700 Topics in Speech Communication (4)  
Topics of special interest for intensive study in speech communication. May be repeated for credit with change in course content. (Y)
- 4810 Communication Theory (4)  
An introduction of models of oral communication and persuasion, and an examination of studies of oral discourse which those models illustrate. (Y)
- 4830 Intercultural Communication (4)  
Analysis and comparison of the perception and transmission of verbal and nonverbal messages in intercultural interactions within and among cultural and racial groups primarily of the United States. Cultural and social influences on the communication process and the communication of racism are emphasized. (Y)
- 4840 Organizational Communication (4)  
Analysis and application of principles of human communication in the organizational setting. Study of communication structures, channels, climate, and relationships which influence the quality of verbal and nonverbal forms of interaction in the modern organization.



(Y)

- 4850** Female-Male Communication (4)  
The communication styles of females and males in a variety of interpersonal and public settings. Emphasis on gender-related communication behavior as it influences effective personal and professional interaction.
- 4855** Family Communication (4)  
Analysis of family communication with attention on how communication patterns learned in diverse family structures (sexual orientation, cultural, and class variations) influence our sense of self and provide models for intimate relationship; the variety of ways families communicate; development of analytical skills to improve communication competence in family interactions.
- 4858** Intimate Communication (4)  
The influence of culture, gender, and sexual orientation on the community of intimacy in romantic, friendship, and family relationships.
- 4860** Ethnic Public Address (4)  
The rhetorical principles and public address of ethnic speakers in the United States, including Native American, Asian American, Latino, and African American rhetoric.
- 4870** Methods of Research in Speech Communication (4)  
An introduction to an application of theories and methods of conducting both quantitative and qualitative research in speech communication. Issues of basic research design and data analysis are explored and applied to specific research topics. (Y)
- 4875** Senior Seminar (4)  
Students share knowledge gained from their studies. They develop and present learning portfolios to demonstrate intellectual and skill-based competencies.
- 4880** Conflict Communication (4)  
Patterns and negotiation styles of expressed disagreements between individuals and/or groups. Culture, gender and relational influence on attitudes and the expression of conflict significantly infused throughout. Focus on informal and formal methods of negotiation in personal, organizational, or public settings. Repeatable once with consent of instructor.
- 4900** Independent Study (1-4)

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## Footnotes

- 1** May not satisfy both core and option requirements.
- 2** May require prerequisites not included in the option.



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## Health Care Administration

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- ▶ [General Information](#)
- ▶ [Undergraduate Course](#)

### Department Information

Department of Nursing and Health Sciences  
School of Science  
Office: North Science 143  
Phone: (510) 885-3481

Department of Public Administration  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4124  
Phone: (510) 885-3282

*Professors:* Brenda J. Bailey (Nursing), Bette Felton (Nursing),  
Lynn C. Paringer (Economics), Pamela K. Parlocha (Nursing),

*Assistant Professors:* Ann L. Abbott (Public Administration), Linda  
F. Dennard (Public Administration), Chris M. Wood (Nursing)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### General Information

While the program in Health Care Administration is an interdisciplinary graduate program leading to the M.S. in Health Care Administration, the following course is offered for undergraduates who may be interested in pursuing the master's degree in health care administration or who wish to learn more about health care systems. HCA 4200 is a prerequisite for "Classified Graduate" status in the M.S. in Health Care Administration program. The other prerequisites are PUAD 4830 Organization Theory and Human Behavior or MGMT 3614 Organizational Behavior, and STAT 1000 Elements of Probability and Statistics. See the Health Care Administration chapter in the graduate section of this catalog for additional information.

### Undergraduate Course

*The course prefix for the following course is HCA.*

- 4200** Social Construction of Health Care (4)  
The origin and structure of health care delivery systems. How ideas about health and medical care are anchored in social and cognitive relationships. The assumptions that

inhibit systemic change and change strategies given these assumptions.



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## Speech Pathology and Audiology

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### Department Information

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Department of Communicative Sciences and Disorders  
School of Arts, Letters, and Social Sciences  
Office: Music and Business Bldg. 1099  
Phone: (510) 885-3233

*Professor Emeritus:* Robert A. Veder

*Professors:* Jan A. Avent (Chair), Norma S. Rees, William S. Rosenthal

*Assistant Professor:* Laura Epstein

*Adjunct Faculty:* Bonnie Cabasino, Susan Carlson, Audra Elliott, Bonnie Groth

*Lecturers:* Marilyn Buzolich, Harold Clumeck, Valarie Fitzgibbons, Sue Keblusek, Ellen King, Starr Lieber, Carol Murphy, Shelley Simrin, Sandra Sulprizio

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

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Speech-language Pathology and Audiology are the professions which help adults and children overcome disabilities of speech, language, and/or hearing. These professions can satisfy a wide variety of career interests, including working in an allied medical profession, public service, government, education and private industry. Through research, these professions also contribute to our knowledge about human communication.

Many students select this degree program for professional training in Speech-language Pathology and Audiology, others select this major because it seeks to develop student patterns of clear and logical thinking, planning, decision making and writing. Drawing

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## Career Opportunities

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from such academic disciplines as biology, psychology, sociology, linguistics, medicine, and the physical sciences, the program offers an interdisciplinary character that encourages and fosters an emphasis on acquiring the broad knowledge of a liberal arts general education, as well as developing expertise in a single discipline. Many of our undergraduate majors have used these attributes to successfully pursue careers other than Speech-language Pathology and Audiology, and have gone on to fields of education, finance, business, and government services.

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Audiologist • Communications Specialist • Consultant • Professor/Teacher • Research Assistant • Speech-language Pathologist n Clinical Supervisor

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## Features

The Speech Pathology and Audiology program operates the Center for Communicative Disorders, an on-campus facility which provides clinical services to speech, language, and hearing impaired individuals from Bay Area Communities. Students who are enrolled in the program do much of their initial observations and clinical training in this facility. The program also maintains a fully equipped speech and hearing sciences laboratory for students who wish to pursue research interests.

The Department of Communicative Sciences and Disorders offers the coursework required to qualify as a registered audiometrist in the public schools of the State of California.

The Bachelor of Science degree major in Speech Pathology and Audiology provides students with a background in theoretical and clinical areas fundamental to the understanding and management of communicative disorders and serves as the pre-professional training necessary for admission to graduate studies.

Students enrolled in this program are required to see their advisor each quarter prior to registration.

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## Major Requirements (B.S.)

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Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 89 units; the B.S. degree requires a total of 186 units.

- I. Lower Division (20 units)
  - BIOL 1001-2 Introduction to Biology and Lab (5)
  - BIOL 2010 Human Physiology and Anatomy I (5)
  - PSYC 1000 General Psychology (5)
  - STAT 1000 Elements of Probability and Statistics (5)
  
- II. Upper Division (53 units)
  - SPPA 3852 Survey of Speech and Language Disorders - Part I (4)
  - SPPA 3853 Survey of Speech and Language Disorders - Part II (4)
  - SPPA 3854 Anatomy and Physiology of Speech (4)

SPPA 3855 Introduction to Phonetics (4)  
SPPA 3856 Observation of Clinical Procedures in  
Communicative Disorders (1, 1)  
SPPA 3859 Introduction to Audiology (4)  
SPPA 4852 Clinical Methods and Procedures in  
Communicative Disorders (2)  
SPPA 4854 Diagnosis of Speech & Lang. Disorders (4)  
SPPA 4855 Aural Rehabilitation (4)  
SPPA 4856 Clinical Practicum in Speech Pathology and  
Audiology (1)  
SPPA 4859 Seminar in Speech Pathology & Audiology(4)  
SPPA 4861 Introduction to Audiometry (4)  
SPPA 4863 Phonological Disorders in Children (4)  
SPPA 4865 Language Disorders in Children (4)  
SPPA 4867 Introduction to Speech Science (4)

### III. Elective Courses (16 units)

Each student enrolled in this major must complete 16 units of upper division courses in related disciplines; these courses are subject to adviser approval. Courses may be chosen from areas such as psychology, human development, linguistics and sign language. Students are responsible for any required prerequisites for elective courses.

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 32 units.

SPCH 1004 Interpersonal Communication (4)  
SPCH 4810 Communication Theory (4)  
SPPA 3852 Survey of Speech and Language Disorders-Part I  
(4)  
SPPA 3854 Anatomy and Physiology of Speech (4)  
SPPA 3855 Introduction to Phonetics (4)  
SPPA 3859 Introduction to Audiology (4)  
SPPA 4854 Diagnosis of Speech & Language Disorders(4)  
SPPA 4855 Aural Rehabilitation (4)

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## Speech Path/Audiology Option: Liberal Studies

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### Area II.B (5 units)

SPPA 3852 Survey of Speech and Language Disorders - Part 1  
(4)  
SPPA 3856<sup>1</sup> Observation of Clinical Procedures in  
Communicative Disorders (1)

### Area VII, Credential Track, or Area VI, Liberal Arts Track (25 units)

SPPA 3853 Survey of Speech and Language Disorders - Part II  
(4)  
SPPA 3855 Introduction to Phonetics (4)

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## Basic Skills Courses

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SPPA 3856<sup>1</sup> Observations of Clinical Procedures in  
Communicative Disorders (1)  
SPPA 3859 Introduction to Audiology (4)

Three courses selected from the following (12 units):  
SPPA 3854 Anatomy and Physiology of Speech (4)  
SPPA 4854 Diagnosis of Speech and Language Disorders (4)  
SPPA 4855 Aural Rehabilitation (4)  
SPPA 4861 Introduction to Audiometry (4)  
SPPA 4863 Phonological Disorders in Children (4)  
SPPA 4864 Fluency Dysfunctions (4)  
SPPA 4865 Language Disorders in Children (4)

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*The course prefix for the following courses is SPPA.*

"Basic Skills Courses" XE "Remedial English/Math"  
0980 Speech Laboratory for Non-Native Speakers of  
English (1)  
Discussion/laboratory course on oral competency for non-native  
speakers of English. Focus on articulation of speech sounds,  
stress, intonation, and vocal dynamics of American English.  
A/B/C/NC grading only. Units will not count toward the  
baccalaureate degree.

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## Undergraduate Courses

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*The course prefix for the following courses is SPPA.*

- 3005** Verbal American English Skills (4)  
Introduces non-native speakers of English to pronunciation,  
rate, pausing, rhythm, and vocal variability for individual  
and group interactions. Prerequisite: satisfactory  
completion of SPPA 0980 or permission of instructor.
- 3852** Survey of Speech and Language Disorders-Part I  
(4)  
The nature of speech and language pathology. Acquisition  
of speech and language by children and deviations from  
normal speech and language patterns, e.g., disorders of  
language, articulation, voice, language difference in a  
multicultural society, and stuttering. To be taken  
concurrently with SPPA 3856. (F)
- 3853** Survey of Speech and Language Disorders-Part  
II (4)  
Continuation of SPPA 3852. Topics include cerebral palsy,  
cleft palate, language learning disabilities, aphasia, and  
professional ethics. Prerequisite: SPPA 3852 or consent of  
instructor. To be taken concurrently with SPPA 3856. (W)
- 3854** Anatomy and Physiology of Speech (4)  
Study of the anatomy, physiology, and neurology of the  
speech mechanism; respiration, phonation, articulation,  
and resonance with emphasis on normal processes. (Sp)
- 3855** Introduction to Phonetics (4)  
Study of physiologic foundations of vowels, consonants,



diphthongs in American English. Development of ability to transcribe phonetically speech dialects and various articulatory patterns. Three hours of auditory training in the Language Laboratory required weekly. (F)

- 3856** Observation of Clinical Procedures in Communicative Disorders (1)  
Supervised observations, discussions, and written critiques of speech, hearing and language diagnosis and therapy. To be taken concurrently with SPPA 3852 and SPPA 3853. CR/NC grading only. Must be taken twice. May be repeated for credit with a limit of four total units, only two of which may be applied to the major. (A)
- 3859** Introduction to Audiology (4)  
An overview of the profession of audiology. The anatomy and physiology of the auditory system, theories of hearing, auditory disorders, and the nature of sound. (F, W)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. Not applicable to the Speech Pathology major; a maximum of 2 units will be accepted toward the Speech Pathology minor. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 4852** Clinical Methods and Procedures in Communicative Disorders (2)  
Basic principles of client treatment and management, including structuring the therapy session, designing therapy hierarchies, data collection, working with families, reinforcement and documentation. CR/NC grading only. Prerequisite: Prior or concurrent enrollment in SPPA 4856. (Y)
- 4853** Vocal Pathology and Rehabilitation (4)  
Study of various functional and organic disorders, e.g., vocal nodules, spastic dysphonia, laryngeal cancer and contact ulcers. Principles and methods of intervention for vocal disorders found in adults and children. Prerequisites: SPPA. 3853, 3854, or consent of instructor. (F)
- 4854** Diagnosis of Speech and Language Disorders (4)  
Theory and practice in the assessment of various pathologies of speech and language. Prerequisites: SPPA 3852, 3853, 3855, or consent of instructor. Two hrs. lect., 6 hrs. lab. (F, W)
- 4855** Aural Rehabilitation (4)  
The study, analysis and application of various processes for developing and improving communication skills in hearing impaired children and adults. Current basic procedures in hearing aid evaluations. Prerequisite: SPPA 3859 and 4861, or consent of instructor. (F)
- 4856** Clinical Practicum in Speech Pathology and Audiology (1-5)  
Development, implementation and evaluation of

individualized therapy programs for clients in the Speech, Hearing and Language Clinic. Practice in report writing and oral case presentations. Prerequisite: SPPA 3852, 3853, 3855, and 4854 or consent of instructor. Each unit of clinic requires a minimum of 30 hours of client contact per quarter. (A)

- 4859 Seminar in Speech Pathology and Audiology (4)  
Investigation of individual research projects in speech pathology and audiology. Reports to seminar of those investigations. Prerequisite: senior standing in Speech Pathology and Audiology, or consent of instructor. (Sp)
- 4861 Introduction to Audiometry (4)  
Theory and application of the fundamentals of pure tone and speech audiometric procedures basic to identification audiometry and differential diagnosis of peripheral auditory disorders. Prerequisite: SPPA 3859. (Sp)
- 4862 Orofacial Anomalies (4)  
Anatomy, physiology, diagnosis, and management of anomalous palatal conditions. Special consideration of speech therapy methods in cases of cleft palate and congenital palatopharyngeal incompetence. Case application of these procedures and appropriate counseling methods. Prerequisite: SPPA 3853. (Y)
- 4863 Phonological Disorders in Children (4)  
Systematic study of articulatory disorders resulting from deviant phonological rule systems; critical review of traditional tests with emphasis on innovative evaluation and treatment procedures including distinctive feature theory. Prerequisite: consent of instructor. (Y)
- 4864 Fluency Dysfunctions (4)  
Theories of etiology and therapeutic approaches to stuttering and cluttering disorders in adults and children. (Y)
- 4865 Language Disorders in Children (4)  
Causes and treatment of language disorders in children. Students observe treatment; learn to collect and analyze language samples, and to write training programs. Prerequisite: consent of instructor. (W)
- 4866 Aphasia in Adults (4)  
Analysis of historical and current information relating brain dysfunction and language disorders. Student observations; practice in administration, scoring, and interpretation of aphasia tests. Prerequisite: consent of instructor. (Y)
- 4867 Introduction to Speech Science (4)  
Fundamentals of sound production and transmission as related to speech. Theory of speech production, perception, acoustic and physiologic phonetics, and analysis of the acoustic properties of speech. Prerequisite: SPPA 3854, 3855, or consent of instructor. (Sp)
- 4900 Independent Study (1-4)

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# Footnotes

- 1 Enrollment in SPPA 3852 and 3853 requires concurrent enrollment in SPPA 3856.



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## Health Sciences

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- ▶ [Undergraduate Courses](#)

### Department Information

Department of Nursing and Health Sciences  
School of Science  
Office: North Science 143  
Phone: (510) 885-3223

*Professor Emeritus:* John C. Wong

*Professor:* Bette Felton

*Associate Professor:* Pauline J. Kelzer

*Assistant Professor:* Juan A. Robles

*Lecturer:* Mala Seshagiri

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Health, the second largest industry in our country, employs over 8.0 million workers. Physicians represent only 7% of this work force. There are over 200 other professions in the health field. Job opportunities and degree of competition for admission to clinical training vary considerably among geographic areas, states, and the individual professions. Careful planning for a primary profession and one or more alternate careers is a must.

The B.S. degree with a major in Health Sciences offers a program with large blocks of elective courses tailored to meet career needs. Students should contact the department for a personal planning appointment.

### Career Opportunities

By selecting the appropriate courses, students in the Health Sciences program can prepare for continued study in the independent practice professions, for graduate study in community health education, health administration, planning and other public health careers, for entry into the job market in federal, state and county health agencies, community clinics, voluntary

## Major Requirements (B.S.)

health agencies and hospitals, insurance and pharmaceutical companies, or for internships required for licensure in nursing home administration, environmental health, and other health careers.

The major in Health Sciences consists of 124-132 units; the B.S. degree requires a total of 188 units.

- I. Lower Division Core (37 units)
  - ANTH 1000 Introduction to Anthropology (4) or SOC 1000 Introduction to Sociology (4)
  
  - BIOL 1001 Introduction to Biology (4 ) and  
BIOL 1002 Introduction to Biology Lab (1) or  
BIOL 1301 Foundations of Biological Science (5)
  
  - BIOL 2010, 2020 Human Physiology & Anatomy I, II (5, 5)  
HSC 1000 Introduction to Health Professions Practice (4)  
HSC 1100 Health: Maintenance of Wellness (4) or PE 1110 Concepts of Health (4)  
PSYC 1000 General Psychology (5)  
STAT 1000 Elements of Probability and Statistics (5)
  
- II. Upper Division Core (51-53)
  - ANTH 3720 Medical Anthropology (4) or SOC 4720 Medical Sociology (4)
  - BIOL 3005 Introduction to Microbiology (5) or BIOL 3405 Microbiology (6) or BIOL 4010 Microbes and Humanity (4)
  
  - HSC 3000 Research and Program Evaluation in Health Science (4)  
HSC 3200 Environmental Health (4)  
HSC 3300 Medical Care in the US (4)  
HSC 3400 Individual & Community Mental Health (4) or PSYC 4410 Abnormal Psychology (4)
  
  - HSC 3350 Health Legislation & Government Programs(4)  
HSC 3500 The Principles of Nutrition and Diet Therapy (4) or  
BIOL 3070 Optimal Nutrition (4)
  
  - HSC 4500 Supervised Field Training & Writing (3)  
HSC 3650 Consumer Health (4)  
HSC 3800 Multicultural Issues in Health Care (4)  
HSC 4600 Systems Management (4)  
HSC 4700 Senior Seminar (4)
  
- III. Electives (36-42 units)

The electives that students choose in consultation with their faculty advisor should reflect their career goals. Often a minor in another area can be used to meet this requirement. Select Group 1, Group 2, Group 3, or Group 4 and complete all courses listed under that group.

Group 1: Health Marketing and Management Electives (36 units)

*Complete the following courses (20 units):*  
ACCT 2210 Accounting for Non-Business Majors (4) or

ACCT 2251 Principles of Accounting I (4)  
ECON 2301 Principles of Microeconomics (4)  
MKTG 2485 Establishing and Managing a Small Business  
(4)  
MGMT 3600 Theories of Management (4)  
MKTG 3401 Marketing Principles (4)

*Another 16 units in Marketing to be selected in consultation  
with faculty advisor.*

Group 2: Pre-Health Professions Electives  
(medicine, dentistry, etc.) (42 units)

CHEM 1101-2-3 General Chemistry I, II, III (5 each)  
CHEM 3301-2-3 Organic Chemistry I, II, III (5 each)  
PHYS 2701-2-3 Introductory Physics I, II, III (4 each)

Group 3: Health Studies Electives (allied health  
fields) (36 units)

CHEM 1601-2-3 Basic Chemistry for the Health Sciences (4  
each)  
PHYS 1700 Elementary Physics (4) and PHYS 1780  
Elementary Physics Lab (1) or PHYS 2701 Introductory  
Physics (4) (Pre-Physical Therapy only)

Other Electives: 19-20 units

Group 4: Community Health Electives (36 units  
approved by the department chair)

*Recommended electives:*

BIOL 3120 Principles of Genetics (4)  
BIOL 3060 Human Sexuality (4)  
BIOL 4120 Radiation Biology (4)  
BIOL 4430 Immunology (4)  
Other Electives: 20 units

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

#### Certificate in Pre-Physical Therapy

A certificate in Pre-Physical Therapy can be earned in conjunction with the major in Health Sciences. For additional information and a referral to a pre-professional adviser in physical therapy, contact the Department of Kinesiology and Physical Education at 885-3061.

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## Undergraduate Courses

educational and career goals must be selected in consultation with a Health Sciences faculty advisor.

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*The course prefix for the following courses is HSC.*

- 1000** Introduction to Health Professions Practice (4)  
Professional practice in preventive, curative and rehabilitative health care services. Accreditation, certification and licensing standards. State and Federal regulations on quality assurance and reimbursement policies.
- 1100** Health: Maintenance of Wellness (4)  
Analysis and application of the Wellness concept for healthful living. Instruction in techniques and procedure for self-care, self-examination, emergency care and efficient utilization of the medical care system.
- 2001** Environmental Factors in Health (4)  
Ecological principles applied to interactions between human and environmental systems and how each affects the health of the other. Strategies for preventing and managing environmental crises. Students may not receive credit for both HSC 2001 and 3200.
- 2500** Principles of Personal Nutrition (4)  
Consumer-oriented course on nutrition and food. Basic nutrients and food groups, food and health, food safety, food shopping. Not open to students who have credit for HSC 3500.
- 3000** Research and Program Evaluation in Health Science (4)  
Use of epidemiological and biostatistical theory in the design, investigation, analysis and interpretation of health problems. Prerequisites: MATH 1130, STAT 1000. (Y)
- 3200** Environmental Health (4)  
The relationship of the environment to people's health. Prerequisites: BIOL 3405 or 4010. Students may not receive credit for both HSC 3200 and 2001. (Y)
- 3300** Medical Care in the U.S. (4)  
Introduction to the organization and function of medical care in the U.S. (Y)
- 3350** Health Legislation and Government Programs (4)  
Current Federal and State health legislation, regulations, and standards, and their effect on professional practice. Historical development of various health programs and their current status. Prerequisite: HSC 3300. (Y)
- 3400** Individual and Community Mental Health (4)  
An analysis of various concepts of mental health. The application of intervention techniques. Prerequisite: PSYC 1000. (Y)

- 3500** The Principles of Nutrition and Diet Therapy (4)  
Functions and sources of nutrients. Health problems caused by lack or excess of nutrients. Nutritionists and dieticians in the health care system. Normal and therapeutic nutrition with emphasis on diet-related problems such as cardiovascular disorders, weight control and hypertension. Prerequisites: BIOL 1001, 1002, 2010, and 2020.
- 3600** Ambulatory Health Care Administration (4)  
Planning and structuring processes for ambulatory care services. Implementation problems and strategies. Overall control, cost containment, leadership effectiveness and evaluation. Prerequisite: HSC 3300.
- 3650** Consumer Health (4)  
Major health care consumer issues in an epidemiological context: health status, drug usage, health products across the life cycle, exercise and nutrition, diseases, complimentary healing systems. Interdependence of these issues with behavioral, political, economic, ecologic, and cultural factors. Prerequisite: BIOL 1000 or permission of instructor.
- 3800** Multicultural Issues in Health Care (4)  
The complex transcultural issues surrounding delivery and acceptance of health care. Impact of cultural values and ethnicity on understanding health and illness, and the utilization of health care services. Concepts and definitions of culture, ethnicity, traditional health beliefs, health and illness. Prerequisite: SOC 1000 or ANTH 1000 or permission of instructor.
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 8 units will be accepted toward the Health Sciences major. CR/NC grading only. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 4500** Supervised Field Training and Report Writing (3)  
A supervised field experience in health related programs. Prerequisite: Senior standing. Nine hrs. fieldwork. (Y)
- 4600** Health Systems Management (4)  
Theory and practice of the management of integrated systems of care. Critical review of key changes in the evolution of health care organizations. Impact of changes on the five traditional functions of management and traditional approaches to governing health care organizations. Prerequisites: all HSC courses numbered lower than 4600.
- 4700** Senior Seminar (4)  
Capstone course for graduating seniors in Health Sciences. Emphasis on the integration of theory, skills, and field work. Prerequisite: Senior standing in Health Sciences within two quarters of graduation.





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## Statistics

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### Department Information

Department of Statistics  
School of Science  
Office: North Science 229  
Phone: (510) 885-3435

*Professors:* Dean H. Fearn, Elliott Nebenzahl, Julia A. Norton (Chair), Michael L. Orkin, Bruce E. Trumbo

*Assistant Professor:* Eric A. Suess

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Statistics is the study of designing experiments and surveys, and evaluating the data obtained from them in a mathematical way. This young and rapidly growing science is widely used to make predictions about future events based on patterns observed in the past and to draw accurate inferences about large groups on the basis of a representative sample from the group. Economic forecasts and public opinion polls are examples of these kinds of statistical methods.

The methodology of statistics can be adapted to a wide spectrum of problems. Due to the extensive development of computers and the collection of large data banks, the need for statistical techniques has mushroomed in the past few decades. A society like ours, which has become increasingly dependent on its data, has a growing need for statisticians.

### Career Opportunities

Actuary • Biostatistician • Business Executive • Census Analyst • Credit Analyst • Data Analyst • Economist • Financial Modeling Specialist • Forms Analyst • Information Systems Analyst •

Insurance Agent • Market Researcher • Oddsmaker • Quality Control Specialist • Research Statistician • Sales Analyst • SAS Programmer • Statistician • Survey Designer • Systems Analyst • Teacher

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## Preparation

For Advanced Placement course equivalencies, see the Registration chapter.

The theory of statistics rests on a mathematical foundation. Even for statisticians whose primary interest is in applications, challenging mathematical problems arise continually. Calculus and computer programming are required for the major. An elementary course in linear algebra is highly recommended.

Courses in areas to which statistics is applied will also be helpful. Examples are business, biology, chemistry, geography, social sciences, psychology, and physics.

Community college students are advised to complete the sequence of elementary calculus and analytic geometry courses before transferring to Cal State Hayward.

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## Major Requirements (B.S.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 72-78 units; the B.S. degree requires a total of 186 units.

- I. Basic Requirements (16-26 units)  
MATH 1304, 1305 Calculus I, II (4, 4)  
[prerequisite: MATH 1300 (4) or equivalent]

*One of the following (4 units):*

CS 1020 Introduction to Computers (4) or CS 1160  
Introduction to Computer Science and Programming  
Methods (4)

*One of the following (4-10 units including prerequisite course):*

STAT 3010 Statistical Methods in the Social Sciences (4)  
[prerequisite, STAT 1000 (5)] or STAT 3031 Statistical  
Methods in Biology (4) or MGMT 3100 Quantitative  
Methods in Business (5) [prerequisite, STAT 2010 (5)] or  
MATH 2101 Elements of Linear Algebra (4) or MATH 2304  
Calculus III (4)

- II. Mathematical Statistics and Probability (32 units)  
STAT/MATH 3401 Introduction to Probability Theory I (4)  
STAT/MATH 3502, 3503 Statistical Inference I, II(4,4)  
STAT 3900 Data Analysis Using Statistical Packages (4)  
STAT 4601 Regression and Experimental Design (4)

*Any 3 of the following courses (12 units):*

STAT 3402<sup>1</sup> Introduction to Probability Theory II (4), 3510  
Sampling Procedures for Surveys (4), 3910 Statistical  
Software Design for Microcomputers (4), STAT/MATH 4401  
<sup>1</sup> Introduction to Stochastic Processes(4); STAT 4515  
Applied Multivariate Analysis (4), 4610 Introduction to

Nonparametric Statistical Methods (4), 4910 Advanced  
Statistical Software Design (4)

III. Area of Emphasis (20 units)

*Complete one of the following:*

1. Twenty units of approved mathematics or statistics courses in addition to those used for the requirements in Sections I and II above. MATH 3300, Intermediate Analysis, should normally be included in these 20 units. These courses are especially recommended for students taking the mathematical statistics pattern, or wishing to apply to the master's degree program in Statistics.
2. Twenty units of approved courses in an approved area. Areas currently approved include the following: Anthropology, Biological Science, Business/Economics, Chemistry, Computer Science, Geography, Geological Sciences, History, Physics, Political Science, Psychology, Sociology. For a complete list of currently approved areas, contact the Department of Statistics.

To gain departmental approval, these courses must include at least one upper division course and be judged to constitute a coherent program of study. (With the approval of the department, upper division Statistics courses, except STAT 3010 and STAT 3031, may be applied toward these twenty units.)

Credit/No Credit Courses

It is the policy of the department that no course taken on a "CR/NC" basis may be applied toward any of the requirements of Section II above. Individual petitions for waiver of this policy will be treated according to the same procedures as petitions to waive other degree requirements.

Double Major

A knowledge of statistical methods is of increasing importance to students in many areas, especially the physical, computing, decision, environmental, biological, political, and social sciences and administrative studies (including business, health care, and education). A second major in statistics along with a major in one of these areas may result in better preparation for employment or for graduate study. The following three factors combine to make such a double major feasible in many cases:

1. The Statistics major allows for a relatively large number of completely unrestricted elective units. The student may elect courses required for the other major among these.
2. Up to twenty units in certain areas outside of Statistics may be applied toward the Statistics degree. (See Area of Emphasis requirement, III.2.)
3. Some other majors require Statistics courses that also count towards the Statistics major (e.g., STAT 2010, 3010, etc.).

To obtain an illustrative program contact the Statistics Department.

*Note:* If a student simultaneously completes requirements for two majors leading toward different degrees (e.g., B.S. major in Statistics and B.A. major in Sociology), only one degree (student's choice) is awarded. However, in all cases, the student's transcript carries a notation that both sets of major requirements have been met. Students are eligible for scholarships in both programs.

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## Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

The minor consists of 24-25 units; six courses not involving calculus prerequisites approved for all students in the minor are as follows:

*One of the following courses:*

STAT 1000 Elements of Probability and Statistics (5), 2010 Elements of Statistics for Business and Economics (5), 3031 Statistical Methods in Biology (4)

*Five of the following:*

STAT 2088 Games of Chance, Gambling and Probability (4), 3010 Statistical Methods in the Social Sciences (4), 3415 Introduction to Decision Theory (4), 3510 Sampling Procedures for Surveys (4), 3900 Data Analysis Using Statistical Packages (4), 3910 Statistical Software Design (4), 4000 Analysis of Variance in the Behavioral Sciences (4), 4515 Applied Multivariate Analysis (4), 4601 Regression (4), 4610 Introduction to Nonparametric Statistical Methods (4)

With the consent of a Statistics Department advisor, any upper division Statistics course with a calculus prerequisite may be substituted for any of the above courses.

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## Certificate Program

### Applied Statistics

The Certificate in Applied Statistics combines basic work in statistics, which is required for many majors and graduate degree programs, with additional coursework in applied statistics. The coursework is designed to broaden the abilities of scientists and social scientists who already have degrees, but who need more training in the applications of statistics to their research and employment activities.

The minimum required GPA for the awarding of the certificate is 2.0. Consult an advisor in the Department of Statistics for clarification and interpretation of requirements. The certificate consists of 20 units, plus 4-5 units of prerequisites.

*Prerequisites:* STAT 3010 requires STAT 1000; STAT 3031 requires MATH 1130; STAT 3502 requires MATH 1305 or MATH 1820.

A. Core Courses (12 units)

*Applied Statistical Methodology (8 units)*

Choose one of the following pairs of courses:

STAT 3010 Statistical Methods in the Social Sciences (4) and  
STAT 4000 Analysis of Variance in the Behavioral Sciences  
(4)

STAT 3031 Statistical Methods in Biology (4) and STAT 4000  
Analysis of Variance in the Behavioral Sciences (4)

STAT 3502 Statistical Inference I (4) and STAT 3503  
Statistical Inference II (4)

*Data Analysis Using Statistical Packages (4 units)*

STAT 3900 Data Analysis Using Statistical Packages (4)

B. Electives (8 units)

Choose from the following courses:

STAT 3415 Introduction to Decision Theory (4)

STAT 3510 Sampling Procedures for Surveys (4)

STAT 3910 Statistical Software Design (4)

STAT 4515 Applied Multivariate Analysis (4)

STAT 4601 Regression (4)

STAT 4610 Introduction to Nonparametric Statistical Methods  
(4)

STAT 4860-69 Undergraduate Seminar (2-4)

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Area I (5 units)

Either STAT 1000 Elements of Probability and Statistics (5) or  
STAT 2010 Elements of Statistics for Business and Economics  
(5)

Area VII Credential Track or Area VI Liberal Arts  
Track (24 units)

Complete (1) or (2)

1. MATH 1110 The Nature of Mathematics (4) or MATH 1130  
College Algebra (4) or MATH 1300 Trigonometry and Analytic  
Geometry (4)

*Five upper division Statistics courses (20 units) selected from:*

STAT 3010 Statistical Methods in the Social Sciences (4)

STAT 3415 Introduction to Decision Theory (4)

STAT 3510 Sampling Procedures for Surveys (4)

STAT 3900 Data Analysis Using Statistical Packages (4)

STAT 4000 Analysis of Variance in the Behavioral Sciences  
(4)

STAT 4610 Introduction to Nonparametric Statistical  
Methods (4)

2. MATH 1810 Mathematics for Business and Social Sciences I  
(4) and MATH 1820 Mathematics for Business and Social

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Statistics  
Option: Liberal  
Studies

Sciences II (4)

*Four upper division Statistics courses (16 units) chosen from the list above.*

Students with calculus may substitute any upper division Statistics course for any course above.

Students interested in elementary school teaching should pursue the Liberal Studies Major and credential track (see the Liberal Studies chapter in the undergraduate section of this catalog). Those interested in secondary school teaching should complete the Single Subject Matter Preparation Program in Mathematics (see undergraduate chapter).

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## Undergraduate Courses

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*The course prefix for the following courses is STAT.*

### Information about Elementary Statistics Courses

*Prerequisite:* All introductory statistics courses require as a prerequisite completion of the Entry Level Math or ELM requirement.

*First Statistics Course:* The courses STAT 1000/3010 form a sequence and so STAT 1000 is the appropriate first course in many, but by no means all, cases. Biology majors should take STAT 3031 as their first Statistics course. Business and Economics majors should take STAT 2010. Sociology majors who elect to take only one Statistics course should take STAT 1000. STAT 1100 may be appropriate for students who are sure they will take only one Statistics course (e.g., certain majors in Liberal Studies, Nursing, Kinesiology, etc., as well as some students using a Statistics course to satisfy General Education requirements). STAT 3401 and STAT 3502 may be taken with no previous background in Statistics and are open to students with the appropriate Mathematics prerequisites.

*Prohibitions:* Students will NOT receive credit toward graduation for more than one of STAT 1000, 1100, 2010. STAT 1000 and 1100 may not follow any upper division Statistics course. Business and Economics majors require STAT 2010 or STAT 3502 and so must not take STAT 1000 (unless substitution of 1000/3010 for 2010 or 3502 has been approved by the major department).

*Substitutions:* Some departments permit students with appropriate background or interests to substitute a more advanced course or pair of courses for a course(s) specified as required in the Catalog. Get advance written permission from your department before making any of the following substitutions: 1000 for 1100; 2010 for 1000; 1000/3010 for 2010; 3502 for 3031; 3502 (plus 5 elective units) for 1000/3010; 3503 for 4000.

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1000<sup>2</sup> Elements of Probability and Statistics (5)  
[CAN STAT 2]  
Descriptive statistics (measures of central tendency,

dispersion, correlation), elementary discrete probability distributions. Introduction to tests of statistical hypotheses. Prerequisite: completion of ELM requirement. (A)

- 1100<sup>2</sup> Elements of Descriptive and Inferential Statistics (4)  
An introduction to descriptive statistics and basic ideas of inferential statistics. Uses and misuses of statistics. Not an acceptable prerequisite for other statistics courses. Prerequisite: completion of ELM requirement. (Y)
- 2010<sup>2</sup> Elements of Statistics for Business and Economics (5)  
Introduction to modern probability, descriptive statistics, estimation, hypothesis testing, and linear regression. Applications to business and economics. Prerequisite: MATH 1304 or MATH 1810 (either may be taken concurrently) or consent of instructor. (A)
- 2088 Games of Chance, Gambling, and Probability (4)  
A survey of popular gambling games, including dice games, card games, and horse racing, as an introduction to probability theory. Discussion of odds and gambling strategies. Not for Statistics major credit. Prerequisite: completion of ELM requirement. (Y)
- 3001 Introductory Statistics with Statistical Packages (5)  
Descriptive statistics, normal probability calculations, graphical comparisons, correlation, and basic hypothesis tests (including some nonparametric methods). Real data from practical applications. Computations using statistical programming packages (e.g., SAS or SPSS). Prerequisite: completion of ELM requirement. (Y)
- 3010<sup>2</sup> Statistical Methods in the Social Sciences (4)  
Standard scores, t scores, ranked data, linear regression, correlation, measures of association, the normal distribution and its uses, paired comparisons, the uses of chi-squared, and introduction to design of experiments. Prerequisite: STAT 1000 or equivalent. (A)
- 3031<sup>2</sup> Statistical Methods in Biology (4)  
Basic probability and statistical concepts. Introduction to the analysis of variance, correlation, and simple linear regression. Nonparametric techniques with application to biology. Prerequisite: MATH 1130 or consent of instructor. (F, W, Sp)
- 3401 Introduction to Probability Theory I (4)  
The theory of probability with applications to science and engineering. Sample spaces; random variables; joint, marginal, conditional distributions; expectations; important distributions (binomial, Poisson, normal, etc.); and moment generating functions. Cross-listed with MATH 3401. Prerequisite or concurrent: MATH 1305. (F, W, Sp)
- 3402 Introduction to Probability Theory II (4)  
Generating functions and multivariate distributions. Conditioning. Chebyshev inequality and limit theorems.



Multidimensional transformations of random variables. Derivation of t and F distributions. Uses of probability theory in mathematical statistics. Cross-listed with MATH 3402. Prerequisite: MATH 2304 or concurrent, STAT 3401. (W)

- 3415** Introduction to Decision Theory (4)  
Probability and conditional probability. Expectation and its application to decision making. Decision trees. Bayesian models and methods, comparison with classical methods, game theory. Prerequisite: STAT 1000 or STAT 2010. (Y)
- 3502** Statistical Inference I (4)  
Random variables, sampling distributions (binomial, Poisson, normal, exponential), conditional probability. Estimation, hypothesis testing. Computer-aided computations. Topics include: t-tests, correlation, regression; proportions, chi-squared; ANOVA. Cross-listed with MATH 3502. Prerequisite: MATH 1305 or MATH 1820. (F, W)
- 3503** Statistical Inference II (4)  
General linear hypothesis with emphasis on design and analysis of experiments. Data from science, engineering, and quality management. Factorial designs: random effects, nesting. Optional topics: incomplete blocks, missing data, analysis of covariance. Computer-aided analysis. Cross-listed with MATH 3503. Prerequisite: STAT 3502. (W, Sp)
- 3510** Sampling Procedures for Surveys (4)  
Detailed investigation of sampling methods. Design and comparisons of stratified, systematic, and cluster sampling procedures. Techniques of multistage and multiphase sampling. Prerequisite: STAT 1000 or equivalent. (Y)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Statistics major. Prerequisites: at least 2.0 GPA; departmental approval of activity.
- 3900** Data Analysis Using Statistical Packages (4)  
Using computer packages (e.g., SPSS, SAS) and interpreting output. Data preparation, descriptive statistics, graphs, checks for normality, t-tests, F-tests, ANOVA, cross tabulations, chi-squared tests, correlation, and report preparation. Prerequisite: a previous course in statistics. (F, Alt W)
- 3910** Statistical Software Design (4)  
Writing microcomputer software useful for elementary statistical analysis and probability computations. Topics may include: statistical graphics, introductory spatial statistics, data files, simulations. Prerequisites: a previous Statistics course and skill in BASIC, C, or other language. (W)

- 4000 Analysis of Variance in the Behavioral Sciences (4)  
Review of elementary analysis of variance. Factorial analysis of variance, multiple comparisons, and repeated measures designs. Prerequisite: STAT 3010 or STAT 3031. (Y)
- 4401 Introduction to Stochastic Processes (4)  
Theory of stochastic models with applications to science and engineering. Markov processes. Elementary birth-death processes, queues. Limit theorems. Computer simulation. Applications: e.g., inventory models, reliability, epidemiology. Cross-listed with ENGR 4401 and MATH 4401. Prerequisite: STAT 3401; or MATH 2304 (or concurrent) and STAT 3502. (Sp)
- 4515 Applied Multivariate Analysis (4)  
MANOVA, repeated measures designs, discriminant functions. May include factor analysis, canonical correlation, and cluster analysis. Computer intensive with special emphasis on treatment of actual data. Written reports required. Prerequisites: STAT 3010 and 3900 (may be concurrent). (Alt F)
- 4601 Regression (4)  
Computational methods in regression, including variable construction, and ANOVA. Selection methods. Attention to model assessment, graphical techniques, and assumption checking. Emphasis on real data from science, engineering, and business. Computer-assisted analysis. Report writing. Prerequisite or concurrent: STAT 3503 or STAT 4000.
- 4610 Introduction to Nonparametric Statistical Methods (4)  
Nonparametric methods and distribution-free tests. Sign, Wilcoxon, rank-correlation, independence and randomness tests. Approximate distributions under the null hypothesis, treatment of ties, some estimation procedures. Emphasis on social science data. Prerequisite: STAT 3010. (W)
- 4612 Statistical Inference in Practice (4)  
Probability ideas essential to statistical inference. Estimation and hypothesis-testing for univariate and bivariate data. Individual projects involving computer-aided analysis of real data. Prerequisites: senior or graduate standing, an upper-division STAT course, and MATH 2304. (F)
- 4860- Undergraduate Seminar (2-4 each)  
Seminar in probability and/or statistics on topics extending beyond regular courses. Variable content, units, and prerequisites, specified at the time of offering. A total of up to 12 units of different topics may be taken for credit.
- 4869
- 4910 Advanced Statistical Software Design (4)  
Programming in an advanced statistical software package, producing reformatted data, advanced statistical analysis, and probability modeling. Topics may include graphics, spatial statistics, creating and managing data files,

simulations, approximation algorithms. Prerequisites: STAT 3502, knowledge of an approved computer language. (W)

**4950** Advanced Statistical Packages for Data Analysis (4)  
Programming and applying computer packages (e.g., SAS S+). Data preparation and transformation, macros, descriptive statistics. Topics from diagnostics, t-procedures, ANOVA; nonparametrics; cross-tabulation, chi-squared, correlation, regression. Report writing. Prerequisite: STAT 3502. (F, Alt W, Alt Sp)

**4900** Independent Study (1-4)

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## Footnotes

**1** These courses are especially recommended for students taking the mathematical statistics pattern.

**2** Refer to "Information about Elementary Statistics Courses" in the previous column.



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## History

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### Department Information

Department of History  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4036.  
Phone: (510) 885-3207; FAX: (510) 885-4791

*Professors Emeriti:* Frank D. Gilliard, John E. Morby, Theodore Roszak

*Professors:* Dee E. Andrews, Jose A. Fernandez, Richard Garcia, Tom G. Hall, Gerald S. Henig, Richard J. Orsi, Henry F. Reichman (Chair)

*Associate Professor:* Sophia Lee

*Assistant Professor:* Pablo-Raul Arreola, Jr., Robert A. Phelps, Nancy M. Thompson, Jessica Weiss

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Students who pursue work in History benefit in a variety of ways. Their studies afford them entree to the riches of the recorded past and understanding of the process of historical change. At the same time, a History major enables them to develop critical reading and writing skills which are valuable in life and in any employment field they choose to enter.

### Career Possibilities

Archivist • Attorney • Corporate Historian • Curator • Diplomat/Foreign Service Officer • Government Service • International Relations Specialist • Journalist • Legal Assistant • Librarian • Museum Worker • Professor • Politician • Public Administrator • Researcher • Teacher • Writer

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## Features

The B.A. degree in History requires 60 units in History, 16 at the lower division and 44 at the upper division level. Foundation courses (20 units) provide an introduction to the methods and purposes of historical study, historical writing, and a survey of world history. Concentration requirements (16 units) permit specialization in a particular area, while elective courses (16 units) provide additional breadth. Capstone courses in historiography and historical method acquaint students with the theory and history of historical study and provide opportunities for the student to engage in original historical research.

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## Preparation

Students planning to major in History should pay particular attention to the lower division requirements in the major: some of these may be satisfied before coming to Hayward.

Advanced Placement: Students who score a "3," "4," or "5" on the College Entrance Examination Board's Advanced Placement Test in European History will be granted 8 units of credit for two of HIST 1014, HIST 1015, and HIST 1016, lower division requirements in the History major. (Specific equivalencies will be determined upon enrollment in the university.) Students who earn a "3," "4," or "5" on the College Entrance Examination Board's Advanced Placement Test in U.S. History will earn unit credit for HIST 1101 and HIST 1102 and satisfy the U.S. History and U.S. Constitution portion of the Code requirement. An additional course is required to complete the California State and Local Government portion of the Code requirement.

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## Major Requirements (B.A.)

Because requirements are subject to change, consult an advisor in your major department for clarification and interpretation of your major requirements. The major consists of 60 units; the B.A. degree requires a total of 186 units.

- I. Core Curriculum (28 units)
  - A. Foundation Courses (20 units)

The following courses should be taken as early in the major as possible:

    - HIST 1000 The Nature of the Study of History (4)  
(Transfer students who arrive with four upper division History courses or courses equivalent to HIST 4030 and 4031 may substitute an upper division History course for HIST 1000.)
    - HIST 1014 World Civilizations I (4)
    - HIST 1015 World Civilizations II (4)
    - HIST 1016 World Civilizations III (4)
    - HIST 3010 Historical Writing (4)
  - B. Capstone Courses (8 units)

The following courses should be taken in the student's final three quarters. All Foundation courses must be completed before enrollment in Capstone courses.

    - HIST 4030 Historiography (4)
    - HIST 4031 Historical Method (4)

## II. Concentration Requirements (16 units)

The Department of History offers several concentrations for degree candidates. Majors should choose one of the following concentrations: United States History, European History, East Asian History, Latin American History, History of California and the American West. Students may also design a topical (e.g., women's history), geographic (e.g., Russian history), or period (e.g., ancient and medieval history) concentration of their own with the advance written approval of the department chair.

### A. United States History

1. Two courses (8 units) from the following: HIST 3411, 3412, 3413, 3414, 3415, 3416, 3417
2. Two courses (8 units) from the following: HIST 3500, 3503, 3505, 3511, 3515, 3520, 3530, 3540, 3547, 3550, 3567, 3568, 3571, 3575, 3580, 3802

### B. European History

1. Two courses (8 units) from the following: HIST 3107, 3109, 3110, 3127, 3128, 3131, 3134, 3140, 3150, 3160, 3170
2. Two courses (8 units) from the following: HIST 3002, 3003, 3005, 3114, 3123, 3124, 3132, 3133, 3136, 3138, 3139, 3201, 3202, 3203, 3204, 3221, 3222, 3223, 3224, 3288, 3801

### C. East Asian History

Four courses (16 units) from the following: HIST 3301, 3302, 3311, 3312, 3313, 3322, 3323, 3325, 3803

### D. Latin American History

1. History 3600, 3605, 3620 (12)
2. One course (4 units) from the following: HIST 3555, 3622, 3625, 3632, 3804

### E. History of California and the American West

1. HIST 3500, 3511 (8)
2. Two courses (8 units) from the following: HIST 3503, 3505, 3515, 3530, 4032

## III. Electives (16 units)

Four upper division courses (16 units) in History. These must include at least one course from each of at least two different concentration areas outside the student's concentration. HIST 3400 may not be counted towards the major.

### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor consists of 36 units. HIST 3400 may not be counted towards the minor.

- I. Lower Division (16 units)
  - HIST 1000 The Nature of the Study of History (4)
  - HIST 1014 World Civilizations I (4)
  - HIST 1015 World Civilizations II (4)
  - HIST 1016 World Civilizations III (4)
  
- II. Upper Division (20 units)
  - A. HIST 3010 Historical Writing (4)
  
  - B. Area Requirements
    - A minimum of four units of upper division History courses in each of the following areas: (1) Europe, (2) United States, and (3) Latin America or Asia (12)
  
  - C. One of the following:
    - HIST 4030 Historiography (4)
    - HIST 4031 Proseminar in Historical Method (4)

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## History Option: Liberal Studies

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Area VII, Credential Track or Area VI, Liberal Arts Track (24 units)

- HIST 3500 History of California (4)
- HIST 4031 Proseminar in Historical Method (4)
- Four additional courses in History, at least three of which must be upper division, and which represent at least two of the following fields: Europe, the United States, Latin America, and Asia (16)

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## Undergraduate Courses

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*The course prefix for the following courses is HIST.*

### Lower Division Courses

- 1000** The Nature of the Study of History (4)  
A seminar dealing with the nature of historical argument, interpretation, evidence and sources. Introduction to research methods, library and Internet resources, bibliographic techniques, and historical writing. (A)
  
- 1014** World Civilizations I (4)  
To ca. 800. Neolithic revolution. River Valley civilizations: Egypt, Mesopotamia, India, China. Ancient Hebrews. The Mediterranean: Hellenic, Hellenistic, and Roman civilizations. Emergence and spread of Christianity and Islam. Gupta India. (A)
  
- 1015** World Civilizations II (4)  
Ca. 800 to ca. 1700. Empires and civilizations: Sung China, Japan, West Africa, Byzantium, Abbasid Iraq and Islamic Spain, Aztecs and Incas, Christian Europe and feudalism. Eurasian migrations. European self-

transformation and expansion. Monarchic states and market economies. Scientific revolution. (A)

- 1016 World Civilizations III (4)  
Ca. 1700 to present. European absolutism. Enlightenment and democratic revolutions. Industrial capitalism and social transformation. Liberalism, conservatism, nationalism, socialism. Imperialism in East Asia, India, Middle East, Africa. Second scientific revolution. World Wars, Communism, Fascism. Cold War and end of colonialism. (A)
- 1101 History of the United States to 1877 (4)  
[CAN HIST 8 = HIST 1101; CAN HIST SEQ B = HIST 1101, 1102]  
A survey of the development of the American nation from colonial times to the close of Reconstruction. This course, when combined with credit for History 1102, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. (A)
- 1102 History of the United States since 1877 (4)  
[CAN HIST 10 = HIST 1102; CAN HIST SEQ B = HIST 1101, 1102]  
A survey of American history from Reconstruction to the present. This course, when combined with credit for History 1101, meets statutory requirements in U.S. History, U.S. Constitution, and California State and Local Government. (A)

## Upper Division Courses

### *Europe*

- 3002 Dynastic History of Europe (4)  
Survey of Europe's major ruling families from ca. 500 to modern times. Barbarian kingship; feudal monarchies; age of absolutism; challenge of the French Revolution; kingship in modern times. (Not open to students with credit for G S 4347 or HIST 3941.)
- 3003 The History of Utopia (4)  
The Utopian tradition in Western political thought, philosophy, science fiction, art, and film: fantasy worlds and nightmare societies from Plato's Republic to the late 20th century. (Not open to students with credit for G S 4324 or HIST 3950.)
- 3005 Frankenstein: The Making of a Myth (4)  
Mary Shelley's classic tale Frankenstein against the background of the Romantic movement. The Frankenstein story in literature, film, and other forms of popular culture as a critical insight into modern science and technology.
- 3107 History of Ancient Greece (4)  
From the Bronze Age to the death of Socrates.
- 3109 History of the Roman Republic (4)  
From the legendary foundation of Rome (753 B.C.) to the civil wars of Julius Caesar and the fall of the Republic (c.



31 B.C.) Not open to students with credit for HIST 3108.

- 3110 History of the Roman Empire (4)  
From the reforms of Octavian Augustus (31 B.C. - A.D. 14) to the era of Justinian the Great (A.D. 527-565) and the end of the Empire in the West. Not open to students with credit for HIST 3108.
- 3114 History of Early Christianity (4)  
Topics of study include the Jewish and Roman backgrounds, the historical Jesus, the influence of Paul, and the development of Christian institutions in the first four centuries.
- 3123 History of Medieval Christianity (4)  
The Christian faith and its institutions from ca. 500 to ca. 1500: development of church hierarchy, monasticism, conflicts between secular and ecclesiastical authority, the medieval university, theology, maintaining an orthodox faith, and Christianity as perceived and practiced by ordinary Christians.
- 3124 Women in Ancient and Medieval Europe (4)  
Women in western culture from its near-eastern origins until ca. 1500. Women within the family and their political, religious, and economic activities. Impact of cultural definitions of the feminine on the lives of men and women.
- 3127 Europe in the Early Middle Ages (4)  
Political, social, intellectual, and economic evolution of Europe from the decline of the Roman Empire to about 1050.
- 3128 Europe in the Later Middle Ages (4)  
Europe from the 11th century to the 15th century.
- 3131 The Renaissance (4)  
The medieval background; the nature of the Renaissance; towns, capitalism, society; the Roman Church; the Renaissance state; Italian Humanism; Humanism in the north; the expansion of Europe; Renaissance political theory; the exploration and mastery of nature; Renaissance art. (Y)
- 3132 Renaissance Magic (4)  
The occult tradition in the Renaissance and its Hermetic, Pythagorean, Orphic, and Neoplatonic sources. Kaballah and Jewish Kabbalism. The Renaissance Magus. Natural magic; controversy over astrology; alchemy; the work of Ptolemy, Ficino, Pico, Pontano, Agrippa, Paracelsus; Black magic; demonology; witchcraft.
- 3133 European Witchcraft (4)  
Medieval, 16th and 17th century European witchcraft in its social, political, religious, and legal context. The myth of the witch: medieval and modern significance. Rituals of witchcraft. Renaissance-Reformation demonology and trials.
- 3134 The Reformation (4)

The eve of the Reformation; the Roman Church; church and religion in Germany; the Reformation in Germany; Martin Luther; the Reformation in France, Switzerland, and England; the Radical Reformation; the Catholic Reformation; the Council of Trent; the Jesuits. (Y)

- 3136 Woman in the Renaissance (4)  
The role and status of women in Renaissance society, as discussed in the works of Castiglione, Erasmus, Marguerite of Angouleme, Vives, Montaigne. The Medieval background, education, domestic life, women in politics, marriage, religion.
- 3138 Imperial Spain (4)  
Spain in the Golden Century. Social, political, economic, religious, and cultural developments in Spain from 1469 to 1660. Emphasis on artistic, intellectual, and literary trends.
- 3139 The Age of Discovery (4)  
European exploration and discovery in the 15th and 16th centuries. Ancient science and medieval travel. Route of spices. Art of navigation and cartography. Ships and ship-building; firearms and naval gunnery. Africa, route to India, Portuguese empire. America. Conquest and colonization. Pacific exploration. Consequences.
- 3140 Europe, 1555-1689: Age of the Baroque (4)  
The Peace of Augsburg; a century of religious wars, the struggle for supremacy in Europe; constitutional crises and resolutions; exploration and discovery; the scientific revolution; the art of the Baroque; the golden age of drama. (Y)
- 3150 Europe, 1689-1815: Absolutism, Enlightenment and Revolution (4)  
The sunset years of Louis XIV of France; the impact of scientific ideas and the culture of the Enlightenment; mid-century diplomacy and power politics; monarchy in decline; the French Revolution and Napoleon. (Y)
- 3160 Europe, 1789-1919: Class, Nation and Empire (4)  
The Revolutionary and Napoleonic legacy; Romanticism, Liberalism, and Socialism; the Revolutions of 1830 and 1848; Nationalism and the consolidation of states; Darwinism and its social ramifications; European imperialism and the First World War. (Y)
- 3170 Europe in the 20th Century (4)  
The transformation of traditional European institutions and values in the century of total war. (Y)
- 3202 British History: 1815 to the Present (4)  
Great Britain in the age of industry and empire, Victorian manners and morals, the rise of labor and socialist movements, contemporary problems and issues in British society.
- 3203 Henry VIII, The Man and The Myth (4)  
Life and times of Henry VIII as reflected in historical writing, drama, and film.

- 3221 History of Russia to 1801 (4)  
Kievan Rus, the Mongols, the rise of Muscovy, and the reigns of Peter the Great and Catherine the Great. Emphasis on the institutions of serfdom and autocracy and on the development of the Russian Empire.
- 3222 History of Russia, 1801-1917 (4)  
Political, economic, social, and diplomatic developments from Alexander I to the Bolshevik Revolution. Absolutism, the "Great Reforms," reaction, the growth and diversification of the opposition movements-liberalism, socialism, Russian and non-Russian nationalism; the decay and collapse of the Monarchy.
- 3223 History of the Soviet Union (4)  
The revolutionary movement in Russia, Marxism-Leninism, the Provisional Government and the Bolshevik coup, domestic and foreign affairs under Lenin and his successors.
- 3224 The Cold War (4)  
History of the Cold War from 1939 to the fall of the Berlin Wall in 1989.
- 3288 The Age of Louis XIV (4)  
Arts and culture at the court of Louis XIV of France (1643-1715). Artistic patronage as deliberate state policy. Values and standards during the grand siècle. Individual works of literature, architecture, painting, sculpture and music. Not open to students with credit for HIST 4888.
- 3801 Topics in European History (4)  
Reading, discussion, and research on selected topics in European history. Repeatable for credit when content is different.
- Asia*
- 3301 Modern East Asia (4)  
East Asian civilizations under the impact of the West, with emphasis on the development of China and Japan since the 19th century.
- 3302 Modern East Asia Through Film (4)  
Individualism, gender relations, family life, nationalism, and imperialism in 19th and 20th century China, Japan, and Korea through films produced in East Asia and elsewhere.
- 3311 Traditional China (4)  
China from classical antiquity to the 19th century; intellectual trends, political developments, and social changes.
- 3312 Modern China (4)  
China from the Opium War to 1949. The collapse of imperial China, Western incursions, the emergence of modern culture, and the roots of the Communist revolution.
- 3313 People's Republic of China (4)  
The socialist experience in China from 1949 to the present:

the leadership of Mao Zedong, the Cultural Revolution, and changes in urban and rural areas in the post-Mao era.

- 3322 Early Japan (4)  
Cultural, social, and political history of Japan to 1800. The aristocracy, the samurai, and the impact of Asian continental culture.
- 3323 Modern Japan (4)  
Japan as an industrial and imperialist power from traditional foundations to defeat in World War II. Modern culture, party politics, and social problems.
- 3325 Postwar Japan (4)  
The political, social, and cultural dimensions of Japan's transformation from defeated nation in 1945 to world economic power today.
- 3432 Discover India (4)  
See SOC 3432 for course description.
- 3803 Topics in Asian History (4)  
Reading, discussion, and research on selected topics in Asian history. Repeatable for credit when content is different.

*United States*

- 3400 American History (4)  
Political and social history of the United States from colonial times to the present. A survey of the transformation of an agrarian society into a complex industrial urban order. Satisfies statutory requirement in U.S. history. Not open to History majors. (Y)
- 3411 The United States: Colonial Period (4)  
Development of the British mainland colonies from frontier societies to the Age of the American Revolution. Topics include Native American background, European expansion, regional variation, mercantilism, slavery, cultural diversity, and the rise of colonial political institutions. (Y)
- 3412 The United States: The Age of the American Revolution (4)  
Causes and consequences of the American Revolution, from 1688 to the election of 1800. Topics include Whig ideology, popular politics, loyalism, war with Great Britain, and the impact of revolutionary change on American constitutionalism and society. (Y)
- 3413 The United States: The New Republic (4)  
The transformation of American Society, 1800 to 1845. The emergence of democratic politics, industrialization, the rise of the "Cotton South," and western expansion. (Y)
- 3414 The United States: Civil War and Reconstruction (4)  
Study of the Civil War, its causes, and the reconstruction period. (Y)

- 3415 The United States: Emergence of the Modern Nation (4)  
The U.S. from 1877 to 1920. The rise of American industrialism, populism, imperialism, progressivism and World War I. (Y)
- 3416 The United States: The New Deal Era (4)  
Republican ascendancy through World War II. Origins of the Depression, Franklin Delano Roosevelt and the New Deal. (Y)
- 3417 The United States: Recent American History (4)  
The U.S. from 1945 to the present. Domestic problems and world leadership during the postwar era. (Y)
- 3500 History of California (4)  
California history from early days to the present, emphasizing the influence of geography, natural resources, and a growing population. Satisfies requirement in California state and local government. (A)
- 3503 History of the San Francisco Bay Area (4)  
The settlement of the Bay Area from the Indian period through the twentieth century, stressing the influence of natural environment, population growth, ethnic assimilation, transportation, urbanization, and economic development on the evolution of a regional culture.
- 3505 California Environmental History (4)  
California environmental history from the Indian period to the present. Varying interactions between human societies and the natural environment, the deterioration and exhaustion of natural resources, and recent efforts to promote greater environmental balance.
- 3511 The Westward Movement (4)  
Westward expansion of the United States from 1763 to 1900; development of western states and effect on the history of the nation. (Y)
- 3515 The Mexican-American and the American Southwest (4)  
The historical evolution of northern Mexico. Acquisition of the Southwest by the United States. Social, economic, and political development of region, with emphasis on the role and social condition of the Mexican-American people. (Y)
- 3530 The Shaping of North America, 1492-1850 (4)  
Major topics in the formation of North American societies, including Native American peoples, impact of European expansion, Africans in the West Indies, environmental transformation, creation of U.S. and California. Visual documentation of North American cultures.
- 3540 The Making of the U.S. Constitution (4)  
Seminar in the political and social significance of the Constitution. Ideas and personalities behind the formation of the Constitution, the ratification debates, and the adoption of the first 10 amendments.

- 3547 Modern War (4)  
The experience of United States men and women in modern war from 1861 to the present. Why people go to war, soldiers' daily life, combat experiences, technology of warfare, life on the homefront, and war in literature and film.
- 3550 The History of U.S. Foreign Relations (4)  
Selected problems of American foreign relations, including the American Revolution, expansion and conflict, isolationism and internationalism, the Cold War and terrorism. Consideration of the State Department and of diplomatic practice in their historical context.
- 3567 Blacks in the United States (4)  
Political, economic, social, and cultural history of African-Americans in the United States since 1619. A comparison of the African-American experience with the experiences of other Americans. Cross-listed with E S 3567. (A)
- 3568 Blacks in the West (4)  
A social, political, economic, and cultural history of blacks in the Western United States from Estevanico to the present. Topics include black settlement patterns, black occupational status, blacks in myth and reality, twentieth century migration, and protest and reform.
- 3571 Women in American History (4)  
Survey of women's place in the social, economic, and political life of the nation from colonial times to the present. (A)
- 3575 Baseball in America (4)  
The history of baseball and its role in American Society. 19th Century origins of the game, the major and minor leagues, amateur baseball from universities to prisons, the Negro leagues and integration, labor relations and cultural influences.
- 3580 Lincoln and His Times (4)  
Lincoln and his personality in the context of antebellum and Civil War America.
- 3802 Topics in United States History (4)  
Reading, discussion, and research on selected topics in United States history. Repeatable for credit when content is different.
- Latin America*
- 3555 Inter-American Relations (4)  
United States-Latin American relations, emphasizing the Western Hemisphere idea. Sources of conflict, including nationalism, socialism, economic factors, and security considerations; Castro and Allende.
- 3600 Colonial Latin America (4)  
Relations among the colonists, Crown, Church, and Indians during and after the Spanish conquest. The catastrophic fall in the Indian population, the rise of the great estate, and the decline of Iberian power in the New

World at the end of the eighteenth century. (Y)

- 3605 Modern Latin America (4)  
Latin American history from 1810 to 1950. Emphasis on process of independence, state formation, national consolidation, and neocolonialism in the nineteenth century. The rise of nationalism and social revolution after 1910. (Y)
- 3620 The Cuban Revolution and Latin America (4)  
Castro's Revolution in Cuba and its impact on Latin American politics and relations with the United States. Influence of fidelismo on social reform, revolution, and counter-revolution. (Y)
- 3622 Mexico Since 1810 (4)  
The development of Mexico from the wars of independence; evolution of political, economic, and social institutions.
- 3625 Andean Republics of South America (4)  
The historical development of Chile, Bolivia, Peru, and Ecuador with emphasis on state-building, race relations, and social revolution in the twentieth century.
- 3632 Film and Society in Latin America (4)  
Film as a reflection of major themes and issues in Latin America, e.g., slavery and race relations, women's role in society, emergence of the military as a dominant political force, U.S. attitudes toward Latin America.
- 3804 Topics in Latin American History (4)  
Reading, discussion, and research on selected topics in Latin American history. Repeatable for credit when content is different.

*General*

- 3010 Historical Writing (4)  
Writing and rewriting historical essays, reviews, and research papers through study of selected historical topics. Emphasis on argument, organization, and form. Prerequisite: HIST 1000. (A)
- 3017 The Twentieth Century (4)  
World history from WWI to Soviet collapse, focusing on diplomacy, economics, and political/social trends. The world wars, Russian revolution and Stalinism, fascism and Nazism, Chinese Revolution, Cold War, decolonization and end of Western hegemony, globalization of world economy. (Y)
- 3100 Ancient Egyptian Civilization (4)  
Survey of ancient Egyptian history, civilization, art, and religion from about 3100 B.C. to the conquest by Alexander the Great (332 B.C.).
- 3200 Nationalism (4)  
The theory and development of nations and nationalism as a global phenomenon as interpreted by historians, anthropologists, political theorists and other social

scientists. Emphasis on Europe and the United States with some treatment of Asia and Latin America.

- 3711 Greek, Roman, and Medieval Political Thought (4)  
(See POSC 3711 for course description.)
- 3712 Early Modern Political Thought (4)  
(See POSC 3712 for course description.)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 5 units. A maximum of 5 units will be accepted toward the History major. Prerequisites: at least 2.0 GPA; departmental approval of activity. (A)
- 4030 Historiography (4)  
Development of historical writing from antiquity to present. Emphasis on Herodotus, Thucydides, St. Augustine, Vico, Hegel, Marx, and 20th century historians. Survey of other significant historians. Prerequisite: senior standing and HIST 1000, 1014-15-16, and 3010 or consent of instructor. (A)
- 4031 Proseminar in Historical Method (4)  
Introduction to historical research through preparation of research paper based on primary sources. Prerequisite: senior standing. HIST 1000, 1014-15-16, and 3010 or instructor's consent. Liberal Studies History Option students may waive prerequisites but should complete other history option courses first. (A)
- 4032 Introduction to Public History (4)  
The use of historical theory and method in non-academic settings, including museums, archives, consulting organizations, historical societies, government agencies, business, and historical preservation projects. Field trips to selected non-academic settings.
- 4500 The California History-Social Science Framework (1)  
Content review of California K-12 History-Social Science Framework for prospective teachers. Enrollment only in final quarter of Subject Matter Preparation Program in Social Science. No credit for History major or minor. (A)
- 4710 History and Trends in Nursing (4)  
Survey of the development of modern nursing. Emphasis on social trends that have influenced the development of nursing; the Judeo-Christian tradition; the military heritage; the women's movement; developments in health care delivery. Cross-listed with NURS 4710. Prerequisites: NURS 3307 and 3308, or consent of instructor. (Y)
- 4900 Independent Study (1-4)  
Supervised study. Prerequisite: consent of instructor. (A)





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## Teacher Education

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### Department Information

Department of Teacher Education  
School of Education and Allied Studies  
Office: Art and Education Bldg. 242  
Phone: (510) 885-3027 FAX: (510) 885-4632

*Professor Emeritus:* Herminio C. Rios

*Professors:* Antonio Andrade, Ellsworth A. Berget, Margaret C. Desmond, Phillip E. Duren (Chair), Jean L. Easterly, Carmen L. Garcia, Victoria C. Mui, James L. Shanker, David R. Stronck, James Zarrillo

*Associate Professors:* Joan D. Davenport (Associate Chair), JoAnn Aiello Hatchman, Valerie Helgren-Lempesis, Alvin E. Howe, Dana Martin-Newman, Leticia Ramirez-Lopez

*Assistant Professors:* Sharon Y. Tettegah, Craig Wilson

### General Information

The Department of Teacher Education offers primarily post-baccalaureate and graduate courses. See Teacher Education in the Post-baccalaureate and Graduate section of this catalog.

### Undergraduate Courses

*The course prefix for the following courses is T ED.*

#### Remedial

- 0910** Developing Reading Skills for University Students (4)  
Development and improvement of reading skills. Emphasis on word analysis, vocabulary, comprehension and study skills. Units applicable to student's load, but not to baccalaureate degree. (Y)

#### Undergraduate

The following undergraduate courses may be taken to enhance teaching skills and give potential master's degree or teaching credential candidates additional experience working with children and young adults.

- 1000** Teachers for Tomorrow, Phase I (3)  
Introduction to, and counseling for, the field of teaching. Directed observations, assistant teaching, lectures, discussions, and reporting related to pre-school, elementary, secondary and non-school educational settings. For juniors and seniors in high school who are recommended by their teachers.
- 1010** Teachers for Tomorrow, Phase II (3)  
Introduction to theories of education and child development with a special focus on curriculum development. Students prepare and teach lessons for elementary school children. Designed for high school students involved in the Urban Teacher Academy and Step to College programs.
- 1500** Introductory Field Experience (3)  
Introduction to the field of teaching. Observation and participation in school classrooms. Current issues in education and their implications for teaching theories and practices. CR/NC grading only. Not open to students with credit for T ED 3001. Two hrs. lect., 2 hrs. act.
- 3001** Exploring Education (3)  
Introduction to the field of teaching. Reports and discussions related to directed observations of preschool, elementary and secondary classrooms, and non-school educational settings. Examination of changing issues in education and their implications for future teaching practices and theories. Two hrs. lect., 2 hrs. act. (A)
- 3005** Intermediate Field Experience in the Elementary School A (1)  
Observation and participation in an elementary school classroom in second quarter of blended Multiple Subject Credential/Liberal Studies Major program. Reports and discussion on issues raised. Prerequisite: admission to blended Multiple Subject Credential/Liberal Studies Major Program. CR/NC grading only. Two hrs. act.
- 3006** Intermediate Field Experience in the Elementary School B (1)  
Observation and participation in an elementary school classroom in third quarter of blended Multiple Subject Credential/Liberal Studies Major program. Reports and discussion on issues raised. Focus on classroom management. Prerequisite: T ED 3005. CR/NC grading only. Two hrs. act.
- 3500** Introduction to Early Childhood Studies (4)  
A survey of the methods and programs used to study and/or influence the development of young children. (Y)
- 3898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with offcampus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward credential programs. CR/NC grading only. Prerequisites: at least 2.75 GPA; departmental approval of activity.

- 4040** Methods for Tutoring College Students (4)  
An introduction to the theories and methods of tutoring at the college level. Application of psychological and educational learning principles to the tutoring process. Development of tutor communication skills and diagnostic/prescriptive tutoring methods. Two hrs. lect., 4 hrs. tutoring. (Y)
- 4041** Advanced Tutoring Methods in Reading, Writing and Learning Skills (4)  
An introduction to the theories and methods of tutoring reading, writing, and learning skills at the college level. Analysis of receptive and expressive language and learning skills and their application to the content areas. Development of tutor communication skills and diagnostic/prescriptive tutoring methods. Prerequisite: T ED 4040. Two hrs. lect., 4 hrs. tutoring. (Y)
- 4042** Advanced Tutoring Methods in Mathematics and Science (4)  
An introduction to the theories and methods of tutoring mathematics and science at the college level. Analysis of the critical thinking, learning skills, and problem solving strategies required in math and science. Development of tutor communication skills and diagnostic/prescriptive tutoring methods. Prerequisite: T ED 4040. Two hrs. lect., 4 hrs. tutoring. (Y)
- 4320** Art Skills for Teachers (4)  
Designed specifically for teachers with little or no art experience. Work in drawing, printmaking, weaving, papier maché, puppets, masks, batik, tie dyeing, lettering. Suggestions for translating teacher skills into activities for children. May be taken twice for credit. A miscellaneous course fee will be charged. Please consult the quarterly *Class Schedule* for the current fee. (F, W, Sp)
- 4900** Independent Study (1-4)



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## Honors Program

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- ▶ [Program Description](#)
- ▶ [Graduation from Honors Program](#)
- ▶ [Other Program Elements](#)

### Department Information

Honors Program Advisory Council  
Curriculum and Academic Programs  
Office: Art and Education 317  
Phone: (510) 885-3716  
E-mail: [vhelgren@csuhayward.edu](mailto:vhelgren@csuhayward.edu)

*Coordinator:* Valerie Helgren-Lempesis (Teacher Education)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The university has established an Honors Program to provide outstanding students the opportunity to be challenged academically through taking special courses and sections, doing special projects, participating in honors seminars, and conducting independent study/research projects under the direction of a faculty mentor. Honors students will be recognized on their record and at graduation, have special activities, and be eligible for Presidential Scholarships and other financial aid.

#### Eligibility

Admission to the Cal State Hayward Honors Program is open to first-time freshman students (no previous college units, excluding Advanced Placement credit) admitted to the University with Honors (minimum 3.50 GPA) or who have maintained the minimum 3.60 GPA necessary for Graduation with Honors in at least 36 units of baccalaureate-level coursework over the preceding three quarters of enrollment. In addition, a student must have satisfied the EPT/ELM requirements to be admitted to the Honors Program.

#### Continuation in the Program

To remain in good standing in the program, a student must complete at least 8 units of Honors courses with a grade of "A" or "B" and maintain at least a 3.60 grade point average each academic year.

Honors courses may be in the major, minor, general education, and/or free electives. However, at least 16 units of the total units

(40 minimum for graduation) must be outside the major. Honors courses must be taken on the "A-F" grading system. Honors courses are of several types:

- (a) special classes or sections designed specifically for Honors students,
- (b) regular classes in which the instructor agrees to design and grade a special extra project to be completed by Honors student(s),
- (c) one-unit seminar classes, restricted to Honors students, in which they will present the results of special research projects to their peers in the program,
- (d) upper division independent study/research classes in which an Honors student works closely with a faculty member on a project which results in an honors thesis.

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## Graduation from Honors Program

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To receive recognition on the permanent record and at the Honors Convocation, a student must complete a minimum of 10 Honors classes (40-unit minimum) and have a 3.60 cumulative grade point average. The program must include at least one course each in categories (c) and (d) above for a combined total of at least 6 units. The student must submit an acceptable honors thesis to his/her faculty mentor.

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## Other Program Elements

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The university will strive to award financial aid to all eligible students in the Honors Program. Presidential Scholars are automatically enrolled in the program. The faculty coordinator of the Honors Program will advise and track students in the program and make arrangements for special activities such as speakers, exhibit openings, and other cultural events. The Honors students will choose four members to serve on an advisory council with the coordinator and a faculty member from each of the four schools. The council will develop policies and procedures for admission, continuation, dismissal, readmission, appeals, and other program issues.



HOME



HELP



## Theatre Arts

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### Department Information

Department of Theatre and Dance  
School of Arts, Letters, and Social Sciences  
Office: Robinson Hall 220  
Phone: (510) 885-3118

*Professors:* Cynthia Berrol, Regina Cate, Edgardo de la Cruz, Thomas C. Hird (Chair), Rhoda Helfman Kaufman, Roderic M. Prindle

*Lecturer:* Sara Lynne Simpson-Marcus, Laura Renaud-Wilson

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Description

The Department of Theatre and Dance provides comprehensive pre-professional training in the areas of acting, directing, dance, design, and theatre technology. The primary goal of the program is to develop artists whose performance skills and creativity are supported by a sound background in history, literature, and aesthetics. In an environment designed to encourage creativity and self expression, each student has opportunities to participate in various specializations within the major--acting, costuming, dance, directing, scenery, lighting design, or management. Students perform regularly in a variety of theatre and dance productions in the university's two performance facilities.

Theatre Arts graduates acquire a range of skills. This enables them to pursue different professional options. Many have entered advanced studies in nationally recognized universities and conservatories. Some have chosen careers in teaching, while others have gone directly into theatre or dance performance. Employers in other professions desire Theatre Arts graduates for their team skills, their imaginative approach to problems, and their ability to communicate creatively.

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## Career Opportunities

Actor/Actress • Broadcast Technician • Business Agent • Choreographer • College Student Services • Comedian • Corporate Officer • Costume Designer • Costume Technician • Dancer • Director • Drama or Dance Teacher/Professor • Dramaturg • Lighting Technician • Make-Up Artist/Specialist • Non-profit Manager • Performing Arts Fundraiser • Playwright • Producer • Recreation Supervisor • Sales Manager • Set Decorator • Set Designer • Sound Technician • Stage Manager • Theatre Critic • Theatre Technician • Theatre Manager

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## Features

The Department of Theatre and Dance produces approximately 12 plays and dance concerts during the year (including summer). The selection of plays exposes students in design, acting, directing, stage management, and technical theatre to a wide variety of styles, periods, and genres from Shakespeare to David Mamet and from Greek Tragedy to Modern Drama.

The department has several performance groups. Musical Theatre, Readers Theatre, Children's Theatre, and Improvisation add to a varied and challenging performance schedule. A special feature of the Children's Theatre production each year is the opportunity for students to perform and serve as technical crew for over 30 performances. This gives the student the experience of a "long run" show.

The Highlands Summer Theatre program is designed to give students a chance to test themselves and their art. The fully functioning theatre environment becomes a career choice experiment for the beginning artist, a proving ground for artist-in-training, and a place for both to develop and refine skills. All company members register for the 8 unit Summer Theatre course.

The Theatre and Dance Department is fortunate to have excellent facilities including the 480 seat University Theatre, the flexible Studio Theatre, scene shop, costume shop, twelve-station drafting room, acting studio, green room, make-up room, dressing rooms with lockers and showers, and a spacious Dance Studio.

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## Major Requirements (B.A.)

The Theatre Arts major consists of 72-110 units, depending on the students' choice of a career option and their record of participation in performances; the BA degree requires a total of 186 units. The number of lower division units in the major is limited and indicated in each category below.

I. Core (12 units)

The Core is designed to assure that every student in the major, through shared, common experiences, develops a common vocabulary and learns the critical aspects of making and seeing the performing arts of theatre and dance.

All majors should take the following courses at CSUH. Students who wish to apply a non-CSUH course or demonstrate familiarity with the appropriate vocabulary and



skills may petition the chair for approval of a substitute.

- THEA 1010 All the World's a Stage (4)
- THEA 1012 Exploring Creativity in Theatre and Dance (3)
- THEA 1111 Theatre Backstage (2)
- DANC 3210 Movement Awareness and Analysis (3)

II. Performance and Culmination Requirements (9-20 units)

Majors must take 7-8 workshops during their final six to eight quarters, including two crew, two performance or design, and three to four construction assignments. A plan of assignments requires advance written approval of the Chair at the beginning of third year. (7-16 units)

Department culminating project approved by Chair drawn from option, performance, independent study, or internship courses. (2-4 units)

*Note:* Maximum lower-division units is 6.

III. Options

All majors must complete one of the following career options. (Subject Area Course Lists are located after the Option headings.)

A. Acting Option (57 units)

This option is designed to prepare majors to move directly into an acting career or for entrance into a graduate M.F.A. program. New students must take THEA 3010 at their first opportunity. Total major units: 78-89.

- THEA 2005 Acting Fundamentals: Improvisation (3)
- THEA 2015 Acting Fundamentals: Stage Movement (2)
- THEA 2025 Truthful Acting (3)
- THEA 3010 Acting and Directing Studio (4)
- THEA 4445 Arts and Management-Issues and Practice (4)

Units from courses on Subject Area Course Lists as follows:

- Theatre: Acting (may not apply a required course) (9)
- Dance (any Dance subject list) (4)
- Theatre: Directing (4)
- Theatre: Technical/Design (12)
- Theatre: History and Literature (12)

*Note:* Maximum lower-division units is 12.

*Note:* Acting Option majors are required to audition for department productions twice yearly.

B. Children's Theatre and Dance (62 units)

This option is designed to prepare majors for teaching theatre and dance to children in a classroom or recreational setting. Preparation for graduate study is indicated below. Total major units: 83-94.

- THEA 4445 Arts and Management-Issues and Practice (4)

Units from courses on Subject Area Course Lists as follows:

Children's Theatre and Dance List (20)  
Dance: Beginning Technique List (4)  
Dance: Intermediate or Advanced Technique List (4)  
Dance: History List (4)  
Theatre: Acting List (6)  
Theatre: History and Literature List (see notes below) (4)  
Theatre: Technical/Design List (8)

Electives (require approval) may include additional Theatre or Dance courses or course from Music or English (8)

*Note:* Maximum lower division units is 12

*Note:* Students considering graduate school should take either THEA 3201 or 3202.

*Note:* Department Culminating Project must be in the area of Children's Theatre and Dance.

C. Creative Arts Option (51 units)

This option is designed for those majors with career goals in education and in non-performance fields. Total major units: 72-83.

THEA 4445 Arts and Management-Issues and Practice

Units from courses on Subject Area Course Lists as follows:

Theatre: History and Literature (8)  
Theatre: Acting (4)  
Theatre: Directing (4)  
Theatre: Technical/Design (14)  
Dance (any Dance subject list) (3)

Electives (by agreement with advisor; 8-10 units may be in Art and/or Music) (14)

*Note:* Maximum lower-division units is 12.

D. Dance Option (58-62 units)

This option prepares students for a variety of performing arts and education careers. Students are prepared to enter graduate schools, including arts and professional programs. Total major units: 79-94.

BIOL 2020 Human Physiology and Anatomy I (5)  
THEA 2015 Acting Fundamentals: Stage Movement (2)  
THEA 4445 Arts and Management-Issues and Practice (4)

Units from courses on Subject Area Course Lists as follows:

Dance: Beginning Technique (see notes) (4)  
Dance: Intermediate Technique (see notes) (4)  
Dance: Advanced Technique (see notes) (6)  
Dance: History (8)  
Dance: Fundamentals (4)  
Dance: Composition (6-8)  
Theatre: Technical/Design (10-12)

*Note:* Maximum lower-division units is 14.

*Note:* Dance Option majors must demonstrate beginning competency in at least four (4) different techniques,

intermediate competency in three (3) different techniques,  
and advanced competency in two (2) different techniques.

E. Directing Option (57-63 units)

This option helps aspiring directors choose a course of study which will prepare them for either an entry-level professional career or entrance into a graduate M.F.A. program. New students must take THEA 3010 at their first opportunity. Total major units: 78-95.

DANC 4200 Dance through the Ages (4)  
THEA 3010 Acting and Directing Studio (4)  
THEA 4445 Arts and Management-Issues and Practice

Units from courses on Subject Area Course Lists as follows:

Theatre: Directing (12)  
Theatre: Acting (9)  
Theatre: History and Literature (12-16)  
Theatre: Technical/Design (12-14)

*Note:* Maximum lower-division units is 14.

F. Literature and Performance Option (58 units)

This option is offered in cooperation with the Department of English. It prepares students for scholarly or academic careers which will require further, graduate-level studies. Those interested in college-level teaching, critical writing, dramaturgy, literary criticism, literary management, and similar careers should consider this option. Total units in major: 79-90.

Required courses in English and Theatre as follows:

ENGL 2040 Introduction to Critical Writing on Poetry or  
ENGL 2050 Introduction to Critical Writing on Drama (4)

ENGL 3650 Women and Literature or ENGL 4450 Studies  
in British Women's Literature (4)

ENGL 3760 Literature of the 20th Century or ENGL 4637  
Studies in 20th Century American Literature (4)

ENGL 4720 Mythology or ENGL 4251 Introduction to  
Shakespeare (4)

ENGL 4840 The Short Story (4)

THEA 2310 Oral Interpretation of Literature or THEA 3310  
Interpretation of Women's and Ethnic Literature (4)

THEA 3111 Stagecraft Techniques (4)  
THEA 3425 Visual Arts for the Theatre (4)

Units from courses on Subject Area Course Lists as follows:

Theatre: Acting (6)  
Theatre: History and Literature (16)  
Theatre: Directing (4)

*Note:* Maximum lower-division units is 12.

G. Musical Theatre (76-78 units)

This option is offered in cooperation with the Department of Music. The courses prepare students for further study or an entry career in musical theatre. Majors complete most requirements for the Music Minor with a focus on voice. Total units in major: 97-110.

Required courses in Dance (5-6 units):

DANC 1171-2-3 Beginning Jazz Dance I, II, III or DANC

2171-2-3 Intermediate Jazz Dance I, II, III (3)

DANC 2022 Contemporary Musical Theatre Dance or three additional quarters of Ballet and/or Tap (2-3)

Required courses in Music (34 units):

MUS 1027-8-9 Sightsinging I, II, III (3)

MUS 1031-2-3 Music Theory I, II, III (12)

MUS 1220 or 3220 Applied Music: Voice (six quarters) (12)

MUS 3002 What To Listen For In Music (4)

MUS 3501 or 3504 Music Performance Activities (a vocal ensemble for three quarters) (3)

Required courses in Theatre (19-20 units):

THEA 2005 Acting Fundamentals: Improvisation (3)

THEA 2015 Acting Fundamentals: Stage Movement (2)

THEA 3010 Acting and Directing Studio (4)

THEA 3020 Musical Theatre Technique (3)

THEA 3210 Script Analysis: The Western Tradition or

THEA 3013 Advanced Acting: Characterization (3-4)

THEA 4445 Arts and Management-Issues and Practice (4)

Courses from the Theatre Arts Subject Area Course Lists (18 units):

Theatre: History and Literature (8)

Theatre: Technical/Design (10)

*Note:* Maximum lower-division units is 20.

*Performance and Culmination Requirements:*

Musical Theatre Option majors must complete, with the approval of the Chair, their Performance and Culmination Requirements as follows:

Perform in one Opera Workshop production;

Perform in two Musical Theatre productions (at least one in Summer quarter);

Perform in one additional dramatic, dance, or children's theatre production;

Serve on two theatre production crews;

Take a construction workshop twice.

One Musical Theatre performance will serve as the Culmination assignment.

- H. Recreation and Community Theatre (57-65 units)  
This option is offered in cooperation with the Department of Recreation and Community Services. The courses prepare students for a theatre career in city and district recreation departments and for jobs such as Recreation Supervisor. Total units in major: 78-97.

REC 1000 Nature and Scope of Recreation and Community Services (4)

REC 3000 Philosophy of Leisure Studies (4)

REC 3700 Community Organizations in the Urban Setting (4)

THEA 4445 Arts and Management-Issues and Practice (4)

Units from courses on Approved Department Course Lists as follows:

Theatre: Acting (9)

Theatre: Directing (4-8)

Theatre: History and Literature (8)

Theatre: Technical/Design (12)

Theatre: Acting, Directing, or Technical/Design (4)

Internship/Culmination from the following courses:

(Serves as the Theatre Arts Culmination with approval of Chair)

REC 4890 Internship Placement Studies (1)

REC 4910 Recreation and Community Services Internship (8 or 12)

- I. Technical and Design (55 units)  
This option provides varied specializations leading to careers in construction, operations, or design in areas including: costumes, scenery, lighting, sound, special effects, props, stage management, and technical management. Graduates should be able to directly enter the technical professions and graduate design programs. Total major units: 76-77.

THEA 4445 Arts and Management-Issues and Practice (4)

Units from courses on Approved Department Course Lists as follows:

Theatre: Technical/Design (20)

Theatre: History and Literature (12)

Theatre: Acting (6)

Theatre: Directing and/or Dance: Composition (4)

Dance (any Dance subject list, advisement required) (3)

Electives (Art recommended) (6)

*Note:* Maximum lower-division units is 12.

## Course Lists

THEA 2015 Stage Movement  
THEA 2025 Truthful Acting  
THEA 2310 Interpretive Reading  
THEA 3011 Advanced Acting-Subtext  
THEA 3012 Advanced Acting-Scenes  
THEA 3013 Advanced Acting-Character  
THEA 3020 Musical Theatre Techniques  
THEA 3050 Teleplay Acting and Production  
THEA 3052 Acting for the Camera  
THEA 3485 Voice on Stage

### Theatre: Directing

THEA 3210 Script Analysis  
THEA 4021 Play Direction: Sign and Symbol Theory in  
Production  
THEA 4022 One-Act Production

### Theatre: Technical/Design

THEA 1111 Theatre Backstage  
THEA 2115 Costume and Clothing Construction  
THEA 3111 Stagecraft Techniques  
THEA 3112 Costume Techniques  
THEA 3113 Lighting and Sound Techniques  
THEA 3170 Technical Production  
THEA 3418 Stage Makeup  
THEA 3422 History of Costume  
THEA 3423 Non-Western Costume  
THEA 3424 Scene Painting and Graphic Language  
THEA 3425 Visual Arts for Theatre  
THEA 4418 Advanced Makeup and Maskmaking

### Theatre: History and Literature

THEA 3201 Classical Greek and Roman Drama  
THEA 3202 European Medieval and Renaissance Drama  
THEA 3203 Modern European Drama  
THEA 3207 Modern American Theatre  
THEA 3208 Postmodern Theatre  
THEA 3226 The Woman Artist  
THEA 3227 Wartime Art, Theatre and Film  
THEA 3228 Women in Dramatic Literature  
THEA 3232 Modern Art and Theatre  
THEA 4375 Ethnic and Immigrant Theatre in the United States

### Theatre: Acting for Dance

DANC 3426 Collaborative Theatre and Dance

### Children's Theatre and Dance

DANC 2020 Rhythm and Music for Dance  
DANC 3235 Dance for Children  
DANC 4235 Children's Dance: Curriculum and Instruction  
THEA 3610 Interpretation of Children's Literature and Story  
Telling  
THEA 3650 Dramatic Activities for Children  
THEA 3660 Children's Theatre Performance

### Dance: Beginning Techniques

DANC 1002 Country Western Line Dance  
DANC 1019 African Dance  
DANC 1031 Tap Dance  
DANC 1131-2-3 Beginning Hip Hop Dance I, II, III

DANC 1141-2-3 Beginning Modern Dance I, II, III  
DANC 1171-2-3 Beginning Jazz Dance I, II, III  
DANC 1181-2-3 Beginning Ballroom Dance I, II, III  
DANC 1191-2-3 Beginning Ballet Dance I, II, III

Dance: Intermediate Techniques

DANC 2030 Fundamentals of Modern Dance  
DANC 2141-2-3 Intermediate Modern Dance I, II, III  
DANC 2171-2-3 Intermediate Jazz Dance I, II, III  
DANC 2181-2-3 Intermediate Ballroom Dance I, II, III  
DANC 2191-2-3 Intermediate Ballet Dance I, II, III

Dance: Advanced Techniques

DANC 3141-2-3 Advanced Modern Dance I, II, III  
DANC 3171-2-3 Advanced Jazz Dance I, II, III  
DANC 3440 Modern Technique

Dance: Composition

DANC 3022 Improvisation and Beyond  
DANC 3220 Dance Composition and Production I  
DANC 4220 Dance Composition and Production II

Dance: Fundamentals

DANC 2020 Rhythm and Music for Dance  
DANC 2023 Dance Fitness  
DANC 3235 Dance for Children  
DANC 3241 The Dance Experience  
DANC 3690 Dance: Art and Education into Therapy

Dance: History

DANC 4200 Dance Through the Ages  
DANC 4201 Dance in Modern Society

Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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I. Theatre (32 units)

The student must complete at least 32 units, 18 of which must be upper division units selected in consultation with a Theatre advisor.

A. Complete the following (12 units):

THEA 1010 All the World's a Stage (4)  
THEA 2310 Oral Interpretation of Literature (4)  
THEA 3111 Stagecraft Techniques (4) or THEA 3112  
Costume Techniques (4)

B. History, Theory, Literature (4 units)

*Select four units from the following:*

THEA 3201 Classical Greek and Roman Drama (4)  
THEA 3202 European Medieval and Renaissance Drama (4)  
THEA 3203 Modern European Drama (4)  
THEA 3207 Modern American Theatre (4)  
THEA 4800 Selected Topics in Theatre (4)

C. Performance, Production, Technical, Design Workshops (6 units)

THEA/DANC 3180<sup>2</sup> Theatre Workshop-Technical or Costume (2)  
THEA/DANC 3181<sup>2</sup> Theatre/Dance Workshop-Performance (1)  
THEA/DANC 3182<sup>2</sup> Theatre Workshop-Production Crew (2)

D. Electives by advisement (10 units)

II. Children's Theatre and Dance (30-32 units)

A. Complete the following (17 units):

DANC 2020 Rhythm and Music for Dance (2)  
THEA 1012 Creative Performance (3)  
THEA 3610 Interpretation of Children's Literature and Story Telling (4)  
THEA 3650 Dramatic Activities for Children (4)  
THEA 3660 Children's Theatre Performance (4)

B. Complete one of the following (4 units):

(Students who use DANC 3235 to meet a requirement elsewhere in Liberal Studies or another major must take DANC 4235.)

DANC 3235 Dance for Children (4) or DANC 4235 Children's Dance-Curriculum and Instruction (4)

C. Complete two different dance technique courses at the beginning-level and one course in one of the same techniques at the intermediate-level from the following lists (3 units):

*Dance-Beginning Techniques*

DANC 1121-2-3 Beginning Latin Dance I, II, III  
DANC 1131-2-3 Beginning Hip Hop Dance I, II, III  
DANC 1141-2-3 Beginning Modern Dance I, II, III  
DANC 1171-2-3 Beginning Jazz Dance I, II, III  
DANC 1181-2-3 Beginning Ballroom Dance I, II, III  
DANC 1191-2-3 Beginning Ballet Dance I, II, III

*Dance-Intermediate Techniques*

DANC 2131-2-3 Intermediate Hip Hop Dance I, II, III  
DANC 2141-2-3 Intermediate Modern Dance I, II, III  
DANC 2171-2-3 Intermediate Jazz Dance I, II, III  
DANC 2181-2-3 Intermediate Ballroom Dance I, II, III  
DANC 2191-2-3 Intermediate Ballet Dance I, II, III

D. Complete one course from the following "Dance: History" or "Theatre: History and Literature" lists (4 units):

*Dance: History*

DANC 4200 Dance Through the Ages (4)



DANC 4201 Dance in Modern Society (4)

*Theatre: History and Literature*

THEA 3201 Classical Greek and Roman Drama (4)

THEA 3202 European Medieval and Renaissance Drama (4)

THEA 3207 Modern American Theatre (4)

THEA 3226 The Woman Artist (4)

THEA 3232 Modern Art and Theatre (4)

THEA 4375 Ethnic and Immigrant Theatre in the United States (4)

E. Complete one course from the following "Theatre: Technical and Design" list (2-4 units):

*Theatre: Technical and Design*

THEA 3111 Stagecraft Techniques (4)

THEA 3112 Costume Techniques (4)

THEA 3113 Lighting and Sound Techniques (4)

THEA 3418 Stage Makeup (2)

III. Dance Minor (32 units)

A. Upper Division (22 units)

THEA/DANC 3181 Theatre/Dance Workshop-Performance (1)

DANC 3210 Movement Analysis and Awareness (3)

DANC 3220 Dance Performance, Composition, and Production I (3)

DANC 3241 The Dance Experience (3)

DANC 4200 Dance through the Ages (4) or DANC 4201 Dance in Modern Society (4)

DANC 4220 Dance Performance, Composition, and Production II (3)

KPE 3305 Structural Kinesiology (5)

Dance Electives (4 units)

B. Performance Competencies (6 units)

Students must complete the competencies listed below by taking courses in ballet, modern, jazz, African, ballroom, and/or folk dance.

Two beginning classes (2 units)

Two intermediate classes (2 units)

One advanced class (2 units)

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Theatre Option:  
Liberal Studies

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Area V (4 units)

THEA 1010 All the World's a Stage (4)

Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

THEA 2310 Oral Interpretation of Literature (4)

THEA 3111 Stagecraft Techniques (4)

*Four units taken from:*

THEA 3180 Theatre Workshop-Technical or Costume (2)

THEA/DANC 3181 Theatre/Dance Workshop-Performance (1)

THEA 3182 Theatre Workshop-Production Crew (2)

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## Dance Option: Liberal Studies

*Twelve units of upper division theatre coursework selected from:*  
THEA 3201 Classical Greek and Roman Drama (4)  
THEA 3202 European Medieval and Renaissance Drama (4)  
THEA 3203 Modern European Drama (4)  
THEA 3207 Modern American Theatre (4)  
THEA 3210 Script Analysis (4)  
THEA 3225 Theatre Today (4)  
THEA 3610 Interpretation of Children's Literature and  
Storytelling (4)  
THEA 3650 Dramatic Activities for Children (4)  
THEA 4445 Theatre Arts Management (4)

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Area VII, Credential Track, or Area VI, Liberal Arts  
Track (24 units)

A. Required courses (17 units):

DANC 3210 Movement Analysis and Awareness (3)  
DANC 3220 Dance Performance, Composition and  
Production I (3)  
DANC 3235 Dance for Children (4)  
DANC 3241 The Dance Experience (3)  
DANC 4200 Dance Through the Ages (4) or DANC 4201  
Dance in Modern Society (4)

B. Four units selected from:

DANC 2020 Rhythm and Music for Dance (2)  
THEA 3180 Theatre Workshop- Technical or Costume (2)  
DANC 4220 Dance Performance, Composition and  
Production II (3)  
DANC 3690 Dance Therapy (4)

C. Performance competencies (3 units)

*Two units selected from:*

DANC 1121-2-3 Beginning Latin Dance I, II, III  
DANC 1131-2-3 Beginning Hip Hop Dance I, II, III  
DANC 1141-2-3 Beginning Modern Dance I, II, III  
DANC 1171-2-3 Beginning Jazz Dance I, II, III  
DANC 1181-2-3 Beginning Ballroom Dance I, II, III  
DANC 1191-2-3 Beginning Ballet Dance I, II, III

*One unit selected from:*

DANC 2131-2-3 Intermediate Hip Hop Dance I, II, III  
DANC 2141-2-3 Intermediate Modern Dance I, II, III  
DANC 2171-2-3 Intermediate Jazz Dance I, II, III  
DANC 2181-2-3 Intermediate Ballroom Dance I, II, III  
DANC 2191-2-3 Intermediate Ballet Dance I, II, III

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## Undergraduate Courses

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### Theatre

*The course prefix for the following courses is THEA.*

**1005** How to See a Play (4)

An introduction to contemporary drama on the stage. How  
the printed play is translated into visual and aural images.

Attendance at selected theatre events is required.  
Recommended for non-majors. (A)

- 1010 All the World's a Stage (4)  
[CAN DRAM 18]  
An exploration of how diverse cultures throughout history have created theatre; how representative playwrights have mirrored the concerns of their times through their plays; and how theatre artists interpret these plays. Attendance at selected theatre events is required. Recommended for non-majors. (A)
- 1012 Exploring Creativity in Theatre and Dance (3)  
Explorations and improvisations in solo and collaborative stage performance modes directed at releasing creative energies, expanding mental boundaries, and increasing the range of expressive means. Repeatable. Only 3 units applicable to major. Cross-listed with DANC 1012. Two hrs. lect., 2 hrs. act. (F or W)
- 1020 Discover Acting (3)  
Introduction to acting techniques to improve self-expression and observation skills. An introductory acting course designed for non-majors. Suitable as an elective for those who work with people of all ages in education, recreation, business and mass communication. (W)
- 1111 Theatre Backstage (2)  
Lectures and demonstrations on problems of stagecraft, costume, lights, sound, props, special effects, producing, improvisation, and dance used to create theatrical illusions. Requires simultaneous enrollment in activity: one section of THEA 3180 or 3182 for a total of four units. (F)
- 2005 Acting Fundamentals: Improvisation (3)  
[CAN DRAM 8]  
Explorations in non-scripted modes of dramatic presentation involving exercises in visual and oral expressions. Course culminates in a class-created theatre piece. Two hrs. lect., 2 hrs. act.. (F)
- 2015 Acting Fundamentals: Stage Movement (2)  
Preparatory acting work focusing on relaxation, concentration, trust, psychology of stage space, relationships, energizing, focus, gesture, business, rhythm, and style. Four hrs. act. (W)
- 2020 Explore Acting (3)  
Intermediate acting techniques for non-majors. Characterization and scene-study; introduction to camera acting; acting as a means of giving voice to human issues. Some theatre attendance required. Prerequisite: THEA 1020 or consent of instructor. One hour lect., 4 hrs. act.
- 2025 Truthful Acting (3)  
Techniques for acting believably and with powerful personal involvement in situation and character. Prerequisites (may be taken concurrently): THEA 1020 or 2005. Two hrs. discussion, 2 hrs. activity.

- 2115 Costume and Clothing Construction (2)  
An introduction to clothing construction with an emphasis on costumes. Basic principles of flat patterning and draping techniques for fashion and theatre. Computer patterning possible. One hr. lect., 2 hrs. act. (Alt. Y)
- 2188 Summer Theatre Workshop (2-6 units)  
Specialized workshop in specific performance or technical skill. Typically one to five weeks in length. Usually related to a special culminating performance or to a regular summer show. Repeatable for credit, but only one attempt applicable to major. Four - twelve hrs. act.
- 2226 Women in Performance (4)  
Roots of U.S. culture in roles of women artists, including traditional gender-based performance forms. The female body in theatre. Includes some women artists of Europe, Africa, and Pacific Rim who have influenced or been influenced by U.S. culture.
- 2310 Oral Interpretation of Literature (4)  
The artistic process of studying literature through performance. The critical analysis of texts and guided practice in the effective use of voice and body to communicate poetry, prose, and dramatic texts. (F)
- 2311 Children, War, and the Holocaust (4)  
Poetry, prose and dramatic texts about the roles of children in war. Special emphasis on WWII and Holocaust. Influences of storytelling, oral presentation, and performance techniques on both development and critical analysis of literature.
- 3000 Theory of Theatre Performance (4)  
A series of theatre activities to demonstrate the nature and execution of theatre performance. Combines improvisation, physicalization of subtext, creative dramatic techniques, and explorations of collaborative performance. Three hrs. lect., 2 hrs., activity.
- 3010 Acting and Directing Studio (4)  
Exercise and seminars for improving performers; development of artist's self-diagnostic tools; strategies for academic and career development. Open to those with performance background and interest in performance options. Two hrs. lect., 4 hrs. act. (F)
- 3011 Advanced Acting: Subtext (3)  
Development of actor's emotional and sensory memory, tasks, intentions, strategies, obstacles, sense of place and circumstances. May be repeated once for credit with different instructor, but only 3 units may be applied to the major. Prerequisites: THEA 2005, 2015. Six hrs. act. (F)
- 3012 Advanced Acting: Scene Study (3)  
Acting with script using textual and subtextual methods. May be repeated once for credit with different instructor, but only 3 units may be applied to the major. Prerequisites: THEA 3011, 3210. Six hrs. act. (W)

- 3013** Advanced Acting: Characterization (3)  
Methods of building character through research, bio-data, and script analysis. May be repeated once for credit with different instructor, but only 3 units may be applied to the major. Prerequisites: THEA 3011, 3012, 3210. Six hrs. act. (Sp)
- 3020** Musical Theatre Technique (3)  
Exercises in song interpretation for musical comedy purposes, including familiarity with various song structures. Open to non-majors. May be repeated once for credit, one attempt may be applied to major. Two hrs. lect., 2 hrs. act. (Y)
- 3030** Acting Skills for Business and Systems Management (4)  
Creative methods for viewing situations from all sides, reaching conclusions, developing positions, and communicating views effectively. Roles managers play in collaboratively developing plans of action including those for sales and project development. Creative communication strategies. Three hrs. lect., 2 hrs. act. (Y)
- 3050** Teleplay Acting and Production Workshop (4)  
Producing original television movie for cable broadcast. Primarily advanced camera acting techniques, includes some studio operation. Some roles may be assigned during previous quarter to students in THEA 3052. May be repeated once for credit. Two hrs. lect., 4 hrs. act.
- 3052** Acting for the Camera (4)  
Acting in television drama; preparation for interviews and other television appearances. Prepares students for acting and production opportunities in CSUH creative video courses. Recommended preparation: THEA 1020, THEA 2005, MCOM 3100, or ENGL 3077. Repeatable once for credit.
- 3111** Stagecraft Techniques (4)  
An introduction to stage scenery. Building a basic set and drawing an appropriate floor plan are emphasized. Included are production techniques related to actors, directors, technicians, and designers. Open to non-majors. Two hrs. lect., 4 hrs. act. (F)
- 3112** Costume Techniques (4)  
An introduction to stage costuming. Basic principles of costume design, construction, research methods, and rendering techniques are emphasized. Open to non-majors. Two hrs. lect., 4 hrs. act. (W)
- 3113** Lighting and Sound Techniques (4)  
An introduction to stage lighting and sound. Lighting segments emphasize recognizing, hanging, focusing, and operating light instruments. Sound segments emphasize recording and sound design concepts. Open to non-majors. Two hrs. lect., 4 hrs. act. (Sp)
- 3170** Technical Production (4)  
Case studies in technical theatre production, including

research, visualization, material selection, construction, and finishing. Scenery, rigging, and props. Open to non-majors. Repeatable. Two hrs. lect., 4 hrs. act. (Alt. F)

- 3180 Theatre Workshop - Technical or Costume (2)  
Production participation in costume and scene shops preparing all technical elements of shows. Repeatable. Cross-listed with DANC 3180. Four hrs act. (F, W, Sp)
- 3181 Theatre/Dance Workshop - Performance (1)  
On-stage participation in departmental productions. Open to all students who successfully audition. Enrollment in THEA/DANC 3180 may be required. Cross-listed with DANC 3181. May be repeated for credit. Three hrs. perf. minimum. (F, W, Sp)
- 3182 Theatre Workshop - Production Crew (2)  
Production participation on stage crew, including lights, sound, dressing, makeup, followspot, flies, props, etc. Repeatable. Cross-listed with DANC 3182. Four hrs. act. (F, W, Sp)
- 3183 Theatre Workshop - Production Staff (3)  
Practicum in design and production management for directors, designers, stage managers and crew heads, including development of portfolio. May be repeated for credit. Six hrs. act. (F, W, Sp)
- 3184 Theatre Workshop - Festival Production (2)  
Preparation and participation in a significant administrative or technical assignment. Four hrs. act. (W)
- 3185 Theatre Workshop - Studio Production (2)  
Production participation in special show, including both acting and technical assignments. Repeatable for credit. Four hrs. act.
- 3189 Production Practicum (4)  
Participation in cast, crew, and construction of department production. Requires rehearsal, construction, tech/dress rehearsals, and performance or crew. Repeatable for credit. Twelve hrs. perf. minimum. (A)
- 3201 Classical Greek and Roman Drama (4)  
The historic development of early classical drama from the Greek period through the Roman, including the study of representative plays, theatre architecture, and production. Individual research on selected topics. (Alt. Y)
- 3202 European Medieval and Renaissance Drama (4)  
The historic development of European drama from the Medieval period through the Italian Renaissance, Elizabethan period, and 17th Century, including the study of representative plays, theatre architecture, and production. Individual research on selected topics. (Alt. Y)
- 3203 Modern European Drama (4)  
The historic development of European drama from 1800 to the present, including study of representative plays, physical aspects of the theatre, and production practices.

Individual research on selected topics. (Alt. Y)

- 3207 Modern American Theatre (4)  
Study of representative American playwrights and their theatre from 1920 to the present. Individual research on selected topics. (Alt. Y)
- 3208 Postmodern Theatre (4)  
Development of postmodern theatre with its emphasis on the mixing of different styles and periods, its interspersing of multiple meanings in a text performance, and its self-consciousness about performance itself. Individual research on selected topics. (Alt. Y)
- 3210 Script Analysis: The Western Tradition (4)  
Literary, textual, and structural analysis of plays for production, especially aspects involving play selection, dramaturgy, design, and visualization. Use of self-examination techniques. Individual research on selected topics. Open to students with experience attending plays. (F)
- 3216 History of Musical Theatre (4)  
Musical theatre from 1866 to the present; 19th-century minstrel and variety shows; the theatre of social change in the 20's and 30's; and "concept" musicals after 1970. Requires theatre attendance.
- 3225 Theatre Today (4)  
Methods for developing a critical viewpoint on theatrical production through observation and analysis of production elements. Includes historical perspectives. Attendance at a variety of theatre events is required. May be used as major elective by advisement only. (F, Sp)
- 3226 The Woman Artist (4)  
Roots of U.S. culture in roles of women artists, including traditional gender-based forms of art (weaving, ceramics, storytelling); the female body in theatre and plastic arts; women artists of Europe, Africa, Pacific Rim, Latin America, and U.S. Cross-listed with ART 3226. (Alt. Y)
- 3228 Women in Dramatic Literature (4)  
Classic heroines and villains in world drama, including Medea, Lady Macbeth, and Miss Julie. Investigation of the profound and often contradictory view of women as seen by the world's greatest dramatists. Recommended for non-majors. (Alt. Y)
- 3230 Shakespeare on Film (4)  
Selected plays of Shakespeare shown on film in class. Discussion of literature, interpretations, techniques and concepts of plays as adapted for film and historic setting. Attendance at one live performance may be required for comparative purposes.
- 3232 Modern Art and Theatre (5)  
Survey of art and theatre from late 19th century to present, from Realism to Post-Modernist performance. Includes excursions to performances and art venues.



- 3310 Interpretation of Women's and Ethnic Literature (4)  
Research, selection, and analysis of literature contributing to U.S. culture by women and ethnic minorities. Rehearsal and performance as Readers' Theatre. Two hrs. lect., 4 hrs. act. (W)
- 3311 Filipino Theatre (4)  
A beginning to intermediate practicum in theatre of the Philippines. Literature, acting, and theatrical aspects; includes a performance. Repeatable once for credit. Two hrs. lect., 4 hrs. act. (Alt. Y)
- 3312 African American Theatre (4)  
Beginning to intermediate practicum. Literature, acting, and theatrical production aspects; includes performance of plays dealing with African American experience. Designed for non-majors. Repeatable once for credit. Two hrs. lect.; 4 hrs. act. (Alt. Y)
- 3315 Multicultural Theatre Troupe (4)  
Techniques for performing before multicultural audiences. Oriented for non-majors. Involves off-campus shows. Two hrs. discussion, 4 hrs. act.
- 3320 Improvisation Performance Group (3)  
Perfecting "theatre sports," comedy improv, and serious topical improvisation styles for public performances on campus and at local colleges, high schools, and other organizations. Previous improv experience needed. Repeatable. Only 3 units applicable to major. 6 hrs. act. (W or Sp)
- 3418 Stage Makeup I (2)  
A study of the theories of stage makeup, with practical experience in the application of these theories. One hr. lect., 2 hrs. act. (W)
- 3422 History of Costume (4)  
The historic development of Western costume from Egyptian to modern styles. (Alt. Y)
- 3423 Non-Western Costume (4)  
The development of non-Western clothing and costume. The important influences of Chinese, Japanese, Indonesian, Indian, and African clothing on all cultures. Recommended for nonmajors. (Alt. Y)
- 3424 Scene Painting and Graphic Language (4)  
Exploration of methods of scenic painting. Problems in rendering, models, and full scale painting using scenic color media, texture treatment, and light and shadow techniques. Two hrs. lect., 4 hrs. act. (Alt. Y)
- 3425 Visual Arts for the Theatre (4)  
The aesthetics and practice of sceneography, lighting, and costume in theatre including dance, opera, and drama. Basic techniques of drawing, painting, model building, research, and light plots. Prerequisites: THEA 2111, 2112,



2113, or consent of instructor. Two hrs. lect., 4 hrs. act.  
(Alt. Y)

- 3485 Voice on Stage (2)  
Resonance, articulation, voice color, projection, pitch, and rate exercises for better voice use in stage presentation. Covers techniques for acting, media work, teaching, and business. Four hrs. act. (Sp)
- 3610 Interpretation of Children's Literature and Story Telling (4)  
Techniques of story telling; selection and practice in reading poetry and prose for children. Suggested for elementary teachers and theatre majors. Two hrs. lect., 4 hrs act. (Alt. F, Su)
- 3650 Dramatic Activities for Children (4)  
Creative dramatics as a tool for building and developing the creative capacities of children. Includes theatre games, improvisation, puppetry, mask making, and other drama activities. Two hrs. lect., 4 hrs. act. (Y)
- 3660 Children's Theatre Performance (4)  
Theory and techniques of producing theatre for children, including preparation and rehearsal for annual production. Repeatable. Majors may substitute 4 units of THEA 3660 for either THEA 3180 or 3181. Two hrs. lect., 4 hrs. act. (W)
- 3898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Theatre Arts major; a maximum of 4 units will be accepted toward the Theatre minor. Prerequisites: at least a 2.0 GPA; departmental approval of activity. (A)
- 4016 Advanced Acting: History of Performance (4)  
History and evolution of acting techniques and approaches from classical Greek theatre to contemporary performance art. Discussions, demonstrations and activities based on selected dramatic pieces. Two hrs. lect., 4 hrs. act. (Alt. Y)
- 4021 Play Direction: Sign and Symbol Theory in Production (4)  
Signs and symbols for use in production elements and fundamental play direction. Scrutiny of arts and myth, as well as experiments in deconstruction, collage, and mise en scene. Majors must have senior standing, others require permission of instructor. Two hrs. lect., 4 hrs. act. (W)
- 4022 One-Act Production (4)  
Exercises in communication among directors, designers, and actors. The development of manifestos, points-of-view, and production concepts. Production methods and actual production. Two hrs. lect., 4 hrs. act. (Sp)
- 4188 Summer Repertory Theatre (8)

Participation both on and off stage in the various aspects of play production. This program will usually involve three productions. May be repeated once for credit. Twenty-four hrs. lab. (Su)

- 4231 American Women Writers on Women in the Bible: Eve and Her Sisters (4)  
Understanding how archetypal biblical characters have influenced and affected images, models, and ideas of American women. American women's literature and criticism concerning contemporary understanding of women characters in the Bible. Research and analysis leading to dramatic presentations.
- 4375 Ethnic and Immigrant Theatre in the United States (4)  
How ethnic groups have used theatre as a secular ritual, a means of self-expression, and as a search for identity. Most attention to the theatre of African, Asian, and Latin Americans; Yiddish and Italian immigrants also covered. Particular emphasis on local theatre companies, including visits to see their productions.
- 4418 Advanced Makeup and Maskmaking (2)  
Advanced study of makeup for the theatre. Special makeup effects and mask making, including construction techniques. Use of masks as visual art. Mask techniques for teachers. May be repeated once for credit. One hr. lect., 2 hrs. act. (Alt. Y)
- 4445 Arts and Management-Issues and Practice (4)  
The principles of management with emphasis on theatre. House management, publicity, box office, ticket sales, business procedures, contracts and theatrical unions. Commercial and non-profit formats are compared. Students simulate starting their own theatre organization. (W)
- 4446 Grant Writing (2)  
Research and funding criteria, government and private sources, application process, as well as pointers and pitfalls. Nonprofit organizational structure issues related to grants. Final project involves writing a real grant. (Alt F)
- 4450 Internship Seminar in Applied Arts Administration (2)  
Opportunity to integrate arts and administration coursework with observations made during internship experiences. Discussion and writing concerning how administrative processes vary between arts and organizations. Approved internship or similar experience must be in progress or completed. Repeatable for credit, only four units applicable to Arts Administration major. Cross-listed with Art and Music. (W, Sp)
- 4800 Selected Topics in Theatre (4)  
Specialized study of selected topics in the history, theory, literature or production styles of theatre. May be repeated once when content varies. Prerequisite: senior standing or consent of the instructor. (Alt. Y)

**4801** Topics in Theatre Performance (4)  
Performance-related topics in acting, movement, dance, voice, design, or technical theatre. May be repeated when content varies. Some topics by audition; contact instructor in advance. Two hrs. lect., 4 hrs. act..

**4900** Independent Study (1-4)

## Dance

*The course prefix for the following courses is DANC.*

**1002-** Beginning Technique Classes (1 each)  
Each course may be repeated only once. Two hrs. act.

**1031**

1002 Country Western Line Dance

1003 Folk Dance

1006 Brazilian Capoeira

1019 African Dance

1031 Tap Dance

**1012** Exploring Creativity in Theatre and Dance (3)  
(See THEA 1012 for course description.)

**1121-** Beginning Technique Classes (1 each)  
Beginning dance techniques. Audition during first meeting

**1193** to take course out of sequence. Not open to those with two units of credit for former courses in the same technique in the DANC 1000 series. Two hrs. act.

1121-2-3 Beginning Latin Dance I, II, III

1131-2-3 Beginning Hip Hop Dance I, II, III

1141-2-3 Beginning Modern Dance I, II, III

1161-2-3 Beginning Capoeira I, II, III

1171-2-3 Beginning Jazz Dance I, II, III

1181-2-3 Beginning Ballroom Dance I, II, III

1191-2-3 Beginning Ballet Dance I, II, III

**2003** Intermediate Folk Dance (1)  
May be repeated only once. Two hrs. act.

**2020** Rhythm and Music for Dance (2)  
Study and exploration of common rhythmic and musical forms used for dance accompaniment. Composition of and improvisation to simple rhythmic scores. One hr. lect., 2 hrs. act. (Sp)

**2022** Contemporary Musical Theatre Dance (2)  
Survey of dance in the contemporary musical. Both historical and contemporary choreographers and their influences within the context of musical theatre repertory. Open to all students with at least one year of dance training. Repeatable once for credit. One hr. lect., 2 hrs. act.

**2023** Dance Fitness (2)  
Conditioning the body through the use of weights, both free and Nautilus. Proper stretching techniques and dietary considerations. Repeatable for credit. Four hrs. act.

- 2030** Fundamentals of Modern Dance (2)  
Students will be given opportunity to work on modern dance technique, improvisational skills and repertory. There will be a focus on the development of individual styles and performance techniques. Four hrs. act.
- 2131-2193** Intermediate Technique Classes (1 each)  
Intermediate dance techniques. Requires one year of beginning technique or instructor's permission. Audition during first meeting to take course out of sequence. Not open to those with two units of credit for former courses in the same technique in the DANC 2000 series. Two hrs. act.
- 2131-2-3 Intermediate Hip Hop Dance I, II, III  
2141-2-3 Intermediate Modern Dance I, II, III  
2161-2-3 Intermediate Capoeira I, II, III  
2171-2-3 Intermediate Jazz Dance I, II, III  
2181-2-3 Intermediate Ballroom Dance I, II, III  
2191-2-3 Intermediate Ballet Dance I, II, III
- 3021** Cultural Dance Forms (3)  
Provides research skills and movement activities to inspire cross-cultural appreciation through dance. Audio-visual used to analyze, compare and contrast elements such as rhythm, symbolism, religion, dress, form, and function. Students share personal experiences and customs. Repeatable once for credit. Two hrs. lect., 2 hrs. act.
- 3022** Improvisation and Beyond (3)  
Exploration of movement through improvisational techniques leading to dance making. Stepping stones to the development of choreography and performance. Fosters a supportive atmosphere while crafting dances through an individual approach. Six hrs. act.
- 3026** Jazz and Modern Dance (2)  
Jazz and modern dance technique with repertory experience. Students will have experience in both styles and learn repertory. Performances at the end of quarter. Four hrs. act.
- 3141-3173** Advanced Technique Classes (3 each)  
Advanced dance techniques. Requires one year each of beginning and intermediate technique or instructor's permission. Audition during first meeting to take course out of sequence. Not open to those with two units of credit for the same technique in former DANC 3000 series. One hr. lect., 4 hrs. act.
- 3141-2-3 Advanced Modern Dance I, II, III  
3171-2-3 Advanced Jazz Dance I, II, III
- 3180** Theatre Workshop - Technical or Costume (2)  
(See THEA 3180 for course description.)
- 3181** Theatre/Dance Workshop-Performance (1)  
(See THEA 3181 for course description.)
- 3182** Theatre Workshop - Production Crew (2)

(See THEA 3182 for course description.)

- 3210** Movement Analysis and Awareness (3)  
A qualitative approach to classifying and recording functional and expressive movement based on the effort/shape concepts of Rudolph Laban. A systematic observation and analysis of human movement through individual and group exploration. Elements of time, space, force and flow emphasized. May be repeated once for credit by post-baccalaureate students who have taken the course as undergraduates. Cross-listed with EPSY 3210. Two hrs. lect., 2 hrs. act. (F)
- 3215** Dance Touring I (3)  
Beginning choreography, repertory and performance techniques. Produce original dances and perform in touring dance company, especially at local schools. Audition at first meeting for placement. One hr. lect., 4 hrs. act.
- 3216** Dance Touring II (3)  
Intermediate choreography, repertory and performance techniques. Produce original dances and perform in touring dance company, especially at local schools. Audition at first meeting for placement. One hr. lect., 4 hrs. act.
- 3217** Dance Touring III (3)  
Advanced choreography, repertory and performance techniques. Produce original dances and perform in touring dance company, especially at local schools. Audition at first meeting for placement. One hr. lect., 4 hrs. act.
- 3220** Dance Performance, Composition and Production I (3)  
Introduction to basic compositional dance forms. Exploration, improvisation, selection and organization of choreographic material. May be repeated once for credit. Six hrs. act. (F)
- 3235** Dance for Children (4)  
Theory and techniques for developing movement and expressive capabilities of the child through dance participation. Opportunities to work with children are provided. Prerequisite: beginning level dance course (e.g. DANC 1000 series) or consent of instructor. Three hrs. lect., 2 hrs. act. (F)
- 3241** The Dance Experience (3)  
Study of dance theory and its development as a creative form and process; exploration of various dance forms, techniques and methods. Two hrs. lect., 2 hrs. act. (W)
- 3426** Collaborative Dance and Theatre (3)  
Collaborative theatre techniques to develop and produce a Spring Concert. Dance, music, and theatre utilized in the production with attention to the development of original score, choreography and text. Repeatable for credit. One hr. lect., 4 hrs. act.
- 3440** Modern Technique (3)  
Intermediate and advanced skills in modern dance

technique, improvisation and repertory. Attention given to development of individual styles and performance techniques. One hr. lect., 4 hrs. act.

- 3690 Dance: Art and Education into Therapy (3)  
Dance/movement therapy and its application to diverse clinical populations. The emergence of dance as a healing art in relation to dance as a performance art and as education. Discussion, lecture, audio visuals, and movement exploration of non-verbal approaches to therapy. Two hrs. lect., 2 hrs. act. (F or W)
- 4200 Dance through the Ages (4)  
The history and evolution of dance from its anthropological and religious sources to the Renaissance period, i.e., preliterate cultures, ancient civilizations, medieval, and Renaissance periods. (Alt. Sp)
- 4201 Dance in Modern Society (4)  
The development of dance from the post-Renaissance period to the present, i.e., modern dance, black dance, men in dance, social dance, musical theatre and avant garde. Social, political, psychological, and spiritual influences. (Alt. Sp)
- 4220 Dance Performance, Composition and Production II (3)  
Advanced work in compositional dance forms. Development of skills in group choreography and performing techniques. Emphasis on choreography as a creative art process. May be repeated once for credit. Prerequisite: DANC 3220 or consent of instructor. Six hrs. act. (W)
- 4235 Children's Dance: Curriculum and Instruction (4)  
Advanced theory and techniques for teaching dance to children. Gardener's Multiple Intelligences for curriculum development and assessment tools; California Visual and Performing Arts Framework; cross-curriculum lesson planning; and a research project on creativity theory. Prerequisite: DANC 3235. Three hrs. lect., 2 hrs. act. (Sp)
- 4900 Independent Study (1-4)

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## Footnotes

<sup>1</sup>Dance Option majors must demonstrate beginning competency in at least four (4) different techniques, intermediate competency in three (3) different techniques, and advanced competency in two (2) different techniques.

<sup>2</sup>May be repeated for credit.



HOME



HELP





## Human Development

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### Department Information

Department of Human Development  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3069  
Phone: (510) 885-3076

*Professor Emeritus:* Ivan D. Kovacs

*Professors:* Carol S. Becker, Ann J. Meyer

*Associate Professors:* Rainer Bauer (Chair), Patricia Guthrie

*Assistant Professors:* Jiansheng Guo, D. Xenon Rasmuson

*Lecturer:* Afshin Gharib, Kathleen Jurich, Helen Shoemaker,  
Richard Sprott

*Adjunct Professor:* Laszlo P. Luka

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

Human Development is an interdisciplinary field of academic study that has grown out of more traditional disciplines such as anthropology, biology, linguistics, psychology, and sociology. Students majoring in Human Development explore people's lives from conception and birth through old age and death. In their study of physical growth and change and the development of consciousness, knowledge, and relationships, they increase their understanding of themselves as well as of others in social, cultural, and historical terms.

In a world increasingly characterized by change, individuals are challenged to develop skills not directly addressed in traditional programs. Human Development majors concentrate on the development of self-awareness and on skills such as problem-solving, critical thinking, and written and oral communication. In addition to traditional forms of learning, students participate in



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## Career Opportunities

group interaction, independent study, and field experience (here and/or in other countries). Students are educated to become effective leaders and organizers, cooperative team members, and qualified researchers, who, while developing a compassionate understanding of others, continue their own personal development.

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Graduates of the department work with people of all ages from different ethnic, cultural and/or socioeconomic backgrounds. Many graduates continue their education in areas such as counseling, psychotherapy, education, social work, business, public administration, law, medicine, theology, gerontology, and anthropology.

Human Development prepares students to work with children, adolescents, adults, and the aged; with exceptional people, handicapped or gifted; in areas such as health, education, welfare, and correctional facilities; in business and industry; in public organizations and private enterprises; in religious and secular institutions; as administrators, managers, consultants, counselors, educators, trainers, and many others.

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## Features

Human Development faculty members come from various disciplinary areas and have different orientations such as phenomenological, psychoanalytic, and structuralist. They engage in teamteaching to help students understand differing disciplinary perspectives on the same topics. Small seminars, laboratory and field assignments encourage students to integrate their learning and develop their cognitive, interactional, and problem-solving abilities.

Seniors study in depth some aspects of human development that are of interest to them. The program is designed so that students can study in disciplines outside the department and apply units to the major.

Internships are available in Human Development. Supervised work experience integrates academic learning and field experience, and promotes development of students' professional activities. Internships are graded Credit/No Credit only and may be repeated for credit.

To facilitate university study for students with family and/or job responsibilities, 43 of the 60 upper division units are tape recorded so that students need attend only one evening course per week during the junior year and two evening courses total during the senior year for the major requirements. Other major course requirements are taped live and duplicated for evening students both here and at the Contra Costa Campus. Students may listen to these tapes at the Music Listening Room in the Hayward Library or the Contra Costa Campus Library, or have them duplicated for home use. Instructions for the tape duplication system are available in the department office.

The Department of Human Development also offers its major through P.A.C.E. (Program for Adult College Education). Working

## Major Requirements (B.A.)

students with 86-90 lower division transferable quarter units can achieve a B.A. in Human Development in 7 quarters taking coursework evenings and Saturdays through the specially designed P.A.C.E. format. Contact the P.A.C.E. office at 885-2989 for further information.

The major consists of 80 units; the B.A. degree requires a total of 186 units.

### I. Lower Division (20 units)

In preparation for the upper division program, students must take 20 units from any combination of the following categories, with no more than 12 units in any one category.

- A. Anthropology
- B. Human biology, including biochemistry, pharmacology
- C. Child development
- D. Economics, including demography & political science
- E. Ethnic or area studies, sign language, foreign language, computer language
- F. Human development
- G. Mathematics, statistics, philosophy, linguistics, communication science
- H. Psychology
- I. Sociology
- J. Speech pathology
- K. Additional categories (e.g., gerontology, developmental disabilities, phenomenology) may be approved by the department.

### II. Upper Division (60 units)

#### A. Core Sequence (36 units)

- HDEV 3001, 3002, 3003 Behavioral and Biological Approaches in Human Development I, II, III (9 units)
- HDEV 3011, 3012, 3013 Socio-cultural and Experiential Approaches in Human Development I, II, III (9 units)
- HDEV 3021, 3022, 3023 Structure and Dynamics of Human Development I, II, III (9 units)
- HDEV 3031, 3032, 3033 Process of Human Development I, II, III (9 units)

#### B. Option or Specialized Sequence (12 units)

To meet the diversity of interest among Human Development majors, the department has designed four specialized options: Childhood, Adolescence, Adult Development, or Gerontology. Students meeting the requirements for an option will receive recognition on their academic record indicating their achievement in this specialty area. Each option is designed with a specialized sequence of courses (12 units) and 12 units of senior projects.

##### Adolescence Option

The Adolescence Option focuses on issues arising during the teenage years, such as sex role development, career choice, pregnancy, drugs, and delinquency. Students who are thinking of careers in high school teaching, social work,

counseling, and law will benefit from this option.

*Select three courses from the following list for the specialized sequence (12 units):*

BIOL 3060 Human Sexuality (4), 3070 Optimal Nutrition (4); E S 3105 African American Identity (4), 3165 African American Sexuality (4), 3310 Native American World View (4); HDEV 3800 Human Development and Interaction (4), 4325 Lesbian & Gay Lifespan Development (4), 4350 Intimate Relationships Throughout the Lifespan (4), 4870 Selected Topics in Human Development (If topic is related to adolescence) (4); PHIL 3150 Contemporary Ethics (4); P E 4615 Exercise and Stress (4), 4710 Psycho-Social Factors of Sport and Physical Education (4); PSYC 4660 The Psychology of the Healthy Personality (4); SOC 3411 Sociology of Sex Roles (4), 3421 Sociology of Popular Cultures (4), 3480 Violence and Conflict (4), 3501 Love and Friendship (4), 3520 Sociology of Minority Groups (4), 3730 Juvenile Delinquency (4), 3750 Alcohol and Drug Abuse (4), 4740 Criminology (4); SPCH 4830 Intercultural Communication (4), 4850 Female-Male Communication (4); WOST 3400 Women and Careers (4), 3530 Women and Their Bodies (4)

#### Adult Development Option

The Adult Development Option is designed for those students who will be dealing with people ages 20-55 in career development, parenting and family life, mid-life crisis, empty-nest syndrome, and illness.

*Select a total of three courses from the following lists for the specialized sequence (12 units):*

ANTH 3740 Cross-Cultural Studies in Child Rearing (4), 3745 Cross-Cultural Studies in Human Sexuality (4); E S 3105 African American Identity (4), 3165 African American Sexuality (4), 3170 Mental Health in the African American Community (4), 3210 Latino Women in the United States (4); E S/WOST 3420 Minority Women in America (4); E S 3851 Asian American Men and Women (4);

HDEV 3600 Development of Religious and Secular World Views (4), 3850 My Life and Development (4), 4325 Lesbian and Gay Lifespan Development (4), 4350 Intimate Relations throughout the Lifespan (4), 4820 Advanced Study in Human Development (4) (when topic is related to adulthood), 4870 Selected Topics in Human Development (4) (if topic is related to adult development)

MCOM 4500 Women in the Media (4); POSC 3170 Public Policy on the Family (4), 3340 Women in Politics (4); PSYC 3410 The Psychology of Women (4), 3420 Stress and Coping (4), 4620 Theories of Personality (4), 4660 The Psychology of the Healthy Personality (4); REC 3100 Lifelong Leisure Transitions (4), 3200 Wellness through Leisure (4), 3800 Introduction to Therapeutic Recreation (4)

SOC 3410 Sociology of the Family (4), 3411 Sociology and Sex Roles (4), 3412 Marriage and Sex (4), 3413 Sociology of Parenting (4), 3415 Sociology of the African

American Family (4), 3416 Sociology of the Mexican American Family (4), 3417 Sociology of the Asian American Family (4), 3750 Alcohol and Drug Abuse (4), 4720 Medical Sociology (4); SPCH 4850 Female-Male Communication (4); WOST 3400 Women and Careers (4), 3520 Mothers, Daughters, and Sons (4), 3530 Women and Their Bodies (4)

#### Childhood Option

The Childhood Option covers the years from birth to 12 and consists of required courses, electives, and field experience that focus on the infant/child. This option is especially useful to those thinking of careers involving work with children, such as teaching, day care, and school counseling.

*Select at least three courses from the following list for the Specialized Sequence (12 units):*

ANTH 3740 Cross Cultural Patterns in Child Rearing (4); DANC 3235<sup>1</sup> Dance for Children (4); EPSY 5021 The Exceptional Individual (4), 5121 Counseling Exceptional Children (4); HDEV 4510 Cognitive Development (4), 4520 Language Acquisition and the Symbolic Function (4); HDEV/T ED 4600 Seminar in Early Childhood (3); HDEV 4710 The Child in the Family (4); P E 4340<sup>1</sup> Motor Development (4), 4605<sup>1</sup> Special Populations: Psychomotor Disabilities and Implications (4); PSYC 4420 Developmental Psychology (4); SOC 3416<sup>1</sup> Sociology of the Mexican-American Family (4), 4750 Child Welfare (4); SPPA 4865<sup>2</sup> Language Disorders in Children (4); T ED 3500 Introduction to Early Childhood Studies (4), 5180 Play and Learning in the Education of the Young Child (4)

#### Gerontology Option

The Gerontology Option includes a total of 24 units, which focus on life transition occurring during the latter stages of the human lifespan. Such developmental issues dealing with middle aged and elder individuals include the study of death and dying. The option is completed by fulfilling major requirements in the following manner:

*Specialized Sequence (12 units)*

H SC 4601<sup>2</sup> Health Care Administration I (4), 4602<sup>2</sup> Health Care Administration II (4), 4004 Current Issues in Aging (4) or HDEV 4005 Aging and Diversity (4) (if not used to satisfy requirements for Senior Projects); PHIL 3160 Business and Professional Ethics (4); POSC 4911 Seminar in Administrative Ethics (4); REC 3800 Leisure Services and Special Groups (4), 4600 Recreation in Institutional Settings (4); SOC 3419 Death and Dying (4), 3715<sup>1</sup> Social Services for the Elderly (4); SPPA 4866<sup>2</sup> Aphasia in Adults (4)

#### Individualized Specialized Sequence

If students are not interested in an age-related option, they may plan an individualized Specialized Sequence. Students may select 12 units of upper division courses from across the university sharing a focus on some aspect of Human Development. This creative use of coursework can help students achieve a more advanced understanding of a

particular facet of Human Development. Students may specialize in development in a sociocultural group, public administration, management, science, pre-law, a special aspect of, approach to, or problem area of development, etc. Field experience for credit is combined with academic study in courses such as HDEV 4002, 4201, 4860 (Internship), and others. Courses outside of Human Development may be applied to general education requirements. Selection must be made under departmental faculty guidance.

In place of an age-related option, Human Development majors in PACE complete a specialized sequence consisting of E S 3120 The Civil Rights Movement, E S 3305 Contemporary American Life, and SPCH 4860 Ethnic Public Address.

#### C. Senior Projects (12 units)

##### *Adolescence Option Senior Projects (12 units)*

HDEV 4400 Adolescence (4)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar. (Students' Senior Project, HDEV 4890 or 4891, must deal with an aspect of adolescent development.)

##### *Adult Development Option Senior Projects (12 units)*

HDEV 4300 Adult Development (4)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar. (Students' Senior Project, HDEV 4890 or 4891, must deal with an aspect of adult development.)

##### *Childhood Option Senior Projects (12 units)*

HDEV 4700 Childhood Development (4)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar (4). (Students' Senior Individual Project, HDEV 4890 or 4891, must deal with a particular aspect of childhood development.)

##### *Gerontology Option Senior Projects (12 units)*

HDEV 4004 Current Issues in Aging (4) or HDEV 4005 Aging and Diversity (4) (if not used to satisfy requirement for Specialized Sequence)

HDEV 4880 Senior Group Project (4)

Either HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar (4). (Students' Senior Project, HDEV 4890 or 4891, must deal with a particular aspect of development during the later part of human life.)

##### *Individualized Special Sequence Senior Projects (12 units)*

Twelve units of individual and cooperative study on campus and in the field.

HDEV 4880 Senior Group Project (4)

HDEV 4890 Senior Individual Project (4) or HDEV 4891 Senior Research Seminar (4)

HDEV 4820 Advanced Study in Human Development or

any other upper division HDEV course(s) (4)

#### Other Degree Requirements

In addition to major requirements, every student must also complete the University requirements for graduation which are described in the Baccalaureate Degree Requirements chapter in the front of this catalog. These include the General Education-Breadth requirements; the U.S. history, U.S. Constitution, and California state and local government requirement; the University Writing Skills requirement; and the residence, unit, and grade point average requirements.

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## Minor Requirements

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The minor is designed for students who will be working with people in their career choice areas and would profit from gaining a life-span perspective on their own lives as well as those of the people with whom they will be living and working. The minor consists of 28 units. Select 28 units from any 3000 or 4000 level Human Development courses.

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## Human Development Option: Liberal Studies

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Area VII, Credential Track, or Area VI, Liberal Arts Track (24 units)

Select two (2) of the following groups of courses (24 units):

*Group One (12 units):*

- HDEV 3001 Behavioral and Biological Approaches in Human Development I (3)
- HDEV 3011 Sociocultural and Experiential Approaches in Human Development I (3)
- HDEV 3021 Structure and Dynamics of Human Development I (3)
- HDEV 3031 Process of Human Development I (3)

*Group Two (12 units):*

- HDEV 3002 Behavioral and Biological Approaches in Human Development II (3)
- HDEV 3012 Sociocultural and Experiential Approaches in Human Development II (3)
- HDEV 3022 Structure and Dynamics of Human Development II (3)
- HDEV 3032 Process of Human Development II (3)

*Group Three (12 units):*

- HDEV 3003 Behavioral and Biological Approaches in Human Development III (3)
- HDEV 3013 Sociocultural and Experiential Approaches in Human Development III (3)
- HDEV 3023 Structure and Dynamics of Human Development III (3)
- HDEV 3033 Process of Human Development III (3)

## Courses

(HDEV 3001, 3002, 3003, 3011, 3012, 3013, 3021, 3022, 3023, 4004, 4400, 4300, 4700 are also available through an audiotape service offered by the department.)

- 1200** Introduction to Human Development (4)  
Introduction to the interdisciplinary study of human development. Exploring and using varied approaches to the problems of developmental transitions in diverse populations.
- 1301** The Human Condition (4)  
Various attempts to find meaning in human existence from the perspectives of human development.
- 2001** Human Development in Contemporary Society (4)  
Introduction to the study of social and environmental problems influencing human development.
- 2010** Introduction to Early Childhood (4)  
Current research methods and findings about the physical, emotional, and intellectual development of children from conception through age 5, with an emphasis on historical trends and cultural contexts.
- 2020** The Development of Young Children in Groups (4)  
Child development from birth to five years of age, in context of different group settings (e.g., family daycare, early childhood education centers, early childhood co-operatives, ROP Pre-School Labs, Headstart), regarding systems, policies, practices and change.
- 2030** Introduction to Children in the Family and Community (4)  
Introduction to patterns and factors of family life in modern society as they pertain to children: varying roles and interaction of family members; urban-suburban living, culture, race and the economy; relationship of family to educational institutions and community resources.
- 2050** Supervising Early Childhood Professionals (3)  
An introduction to theories and methods of mentoring trainee-professionals in the field of early childhood. Emphasis on the role of mentors in supervisory positions, objective measures of assessment, multi-level interactional skills, team building and professionalism in presentations.
- 3001** Behavioral and Biological Approaches in Human Development I (3)  
Study of human development, utilizing concepts and methodologies of the behavioral and biological sciences. (F)
- 3002** Behavioral and Biological Approaches in Human Development II (3)  
Continuation of HDEV 3001. Prerequisite: HDEV 3001. (W)
- 3003** Behavioral and Biological Approaches in Human Development III (3)



Continuation of HDEV 3002. Prerequisite: HDEV 3002.  
(Sp)

- 3011 Sociocultural and Experiential Approaches in Human Development I (3)  
Basic concepts and methods in the study of sociocultural and experiential aspects of human development. (F)
- 3012 Sociocultural and Experiential Approaches in Human Development II (3)  
Continuation of HDEV 3011. Prerequisite: HDEV 3011. (W)
- 3013 Sociocultural and Experiential Approaches in Human Development III (3)  
Continuation of HDEV 3012. Prerequisite: HDEV 3012. (Sp)
- 3021 Structure and Dynamics of Human Development I (3)  
The nature, characteristics, and study of human development: interdisciplinary analysis and integration. Concurrent enrollment in HDEV 3031 and concurrent or prior enrollment in HDEV 3001 and 3011 required. Three hrs. lect./disc. (F)
- 3022 Structure and Dynamics of Human Development II (3)  
Continuation of HDEV 3021, which is prerequisite. Concurrent enrollment in HDEV 3032 and concurrent or prior enrollment in HDEV 3002 and 3012 required. (W)
- 3023 Structure and Dynamics of Human Development III (3)  
Continuation of HDEV 3022, which is prerequisite. Concurrent enrollment in HDEV 3033 and concurrent or prior enrollment in HDEV 3003 and 3013 required. (Sp)
- 3031 Process of Human Development I (3)  
Clinical study of developmental processes and their conceptualization in laboratory and field settings. Concurrent enrollment in HDEV 3021 required. (F)
- 3032 Process of Human Development II (3)  
Continuation of HDEV 3031, which is prerequisite. Concurrent enrollment in HDEV 3022 required. (W)
- 3033 Process of Human Development III (3)  
Continuation of HDEV 3032, which is prerequisite. Concurrent enrollment in HDEV 3023 required. (Sp)
- 3600 Development of Religious and Secular World Views (4)  
Development of religious and secular world views, value systems and relationships over the life span.
- 3800 Human Development and Interaction (4)  
Interdisciplinary methodologies (integrating sociocultural and biological perspectives) are examined and applied to understanding the human lifespan in interpersonal contexts.



- 3850 My Life and Development (4)  
Autobiographical writings are constructed and examined through developmental and psychohistorical theories and methods. Prerequisite: consent of instructor. (Y)
- 4004 Current Issues in Aging (4)  
Through the exploration and use of interdisciplinary methodologies, issues in aging will be considered (e.g. social class, economics, biological changes, policies, individual differences).
- 4005 Aging and Diversity (4)  
An interdisciplinary exploration of interaction between aging and race, ethnicity, and gender.
- 4200 Planning and Management in Child Development Settings (3)  
Child Development programs from an interdisciplinary perspective. Structure, program planning, implementation, evaluation, relations among staff, clients and community. Concurrent registration in HDEV 4201 required. Prerequisite: HDEV 2001, 3033, 3800 or equivalent. (Y)
- 4201 Field Study in Human Development: Childhood (1)  
Direct observation and analysis of child development program settings: structure, program planning, implementation, evaluation, relations among staff, clients, and community. Concurrent registration in HDEV 4200 required. Two hrs. act.(Y)
- 4300 Adult Development (4)  
Normative life crises and transition in adulthood-affective, cognitive, cultural, economic, interpersonal, physiological, social, spiritual, vocational aspects. (Y)
- 4310 Human Development in the Changing Workplace (4)  
A study of developmental issues that arise in contemporary work environments; creative professional identities under uncertain conditions of employment, reconciling adult commitments splintered by career demands, and developing interaction skills in work settings rich in human diversity; confronting work place inequalities.
- 4325 Lesbian and Gay Lifespan Development (4)  
Introduction to theoretical models and research relevant to the development of lesbians and gay men. Stereotypes and myths which interfere with an informed understanding of these sexual minorities. Issues of gender identity, sexual orientation, sexuality, love relationships, friendship networks, family and community relations. Cross-listed with EPSY 4325.
- 4350 Intimate Relationships Throughout the LifeSpan (4)  
The essential nature of parent-child, friendship, and sexual love relations; the structure of these important intimate relations. Developmental changes in these three important

relationships during childhood, adolescence, adulthood, and old age. (Y)

- 4360 Human Development in Cyberspace (4)  
Reality of cyberspace: using the Internet and creating a virtual classroom, students investigate how technology changes in communication and learning impact development in their lives, work, and society. Three hrs. lect., 2 hrs. act.
- 4400 Adolescence (4)  
Developmental issues arising during the teenage years-career choice, intimacy, biological changes, and attainment of cognitive, social, biological, and emotional maturity. (Y)
- 4444 Imagination (4)  
An interdisciplinary framework to explore (1) the history of the concept of imagination, (2) the development of imagination of individuals through the lifespan, and (3) the impact of modern technologies on imagination. Three hrs. lect., 2 hrs act.
- 4510 Cognitive Development (4)  
The development of cognitive functions from infancy through old age. (Y)
- 4520 Language Acquisition and the Symbolic Function (4)  
An interdisciplinary study of the development of a first language and the biological, linguistic, cognitive, and social factors involved. Topics include the development of prelinguistic skills, semantics, syntax, discourse skills, and phonology, as well as an investigation of the theories and hypotheses proposed to account for acquisition. (F, W, Sp)
- 4600 Seminar in Early Childhood Studies (3)  
Integrative study of influences on children and their development. Discussion of research methods and findings. Not open to students who have received credit for T ED 4600. Prerequisites: T ED 3500; HDEV 4520.
- 4700 Childhood Development (4)  
The crucial period of rapid development from conception to pre-adolescence viewed from various perspectives: biological, psychoanalytic, cognitive-structural, stimulus-response, humanistic. Prenatal care and counseling, attachment-separation, parenting and institutional care. Prerequisites: HDEV 2001, 3033, 3800, or equivalent. (Y)
- 4710 The Child in the Family and in the Community (4)  
Child development in a variety of familial, communal, and institutional settings. Problems of child abuse, divorce, foster care and adoption. (Y)
- 4820 Advanced Study in Human Development (4)  
Written analyses of special problems in human development. Fulfills the University Writing Skills Requirement for students who began work on the present degree before Fall quarter, 1985. Prerequisites: senior

standing and HDEV 3022. (Y)

- 4860** Internship in Human Development (1-4)  
Supervised work experience that integrates academic learning and field experience, and promotes development of students' professional activities. Prerequisite: instructor approval. Credit/No credit grading only; may be repeated for credit. (Y)
- 4870** Selected Topics in Human Development (4)  
Seminar on selected area of study in human development. May be repeated with different topic. Prerequisites: senior standing and HDEV 3023. (Y)
- 4880** Senior Group Project in Human Development (4)  
Problem solving and analysis: intensive cooperative study of selected problems. Prerequisites: HDEV 3001, 3002, 3003, 3011, 3012, 3013, 3021, 3022, 3023; or consent of instructor. (Y)
- 4890** Senior Individual Project in Human Development (4)  
Independent work focused on specialized topic under faculty guidance. Prerequisites: senior standing and HDEV 3023 (Y)
- 4891** Senior Research Seminar (4)  
Using various methodologies, students will individually collect and analyze data, write a research report, and hold interdisciplinary discussions regarding the advantages and limitations of various research methodologies. Prerequisite: HDEV 4880 (may be taken concurrently).
- 4900** Independent Study (1-4)

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## Footnotes

- 1** Has prerequisite(s) not included in program.
- 2** To be taken after or concurrently with HDEV 4520.
- 3** These two classes must be taken together
- 4** Course has prerequisite not included in program
- 5** Prerequisite: consent of instructor



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## Undeclared Major

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### Department Information

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University Advisement Center  
Office: Student Services Hub 1131  
Phone: (510) 885-4682

*Associate Director: Karen L. Kilk*

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Introduction

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Cal State Hayward enrolls between 500 and 600 undeclared undergraduate students each year. Although the greatest numbers are at the freshman-sophomore levels, there are also many upper division undeclared students. Unless one selects a major with a large lower division component such as one of the sciences, Engineering, Liberal Studies, or Business Administration, there is generally no problem with using the first year or two of one's degree exploring interests and career options before choosing a major specialization. (Declared students often change their majors one or more times before completing the B.A. or B.S. degree.) The university offers a variety of services to assist undeclared students and to help them with major career choices.

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### Advising

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Responsibility for the academic advisement of undeclared students resides with the University Advisement Center in the Student Services Hub, Rm. 1131. In addition, many other university offices provide services to students. Undeclared students should try to satisfy most of their General Education-Breadth Requirements, except for the 12-unit upper division G.E. requirement, in their first two years. Until a major is selected, a firm G.E. evaluation cannot be performed because no course with the same prefix as the student's major may be applied to General Education, with the exceptions noted in the B.A./B.S. Degree Requirements chapter. However, courses dropped from G.E. use are normally transferable to the major, so nothing has been lost.

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The university offers many services to assist students seeking to

## Choosing a Major

choose a major or change to a more appropriate one. Remember that a career and a major are not the same thing, that many college graduates are employed in fields not directly related to their majors, and that most people change careers more than once in their lifetime.

Each Cal State Hayward department can inform prospective majors of the nature of their programs, the career possibilities, the entry level salaries, and other pertinent information. The offices and phone numbers of the departments are listed in the Class Schedule.

Students are encouraged to explore career/major options with the Career Development Center (WA 509) and the University Advisement Center. Academic counseling, career and employment information, aptitude and interest testing, computer programs, and a variety of other services are available.

For further information about career opportunities, students may attend the quarterly orientation and advisement programs offered by Student Life Programs (SSH 1351). The Department of Educational Psychology (Counseling) offers a two-unit course, EPSY 1001 Career Planning for College Students, which is offered most quarters and is open to all students.

Because of the large number of units required in some majors, particularly Business Administration, Engineering, Liberal Studies, and the sciences, and the sequential nature of courses in areas like Mathematics and Music, early choice of a major is wise for students interested in these areas. Students who think they might choose majors in these areas are encouraged to sample a few courses early in their collegiate careers to determine their aptitude and interests. In most arts, humanities, and social sciences majors, however, early choice of a major is not necessary.



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## Department Information

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## Program Information

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## Undergraduate Courses

# Humanities

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School of Arts, Letters, and Social Sciences  
Office: Warren Hall 489  
Phone: (510) 885-3105

*Director:* Vincenzo Traversa (Modern Languages and Literatures)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The School of Arts, Letters, and Social Sciences offers survey courses which are designed to provide students with a broad introduction to the humanities and to the study of Western Civilization.

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*The course prefix for the following courses is HUM.*

- 1001** Humanities I (4)  
Dawn of Western Civilization: Survey of major ideas, achievements, and failures of Greco-Roman antiquity and the Middle Ages examined from an historical perspective and based upon readings in literature and philosophy. Selections from Iliad, Aeneid, Oedipus Rex, Bible, Divine Comedy, Canterbury Tales, etc. (F)
- 1002** Humanities II (4)  
Western Civilization in Transition: Survey of major ideas, achievements, and failures of the Renaissance, Reformation, and Enlightenment examined from an historical perspective and based upon readings in literature and philosophy. Selections from Petrarch, Erasmus, Machiavelli, Cervantes, Swift, Voltaire, Descartes, Luther, Locke, etc. (W)
- 1003** Humanities III (4)  
Modern Western Civilization: Survey of major ideas, achievements and failures of 19th and 20th Century European and American civilization, based upon readings in literature and philosophy, and examined from an

historical perspective that recognizes the changing roles of women and ethnic minorities and the interplay of various social groups. (Sp)

3000 Literature of the Holocaust (4)

Study of literary works originating from personal experience and reflections concerning the Holocaust: the mass murder of the Jews of Europe during World War II. Authors include Primo Levi, Giuliana Tedeschi, and Elie Wiesel. (Alt. Y)



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## Department Information

## Minor In Urban Studies

## Urban Studies

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Department of History  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4036  
Phone: (510) 885-3207

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The minor in Urban Studies consists of a minimum of 24 units of work selected from the following lists of courses. No more than 9 units of work in a single department may be applied to the minor. With the approval of an Urban Studies advisor, a maximum of 2 other appropriate courses, including independent study or directed research, may be substituted for those below.

ACCT 4280 Accounting for Non-Profit Organizations (4); ANTH 4310 Field Course in Ethnography (5); CRJA 4700 Community Based Corrections (4); ECON 3370 Public Sector Economics (4), 3500 Regional and Urban Economics: Survey (4); ENVT 4100 Environmental Impact Analysis (4), 4300 Environmental Field Studies (5); E S 3290 Community Development (4); GEOG 3330 Urban Geography (4), 3400 Field Geography of the San Francisco Bay Region (5), 4325 Field Course in Cultural-Urban Geography (5);

HIST 3503 History of the San Francisco Bay Area (4), 3567 Blacks in the United States (4); POSC 3120 State and Local Politics and Government (4), 3130 Urban Politics (4), 3150 Politics of California (4), 3800 Public Policy Analysis (4); PUAD 4800 Public Administration and Society (4); REC 3700 Community Organizations in the Urban Setting (4), 4300 The Physical Setting of Leisure Services (4); SOC 3520 Sociology of Minority Groups (4), 3700 Introduction to Social Services (4), 3710 Social Policy (4), 4450 Urban Sociology (4)

Any new or transfer course judged by an Urban Studies advisor to have a significant urban studies content.

At least 18 units in the minor must be outside the student's major department.





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## Department Information

## Interdisciplinary Studies

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School of Arts, Letters, and Social Sciences  
Office: Warren Hall, Room 815  
Phone: (510) 885-3161  
Dean: Michael Good

*Professor Emeriti:* Richard VrMeer (Public Administration), Ivan D. Kovacs (Human Development)

*Professor:* William J. Langan (Philosophy)

## General Information

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The upper division courses INTD 3001-2-3 comprise a team-taught, interdisciplinary sequence of courses that offers an integrated approach to the upper division GE requirements, thereby providing more focus to the General Education package. The three quarters jointly satisfy upper division General Education requirements in Humanities, Social Sciences, and Capstone under the 1996-98 Catalog.

## Undergraduate Courses

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*The course prefix for the following courses is INTD.*

- 1301** The Human Condition (4)  
Examines various attempts to find meaning in human existence from the perspectives of different disciplines and cultures.
- 3001** In Search of Self: The Mystery of Self and Other (4)  
Different conceptions of self and other; the influence of personal experiences, social environment and cultural tradition on our sense of self; the process of becoming oneself; problems of identity, alienation and authenticity; self as relation; self as narrative. Historical, contemporary, and cross-cultural readings from a variety of disciplines in the liberal arts and sciences.
- 3002** In Search of Self: Conflict and Value (4)  
Being with others; love and friendship; individualism and social identity; the tension between personal and social values; diversity and conflict; cultural relativism and the

foundation of values. Historical, contemporary, and cross-cultural readings drawn from a variety of disciplines in the liberal arts and sciences.

- 3003 In Search of Self: Truth and Reality (4)  
The quest for certitude; meaning and limits of knowledge; truth in myth, religion and science; the tyranny of technological thinking; beyond objectivism and subjectivism. Historical, contemporary, and cross-cultural readings drawn from a variety of disciplines in the liberal arts and sciences.



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## Women's Studies

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- ▶ [G.E. Requirement](#)
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### Department Information

Women's Studies Program  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4099  
Phone: (510) 885-3255

*Professors:* Carol Becker, Colleen V. Fong, Roxanne D. Ortiz, Barbara Paige, Yolanda Patterson, Helen Schulak, Vincenzo Traversa, Dvora Yanow

*Associate Professors:* Patricia Guthrie (Director)

*Lecturers:* Donna Barnes, Christopher Carrington

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### General Information

Women's Studies is intended to increase a student's knowledge, interest and appreciation of the needs, contributions, problems as aspirations of women-and also of the way that gender shapes the lives of both women and men. Women's Studies attempts to illuminate the subject matter of much of the rest of the curriculum from the double perspective of women and gender. The courses emphasize cultural diversity. The minor prepares students for jobs that specialize in serving women as consumers, as clients of government programs, as political actors, etc. The program also offers a Liberal Studies option in Women's Studies.

### Minor in Women's Studies

No more than six units in the major department, nor more than 8 units of lower division courses may be applied to the minor. No more than four units may be taken on a "CR/NC" basis. Altogether, 24 units are required. Students who wish to minor in Women's Studies should see the director as soon as possible.

- I. Core Courses (8-12 units)
  - WOST 1001 Perspectives on Women (4)
  - WOST 1002 Women in Contemporary Society (4)
  - WOST 3100 Seminar in Women's Studies (May be used twice)

in the minor with the consent of the Women's Studies Director provided the student has taken WOST 1001 or 1002.)

II. Electives in Women's Studies (8-12 units)

Two or three courses with special reference to the status and problems of women selected from:

ENGL 3650 Women and Literature (4); HIST 3124 Women in Ancient and Medieval Europe (4), 3571 Women in American History (4); MCOM 4500 Women in Media (4); POSC 3170 Public Policy and the Family (4), 3340 Women and Politics (4); PSYC 3410 Psychology of Women (4); SOC 3411 Sociology of Sex Roles (4); WOST 2000 Internship in Women's Agencies (4), 3400 Women and Careers (4), 3410 Women, War and Revolution (4), 3420 Minority Women in America (4), 3500 Portrayal of Women in the Movies (4), 3510 Women in Myth and Prehistory (4), 3520 Mothers, Daughters and Sons (4), 3530 Women and Their Bodies (4), 4900 Independent Study (1-4)

III. Elective in a Related Field

Four units should be selected with an advisor in Women's Studies from the following:

ENGL 3650; HIST 3124, 3571; MCOM 4500; POSC 3170; PSYC 3410; SOC 3411; WOST 2000, 3400, 3410, 3420, 3500, 3510, 3520, 3530, or 4900 if not used to complete requirement II above.

ANTH 3110 Primate Social Behavior (4), 3400 Social Anthropology (4), 3740 Cross-Cultural Studies in Child-Rearing (4), 3745 Human Sexuality: Anthropological Perspectives (4); BIOL 3060 Human Sexuality (4); E S 3000 Ethnic Writers (4) (when emphasis is on women writers); 3810 History of Minority Education (4); HDEV 1200 Introduction to Human Development (4), 4300 Adult Development (4), 4400 Adolescence (4), 4700 Childhood Development (4); HIST 3136 Women in the Renaissance (4), 4710 History and Trends in Nursing (4); KPE 1018 Self Defense-Women (4);

MLL 4465 A Theme in Spanish Literature across the Centuries (4) (when the theme focuses on women), 4495 A Single Movement, Country, or Theme: Spanish American Literature (4) (when the theme focuses on women); PHIL 3510 Human Rights and Social Justice (4); PSYC 3520 Interpersonal Processes (4); 3540 Groups and Organizations (4), 4420 Developmental Psychology (4), 4610 Psychology of Personality (4); SOC 3410 Sociology of the Family (4), 3415 Sociology of the African American Family (4), 3416 Sociology of the Mexican American Family (4), 3500 Social Psychology (4), 3501 Love and Friendship (4)

It is recommended that all students in the minor take at least one course that has a primary focus on minority women in America.

Other Elective Courses

Other elective courses (with appropriate content) may be approved by the Women's Studies Committee as they are developed by departments.

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## Women's Studies Option: Liberal Studies

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## G.E. Requirement

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## Undergraduate Courses

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Area VII, Credential Track or Area VI, Liberal Arts Track (24 units)

WOST 1001 Perspectives on Women (4) or WOST 1002 Women in Contemporary Society (4)

Five additional upper division courses chosen in consultation with a Women's Studies advisor (20 units)

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The courses satisfying the Cultural Groups/Women's Studies G.E. requirement are listed in the Class Schedule. Not all courses applicable to the Women's Studies Minor meet this G.E. requirement. Please check the list. Also, where WOST is listed in the G.E. program, it refers only to courses with that prefix, not to other courses applicable to the minor.

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*The course prefix for the following courses is WOST.*

- 1001** Perspectives on Women (4)  
The observed similarities and differences in the behavior of women and men as seen from the perspective of art, history, literature, philosophy, biology, and psychology. How these differences came about and what the future may hold. (Tent. A)
- 1002** Women in Contemporary Society (4)  
Women's work, family roles, political behavior, and legal status today. Controversial issues raised by the women's movement explored from the perspective of different racial/ethnic groups and different political/economic/social systems. (Tent. A)
- 2000** Internship in Women's Agencies (1-4)  
Work in community agencies and businesses serving women in fields of media, law, health, counseling, politics, etc. Repeatable for up to 8 units, 4 of which may be applied to minor. Prerequisites: 2.0 GPA; sophomore standing; instructor's approval. CR/NC grading only. (F, W, Sp)
- 2024** Philosophy and Women's Experience (4)  
History of philosophical reflection about and by women from the ancient world until the twentieth century. Ethical, epistemological, and aesthetic approaches to women's experience. Cross-listed with PHIL 2024.
- 3030** Immigrant and Refugee Women (4)  
(See E S 3030 for course description.)
- 3071** Writing Women's Lives: A Workshop (4)  
(See ENGL 3071 for course description.)
- 3100** Seminar in Women's Studies (4)

An interdisciplinary consideration of topics relevant to women, involving extensive writing assignments. May be repeated twice for credit with prior consent of Women's Studies Director. (W)

- 3400 Women and Careers (4)  
Women's experience in the workforce from a political, sociological and historical perspective. Comparison of structure and practices in the corporate structure to those in sports and the military. Obstacles women face, coping mechanisms and strategies for success. (Tent. F)
- 3410 Women, War, and Revolution (4)  
An interdisciplinary exploration of the role of women in wars and revolutions, past and present, using novels, poetry, autobiography, essays, interviews and scholarly studies. Women as civilian victims, war workers, peace activists and revolutionaries. (Y)
- 3420 Minority Women in America (4)  
Persistence and change in the minority female experience in America. Focus on prominent stereotypes of minority women, patterns of courtship and marriage, employment and career trends, birth control and sexual freedom, and feminism and racial solidarity. Cross-listed with E S 3420. (Tent. W)
- 3430 Women and Film (4)  
(See MCOM 3430 for course description.)
- 3500 Portrayal of Women in the Movies (4)  
Changing portrayal of women in English-language movies from 1900 to the present. Special emphasis on the persistence/breakdown of racial, ethnic, and gender stereotypes associated with the presentation of women.
- 3510 Women in Myth and Prehistory (4)  
The roles of mortal women and goddesses in prehistoric times and their contemporary relevance. A multidisciplinary course exploring anthropological, literary, mythological, and psychological themes. (Tent. F)
- 3520 Mothers, Daughters, and Sons (4)  
The relationship between mothers and their daughters and sons from a literary, psychological, and sociological point of view. Discussion of literature, film and art. (Tent. W)
- 3530 Women and Their Bodies (4)  
An interdisciplinary course focusing on women's experiences of their bodies, especially in the areas of health and sexuality. (Tent. F)
- 3540 Adultery and Literature (4)  
From Helen of Troy to television dramas, women and adultery continue to be a dominant feature, particularly in some literary and social aspects of past and present times. Exploration of the main aspects of this phenomenon.
- 3550 Women, Work, and Family Life (4)  
The relationship of work and family, the dilemmas women

face and strategies they use to negotiate work/family issue. The impact of economic/historical/sociological factors including gender, race, and class, all influencing work and family life.

[3938](#) Italian American Women through Literature (4)  
(See MLL 3938 for course description.)

[4900](#) Independent Study (1-4)

[4922](#) Women of the Classics (4)  
The contrast between the reality and the image of woman as protagonist and actor of literary genres and as persona in Classic Medieval, and early Renaissance literature, religion, and society. Lecture and discussion based on works of literature.



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## International Business

- ▶ [Program Information](#)
- ▶ [Program Description](#)
- ▶ [International Business Minor](#)

### Program Information

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School of Business and Economics  
Music and Business Bldg. 2571  
Phone (510) 885-3311

School of Arts, Letters, and Social Sciences  
Warren Hall (LM 69); Phone (510) 885-3390

*Professor:* Loretta Breuning (Management and Finance)

*Associate Professor:* Norman Bowen (Political Science)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

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The International Business minor is designed to provide you with a foundation in: (1) general business administration; (2) a specialty within business in finance, marketing, or personnel administration/industrial relations; (3) international business; and (4) international studies including languages and cultural and political background.

Coursework required for the minor has been combined into three modules: (A) Business Administration, (B) Specialty/International Business, and (C) International Studies. Students in Business Administration will have satisfied Module A as part of their Business Administration major and need only Modules B and C - a total of 40-48 units - to complete an International Business minor. Students in Arts, Letters, and Social Sciences with a major or minor in the Department of Modern Languages and Literatures, can easily have at least 24 units of Module C satisfied as part of their major or minor program, leaving them with Modules A and B, and possibly 8 units of C - a total of 40-48 units - to complete for an International Business minor.

### International Business Minor

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All three modules must be satisfied. Business Administration majors substituting the minor for an option must take all coursework in the minor for a letter grade. Note that units taken to satisfy the requirements of a minor can be applied to General

Education requirements wherever applicable as long as the units are outside the prefixes of the student's major. (Note: ACCT, CIS, FIN, MGMT, MKTG, and T C are prefixes in the Business Administration major.)

## Module A, Business Administration (24 units)

ACCT 2210 Accounting for Non-Business Majors (4), or ACCT 2251 Principles of Accounting I (4)

(Students intending to take only one course in Accounting should take ACCT 2210. Students intending to take further elective courses in Accounting or to attend graduate school in Economics, Law, or Business Administration should take ACCT 2251 in combination with completing ACCT 2252 as an elective outside the minor.)

ECON 2301 Principles of Microeconomics (4)

ECON 2302 Principles of Macroeconomics (4)

MGMT 3600 Theories of Management (4)

MGMT 4670 Multinational Business (4)

MKTG 3401 Introduction to Marketing Management (4)

## Module B, Specialty/International Business (16 units)

I. Complete one of the three following specialty areas (8 units):

### A. Finance

(Business Administration majors selecting the Finance specialty should choose two courses from FIN 3320, 4310, 4320 since they will be completing FIN 3300 as part of the upper division Business Administration core requirements.)

*Required (4 units):*

FIN 3300<sup>1</sup> Financial Management (4)

*Choice of one (4 units):*

FIN 3320<sup>1</sup> Financial Markets and Services (4), 4310<sup>1</sup> Investment Analysis (4), 4320<sup>1</sup> Problems in Corporate Finance (4)

### B. Marketing

*Required (4 units):*

MKTG 3410 Advertising Management (4) or MKTG 4420 Sales Management (4)

*Choice of one (4 units):*

MKTG 3445<sup>1</sup> Marketing Research (4), 4420 Sales Management (4), 4425 Sales Training (4)

### C. Human Resources Management (HRM)

(Business Administration majors selecting the HRM specialty should choose either MGMT 3610 and 4615 or MGMT 4680 and 4683 since they will be completing MGMT 3680 as part of the upper division Business Administration core requirements.)

*Choice of one set (8 units):*

1. MGMT 3610 Human Resources Management (4), and either 3680 Industrial Relations (4), or 4615 Compensation and Benefits (4);
2. MGMT 3680 Industrial Relations (4), and either 4680 Collective Bargaining and Labor Law (4), or 4683 Research in Labor Relations (4)

II. Select two courses from the following list, with one of the two courses being in the student's chosen specialty area (8 units):

FIN 4375 International Business Finance (4); ECON 4700 International Trade (4); ECON 4705 International Finance (4) (Finance specialty); MGMT 4675 International Human Resources Management (4) (HRM specialty); or MKTG 4470 International Marketing (4) (Marketing specialty)

### Module C, International Studies (24-32 units)

(All of the courses taken to satisfy items C II and C III in this module must have their content reaching primarily beyond the student's native culture and geographic region. A student's choices of language and area studies courses must relate to the same geographic region. Students whose native language is other than English may choose English as their second language, if their native language is determined by the committee administering the minor to have sufficient significance as a language of commerce. Students using English as their second language may make either U.S./Canada or Great Britain (not both) the focus of their C III coursework.)

I. Choice of one of the following (4 units):

HIST 3550 The History of U.S. Foreign Relations (4); INTS 3100 Global Systems (4); POSC 3520 International Relations (4); SOC 3431 Seminar in World Development (4); SPCH 4830 Intercultural Communication (4)

II. Intermediate level competency in a modern language including a course in business terminology if available (0-24 units)

(Competency must be certified by the Cal State Hayward Department of Modern Languages and Literatures. *Competency-certified* language units based on other than regular classroom transcript coursework or based on courses challenged for CR/NC will not count as part of the minimum 24 units required for Module C.)

III. A minimum of 4 units in area studies, e.g., Latin America, Middle East, Northern Europe, Southeast Asia, with sufficient additional units in C III to bring the total acceptable credit units for Module C to a minimum of 24 units (4-20 units). (Courses for C III must be approved by the assigned International Business Minor advisor.)

- *A maximum of 48 units outside a Business Administration or Modern Language major is required.*

# Footnotes

- 1 Has one or more prerequisites not included in the minor.



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## Youth Services Administration

- ▶ [Department Information](#)
- ▶ [Program Information](#)
- ▶ [Minor Requirements](#)
- ▶ [Certificate Program](#)

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### Department Information

Department of Recreation and Community Services  
School of Education  
Office: Art and Education Bldg. 246  
Phone: (510) 885-3043

*Professor: Susan E. Sunderland*

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Program Information

The programs in Youth Services Administration are intended to prepare students for roles of professional leadership in voluntary youth and human services organizations. These organizations include, but are not limited to: American Red Cross, Big Brothers/Big Sisters, Boys Clubs, Boy Scouts, Camp Fire, 4-H, Girls Clubs, Girl Scouts, Junior Achievement, YMCA, and YWCA.

Students pursuing a baccalaureate degree may have the program recorded on their records as a minor; those who have no degree objective can receive a certificate for completion of the program. A person may not receive both the minor and the certificate.

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### Minor Requirements

The minor consists of 36 units and must be part of a baccalaureate degree.

- I. Core Requirement (16 units)
  - REC 2200 Programming for Recreation and Community Services (4)
  - REC 3205 Volunteer Administration (4)
  - REC 3700 Community Organizations in the Urban Setting (4) or SOC 3700 Introduction to Social Services (4)

An appropriate internship course (4 units minimum):

- REC 2500 Program Fieldwork (4)
- SOC 4121 Field Practice (4)

- II. Management Requirement (4 units)

One of the following:

MGMT 3600 Theories of Management (4)  
PUAD 4830 Organization Theory and Human Behavior (4)  
REC 4000 The Administration of Leisure Services (4)

III. Communication Requirement (4 units + U.W.S.R.)

One of the following:

ENGL 3005 The Study of Language (4); SPCH 1000 Principles of Speech Communication (4), 1004 Interpersonal Communication (4), 3411 Argumentation and Debate (4), 3510 Small Group Communication (4), 4830 Intercultural Communication (4); Completion of the University Writing Skills Requirement (UWSR)

IV. Human Understanding Requirements (12 units)

One of the following (4 units):

E S 1001 Ethnic Experience in America I: Minorities (4), 1200 Introduction to Mexican American/Latino Studies (4), 1300 Introduction to Native American Studies (4), 2100 Blacks in the Americas (4), 3105 African American Identity (4), 3305 Contemporary Native American Life (4); SOC 3520 Sociology of Minority Groups (4)

One of the following (4 units):

E S 4290 Latino Politics and Public Policy (4); HIST 3563 The City in United States History: A Topical Survey (4); REC 1000 Nature and Scope of Recreation and Community Services (4); SOC 4450 Urban Sociology (4)

One of the following (4 units):

HDEV 4400 Adolescence (4); SOC 3410 Sociology of the Family (4)

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## Certificate Program

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The certificate program in Youth Services Administration consists of the same 36 units as the Youth Services Administration minor, but may be earned without a degree.



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## International Programs of the CSU

▶ [Courses](#)

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*Campus Representative, Academic Council on International Programs: Pablo Arreola (History)*

*Coordinator: Raymond P. Wallace (Director, Center for International Education)*

*Please consult the 2001-2002 online catalog for any changes that may occur.*

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University (CSU). Since its inception in 1963, the CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 12,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at a host university or special study center abroad. The International Programs serves the needs of students in over 100 designated academic majors. Affiliated with more than 70 recognized universities and institutions of higher education in 16 countries, the International Programs also offers a wide selection of study locales and learning environments.

### Australia

The University of Western Sydney

### Canada

The universities of the Province of Quebec including: Université de Montréal; Concordia University; Université Laval; McGill University; Université du Quebec system; Bishop's University, i.a.

### Denmark

Denmark's International Study Program (the international education affiliate of the University of Copenhagen)

### France

Institut des Etudes Françaises pour Étudiants Étrangers;

Université de Droit, d'Économie et des Sciences d'Aix-Marseille (Aix-en-Provence); Mission interuniversitaire de coordination des échanges franco-américains, Universités de Paris III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, and the Institute of Oriental Languages and Civilizations

Germany

Universität Tübingen and a number of institutions of higher education in the Federal State of Baden-Württemberg.

Israel

Tel Aviv University; The Hebrew University of Jerusalem

Italy

CSU Study Center (Florence); Università degli Studi di Firenze; La Accademia di Belle Arti Firenze

Japan

Waseda University (Tokyo)

Korea

Yonsei University (Seoul)

Mexico

Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Querétaro

New Zealand

Lincoln University (Christchurch); Massey University (Palmerston North)

Spain

Universidad Complutense de Madrid; Universidad de Granada

Sweden

Uppsala Universitet

Taiwan

National Chengchi University (Taipei)

United Kingdom

Bradford University; Bristol University; Hull University; Kingston University (Greater London); Sheffield University; University of Wales (Swansea)

Zimbabwe

University of Zimbabwe (Harare)

The International Programs pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be expended to support similar costs in California. Participants are responsible for all personal costs, such as transportation, room and board, living expenses, and home campus fees. Participants remain eligible to receive any form of financial aid (except work-study) for which they can individually qualify.

To qualify for admission to the International Programs, students must have upper division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may,



however, participate in the intensive language acquisition programs in France, Germany, and Mexico. California Community Colleges transfer students are eligible to apply directly from their community colleges. Students must also possess a current cumulative grade point average of 2.75 or 3.0, depending on the program for which they apply. Some programs also have language study and/or other coursework prerequisites.

Additional information and application materials may be obtained from:

Dr. Pablo Arreola  
Cal State Hayward Academic Council Representative  
Meiklejohn Hall 4037  
Phone: (510) 885-3240; E-mail: [parreola@csuhayward.edu](mailto:parreola@csuhayward.edu)  
or  
Center for International Education  
Student Services Hub 1325  
Phone: (510) 885-2880  
E-mail: [cie@csuhayward.edu](mailto:cie@csuhayward.edu)

You may also write to:

The California State University International Programs  
401 Golden Shore, Sixth Floor  
Long Beach, California 90802-4210

Visit us on the World Wide Web at:

<http://www.gateway.calstate.edu/csuienet/>

Applications for the academic year overseas must be submitted by the preceding February 1.

Graduate Study

Please see "May I Receive Credit for Courses Taken Elsewhere?" in the Graduate and Post-baccalaureate Studies chapter.

Other Programs

Please see "Study Abroad," in the General Information chapter.

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## Courses

Courses taken by students enrolled in the International Programs are shown on the Cal State Hayward transcripts in terms of Cal State Hayward catalog designations. In the absence of equivalents, courses are shown on Cal State Hayward transcripts as follows:

(Dept.) 2000 IP (course title) Lower Division  
(Dept.) 4000 IP (course title) Upper Division  
(Dept.) 6000 IP (course title) Graduate



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## Graduate Studies

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- ▶ [What fees do I pay when I register as a graduate or post-baccalaureate student?](#)
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- ▶ [How can I change my educational objective?](#)
- ▶ [How can I pursue two master's degrees at the same time?](#)
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- ▶ [How do I apply for graduation?](#)
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The master's degree is awarded for completion of a planned and integrated program of advanced study. It recognizes that a student has mastered a particular field sufficiently to pursue creative or applied projects in that field.

When you complete your graduate degree, you will have acquired a mastery of a particular area of knowledge; an ability to relate that knowledge to knowledge in other disciplines; an ability to deal systematically with the concepts, theory, and principles in new situations; an ability to formulate and deal with problems on an advanced level; methodological, technical, and communication skills essential for advanced study; an ability to undertake independent investigation and research; abilities characteristic of professional performance; and attitudes conducive to continuous intellectual and professional development.

Every master's degree program includes what is termed a capstone experience. This may include a thesis or its equivalent, a comprehensive examination, a specialized internship, a project, or case study report, a musical recital, gallery showing, or other comparable achievement. Your completion of the capstone experience demonstrates that you have successfully integrated the various elements of the graduate learning experience and have gained an in-depth knowledge of your discipline.

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## 2. What does it mean to be a graduate student?

As a graduate student, you are expected to demonstrate academic aptitude, achievement, and motivation well above that of undergraduate students. Cal State Hayward assumes that you possess the maturity, responsibility, and scholarly integrity appropriate to post-baccalaureate study. In addition, you are expected to have a broad base of knowledge and skills, usually represented by a bachelor's degree, as well as competence in your field, normally demonstrated by a substantial amount of relevant upper division study.

You are considered a Graduate Student at Cal State Hayward if you have been admitted to a specific master's degree program as a "Conditionally Classified" or "Classified" student, or to an advanced credential program which can be earned in conjunction with a master's degree. Basic teacher credential programs constitute a separate area of post-baccalaureate work, and students in these programs are defined as "Classified Post-baccalaureate" students.

You will find information regarding master's degrees and credentials under the appropriate department's listing in the graduate section of this catalog.

Special orientation programs for new graduate students are offered each quarter by Student Life Programs. These programs are offered during the day and in the evening and cover master's degree requirements, campus resources, registration, and preliminary academic advisement. You will be sent orientation

program information before your first quarter of enrollment.

### 3. How do I apply for admission to graduate or post-baccalaureate studies?

#### Admission to the University

All graduate and post-baccalaureate applicants (e.g., master's degree applicants, those seeking a credential or a post-baccalaureate credential, and those interested in taking courses for personal or professional growth) must file a complete graduate application as described in the graduate and post-baccalaureate admission booklet. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the \$55 nonrefundable application fee (payable by check or money order at the time the application is submitted). Since applicants for post-baccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternate campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. Applications are available in the 1st floor Lobby of Warren Hall, the Graduate Programs Office (WA 891), or from the Graduate Studies Office of any California State University campus. An electronic version of the California State University "Graduate and Postbaccalaureate Admission" application is available on the World Wide Web at: <http://www.csumentor.edu>, or you can send an e-mail request for an application to the Cal State Hayward Graduate Programs Office at: [gradprograms@csuhayward.edu](mailto:gradprograms@csuhayward.edu).

There are four requirements for admission to graduate and post-baccalaureate studies at Cal State Hayward and only in unusual circumstances does the university make exceptions to these criteria. (These requirements are in accordance with California State University regulations as well as Title 5, chapter 1, subchapter 3 of *The California Code of Regulations*.)

1. You must have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or have completed equivalent academic preparation as determined by appropriate campus authorities.
2. You must be in good academic standing at the last college or university you attended.
3. You must have earned a GPA of at least 2.5 (A=4.0) in the last 90 quarter (60 semester) units you attempted.
4. You must satisfactorily meet the professional, personal, scholastic, and other standards for graduate study (including qualifying examinations) established by your department. You may also be required to submit letters of recommendation. Refer to the appropriate graduate department chapter in this catalog for information.

### Admission to a Graduate Program.

Many graduate programs at Cal State Hayward also require that you complete a separate departmental application. These programs may require that you meet additional admission requirements above and beyond those required for admission to the university. Contact the department offering the program to obtain a departmental application form and information on admission requirements. Also see the chapter describing the graduate program in this catalog.

If you wish to pursue a graduate Special Major, contact the Office of Curriculum and Academic Programs (WA 859, 510-885-3716) as soon as possible, preferably before you submit your admission application. You cannot be admitted as a Special Major until your program of study has been approved.

For information on changing major, degree, or credential objectives after you have been admitted, see the section "How can I change my educational objective?" near the end of this chapter.

### Admission Categories

When you are admitted to the university, it will be in one of the following categories.

#### *Unclassified Post-baccalaureate*

If you are admitted as an "Unclassified Post-baccalaureate", you may take courses applicable to a graduate degree (even if you have not yet been admitted to the degree program) up to a maximum of 13 units, or you may enroll in courses for personal or professional growth.

As an "Unclassified Post-baccalaureate," you are not assured of admission to any master's degree or credential program and no more than 13 quarter units earned in this status may be applied to a master's degree. In addition, because of heavy enrollment pressure, some departments may restrict registration in some courses for students in this category. For these reasons, if a master's degree is your goal, you should seek admission to your chosen program as soon as possible. Admission as an "Unclassified Post-baccalaureate" student does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program.

#### *Classified Post-baccalaureate*

When you are admitted to a credential or post-baccalaureate certificate program you are placed in the "Classified Post-baccalaureate" category. In addition to the general requirements outlined above, you are required to satisfy any additional criteria established by your department.

For information on admission to the credential programs in teacher education, administrative services, special education, and pupil personnel services, contact the School of Education and Allied Studies. For information on admission to certificate programs, contact the appropriate department.

#### *Conditionally Classified Graduate*

If you are admitted conditionally to your master's degree program for one or more of the following reasons, you are placed in the

"Conditionally Classified Graduate" category:

1. You must complete specific courses (usually undergraduate).
2. Your program of study and thesis/project committee must be determined and approved.
3. You must pass certain qualifying examinations.
4. Your GPA does not quite meet expected standards, and you must demonstrate your ability to maintain a minimum 3.0 GPA.
5. You have not satisfied the University Writing Skills Requirement.

Departments have different policies regarding this status as well as differing lengths of time you may be allowed to remain conditionally classified. If you are admitted as a "Conditionally Classified Graduate" student, you should immediately check with your graduate advisor or department chair to determine what you must do to become fully classified.

#### *Classified Graduate*

If you are admitted to a specific master's degree program, you are placed in the "Classified Graduate" category. To be admitted as a "Classified Graduate," you must satisfy the general university admission requirements, all additional criteria established by your department, and the University Writing Skills Requirement.

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4.

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## What are the graduate admission requirements for international students?

The CSU must assess the academic preparation of international students. For this purpose, "international students" include those who hold U.S. visas as students, exchange visitors, and those in other non-immigrant classifications.

There are separate requirements and application filing dates for the admission of international students. Verification of your English proficiency (see below), financial resources, and academic performance are all important considerations in your admission. Academic records from international institutions must be on file at least eight weeks before registration for the first term. If they are not in English, they must be accompanied by certified English translations.

#### Application Filing Periods and Deadlines for International Students

The university has established deadlines to insure that all application materials will be processed in time to allow you to make the necessary passport, visa, travel and other arrangements to reach the campus before the start of the quarter of admission. Contact the campus Admissions and Records Information Counter (510/885-2624) for current deadlines applicable to international student admission.

Each applicant must have a declared educational objective (major) when the application is filed. Applications received that do not indicate a major or that indicate a major that is not offered at this university, that is impacted, or that is closed, will be returned without action. International students on F-1 student visas may be admitted as "Conditionally Classified Graduate," "Classified Graduate," or "Classified Post-baccalaureate" students. They may not be admitted as "Unclassified Post-baccalaureate" students.

#### English Proficiency Requirement for Post-baccalaureate and Graduate Applicants

All graduate and post-baccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English, must demonstrate competence in English. Proof of English proficiency can be met by submitting:

1. An official TOEFL score report of 550 (213 on the Computer-Based TOEFL) or above (required of applicants who do not possess a bachelor's degree from a post-secondary institution where English is the principal language of instruction), OR
2. An official transcript showing graduation with a bachelor's degree from a U.S. college or university, or an international college or university where English is the principal language of instruction, or an official letter from the college or university certifying that English was the language of instruction.

You must hold a degree obtained from a recognized university following completion of at least 16 years of scholastic work. You must also have the equivalent of a 2.50 grade point average, or higher, in your last two years of college-level courses.

#### Certification of International Students

If you are on a student visa, you are required by the Immigration Service to take a minimum 8 quarter units per quarter that will count towards your degree as a "Graduate" student or as a "Classified Post-baccalaureate" student. For additional information, see "What determines my post-baccalaureate classification at Cal State Hayward" later in this chapter. Enrollment in courses through the Division of Extended and Continuing Education (e.g., Open University) will not count for visa certification purposes.

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5.

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## What are the enrollment requirements for transitory (visiting) students?

Graduate students are eligible for Intrasystem Concurrent Enrollment, Intrasystem Visitor Enrollment, and Cross-Registration with the University of California, Berkeley and selected other East Bay colleges.

#### Intrasystem Concurrent Enrollment

If you are enrolled at any campus of The California State University, you may apply to attend another campus while concurrently enrolled at your home campus.

Eligibility Requirements: (1) You have completed at least one term



at the home campus as a matriculated student, or will be enrolled concurrently in such status, (2) you are, or have been, enrolled in an authorized graduate program at your home campus, and (3) you are in good standing at the last college attended.

#### Intrasystem Visitor Enrollment

If you are a student of any campus of The California State University, you may apply for admission as a visiting student at another campus for a period of one term.

Eligibility Requirements: (1) You have completed at least one term at the home campus as a matriculated student, (2) you are, or have been, enrolled in an authorized graduate program at the home campus, and (3) you are in good standing at the last college attended.

For additional information on Intrasystem Concurrent Enrollment and Intrasystem Visitor Enrollment, as well as information on the Cross-registration program with the University of California, Berkeley and selected other East Bay colleges, see "What Are the Enrollment Requirements for Transitory (Visiting) Students" in the Undergraduate Admission chapter.

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## 6. What fees do I pay when I register as a graduate or post-baccalaureate student?

The California State University is one of the most economical public universities in the nation. Resident students currently pay only 20% of the total cost of their education. The Board of Trustees implemented a five percent (5%) reduction in the State University Fee portion of the total fees for graduate students (includes post-baccalaureate students seeking teaching credentials) effective Fall 1999. (See below.) All fees are subject to revision by the Board of Trustees without notice. If revisions occur, they will be published in the *Class Schedule*. Legal residents of California are not charged tuition, only fees.

#### Schedule of Graduate and Post-baccalaureate Registration Fees, 2000-2002

Any student who holds a bachelor's degree, which includes students pursuing a second bachelor's degree, and all categories of graduate and post-baccalaureate students pay the following fees when registering at Cal State Hayward. (Legal residents of California are not charged tuition.)

#### **Graduate/Post-baccalaureate Registration Fees<sup>1</sup>**

	<i>0 to 6.0 Units</i>	<i>6.1 or More Units</i>
State University Fee	\$292	\$502
Student Body Fee	15	15
Facilities Fee	2	2



University Union Fee	33	33
Instructionally Related Activities Fee	14	14
Health Services Fee	35	35
Photo I.D. (quarterly fee)	1	1
 Total	 \$392	 \$602

For information on how to pay fees, as well as information on other fees (e.g., library fees, individual course fees, test fees, etc.), see the [Fees and Expenses chapter](#) in this catalog. The Fees and Expenses chapter also has information on the policies governing debts owed to CSUH.

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## 7. Can I use university research facilities after I have taken all my required units?

If you have completed all the units required for your master's degree, but are still working on your thesis, project, or studying for a comprehensive exam, you can have continued access to university facilities by registering for GS X6990 Graduate Study Completion, through the Division of Extended and Continuing Education. This is a 1-unit course with a fee of \$32. The other alternative is to register for "0" units through the regular registration process at a cost of approximately \$392.00. Registering for GS X6990 will provide you with a valid Student ID card, the ability to check books out of the library, remote access to computerized databases in the library, use of computer labs on campus, the ability to continue to work on projects in science labs, eligibility to purchase a parking permit, and access to other benefits enjoyed by regularly registered students.

You can register by picking up a "GS X6990 Graduate Study Completion Form" in your department or in the Extended and Continuing Education Office in WA 851.

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## 8. What is Nonresident Tuition?

Nonresident Tuition (in addition to other fees charged to all students) per unit or fraction thereof is \$164.

(*Note:* The total amount of nonresident tuition charged is based on the number of units taken, including those in excess of fifteen. Fees are subject to change without advance notice.)

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9.

## What are the requirements for a master's degree?

You must complete the five requirements listed below:

1. Fulfill the University Writing Skills Requirement;
2. Be Advanced to Candidacy;
3. Complete at least 45 quarter units applicable to your degree (48 in Public Administration, 72 in Counseling).
  - All units must be earned within the five calendar years immediately preceding the receipt of your degree. (Outdated units may be accepted for one additional year with the approval of your department and the graduate dean. If not completed in the sixth year, currency in the subject matter of the outdated courses must be demonstrated. Courses older than seven years cannot be applied to the degree.)
  - No more than 13 units can be completed when not in residence in your program (e.g., while at other schools, while an undergraduate with permission to take graduate courses, while pursuing an additional baccalaureate degree in "Unclassified Post-baccalaureate" status, while enrolled in another graduate degree program, or while enrolled in Extension courses-including Open University courses)
  - At least 1/2 of the units in your program must be 6000-level
  - No lower division units can be counted
  - No more than 9 units of thesis and/or project work can be counted
  - No more than 15 units may be in CR/NC courses (16 in Public Administration, 24 in Counseling)
4. Complete a program of study approved by your department, which must include a thesis, project, or comprehensive examination; and
5. Earn a 3.0 grade point average in all units counted towards your degree.

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10.

## What is the University Writing Skills requirement (UWSR)?

You must demonstrate writing skills competency by satisfying the University Writing Skills requirement (UWSR). This can be done in one of five ways:

1. By satisfying the UWSR as an undergraduate at Cal State Hayward (see "What is the University Writing Skills requirement?" in the Baccalaureate Degree Requirements chapter).

2. By having previously satisfied the Graduation Writing Assessment Requirement at another CSU campus. (Cal State Hayward will accept certification of completion if the entire requirement, as specified by that campus, was satisfied.)
3. By passing the Writing Skills Test (WST). If you have not satisfied the UWSR before you begin your graduate work, you must take the test by the end of your first quarter in "Conditionally Classified Graduate" status. If you do not take the test when required, you will have a hold placed on your record and may be dropped from your courses.
4. By receiving an essay score of 4.5 or higher on the GMAT or an essay score of 53 or higher on the CBEST.
5. After failing the WST, by passing a second-tier, upper division writing course with a grade of "C" or better (see below).

The University Writing Skills requirement must be satisfied before you can be admitted as a "Classified Graduate" student and, consequently, before you can be Advanced to Candidacy and receive a degree.

As soon as you have been admitted to a graduate program, you will be required to take the Writing Skills Test (WST) if you did not satisfy the UWSR as an undergraduate or by the GMAT or CBEST. Contact Assessment and Testing for information. When you pass the test, you have satisfied the writing skills proficiency requirement for graduation.

The WST includes both an objective portion (testing your knowledge of sentence structure, organization, grammar, punctuation, strategy, and style) and an analytic essay portion (requiring you to demonstrate that you can think critically and analyze a short text). You pass the WST and satisfy the University Writing Skills requirement with: (a) an essay score of 9-12, (b) an essay score of 8 and an objective score of 61-80, (c) an essay score of 7 and an objective score of 63-80, (d) an essay score of 6 and an objective score of 65-80.

If you fail the WST with an essay score of 6 or below, you must complete two writing courses: (1) a first-tier course, ENGL 3000 or 3001 (for ESL students), in the quarter subsequent to failing the test, (2) an approved second-tier writing course, normally in the school of your major, which addresses rhetorical approaches and strategies and is taken in the quarter after passing ENGL 3000 or 3001. [A list of approved second-tier writing courses appears in the Class Schedule each quarter. The currently approved courses are: ENGL 3003 Discursive Writing, MKTG 3495 Business Communication, MLL 3119 French Literature in English Translation, MLL 3309 Studies in Italian Literature (in English), SCI 3010 Writing in Sciences, SCI 3020 Writing in Math/Computer Science. To satisfy the University Writing Skills Requirement, you must pass the second-tier writing class with a grade of "C" or better.

If you fail the WST with an essay score of 7 or 8, you must either: (a) take an approved second-tier writing course in the subsequent quarter or, (b) take the WST at its next offering. You will satisfy

the University Writing Skills Requirement if you pass the WST on the second attempt or pass the second-tier writing course with a grade of "C" or better. If you fail the WST on the second attempt, you will not be permitted to take it again and must pass a second-tier writing course with a grade of "C" or better to satisfy the University Writing Skills Requirement. A first-tier course will also be required if your second WST essay score is 6 or below. (If you fail the second-tier course, you may take another second-tier writing course to attempt to satisfy the UWSR.)

If you fail the WST with an essay score of 6, 7, or 8 and receive a grade of "C-," "D+," or "D" in a second-tier writing course, you may appeal to a hearing panel of the Associate Vice President, Curriculum and Academic Programs for a waiver of the University Writing Skills Requirement. Contact the Office of Curriculum and Academic Programs for information (WA 859; Tel. 510-885-3718). If a waiver is granted, your permanent record will note that you were allowed to graduate without having satisfied the University Writing Skills requirement. If you do not satisfy the requirement and do not have a waiver approved, you will not be allowed to graduate.

If you have a verified disability which affects your ability to satisfy this requirement, there is a special appeal process facilitated by the Student Disability Resource Center. Contact that office for details.

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11.

## What is "Candidacy"?

"Candidacy" is a status which recognizes completion of substantial progress towards your degree. You are eligible for Advancement to Candidacy when you:

1. are a "Classified Graduate" student in good standing;
2. have completed at least 12 quarter units of 6000-level coursework with a minimum 3.0 GPA;
3. have designed a formal program of study approved by your graduate advisor;
4. have fulfilled the University Writing Skills Requirement;
5. have completed other department prerequisites for advancement; and
6. are recommended for Advancement to Candidacy by your advisor (subject to approval by your department's graduate coordinator).

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12.

## What are the characteristics of graduate courses?

You will find that graduate courses involve more complex ideas,

materials, techniques, and problems than undergraduate courses, and they demand in-depth research, analysis, and creative thinking.

All graduate studies share the following characteristics:

1. Identification and investigation of theories and principles;
2. Application of theories to new ideas, problems, and materials;
3. Extensive use of bibliographic and other resource materials, with emphasis on primary data sources.

In addition, you can expect each of the following learning formats used in graduate studies to be organized in a similar manner.

Lecture-discussion courses combine lectures with group discussion, and are based on specialized studies and research. These courses consider relevant issues, examine different perspectives, include problem analysis and research, and require a high level of participation on your part. The variety of resources used provide a range and depth beyond that obtainable through a single text. You will be expected to demonstrate your ability to synthesize and analyze material in your written work and in examinations which will go beyond mere recall of factual information.

Seminars are organized around a series of significant, related issues and their focus may vary from quarter to quarter. Occasional lectures are limited to framing and clarifying issues, while the bulk of the course is devoted to the development, presentation, and critical examination of material, ideas, and conclusions by you and other students. Seminars are among the most exciting and stimulating learning formats in graduate studies.

Laboratory coursework focuses on data gathering, analysis, and interpretation. Specialized facilities and equipment are used. You are expected to pursue your research with relative independence.

Field work and clinical practice require that you possess a high level of theoretical competence and a mastery of the basic skills necessary to perform professional duties with minimal direction. You will have opportunities to apply your knowledge, exercise independent judgment, and assume responsibility for determining and implementing procedures. You are expected to report your experience in a way that indicates its significance, explains the rationale behind your major decisions, and evaluates its effectiveness.

An independent study is jointly designed by you and your professor with a specific objective related to your graduate program. It requires demonstration of competence through scholarly presentation of the results of your work during the course of the study and at its conclusion. Graduate Independent Study (6900) is restricted to students with at least a 3.00 GPA in the field or department in which the Independent Study is to be taken.

## What are the different kinds of capstone experiences?

The capstone experience of your graduate program will be the successful completion of a thesis, project, or comprehensive examination. The quality of your work—including quality of expression—is the major consideration in judging the success of this degree component.

### Thesis

A thesis is the written product of a systematic study of a significant issue. In the thesis, you are expected to identify the issue, state your major assumptions, explain the significance of your project, detail your sources for and methods of obtaining data, provide analysis of the data, and offer conclusions. Your thesis should demonstrate original critical and independent thinking, appropriate organization and format, and thorough documentation. If your research involves human subjects, your protocols must be approved by the Institutional Review Board (see "Research with Human Subjects" in the Appendix).

Cal State Hayward offers two kinds of master's degree theses, University Thesis (numbered 6910) and Departmental Thesis (numbered 6909). Most criteria are the same for both.

- You must be a graduate student (i.e., admitted to a master's degree program) to enroll in a thesis course; your department may add additional requirements.
- Your thesis work will be supervised by a departmental committee which must include at least one Cal State Hayward faculty member.
- You may not receive credit for more units of thesis work than allowed by your degree program.
- Each quarter you will receive a grade of "SP" (Satisfactory Progress) for units earned in 6909 or 6910 until you complete your thesis; you will then be given a final grade for the entire course. No "SP" units will be counted towards your degree or in calculating your GPA. If your thesis is not approved within five years of your initial enrollment in a thesis course, the "SP" grade(s) will be changed to "F" or "NC" (depending on the grading pattern of the course).
- Normally you will be required to present an oral defense of your thesis.

There are also a few significant differences between the two kinds of theses.

- You may not earn more than 9 units for University Thesis, while the maximum for Departmental Thesis is 5 units. Several departments have lower unit requirements, so check the program description in this catalog.
- The format of a University Thesis is established by the Graduate Dean. Since these works are expected to serve as resources for future research, the format is formal, and the theses are bound

and placed in the Cal State Hayward Library. A Departmental Thesis, on the other hand, is usually not as formal. Its standards and format are determined by the department, and the thesis is retained by the department. For details regarding the approval process, format and timeline for a University Thesis, contact the Graduate Programs Office (WA 891) at 510-885-3286. For information about a Department Thesis, contact your department advisor or graduate coordinator.

### Project

A project is a significant piece of non-written work in either a fine or applied art or a professional field. Your project should provide evidence of originality, independent thinking, and appropriate form and organization. You are required to describe your project in a written abstract that addresses the project's significance, objectives, methodology, and conclusions. In some cases, you may be required to present an oral defense.

Specific criteria for a Project (numbered 6899) are the same as those for a Departmental Thesis with a few exceptions.

- An "SP" grade in a project course will become an "F" (no "NC" option) after one year if your project is not completed.
- While your project need not be considered a research resource, it should be of a caliber to constitute a valid terminal activity in a master's degree program and will be permitted only when a thesis is not appropriate.

If you change from a program requiring a thesis to one requiring a project (or vice versa), you may count a combined maximum of 9 units for 6909, 6910, and 6899 towards your degree.

### Comprehensive Examination

A comprehensive examination is intended to assess your mastery of relevant subject matter, your ability to analyze and integrate the knowledge of your field, your skill in critical and independent thinking, and your use of appropriate organization and accurate documentation. A record of your examination-questions and responses-will be retained by your department. Some departments grant unit credit for exam preparation while others do not.

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14.

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## If I choose to write a University Thesis, what are the steps I must follow?

You should consult your graduate advisor for information on your department's guidelines, for thesis topics, and for the procedures to establish a thesis committee. Also, obtain a copy of the University Thesis Writing Guide from the Graduate Programs Office (WA 891). This is available at no cost, and contains detailed instructions regarding the structural elements of the thesis, its format, binding information, deadlines, numbers of copies, and other useful information. Once your committee is established and you have selected your topic, enroll in your department's University Thesis (6910) course.

Your next step is to obtain the necessary approvals of your topic and proposed research methodology, and, ultimately, of your thesis itself. These are obtained in the following sequence:

- Approval of your topic by the chair of your University Thesis Committee;
- Approval of your research protocol by the Institutional Review Board (IRB) if your research will involve human subjects, to determine whether subjects will be at risk and to protect their rights and welfare;
- Approval of the preliminary draft of your thesis by the chair of your thesis committee;
- Approval of the draft by the department chair (if this is required by your department).

Once your draft is completed and approved, you will begin preparing your manuscript for binding according to the requirements in the University Thesis Writing Guide. All students must adhere to these standards, so read the guide before beginning this phase of your work. It literally may prevent your thesis from being rejected, at great cost of time and funds.

Your final draft must be submitted to the Graduate Programs Office which will review your thesis format. Once the Graduate Programs Office approves the format, give the original copy of your thesis to your committee chair for final review and signature, and then give copies to the other members of your committee for their signatures. An oral defense is normally required prior to committee approval; check with your department.

Your final step is to provide the appropriate number of copies of your thesis to the Graduate Programs Office for binding and distribution. The cost is available from the Graduate Programs Office.

The coordination of the preceding steps is quite important. The Graduate Programs Office establishes deadlines for the last few steps (which are strictly enforced) to insure that each is completed appropriately without delaying your graduation. Please contact the Graduate Programs Office early in your thesis work to obtain the deadline information.

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15.

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## What are the policies which affect my registration, grades and academic status?

### Registration

As a graduate student, you must follow the same registration policies and procedures as undergraduate students. (See the Registration chapter for details.) You should be aware that registration in 6000-level courses is governed by the following priorities:



1. Students Advanced to Candidacy in the department offering the course;
2. Students Advanced to Candidacy in other departments;
3. "Classified Graduate" students in the department offering the course;
4. "Classified Graduate" students in other departments;
5. "Conditionally Classified" graduate students in the department offering the course;
6. "Conditionally Classified" graduate students in other departments;
7. Undergraduate students majoring in the department offering the course;
8. All other students.

Registration procedures for Thesis or Project courses is slightly different. You must complete a "Special Registration Petition" for each quarter you wish to enroll in one of these courses. Submit it to your department office. From there it will be forwarded to the Records Office. This must be done no later than the last day of the Add period. You are responsible for checking on the progress of this procedure.

*Prerequisites:* See "What information do I need to register for and enroll in classes?" in the Registration chapter.

#### Grading

It is an integral part of the teaching responsibility of the faculty to provide careful evaluation and timely assignment of an appropriate grade to each enrolled student. There is a presumption that grades assigned are correct. It is the responsibility of anyone appealing an assigned grade to demonstrate otherwise. In the absence of compelling reasons, such as instructor or clerical error, prejudice, or capriciousness, the grade determined by the instructor of record will be considered final. Final course grades must be submitted by the faculty to the Records Office no later than noon of the second academic day after the end of the Final Examination Period.

For purposes of correcting an error, an instructor may change a grade with approval of his/her department chair and school dean. No grade may be changed once your graduation has been recorded. The administrative symbol for withdrawal cannot be assigned by a faculty member. See "What changes can I make in my enrollment status?" in the Registration chapter for a description of withdrawal policies and procedures.

You will receive a quarterly grade report, usually about two weeks after the end of final examinations.

The grading symbols used for graduate courses are as follows:

<i>Academic Grades</i>	<i>Standard of Work Represented</i>	<i>Grade (Quality) Points</i>
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A	Superior	4.0
A-	Superior	3.7
B+	Adequate	3.3
B	Adequate	3.0
B-	Adequate <sup>2</sup>	2.7
C+	Substandard	2.3
C	Substandard	2.0
C-	Substandard	1.7
D+	Unacceptable	1.3
D	Unacceptable	1.0
F	Failing	0
CR <sup>2</sup>	Credit	0
NC <sup>2</sup>	No Credit	0

<i>Administrative Grading Symbols<sup>2</sup></i>	<i>Definitions</i>	<i>Grade (Quality) Points Earned</i>
SP	Satisfactory Progress	0.0
I	Incomplete (Authorized)	0.0
U <sup>2</sup>	Unauthorized Incomplete	0.0
RD	Report Delayed	0.0
W	Withdrawal	0.0
AU	Audit	0.0

Academic Grades: The typical grading pattern for courses you will take is "A-F"; the use of "+" and "-" is at the discretion of each instructor. Some departments do not allow "C" or "D" grades to be applied towards a master's degree; check with your department about its policy. You may use courses taken on a "CR/NC" basis to meet your degree requirements only if the courses are offered exclusively on that basis. Typically, these courses are restricted to fieldwork and internships and a "CR" grade indicates that your work is at least of "B-" quality. In no case, however, may more than 15 units of your master's degree work be earned with "CR" grades in the standard 45-unit master's degree program. In postbaccalaureate (5000-level) courses, a "CR" grade also indicates that your work is at least of "B-" quality.

Administrative Grades: You may also receive the administrative grades indicated above. It is important that you observe the differences among them. As noted earlier in the section "What are the different kinds of capstone experiences?," the Satisfactory Progress grade ("SP") is used in courses when assigned work extends beyond one quarter. It indicates that work is in progress and has been evaluated and found satisfactory to date, but that assignment of a precise grade must await completion of additional work. You cannot enroll in more units of SP-graded courses than are applicable to your degree. An "SP" in a thesis course becomes an "F" or an "NC" if the work is not completed in five years; an "SP" grade in any other course becomes an "F" or an "NC" after one year.

The Incomplete (Authorized) grade ("I") is used to indicate that a portion of required coursework has not been completed and evaluated in the prescribed time period due to unforeseen but fully justified reasons, and your instructor believes it likely that you will earn credit for the course upon completion of that work. However, you may not receive an "I" when completion of the coursework requires that you retake a major portion of the course when it is next offered. An "I" must normally be made up within one calendar year immediately following the end of the term during which it was assigned. This limitation prevails whether or not you maintain continuous enrollment. If you receive an "I" and do not complete the work within the period specified by your instructor (in no case to exceed one year), the grade will be changed to an "F" or "NC," depending on the grading pattern in which you enrolled. (An extension may be granted by the department if military service or serious health or personal problems prevent you from completing the work, or if the professor is away on leave during the quarter of expiration. Such extensions are for one quarter only, up to a maximum of two extensions, and must be approved by the instructor and the department chair. Written notification of the extension must be sent to the Records Office.)

An Unauthorized Incomplete ("U") means that you did not officially withdraw from a course, and you did not complete enough work for the instructor to evaluate your achievement. For purposes of GPA calculations, a "U" is equivalent to an "F" and cannot be removed by completing additional work.

The Report Delayed grade ("RD") is rarely used, and will be assigned by the Registrar only if grade reports are delayed by circumstances beyond your control, such as the illness of an instructor.

You may drop a course at any time during the first two weeks of instruction. (For Drop procedures, see the Class Schedule.) No mention of a dropped course appears on your permanent record. After the first two weeks of the quarter, deletion of a course is considered a Withdrawal, and a "W" grade will be assigned if the reason for your request to withdraw from the course is due to circumstances beyond your control and you have obtained the appropriate approvals. This grade carries no connotation as to the quality of your work and is not included in GPA calculations. Under extreme circumstances you may decide that you must withdraw from all your courses. If you believe this may be necessary, contact your graduate advisor or department chair as soon as possible for advice on the appropriate procedures to follow. (See "What changes can I make in my enrollment status?" in the Registration chapter and "What are the administrative grading symbols, and what do they signify?" in the undergraduate Grading and Academic Standards chapter for additional information on withdrawal procedures.)

Grade Point Average (GPA): Your grade point average (GPA) is calculated by dividing the total number of quality hours (units you have attempted, excluding CR/NC courses) into the number of grade (quality) points earned. If you repeat a course, your department has the discretion not to include your earlier attempt in your GPA calculation. The approval not to include the earlier attempt in your degree program must be submitted by your

department to the Graduation Evaluations Office. This may be done at any time while you are in the degree program, but may not be done after you have been awarded your degree. You may also ask your department to exclude a course from your master's degree program. Follow the same procedure outlined above.

**Final Examinations:** You can expect your instructors to provide you with comprehensive course requirement information for each course at the beginning of the quarter. This will include the work that is expected of you and the basis on which you will be evaluated. Most courses have graded assignments throughout the quarter and a final examination or paper. The university's policy states that final examinations must be given only at the times published in the Class Schedule. The purpose of this policy is to insure fairness for all students. Exceptions are, therefore, rare and must be approved in writing by the department chair. Contact your department chair or school dean if you believe this policy is not being followed. If you are in a course which has a separate laboratory, activity or discussion section, your instructor is permitted to give a separate final examination-but only for that section-during the last regularly scheduled meeting of the section.

**Probation and Disqualification:** There are two types of probation and disqualification: 1) academic, and 2) administrative. If you are an "Unclassified Post-baccalaureate" student, not in a master's degree or credential program, you are subject to the same probation and disqualification standards as a senior undergraduate student. (See the Undergraduate Grading and Academic Standards chapter.) If you are a "Classified Graduate" or "Conditionally Classified Graduate" student, the following policies apply:

*Academic Probation*

You must maintain a 3.00 GPA in your degree coursework to remain in good standing. If your GPA falls below 3.00, you will be placed on Academic Probation. Should this happen, you must consult with your graduate advisor prior to registering for the next quarter. You are also encouraged to take advantage of various university services (such as advising and tutoring) designed to assist you. You may, however, be academically disqualified by the Dean of Graduate Programs if you do not earn a 3.00 GPA during any quarter while on probation, or if, at any time, you do not meet the academic criteria of your department.

*Administrative Probation*

You may be placed on Administrative Probation if you:

- withdraw from all courses for two consecutive quarters or any three quarters;
- do not progress towards your degree while enrolled (such as earning a number of "NC" grades);
- do not comply with appropriate academic requirements (such as taking the Writing Skills Test); or
- earn only "U," "F," and/or "NC" grades for two consecutive, or any three quarters.

*Administrative Disqualification*

You will be administratively disqualified if you:

- do not meet the conditions for removal of your Administrative Probation;
- are placed on Administrative Probation twice for the same reason;
- are placed on Academic Probation while on Administrative Probation; or
- earn only "U," "F," and/or "NC" grades for three consecutive, or any four quarters.

If you are disqualified, either academically or administratively, you may apply for reinstatement to your graduate program by completing a "Petition for Graduate Reinstatement." Your petition must be approved by your Graduate Coordinator or the department chair. Reinstatement will be approved only if you are able to provide compelling evidence of your ability to complete your degree. Then it will be forwarded for consideration to the Dean of Graduate Programs who has final authority to approve reinstatement. If you are disqualified a second time, reinstatement will normally not be considered.

#### *Resolution of Disputes*

If you believe you have received an inappropriate grade or have been treated in an unfair or discriminatory way and you cannot resolve the matter informally with the instructor and department chair, you should present your case to the Presidential appointee to the Fairness Committee, the Assistant Vice President, Instructional Services. The Fairness Committee may authorize a change of grade under certain circumstances (see the undergraduate Grading and Academic Standards chapter). If the instructor of record does not assign a grade to an individual student, the appropriate failing grade for nonattendance (U or NC) is automatically recorded by the Records Office. You may petition the Fairness Committee if you believe the instructor should have assigned an academic grade. If the instructor of record is unable to assign course grades, the Fairness Committee is authorized to insure that other qualified faculty do assign grades. For additional information, see "What recourse do I have if I believe I have received a grade that is inappropriate?" in the undergraduate Grading and Academic Standards chapter.

#### Honors

Because graduate students constitute a select group whose members do very well in their programs, there is no academic honors at graduation or dean's list recognition as is the case for undergraduates.

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16.

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## What determines my post-baccalaureate classification at Cal State Hayward?

You will be classified a full- or part-time student according to the following criteria:

- Full-time enrollment for a "Graduate" or "Classified Post-baccalaureate" student is 8 or more units. You are considered to be a part-time student if you are enrolled for fewer than 8 units.
- Full-time enrollment for an "Unclassified Post-baccalaureate" student (i.e., not enrolled in a master's degree program), is 12 or more units.
- If you are receiving financial aid or benefits from other programs (e.g., Veterans Administration or State Department of Vocational Rehabilitation), you may be subject to specific enrollment requirements to maintain your eligibility. You should check directly with the source of your benefits.
- If you are an international student on a non-immigrant visa, the U.S. Immigration and Naturalization Service (INS) requires that you pursue a full-time course of study in a specific program. You are expected to complete 8 units per quarter and 24 per year.

Also see "Academic Load" in the Registration chapter.

17.

## May I receive credit for courses taken elsewhere?

If you have earned credit at another institution which you wish to apply to your graduate program at Cal State Hayward, you may transfer up to 13 quarter units. (However, this number may be reduced if you have other non-residence credit you wish to apply to your degree.) To request transfer credit:

1. you must have taken the course after earning a bachelor's degree;
2. your department must accept the course(s) as relevant to your degree program;
3. the institution at which you took the course must customarily grant the level of credit for the course (graduate or upper division) that you wish to receive for it at Cal State Hayward;
4. you must have taken the course within five calendar years immediately preceding the receipt of your degree.

You also may apply units earned through the CSU International Programs which meet the criteria outlined above. No more than half of the 45 units required for your degree may be earned in this way. If you also apply transfer credits to your degree, the total of the transfer and International Program units may not exceed one-half of those required for your degree. If you complete your capstone experience (thesis, project, or comprehensive examination) while in the International Programs, this must be done under the supervision of at least one Cal State Hayward faculty member.

Also see "Credit for Non-Collegiate Instruction" in the Registration

chapter.

In general, Cal State Hayward does not allow the use of credit-by-examination from challenged courses for master's degree requirements. Exceptions may be established by individual departments and must be noted in the degree description in the *University Catalog*. They are governed by the following policies:

- you must pass the exam challenging the course with a grade of "B-" or better;
- no more than 13 units of credit-by-examination may be applied to your degree; and
- challenged courses may not be credited to the residency requirement of your degree.

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18.

## How can I change my educational objective?

If you are a continuing post-baccalaureate student and wish to change your degree objective or credential program, or you wish to change from "Unclassified" status to a graduate degree or credential program, you must complete a "Change of Graduate Objective Application" form and a "Change of Graduate Objective Transmittal" form and submit both forms to Admissions and Records. The forms are available from, and shall be turned in to, either the Admissions and Records Information Counter in the Lobby of Warren Hall or the Academic Services Center at the Contra Costa campus.

The Admissions Office will complete the academic certification section of the "Transmittal" form and will forward all documents to your proposed new department which makes the admission decision. Your department will notify you and Admissions of the decision. Changes made after the second week of the quarter will not take effect until the following quarter

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19.

## How can I pursue two master's degrees at the same time?

If you wish to pursue two master's degrees at the same time, you must meet the following criteria:

1. decide which master's will be your first degree and which will be your second degree;
2. apply and be admitted to the university and your first master's degree;
3. pick up a "Dual Master's Degrees Request Form" and a "Change of Graduate Objective Form" from the Office of Graduate Programs; fill out the information requested, including any required approval signatures; and return the "Dual Master's

Degrees Form" to Graduate Programs and the "Change of Graduate Objective Form" to the Admissions and Records Information Counter in first floor lobby in Warren Hall;

4. fulfill all prerequisites and requirements for your first degree;
5. fulfill all prerequisites and requirements for your second degree (up to 13 units from your first degree may be applied to your second degree if accepted by your second degree program);
6. earn all units for each master's degree within the five calendar years immediately preceding the receipt of each degree.

If your second degree is in the same field as your first degree (e.g. business administration), the second degree must be in a different option and all 45 or more units must be different. It is not necessary to complete the prerequisites and requirements for the first degree before you begin work on the second degree, however, you may be Advanced to Candidacy for your second degree only after you have been awarded your first degree. You may not receive both master's degrees at the same commencement ceremony (i.e., in the same academic year).

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20.

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## How can I pursue a second master's degree if I already have a master's?

If you already have a master's degree and want to pursue a second master's degree, you must meet the following criteria:

1. apply and gain admission to the department offering the second master's degree program;
2. fulfill all prerequisites and requirements for the second degree;
3. complete at least 32 units (35 in Public Administration, 59 in Counseling) in your second degree. Up to 13 units from your first degree may be applied to your second degree if accepted by your second degree program;
4. earn all units for your second master's degree within the five calendar years immediately preceding the receipt of the degree.

If your second degree is in the same field as your first degree (e.g. business administration), the second degree must be in a different option and all 45 or more units must be different.

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21.

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## How do I apply for graduation?

See ["How do I apply for graduation?"](#) in the B.A./B.S. Degree Requirements chapter.

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## Who can answer my questions?

If you have any questions about your graduate work at Cal State Hayward-information either addressed or not addressed in this section-do not hesitate to consult your advisor, your department's graduate coordinator or chair, the Dean of Graduate Programs, or the Associate Vice President of Curriculum and Academic Programs. See the Campus Directory in this catalog for more information.

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## Footnotes

- <sup>1</sup>Fee adjustments subject to the policies established in Executive Order 661.
- <sup>2</sup>Note that a "B-" grade, though described as "adequate," generates fewer than 3.0 grade (quality) points and must be balanced by a grade of "B+" or higher.
- <sup>3</sup>These grades cannot be selected by students. They are only available in graduate courses offered exclusively on a "Credit/No Credit" basis.
- <sup>4</sup>For definitions of administrative grades, see "What are the administrative grading symbols, and what do they signify?" in the undergraduate Grading and Academic Standards chapter.
- <sup>5</sup>This is the only administrative grade used in calculating the GPA. It is equivalent to an "F."



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## Graduate Programs

## Graduate Programs

- ▶ [Graduate Programs](#)
- ▶ [Academic Organization](#)

Cal State Hayward offers master's degrees in 28 fields (in addition to the Special Major). Other programs lead to teaching, specialist, pupil personnel services, and administrative services credentials; and to certificates.

### Graduate Degrees and Options

Anthropology, M.A.  
Biological Science, M.S.  
Business Administration, M.B.A.  
    Accounting Option  
    Business Economics Option  
    Computer Information Systems Option  
    Executive Option  
    Finance Option  
    Human Resources Management Option  
    International Business Option  
    Management Sciences Option  
    Marketing Management Option  
    New Ventures-Small Business Management Option  
    Operations and Materials Management Option  
    Operations Research Option  
    Strategic Management Option  
    Taxation Option  
    Telecommunications Management Option  
Business Administration, M.S.  
    Computer Information Systems/Quantitative Business Methods Option  
Chemistry, M.S.   
    Biochemistry Option  
Computer Science, M.S.  
Counseling, M.S.   
    Clinical Child Psychology Option  
    Marriage, Family, and Child Counseling Option  
Economics, M.A.   
    Austrian School of Economics Option  
    Comparative Economic Systems Option  
    International Economics Option  
    Labor Economics Option  
    Monetary Economics Option  
    Public Sector Economics Option  
Education, M.S.  
    Curriculum Option

Educational Technology Leadership Option  
Online Teaching and Learning Option<sup>2</sup>  
Reading Instruction Option  
Educational Leadership, M.S.  
English, M.A.<sup>1</sup>  
Teaching English as a Second Language Option  
Geography, M.A.  
Geology, M.S.<sup>1</sup>  
Environmental Geology Option  
Health Care Administration, M.S.  
Administration of Healthy Communities Option  
Management and Change in Health Care Option  
Nursing Administration Option  
History, M.A.<sup>1</sup>  
Public History Option  
Teaching Option  
Kinesiology, M.S.  
Exercise Physiology Option  
Professional Perspectives Option  
Skill Acquisition-Sport Psychology Option  
Sport Humanities Option  
Marine Science, M.S.  
Mathematics, M.S.  
Option I  
Option II (Mathematics Teaching)  
Option III (Applied Mathematics)  
Multimedia, M.A.  
Music, M.A.  
Nursing, M.S.  
Public Administration, M.P.A.  
Administration of the Metropolitan Region Option  
Health Care Administration Option  
Organizational Change Option  
Public Financial Administration Option  
Public Human Resource Management Option  
Public Management Option  
Public Policy Development Option  
Sociology, M.A.  
Special Education, M.S.  
Mild-Moderate Disabilities Option  
Moderate-Severe Disabilities Option  
Special Major, M.A.  
Special Major, M.S.  
Speech Communication, M.A.  
Speech Pathology and Audiology, M.S.  
Statistics, M.S.  
Taxation, M.S.  
Telecommunication Systems, M.S.  
Computer Technologies of Telecommunications Option  
Telecommunications Management Option  
Telecommunications Systems Engineering Option

## Credential Programs

Adapted Physical Education Specialist  
Bilingual, Cross-Cultural, Language, and Academic  
Development Emphasis (BCLAD)  
Blended Liberal Studies/Multiple Subject Teaching  
Clinical Rehabilitative Services

Cross-Cultural, Language, and Academic  
Development Emphasis (CLAD)  
Internship in Administrative Services  
Multiple Subject Teaching  
Preliminary Administrative Services  
Professional Administrative Services  
Pupil Personnel Services  
    School Counseling  
    School Psychology  
Reading Specialist  
Single Subject Teaching  
Special Education Specialist, Levels I and II  
    Mild-Moderate Disabilities  
    Moderate-Severe Disabilities

### Certificate Programs

The criteria for regular certificate programs are described in the Certificate Programs chapter. Special Certificates are described in the Special Major chapter.

Biotechnology  
Cross-Cultural, Language, and Academic Development (CLAD)  
Children's Literature  
Educational Technology Leadership  
Mathematical Statistics  
Taxation

California State University, Hayward is organized into four schools: Arts, Letters and Social Sciences (ALSS); Business and Economics; Education and Allied Studies; and Science. Each school has significant responsibility for its own curricula, faculties, students, and budgets. The school dean, aided by an associate dean and an administrative assistant, is the chief administrative officer of each school. (The names of these officers appear in the University Administration section.) The Deans' offices are located as follows: ALSS, eighth floor of Warren Hall (885-3161); Business and Economics, second floor of the Music and Business Building (885-3311); Education and Allied Studies, first floor of the Art and Education Building (885-3072); and Science, first floor of the North Science Building (885-3441). The M.A. in Multimedia and the M.A./M.S. Special Majors programs are administered by the Dean of Graduate Programs, on the eighth floor of Warren Hall (885-3286). The university organizational table at the beginning of the Undergraduate Programs chapter indicates the departments and programs of each school and the interdisciplinary programs.

### School of Arts, Letters and Social Sciences

The School of Arts, Letters and Social Sciences is the largest in the university and includes 18 departments. It embraces the creative arts, the humanities, the social and behavioral sciences, and several applied disciplines.

Master's Degrees  
Anthropology (M.A.)  
English (M.A.)

Geography (M.A.)  
Health Care Administration (M.S.)  
History (M.A.)  
Music (M.A.)  
Public Administration (M.P.A.)  
Sociology (M.A.)  
Speech Communication (M.A.)  
Speech Pathology and Audiology (M.S.)

#### Credentials

Blended Liberal Studies/Multiple Subject Teaching  
Clinical Rehabilitative Services

## School of Business and Economics

#### *Mission Statement:*

The School of Business and Economics provides excellence and innovation in integrating quality teaching and learning, with applied research and relevant experience to a diverse clientele from the San Francisco Bay Area to the global community.

#### *Core Values:*

- Value diversity in students, faculty, staff and other stakeholders
- Commitment to and synergy between regional and global constituencies
- Commitment to excellence in teaching, curriculum delivery, and applied research
  - Latest technology and delivery systems
  - Flexibility in program delivery
- Innovation and cooperative approach to business problems
  - Business-ready curriculum
  - Economic development initiatives
  - Team-oriented approach
  - Capitalize on opportunities
  - Entrepreneurial orientation
- Commitment to ethics, honesty and integrity
- Creating a collegial and supportive work environment
- Commitment to outstanding service to our clientele

The graduate programs in business administration are accredited by the American Assembly of Collegiate Schools of Business.

#### Master's Degrees

Business Administration (M.B.A.)  
Business Administration (M.S.)  
Economics (M.A.)  
Taxation (M.S.)  
Telecommunication Systems (M.S.)

#### Certificate Program

Taxation Certificate

## School of Education and Allied Studies

The mission of the School of Education and Allied Studies is to prepare collaborative leaders who will influence a highly technological and diverse world.

The school offers programs for the professional preparation of teachers and service personnel in schools, colleges, and community agencies. Advanced preparation and graduate degrees are designed to expand the knowledge base of students, upgrade professional skills, and/or prepare students for doctoral study.

The professional education programs of the school are accredited by the California Commission on Teacher Credentialing and the National Council for Accreditation of Teacher Education.

The School also offers programs at the Contra Costa Campus in Concord through the Departments of Educational Leadership, Educational Psychology, and Teacher Education. Specific program information may be obtained by contacting the departments.

### Master's Degrees

Counseling (M.S.)

Education (M.S.)

Educational Leadership (M.S.)

Kinesiology (M.S.)

Special Education (M.S.)

### Credentials

Programs to prepare teachers, counselors, school psychologists, special educators, and supervisors and administrators have been approved by the State Commission on Teacher Credentialing. Information regarding specific requirements for each credential is available through the appropriate department.

#### 1. Basic Teaching Credential Programs

- Multiple Subject

In addition to the regular multiple subject program, CLAD and BCLAD emphasis programs are available, as well as a Blended Liberal Studies/credential program

- Single Subject, which enables the credential holder to teach one or more of the approved single subjects.

#### 2. Specialist Credential Programs. These credentials are to be obtained concurrent with or after obtaining a basic credential.

- Adapted Physical Education

- Reading

- Special Education. Areas of emphasis: mild-moderate disabilities, moderate-severe disabilities.

#### 3. Emphasis Credential Programs

- Bilingual, Cross-Cultural, Language, and Academic Development (BCLAD)

- Cross-Cultural, Language, and Academic Development (CLAD)

#### 4. Services Credentials Programs

- Preliminary Administrative Services

- Internship Credential in Administrative Services

- Professional Administrative Services

- Pupil Personnel Services

- a. School Counseling
- b. School Psychology

#### Certificate Programs

Children's Literature

Cross-Cultural, Language, and Academic Development (CLAD)

Educational Technology Leadership

#### School of Science

The School of Science offers programs that provide a broad education in the physical, life, and health sciences; and in mathematics, statistics, and computer science. The career flexibility available to science students is one of the main advantages of a degree in the science area. The Master of Science programs are designed to allow students who possess appropriate qualifications to deepen their level of knowledge, upgrade their professional skills, and prepare for doctoral study.

#### Master's Degrees

Biological Science (M.S.)

Chemistry (M.S.)

Computer Science (M.S.)

Geology (M.S.)

Mathematics (M.S.)

Marine Science (M.S.)

Nursing (M.S.)

Statistics (M.S.)

Telecommunication Systems (M.S.)

#### Certificate Programs

Biotechnology

Mathematical Statistics

#### Interdisciplinary Programs

The interschool graduate interdisciplinary programs are administered by the Dean of Graduate Programs.

#### Master's Degrees

Multimedia (M.A.)

Special Major (M.A., M.S.)

Option in Online Teaching and Learning  
(M.S. in Education)

#### Certificate Program

Special Certificate

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#### Course Numbering Key

The numbering of courses is intended to describe the level at which they are offered. Any student, however, may enroll for any course if he or she has completed the listed prerequisites, except for certain graduate courses.

0800-0999	Remedial courses (not for baccalaureate degree credit)
1000-1999	credit)
2000-2999	Freshman level
3000-3999	Sophomore level

4000-4999	Junior level
5000-5999	Senior level
6000-6999	Post baccalaureate and professional level
7000-7699	Graduate level
7700-7999	Upper division level extension <sup>2</sup>
	Graduate level extension <sup>2</sup>

## Course Units

( )- Unit credits appear in parentheses following title of course

## Class Hours per Week

The number of class hours a course meets per week equals the number of units listed for the course, unless otherwise indicated in the course description. (A "class hour" is 50 minutes.) Supervision courses (e.g., independent study, project, thesis) have no prescribed correspondence between class hours per week and units.

## Course Offering Key

Quarter of offering may be subject to change without prior notice.

F-	Fall quarter
W-	Winter quarter
Sp-	Spring quarter
Su-	Summer quarter
A-	All quarters
Y-	At least once a year
Tent-	Tentatively (used with one of the basic symbols above)
Alt-	Alternate (used with one of the basic symbols above)

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The lack of a symbol indicates uncertainty about offering the course in 2000-2002.

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## Footnotes

- <sup>1</sup> It is not necessary to select an option for these degrees.
- <sup>2</sup> See quarterly bulletin of Extended and Continuing Education.



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## Department Information

## Anthropology

- ▶ [Department Information](#)
- ▶ [M.A. in Anthropology](#)
- ▶ [Graduate Courses](#)

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Department of Anthropology  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4064  
Phone: (510) 885-3168

*Professor Emerita:* Lindy Li Mark (Chair)

*Professors:* Alan J. Almquist, Peter J. Claus, H. Glynn Custred,  
George R. Miller

*Graduate Coordinator:* Peter J. Claus

*Please consult the 2001-2002 online catalog for any changes that may occur.*

## M.A. in Anthropology

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### Program Description

The university offers the Master of Arts degree in Anthropology. Anthropology, the study of humans, provides a cross-cultural and time-depth perspective of humanity as the product of both evolutionary and cultural conditions. Students in this field will learn more about the self in relation to biological and cultural forces and in relation to persons of other ethnic backgrounds. In addition, the Department of Anthropology offers regional courses on the major populations of the world, with particular emphasis placed on North and South America and Asia. Although there are no separate options in the program, students are expected to focus their interests in any two sub-fields of the disciplines: socio-cultural, archaeological, biological, or linguistic anthropology.

### Career Opportunities

Community College Teacher • Anthropologist • Archaeologist • Artifacts Conservator • Curator • Ethnologist • Foreign Service Officer • Immigration Service Officer • International Business • Multicultural Education Instructor • Museum Curator • Park Ranger • Park Service Official • Professor/Teacher • Researcher • Social Science Teacher • Travel Consultant • Urban Planner

### Research Facilities

The Clarence E. Smith Museum of Anthropology houses a sizable collection of archaeological artifacts recovered in Alameda and

Contra Costa Counties, as well as collections of culture groups throughout the world. The public museum is administered by the department and is also used as an instructional facility. Students have an opportunity for "hands-on" experience in museum work and gallery exhibits, and through related courses in museology and cross-cultural art. The museum, housed in Meiklejohn Hall, is open to the public. For information, call (510) 885-3168 or (510) 885-3104.

## Research Support and Teaching Opportunities

There are a number of teaching and teaching-related opportunities, in both classroom and online instruction, available within the department for qualified students, including positions as Teaching Assistants, Readers, and Graduate Writing Instructors. Cal State Hayward offers opportunities for practical training and paid internships through its Cooperative Education Program. In the past, anthropology graduate students have obtained internships at places as nearby as local community colleges and as far away as the Smithsonian Institution.

## Admission to the Program

To be admitted to the program with "Conditionally Classified Graduate" status, the student must: (1) meet all Cal State Hayward requirements for admission to the university as a post-baccalaureate student; (2) have a grade point average of at least 2.50 in his or her last 90 quarter (60 semester) units; (3) file a written application with the department (in addition to the official application filed with the Admissions Office); and (4) submit two letters of recommendation for admission to the program from former professors.

## Classification in the Program

"Classified Graduate" status implies that the student has demonstrated adequate preparation to pursue graduate work leading to the M.A. degree in Anthropology. Credit can be granted for necessary courses taken with graduate standing at other institutions; deficiencies, if any, can be corrected while registered as a "Conditionally Classified Graduate" student in the program. It should be noted that not more than 15 units of graduate level course work (6000 series) in Anthropology taken as a "Conditionally Classified Graduate" student will be applicable to M.A. degree requirements. To attain "Classified Graduate" status, either at the time of admission or thereafter, a student must: (1) have completed a baccalaureate degree with a major in Anthropology or complete the following anthropology courses or their equivalents: ANTH 3100 or 3101, 3200, 3400, 3800, 4250 or 4310, 4910; (2) satisfy the University Writing Skills requirement.

## Advancement to Candidacy

Advancement to Candidacy implies that the student has demonstrated the capacity to complete satisfactorily the program leading to an M.A. degree in Anthropology. To be Advanced to Candidacy, a student must file with the department (normally upon completion of 23 course units) an approved program of study to include relevant courses satisfactorily completed, those in progress, and those yet to be taken; and then be recommended for Advancement to Candidacy by the department.

## Maintenance of "Classified Graduate"

## Standing

To maintain "Classified Graduate" standing a grade point average of 3.0 or higher must be achieved in all courses taken in the approved program of study, whether at Cal State Hayward or at any other college or university. If a "Classified Graduate" student's GPA falls below 3.0, s(he) shall be dropped from candidacy, if previously attained, and placed in "Conditionally Classified Graduate" status until all deficiencies have been remedied and the student is recommended by the department for reinstatement to "Classified Graduate" status (and candidacy when applicable). Failure by a student to return to "Classified Graduate" status following completion of 16 additional quarter units shall result in his or her dismissal from the program.

## Requirements for the M.A. in Anthropology (45 units)

### I. Requirements for Advancement to Candidacy

- A. Acquire a research skill by successfully completing one year of coursework or equivalency (or demonstrating competence) in one of the following: (1) foreign language, (2) computer and/or multimedia skills, (3) statistics.
- B. Complete a minimum of 23 units of anthropological coursework applicable to M. A. requirements, including at least 15 units of graduate-level (6000 series) coursework.

### II. Course Requirements

- A. Complete 45 quarter units of graduate work including the 23 units needed for Advancement to Candidacy.
  - 1. All must be earned within the five years just preceding the completion of the requirements for the degree.
  - 2. Not fewer than 32 must be completed in residence.
  - 3. Not fewer than 25 must be in anthropology courses in the 6000 series.
  - 4. Not more than 13 may be taken in "Unclassified Post-baccalaureate" status and/or for extension and/or transfer course credit, as approved by the department.
  - 5. Students taking the Comprehensive Examination must declare two sub-fields of Anthropology in which they wish to take the examination and have at least 8 units of upper division coursework within each of the two fields.
- B. Required Courses (20 units)
  - ANTH 6100 Seminar in Biological Anthropology (5)
  - ANTH 6200 Seminar in Archaeology/Prehistory (5)
  - ANTH 6400 Seminar in Socio-Cultural Anthropology (5)
  - ANTH 6800 Seminar in Linguistic Anthropology (5)
- C. Elective courses (graduate or upper division) in Anthropology (or up to 8 units outside of Anthropology in one or more closely related fields) taken as a graduate student. Choice of appropriate coursework will be made

with consent of Graduate Advisor. (20 units)

D. Capstone Experience (5 units)

Complete one of the following:

1. ANTH 6905 (5) and pass a comprehensive examination in two sub-fields of anthropology. Before enrolling in ANTH 6905 students must (a) declare the two sub-fields from socio-cultural, biological, archaeological, and linguistic anthropology in which they intend to take their examination, (b) have taken at least 8 units of upper division coursework within each of the chosen fields, and (c) have the approval of the Department Graduate Coordinator. The examination may be taken at any time in a student's career after Advancement to Candidacy and completion of the core seminars (ANTH 6100, 6200, 6400, and 6800). Normally, the examination will be given twice a year, in the Fall and Spring quarters.
2. ANTH 6910 (5) With the consent of the Graduate Advisor, students may elect to enroll in ANTH 6910, and undertake and satisfactorily complete a University Thesis under the supervision of a committee of at least two faculty members of the Department.

- E. Have a 3.00 or higher GPA in all courses applied to the M.A. degree. See also the "University Requirements for Graduation" which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.

### Courses Acceptable for the Master's Degree

In addition to graduate level (6000 series) courses, all Anthropology courses in the 3000-4000 series (except ANTH 3000) are acceptable in the master's degree program. Only courses with grades of "A," "B," and "C" are considered applicable to degree requirements. To apply a course to the degree in which a "D" or "F" is received, the student must repeat the course and earn a grade of "C" or higher. However, both the original grade and the repeat grade are utilized in calculating the student's graduate grade point average.

### Comprehensive Exam and Thesis

Students may choose to complete ANTH 6905 and pass a comprehensive examination on any two fields from socio-cultural, biological, archaeological, and linguistic anthropology. The examination may be taken at any time in a student's career after completion of the core seminars (ANTH 6100, 6200, 6400 and 6800). Normally the exam will be given once a year, in the Fall quarter. With the consent of the Graduate Advisor, students may elect to enroll in ANTH 6910, and undertake and satisfactorily complete a University Thesis under the supervision of a committee of a least two faculty members of the Department.

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*The course prefix for the following courses is ANTH.*

- 6100 Seminar in Biological Anthropology (5)  
Critical examination of theoretical developments in

paleoanthropology and primatology, with emphasis on evolutionary mechanisms. Prerequisites: graduate standing and permission of instructor. (Sp).

- 6200 Seminar in Archaeology/Prehistory (5)  
Advanced study of methods and theories used in archaeological research, combining discussion of current archaeological literature and individual analysis of available archaeological data. Prerequisites: graduate standing and permission of instructor. (W)
- 6400 Seminar in Socio-Cultural Anthropology (5)  
A critical examination of traditional and contemporary theories and methods in socio-cultural anthropology, including trends in the various subfields of the discipline. Emphasis on student participation in criticism and synthesis of significant theoretical positions. Prerequisites: graduate standing and permission of instructor. (F)
- 6600 Seminar on Special Topics (4)  
A critical examination of special topics of current anthropological interest not covered in other seminars. Content may pertain to any subfield or theoretical position of anthropology. May be repeated once for credit if topic is different. (Sp)
- 6800 Seminar in Linguistic Anthropology (5)  
Seminal work within the subdisciplines of anthropological linguistics, including examples of its application. Prerequisites: graduate standing and permission of instructor. (W)
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the M.A. in Anthropology. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)
- 6900 Independent Study (1-4)  
Independent study in anthropology with concentration on a specific problem under guidance by a faculty sponsor. Prerequisites: Completion of seminar relevant to the specified problem and consent of instructor. (A)
- 6905 Directed Readings in Anthropology (5)  
Selected readings in consultation with two or more appropriate faculty members in preparation for the Master's Comprehensive Written Examination in two subfields of anthropology. The reading list and the exams must be consistent with the student's areas of concentration and approved by the Graduate Advisor.
- 6910 University Thesis (1-5)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least two of whom must be members of the Department. Oral defense normally required. Prerequisite: "Advancement to

Candidacy." Maximum of 5 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)



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## Kinesiology

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### Department Information

Department of Kinesiology and Physical Education  
School of Education  
Office: Physical Education Bldg. 130  
Phone: (510) 885-3061

*Professors Emerita:* Arlene H. Smith

*Professors:* Cynthia Berrol, Calvin S. Caplan, Stanley J. Clark, Herbert M. Graw, Dorie Krepton, Penny McCullagh (Chair), John Z. Ostarello, Jr., Timothy Tierney, F. Douglas Weiss, Robert W. Zambetti

*Associate Professor:* Donald T. Sawyer

*Assistant Professor:* Catherine Inouye, Rita Liberti

*Graduate Coordinator:* Calvin Caplan

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.S. in Kinesiology

#### Program Description

The Department of Kinesiology and Physical Education offers programs in sport and exercise phenomena. The purpose of the Master of Science degree program is to give students a broad knowledge of Kinesiology and the profession of Physical Education and to develop their scholarly skills. The program serves as a terminal degree for professionals as well as preparation for those intending to complete a doctorate. To meet the needs and interests of students, the course of study leading to the Master of Science degree has four options. The high standards and academic rigor required of students pursuing these options is characteristic of an excellent graduate-level education. Because most students are working professionals, graduate courses are offered primarily during the evening hours.

#### Career Opportunities

Athletic Director • Athletic Trainer • Cardiopulmonary Rehabilitation Specialist • Community College Teacher • Corporate Fitness Director • Intercollegiate and Interscholastic Coach • Exercise

Psychologist • Personal Trainer • Physical Education Administrator  
• Physical Education Teacher • Physical Therapist • University  
Instructor • Wellness Counselor

### Faculty: Areas of Specialization

Cynthia F. Berrol, Ph.D., University of California, Berkeley:  
Special (adapted) physical education, motor development.

Calvin S. Caplan, Ed.D., University of California, Berkeley:  
Exercise physiology, sports medicine.

Stanley J. Clark, Ed.D., Stanford University: Sport history.

Herbert M. Graw, Ed.D., University of California, Berkeley: Skill  
acquisition, research methods.

Catherine Inouye, Ed.D., University of Northern Colorado:  
Exercise physiology, exercise nutrition.

Rita Liberti, Ph.D., University of Iowa: Sport sociology, sport  
history

Penny McCullagh, Ph.D., University of Wisconsin, Madison: Sport  
and exercise psychology

John Z. Ostarello, Ed.D., University of California, Berkeley:  
Biomechanics

Donald T. Sawyer, Ed.D., University of San Francisco: Skill  
acquisition, motor control, sport psychology.

Douglas Weiss, M.S., University of California, Berkeley: Sport  
administration.

### Option Areas

The M.S. degree has four options:

1. Sports Humanities: Study of the historical, social, cultural  
and philosophic aspects of sport and exercise.
2. Exercise Physiology: Study of the response of  
physiological systems to exercise and the limitations of these  
systems to perform work.
3. Skill Acquisition-Sport Psychology: Study of the nature  
of sensorimotor skill acquisition and performance and the  
influence of psychological variables.
4. Professional Perspectives: Study of kinesiological  
phenomena related to the development of curriculum, programs  
and facilities for physical education and athletics.

### Features

The department offers a complete range of laboratory facilities  
and technologies for graduate students. These resources enable  
comprehensive research opportunities in all option areas.  
Biomechanical digitizing, gas analysis, biofeedback, coincidence  
timing, nutritional analysis, and computer statistical packages are  
examples of available tools.



Other features include the potential for individualized programs of study to meet specific interests and needs, extensive library resources, and a seminar instructional format which stimulates high interaction among students and promotes independent scholarship.

### Admission to the Program in "Classified Graduate" Status

Eligibility for admission to the M.S. degree program in "Classified Graduate" status requires a student to have a baccalaureate degree with a major approximately equivalent to the Hayward B.S. degree major in Kinesiology. The graduate coordinator or department chair will determine degree equivalencies. Students must also have attained at least a 3.00 grade point average in the major and have satisfied the University Writing Skills requirement.

The department encourages students to meet university prescribed deadlines for admission into the program beginning in the Fall quarter, although the department is willing to accept graduate students into the program during the Winter and Spring quarters.

### "Conditionally Classified Graduate" Status

Students who are judged to be admissible, but who do not meet all of the admission requirements specified above for "Classified Graduate" status, receive "Conditionally Classified Graduate" standing. Such students may need to complete certain undergraduate prerequisites in preparation for graduate study and/or may have other deficiencies, such as the University Writing Skills requirement, that must be removed within a reasonable period of time. Each student will be judged on an individual basis. The department may require the Graduate Level Examination (GRE), Aptitude Test Score, three letters of recommendation from former professors, and/or the repeat of undergraduate coursework in the case of below-standard grade point averages.

Generally, courses taken to remove deficiencies will not count for credit in the M.S. program. In no case will more than 13 quarter units taken in "Unclassified Post-baccalaureate" standing or at another university, be counted toward the M.S. degree.

### "Unclassified Post-baccalaureate" Status

A student who does not meet the admission criteria for the program may seek admission to the university in "Unclassified Post-baccalaureate" status. No more than 13 units earned in this status may be applied to degree requirements.

### Advancement to Candidacy

"Classified Graduate" students are eligible for Advancement to Candidacy based on the criteria given below.

1. Maintain a 3.0 grade point average in all graduate work completed.
2. Complete KPE 6000 in the first two quarters in the program.
3. Declare in writing to the graduate coordinator the choice of Sport Humanities, Exercise Physiology, Skill Acquisition-Sport Psychology, or Professional Perspectives as an option. This declaration must be made before more than 18 units of

graduate study have been completed.

4. Submit to the graduate coordinator an approved program of study developed in conjunction with the appropriate faculty committee.

### Prerequisite Courses

The following prerequisite courses or their equivalents must be completed by students who have a degree in another field. These courses are not included in the 45 units required for the M.S. degree.

- A. KPE 3300 Kinesiological Measurement (5)  
(Applied statistics background is acceptable equivalent.)
- B. KPE 3305 Structural Kinesiology (5)  
(Functional anatomy background is acceptable equivalent.)
- C. Two courses (10 units) completed from:  
KPE 3310 Biomechanics (5)  
KPE 3320 Exercise Physiology (5)  
KPE 3330 Sensorimotor Skill (5)
- D. Two courses (8 units) completed from:  
KPE 3700 History of Sport and Physical Education (4)  
KPE 3740 Philosophic Foundations of Sport and Physical Education (4)  
KPE 3750 Sport in Contemporary Society (4)

Waiver of one or more of these area requirements will be considered if comparable coursework has been completed, or if the student has strong compensating academic strengths in areas related to the graduate program (a degree in Physical Therapy, for example). All requests for such waivers and their justification must be submitted in writing to the graduate coordinator.

### Degree Requirements

The Master of Science degree will be awarded when the general requirements listed below have been successfully completed.

1. Completion of a minimum of 45 quarter units of approved upper division and graduate courses
2. A minimum grade point average of 3.0
3. Completion of breadth-requirements listed below
4. Completion of an option
5. Completion of one Capstone Experience:
  - a. University Thesis
  - b. Department Thesis
  - c. Comprehensive Examination
6. In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section in this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of

subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirement.

## Curriculum Requirements (45 units)

- I. Required Course (4 units)  
KPE 6000 Foundations of Graduate Research (4)
- II. Breadth Requirements (12 units)  
A minimum of one seminar (four units) from each of the three option areas outside the selected option. See the next section for a description of the options.
- III. Options (Minimum 17 units)  
(If a student wishes to have an additional option recorded, that option must contain three unique seminar courses not used for any other option and totaling a minimum of 12 units.)

### A. *Sports Humanities Option*

KPE 6430 Seminar in the History of Sport (4)  
KPE 6440 Seminar in Sport in Contemporary Society (4)  
KPE 6460 Seminar in Philosophy of Sport (4)  
KPE 6600 Seminar in International Sports Programs (4)

Repeat one option Seminar (4)

Additional courses may be selected in consultation with an option area advisor.

### B. *Exercise Physiology*

KPE 6420 Seminar in Exercise Physiology (4)  
KPE 6470 Seminar in Exercise Nutrition (4)  
KPE 6650 Seminar in Sport Medicine (4)

Repeat one option Seminar (4)

Additional courses may be selected in consultation with an option area advisor.

### C. *Skill Acquisition - Sport Psychology*

KPE 6400 Seminar in Biomechanics (4)  
KPE 6410 Seminar in Sport Psychology (4)  
KPE 6415 Seminar in Motor Control (4)

Repeat one option Seminar (4)

Additional courses may be selected in consultation with an option area advisor.

### D. *Professional Perspectives*

KPE 6610 Seminar in Physical Education Programs and Facilities (4)  
KPE 6620 Seminar in Athletic and Sport Management (4)  
KPE 6450 Seminar in Motor Development (4)

Repeat one option Seminar (4)

Additional courses may be selected in consultation with an option area advisor.

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## Credential Program

- IV. Electives (4-13 units)  
Selection of appropriate courses in consultation with option advisor.
- V. Capstone Experience (0-9 units)
1. KPE 6909 Department Thesis (2-5)
  2. KPE 6910 University Thesis (6-9)
  3. Comprehensive Examination (no unit credit) in the student's option.

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## Adapted Physical Education Specialist

*Check with the department about the status of this program.*

Required:

- A. Possession or concurrent completion of a Single Subject Credential in Physical Education
- B. Completion of the following 20-21 unit course sequence with a minimum GPA of 2.00: EPSY 6500 (4) or EPSY 6501; KPE 4605 (4), 5600 (5), and 5610 (4), and one course from DANC 3235 (4), KPE 4340 (4) or KPE 5210 (4)

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## Post- Baccalaureate Courses

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*The course prefix for the following courses is KPE.*

Consult an advisor to determine if these courses can be applied to the M.S. degree.

**5000** Sports Officiating (3)  
Theory and practical experience in officiating men's and women's sports and games. Coeducational. Sports to be covered rotate quarterly. May be taken three times for credit with different context. Two hrs. lect., 2 hrs. act. (F, W, Sp)

**5900** Independent Study (1-4)

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## Graduate Courses

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*The course prefix for the following courses is KPE.*

**6000** Foundations of Graduate Study and Research (4)  
Analysis of physical education and kinesiological variables. Scientific thought and inquiry. Application of research methods to specific problems. Statistics/technology module included. CR/NC grading only. Prerequisite: KPE 3300 or equivalent. (A)

**6099** Introduction to Instructional Multimedia (4)  
(See EDUI 6099 for course description.)

**6331** Collaborative Leadership I (4)

(See EDUI 6331 for course description.)

- 6400 Seminar in Biomechanics (4)  
Critical review of research related to the biological and mechanical analysis of human movement. May be repeated once for credit with consent of instructor.  
Prerequisite: KPE 3310 or equivalent. (A)
- 6410 Seminar in Sport Psychology (4)  
Kinesiological analysis of psychological variables related to peak performance in sport and exercise. Topics to include personality, motivation, stress, physical-emotional arousal, aggression-violence and self-regulation activities and their influence upon performance. Seminar may be repeated once for credit with consent of instructor. Prerequisite: KPE 3330 or equivalent. (A)
- 6415 Seminar in Motor Control (4)  
Kinesiological analysis of sensory-motor control and integration in skill acquisition and performance. Emphasis on empirical evidence and underlying theories related to sport and exercise. Seminar may be repeated once for credit with consent of instructor. Prerequisite: KPE 3330 or equivalent. (A)
- 6420 Seminar in Exercise Physiology (4)  
Analysis of immediate and long-range adaptations of human biological systems to exercise and related environmental stresses. Seminar may be repeated once for credit with consent of instructor. Prerequisite: KPE 3320 or equivalent. (A)
- 6430 Seminar in the History of Sport (4)  
Critical analysis of the interrelationships of sport, agonistic practices and culture. Seminar may be repeated once for credit with consent of instructor. Prerequisite: Graduate status, KPE 3700 or equivalent recommended. (A)
- 6440 Seminar in Sport in Contemporary Society (4)  
Discussion and analysis of literature, research and issues pertaining to the role of play, games, and sport in contemporary society. May be repeated once for credit with consent of instructor. Prerequisite: KPE 3750 or equivalent. (A)
- 6450 Seminar in Motor Development (4)  
Advanced study and review of the research literature pertaining to neuromotor and physical development from birth through adulthood. May be repeated once for credit with consent of instructor. Prerequisite: KPE 4340 or equivalent. (A)
- 6460 Seminar in Philosophy of Sport (4)  
Analysis of philosophic issues in competitive and aesthetic movement forms. May be repeated once for credit with consent of instructor. (A)
- 6470 Seminar in Exercise and Nutrition (4)  
Biochemical and physiological responses related to nutrition and performance. Course may be repeated once

for credit. Prerequisites: graduate standing, KPE 3320, KPE 4000 or equivalencies or consent of instructor. (A)

- 6600 Seminar in International Sports Programs (4)  
A cross cultural study of the place of sport, dance, and exercise in education. Extent of governmental control of finance, program development, professional preparation. Special emphasis on programs in Scandinavia, Russia, and United Kingdom. Seminar may be repeated once for credit with consent of instructor. (A)
- 6610 Seminar in Physical Education Programs and Facilities (4)  
Analysis of factors related to effective physical education curricula in elementary and secondary schools. Effect of national, state and local needs, legislation, staffing and facility requirements on curriculum development. May be repeated once with consent of instructor.(A)
- 6620 Seminar in Athletic and Sport Management (4)  
Background and trends in administration and supervision of physical education and athletics, including secondary school and college programs for men and women. May be repeated once for credit with consent of instructor. (A)
- 6650 Seminar in Sports Medicine (4)  
The role of sports medicine in contemporary sports and athletics. Philosophical, physiological, and legal aspects of the field. May be repeated once for credit with consent of instructor. Prerequisite: KPE 3320 or consent of instructor. KPE 4620 highly recommended. (A)
- 6700 Seminar: Contemporary Issues in Kinesiology (4)  
Selected advanced topics of importance to the discipline of kinesiology. (A)
- 6850 Supervised Research (2-4)  
Independent research under direction of faculty. May be repeated for credit with consent of advisor. Prerequisite: KPE 6000. (A)
- 6899 Project (2-5)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their format. Supervision by a department committee, at least one of whom must be a Cal State Hayward, faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of five units per student. (A)
- 6900 Independent Study (1-4)  
Independent study under direction of faculty. May be repeated for credit with consent of advisor. (A)
- 6909 Departmental Thesis (2-5)  
Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a department committee, at least one of whom must be a member of the graduate faculty. Oral

defense is required. Maximum of five units per student.  
Prerequisites: Graduate standing, consent of graduate coordinator, KPE 6000 or equivalent. (A)

**6910** University Thesis (2-6)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a graduate faculty member. Oral defense required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also "University Thesis Writing Guide" available in WA 859.) (A)

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## Footnotes

**1** Maximum of five (5) units of KPE 6850/6900 may be utilized in meeting 45 units requirement.



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## Biological Science

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### Department Information

Department of Biological Sciences  
School of Science  
Office: North Science 429  
Phone: (510) 885-3471

*Professors:* Christoph W. Baysdorfer, Stephen C. Benson (Chair), Beverly A. Dixon, Lynne O. Elkin, Christopher L. Kitting, Edward B. Lyke, Samuel M. McGinnis, Maria C. Nieto, Susan B. Opp, Richard A. Symmons, Richard E. Tullis

*Associate Professor:* Donald A. Gailey

*Assistant Professors:* Michael S. Hedrick, Carol R. Lauzon, Laura Marschall, Kelly P. Steele

*Graduate Coordinator:* Susan B. Opp

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.S. in Biological Science

The Master of Science degree in Biological Science offers students the opportunity to obtain advanced academic and research experience in specialized areas of biological science.

#### Career Opportunities

Biological Science is a fast-changing, exciting field offering students numerous options for rewarding careers and future advancement. Examples of M.S. study areas in the department are environmental biology, general ecology, population biology, marine ecology, insect ecology, plant and animal ecology, physiological biology, cell and molecular biology, plant and animal physiology, microbiology, genetics, and immunology.

#### Faculty

The Biological Science faculty is comprised of 16 full-time professors at Cal State Hayward and one full-time professor at Moss Landing Marine Laboratories. The faculty are committed to excellence in teaching and research, and many of the faculty have federal, state, and private research grant support.



## Related Programs

The Biotechnology Certificate Program within the department is a post-baccalaureate program emphasizing cellular, molecular, and immunological techniques. With careful planning, this certificate may be combined with the M.S. in Biological Science degree. Contact the Biological Sciences Department for application forms and deadlines for this program.

The M.S. degree in Marine Science is offered at Moss Landing Marine Laboratories, located on Monterey Bay, for students from Cal State Hayward and seven other California State University consortium schools. Graduate students from Cal State Hayward may also take such courses at Moss Landing as are appropriate for their degree objectives. Contact the Biological Sciences Department for application forms and deadlines for this program. See Marine Sciences in the graduate section of this catalog.

## Research Facilities

Department facilities for student research and study include invertebrate, vertebrate, and entomology museums; herbarium; greenhouse; insectary, histology, transmission and scanning electron microscope labs; radiation hot lab; microbiology facilities including those for anaerobic culture; cell culture facilities; animal rooms; molecular biology lab; and DNA sequencing facilities. Local field opportunities may be found at a wetlands field station at the San Francisco Bay National Wildlife Refuge, the brackish and salt water marshes of the Hayward Regional Shoreline of San Francisco Bay, and a 35 acre oak-grassland preserve located immediately adjacent to the Hayward campus and contiguous with Garin Regional Park (one of the East Bay Regional Parks).

## Research Support

Research space is available to all "Classified Graduate" students, usually in the major advisor's research lab. Limited funds for graduate research supplies are available each year from the department budget. In addition, research assistantships are available for some students through faculty research grants and the Minority Biomedical Research Support Program. Teaching assistantships may become available for a given quarter. Financial aid within the department is limited. Contact the Financial Aids Office regarding other assistance from the University Work-Study Program, loans, scholarships, etc.

## Admission Requirements

1. The M.S. degree program in the Department of Biological Sciences is open to graduates of accredited institutions who have a baccalaureate degree in any field of the biological sciences and who have achieved a GPA of at least 2.75 in all undergraduate work and an average of 3.00 in all biological science courses taken as an upper division student. Normally, all applicants should have completed undergraduate courses equivalent to those required of all biological science majors at Cal State Hayward.
2. In addition to filing the university application and fee, students must make application to the Department of Biological Sciences for admission to graduate standing in the M.S. degree program. Application forms are available through the department office. Students are encouraged to obtain information about research interests of the faculty and to contact faculty members who

could potentially serve as thesis advisors. In addition to the GPA requirements for admission mentioned in #1, the department requires that the following be sent directly to the Department of Biological Sciences:

- departmental application
- GRE scores of the General Test
- three letters of reference

Applicants must have taken basic courses in biological and physical sciences and mathematics/statistics; areas omitted, if any, will be treated as course deficiencies and must be completed by the time of classification (see below). No action will be taken by the department until the application file is complete; this is the applicant's responsibility. Students with less than the minimum GPA (see above), with other undergraduate majors, or with course deficiencies may request special consideration from the departmental Graduate Committee.

3. All students admitted to the program will be admitted as "Conditionally Classified Graduate" students.
4. At the time of admission the student will be assigned an interim advisor who will aid the student during the first portion of his or her residence in the program.
5. Those students applying for admission to the program with the intent of obtaining a M.S. degree in Marine Sciences from work done at Moss Landing Marine Laboratories must gain admission into "Conditionally Classified Graduate" status as stated above. However, the classification procedures as stated below WILL NOT apply for these students; instead, once admitted to the program as "Conditionally Classified Graduate" students, they will follow MLML's classification procedures (see Marine Science chapter in the graduate section of this catalog).
6. Any student not admitted to the program because of incomplete applications, deficiencies, or failure to meet time deadlines is urged to enroll in the university as an "Unclassified Post-baccalaureate" student pending completion and consideration of the application for classification.
7. No more than 13 quarter units of courses applicable toward the master's degree completed before admission to the program may be counted toward the degree.

*Note:* Although not an admission requirement, the Writing Skills Test (WST) must be taken during the first quarter of admission to the program and must be passed to become a fully "Classified Graduate" student.

### Degree Requirements

A "Conditionally Classified Graduate" student must become a fully "Classified Graduate" student in the program as set forth in 1, 2, 3, and 4 below and within the specified time limits or the "Conditional Classification" will expire and the student will be placed in "Unclassified Post-baccalaureate" status.

1. *Establish a graduate advisory committee by the end of the*

*second quarter after admission to the program.* Two faculty members from the Department of Biological Sciences will serve as members of the committee. One faculty member from the department will normally be the major advisor in guiding the student in graduate training. One to two other members of the committee will be chosen in consultation with the major advisor. The committee will advise on and approve the student's final program including any work and research units counted toward the degree. This advisory committee will also administer the oral examination at the completion of the thesis.

2. *Complete basic course deficiencies.* If the student lacks basic courses in biological or physical sciences, or mathematics/statistics, these courses must be completed by the end of the fourth quarter following admission to the program. In addition, the student's advisory committee may also determine that there are other course deficiencies to be completed.
3. *Research proposal.* Students wishing to be a fully "Classified Graduate" must submit a formal research proposal to the departmental Graduate Committee for either Plan A or Plan B. It must be approved by the student's advisory committee (item 1 above). If the work is to be done in an off-campus location, a letter of agreement must be included that indicates a mutual understanding and responsibility between the off-campus supervisor, Cal State Hayward, and the student. The department office or Graduate Coordinator has examples of these proposals and their format.
4. *University Writing Skills Requirement.* The Writing Skills Graduation Test must be passed. (See Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.)

It is the responsibility of the student to establish a graduate advisory committee, take the qualifying examination, and complete course deficiencies within the time limits stated above.

### Advanced to Candidacy

The student must have:

1. attained "Classified Graduate" standing
2. completed at least 12 quarter units of satisfactory work beyond the baccalaureate degree suitable for inclusion in an M.S. program in Biological Science as approved by the student's graduate advisory committee. At least 3 quarter units of graduate level coursework in residence at Cal State Hayward must be included. (Satisfactory work in a graduate program is that showing a GPA of 3.00 in all courses; no grade below "C" may be counted in this program.)
3. received from his or her advisory committee approval of either a Plan A or Plan B individual research program.

### Curricular Requirements

The M.S. programs in biological science provide for the degree to be obtained under either Plan A (University Thesis) or Plan B (Departmental Thesis).

#### Plan A, University Thesis (45 units)

A total of 45 quarter units is required beyond the baccalaureate with a GPA of 3.0 or above and no grade lower than "C" in courses included in the program, and with specific requirements as follows:

1. University Thesis (9 units)  
Complete copies of the University Thesis must be submitted, in accordance with the rules set forth by the Office of the Associate Vice President, Curriculum and Academic Programs and the Dean of Graduate Programs, to the chair of the candidate's advisory committee by the sixth week of the quarter at the end of which the degree is desired.
2. Graduate courses (14-36 units) in area of special concentration option or in areas related to it as approved by the student's advisory committee; included must be at least one graduate seminar in the area of special concentration. (May include a maximum of 4 units of Independent Study (BIOL 6900); in certain circumstances exceptions may be granted by the departmental Graduate Committee.)
3. Upper division courses (0-22 units) taken as a graduate student and approved by the advisory committee as appropriate to the student's objective.
4. An oral examination administered by the advisory committee covering the candidate's area of specialization and thesis research. This examination will be publicized and open to all faculty.

#### Plan B, Departmental Thesis (45 units)

A total of 45 units is required beyond the baccalaureate with a GPA of 3.0 or above and no grade lower than "C" in courses included in the program, and with specific requirements as follows:

1. A review paper satisfactory to the advisory committee based on intensive study and analysis of the scientific literature on a topic approved by the major professor, with or without supplementary field or laboratory work. Not more than 4 units of Departmental Thesis (BIOL 6909) for preparation of the paper may be included in the program approved by the advisory committee for the degree. (4) (The final copy of the paper must be circulated among the members of the advisory committee at least two weeks prior to the oral examination.)
2. Graduate courses in area of special concentration or in areas related to it as approved by the student's advisory committee; included must be at least one graduate seminar in the area of the concentration. (19-41)
3. Upper division courses taken as a graduate student and approved by the advisory committee as appropriate to the student's objective. (0-22)
4. An oral examination administered by the advisory committee covering the candidate's area of the option and review paper. This examination will be publicized and open to all faculty.

*Note: The following standards will apply to BIOL 6909 for use as a Plan B requirement:*

Format: Typewritten and referenced in appropriate scientific fashion; a title page with the student's advisory committee's signatures must be included; specific format used is up to the discretion of the major advisor.

Binding: Bound in fiberboard or other satisfactory binders for permanent storage.

Records: The department will retain a copy of the Departmental Thesis in its files.

Technical: Typed on 16-pound white paper and with general "thesis" quality, i.e., no strike-overs, etc. Sufficient left-hand margins (1 1/2") should be left for binding.

Approval: Form and style--department; content--advisory committee

### Granting the Degree

Upon successful completion of the above requirements for the degree under Plan A (including completion of the University Thesis) or under Plan B (including completion of the Departmental Thesis), the department will recommend that the candidate be granted the degree.

### Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

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## Certificate in Biotechnology

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This certificate program consists of 28 units and is designed to give recognition to students who complete a post-baccalaureate curriculum emphasizing cellular, molecular, and immunological techniques. This is an appropriate capstone for biology or chemistry graduates and is preparatory for careers in industrial biological research, development, and production. The Biotechnology Certificate Program requires 28 units of advanced work, including seven required courses. The laboratory courses, important to this program, emphasize a "hands on" approach with close faculty supervision. In addition to experimental techniques, safety standards and quality control are also stressed. Courses are scheduled in a non-conflicting pattern so that a full-time student entering this program can complete the requirements in one academic year. There are over 150 biotechnology companies in the Bay Area with a growing demand for employees skilled in the technical subjects herein outlined. Seven faculty members from the Departments of Biological Sciences and Chemistry share the responsibility for this program and play an active role in arranging employment interviews for students who successfully

complete this certificate program.

## Admission to the Program

The Certificate Program in Biotechnology is open to graduates of accredited institutions who have a baccalaureate degree major in any field of biological sciences or chemistry and who have achieved a GPA of at least 2.75 in the major and at least 3.0 in the prerequisite courses. Applicants failing to meet these criteria may petition the Biotechnology Committee for a waiver of these requirements.

Prerequisite: Baccalaureate degree and course equivalents listed below. (Courses in this program are open to qualified seniors majoring in biology or chemistry.)

Applicants to this program will be selected by the Biotechnology Committee of the Department of Biological Sciences. All applicants to the certificate program must have a baccalaureate degree major in biology or chemistry, and have completed the following courses or their equivalents:

Microbiology (BIOL 3405) or course including laboratory work emphasizing microbiological techniques

Biochemistry (CHEM 4411 and 4412)

Immunology (BIOL 4430) (Taken within last 3 years.)

Genetics (BIOL 3121) (Taken within last 3 years.)

Course with emphasis on eucaryotic cell biology, e.g., development (BIOL 3122) or cell physiology (BIOL 3150 or 4170). (Taken within last 3 years.)

Students contemplating enrollment in a master's degree program should be aware that only 13 units earned prior to admission may be applied to a graduate degree.

## Continued Participation in the Program

Students must maintain a 3.0 GPA in the program for continued participation and pass a comprehensive examination at the completion of the program.

## Curricular Requirements

Required Courses (28 units)

BIOL 4450 Cell Culture Techniques (4)

BIOL 4480 DNA Sequencing (3)

BIOL 6140 Recombinant DNA Techniques (4)

BIOL 6146 PCR Techniques (3)

BIOL 6151, 6152 Cell and Molecular Biology (5, 5)

CHEM 6430 Protein Chemistry Techniques (4)

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## Biology Courses

*The course prefix for the following courses is BIOL.*

6102 Selected Topics in Cell Molecular Biology (3)

Current topics and research in cell and molecular biology which may include human genetics, human genome project, forensic studies, molecular evolution, molecular anthropology, and biotechnology. Topics will vary each quarter. Prerequisites: consent of instructor or graduate standing. May be repeated once for additional credit

- 6112 Selected Topics in Environmental Biology (3)  
Current topics and research in environmental biology including population ecology, animal and plant ecology, botany, zoology, etc. Topics will vary each offering. Prerequisite: graduate standing or consent of instructor. May be repeated once for additional credit.
- 6120 Environmental Experimental Analysis (4)  
Advanced applications of graphic modeling, experimental design, direct and remote monitoring, and modern statistical analyses of ecological/physiological experiments. Prerequisites: graduate standing in biology or consent of instructor. Two hrs. lect., 1 hr. disc., 3 hrs. lab/field.
- 6140 Recombinant DNA Techniques (4)  
Recombinant DNA methodology and its analytical and industrial applications. Laboratory studies include nucleic acid isolation, vector characterization, restriction endonuclease reactions, recombinant DNA construction, transformation, and "blotting" procedures. Prerequisites: BIOL 3405 or equivalent, biochemistry, and permission of instructor. Cross-listed with CHEM 6140 Two hrs. lect., 6 hrs. lab.
- 6146 PCR Technology (3)  
Laboratory course covering theory and applications of the polymerase chain reaction (PCR). Introductory experiments examining the role of PCR reagents and the variability of reaction parameters, including computer assisted primer design. Advanced experiments investigating the utility of PCR in such applications as nucleic acid probe synthesis, amplification of cloned and genomic DNA, library screening, RAPD analysis, RNA PCR, and forensics. Prerequisites: BIOL 6140, 6151, and consent of instructor. One hr. lect., 6 hours lab.
- 6151, 6152 Cell and Molecular Biology I, II (5, 5)  
The cellular and molecular biology of eucaryote cells emphasizing membrane structure and function, structure of genetic material, control of gene expression, and protein synthesis, cell division and differentiation. Prerequisites: Graduate standing, BIOL 4170 or equivalent, and one quarter of biochemistry. (F,W)
- 6160 Community and Ecosystem Ecology (4)  
Structure, dynamics and distributional aspects of ecological communities and energy flow relations in whole ecosystems. Lectures and intensive field work in selected communities, with emphasis on those of central California. Prerequisite: BIOL 3110 or equivalent. Recommended: advanced taxonomic courses in zoology. Two hrs. lect., 6 hrs. field (or lab).



- 6170 Population Ecology (4)  
Factors affecting reproduction, age composition, turnover, density and dispersion, and their fluctuations in time among populations of animals and plants, with brief comparisons from studies of plants. Prerequisite: BIOL 3110 or equivalent. Genetics, statistics and advanced zoology and/or botany courses recommended. Three hrs. lect., 3 hrs. lab. and/or field trips.
- 6180 Estuarine Wetlands Ecology (4)  
Advanced applications of modern ecological research in bay shore environments. Emphasis on field experimentation along vertical and horizontal estuarine gradients of both physical and biotic factors, particularly salinity, desiccation, predation, and competition for various resources. Prerequisites: BIOL 3110 or equivalent, graduate standing or consent of instructor. Two hrs. lect., 6 hrs. lab/field.
- 6340 Environmental Microbiology (4)  
Key positions that microorganisms occupy in nature and their effects on global ecosystems; includes bioremediation, disease transmission/public health, biogeochemical cycling, plant-animal-insect-microbe interactions. Required project, designed, implemented and analyzed by student. Prerequisite: BIOL 3405. Not open to students with credit for BIOL 4340.
- 6510 Physiological Animal Ecology (4)  
The adaptation of an organism to its environment: osmoregulation, and water balance, oxygen intake in different habitats, metabolism and the environment, environmental adaptation of various sense organs, special sensory modalities, cyclic reproductive physiology and its adaptive significance, physiological stress and its role in population control, and thermal physiology and ecology. Prerequisites: BIOL 3110 and 3150. 3580, 4570, 4575, 4580, 4585. Two hrs. lect., 6 hrs. lab., field trips.
- 6520 Mammalian Physiology Laboratory (3)  
Advanced treatment of regulatory mechanisms in mammalian organ systems. Laboratory techniques of anesthesia, surgery, instrumentation and data analysis. Emphasis on cardiovascular, respiratory, renal and gastrointestinal physiology. Terminal project required. Not open to students with credit for BIOL 4520. Prerequisites: BIOL 3150 or equivalent. One hr. lect., 6 hrs. lab.
- 6530 Ecological Methods (4)  
Methods of design and analysis of ecological studies, including sampling techniques, field and laboratory measurements, and computer-aided data analysis including introductory modeling. Required ecological field project, designed, implemented and analyzed by student. Prerequisites: BIOL 1301-2-3 or equivalent, BIOL 3110, and graduate standing. Recommended: statistics course. Three hrs. lect., 3 hrs. lab/field.
- 6610 Transmission Electron Microscopy (2)



Theoretical principles of tissue preparation and function of electron lenses. Special techniques such as negative staining, freeze fracture, cryomicrotomy, autoradiography and immunochemistry will be discussed. Techniques of quantitative data analysis and experimental design. Prerequisite: graduate standing or permission of instructor. (Alt. Y)

- 6611 Transmission Electron Microscopy Laboratory (2)  
Applied techniques of transmission electron microscopy. Students will learn to operate the electron microscope and perform research on biological structures. Prerequisites: BIOL 6610 and permission of instructor. A miscellaneous course fee will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Six hrs lab. (Alt. Y)
- 6613 Scanning Electron Microscopy (3)  
Theoretical and practical applications of scanning electron microscopy emphasizing techniques used in biology and geology. Use of energy-loss spectroscopy, back scattering, secondary electrons, and aujer electrons. Prerequisite: permission of instructor. A miscellaneous course fee will be charged for materials. Consult the quarterly Class Schedule for the current fee. Two hrs. lect./demonstration, 3 hrs. lab.
- 6801 Graduate Seminar-Ecology (3)  
A seminar in ecology, with a different theme or subject area to be chosen each year. Course based on papers presented by students enrolled. May be repeated once for credit. Prerequisite: graduate standing in biology or consent of instructor. (Y)
- 6811 Graduate Seminar-Physiology (3)  
A seminar course dependent upon papers presented by students enrolled. The specific subject area of physiology will be chosen each year. Prerequisite: graduate standing in biology or consent of instructor. May be repeated once for additional credit. (Y)
- 6821 Graduate Seminar in Cell and Molecular Biology (3)  
A seminar course involving presentation and discussion of current research literature in cell and molecular biology. The specific subject matter will be at the discretion of the instructor. Prerequisite: graduate standing in biology or consent of instructor. May be repeated once for additional credit. (Y).
- 6831 Graduate Seminar in Microbiology (3)  
A seminar course based on papers presented by students enrolled. A different subject area in microbiology will be chosen each quarter of offering. May be repeated once for credit. Prerequisite: graduate standing or consent of instructor.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes

academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units, 4 units of which are applicable to a biology graduate degree. Prerequisites: at least 3.0 GPA; departmental approval of activity. (A)

6900 Independent Study (1-4)

6909 Departmental Thesis (1-4)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. CR/NC grading only. Prerequisite: graduate standing.

6910 University Thesis (1-9)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. CR/NC grading only. Prerequisite: graduate standing. Maximum of 9 units per student. (See also "University Thesis Writing Guide," available in WA 859.)

### Marine Science Courses

See the [Marine Science chapter](#) for descriptions of the following courses. (The course prefix for the following courses is MSC.)

*Offered at the Moss Landing Marine Laboratories*<sup>1</sup>

6202 Marine Instrumental Analysis (6)

6204 Sampling and Experimental Design (6)

6208 Molecular Ecology (6)

6211 Ecology of Marine Birds and Mammals (6)

6212 Advanced Topics in Marine Vertebrates (1.5-6)

6221 Advanced Topics in Marine Invertebrates (1.5-6)

6222 Biology of the Mollusca (6)

6231 Biology of Seaweeds (6)

6233 Advanced Topics in Marine Ecology (1.5-6)

6234 Advanced Biological Oceanography (6)

6271 Population Biology (4.5)

6272 Subtidal Ecology (6)

6274 Advanced Topics in Oceanography (1.5-6)

6280 Scientific Writing (4)

6285 Graduate Seminar in Marine Biology (3)

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## Footnotes

6900 Independent Study (1.5-6)

6910 University Thesis (1.5-6)

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**1**Courses listed under Marine Science at Moss Landing Marine Laboratories are offered on a semester basis in the Fall and Spring. Semester units have been converted to quarter units.



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## Department Information

## Moss Landing Marine Laboratories

## Marine Science

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### Moss Landing Marine Laboratories

*Professors:* William W. Broenkow, Gregor M. Caillet, Kenneth Coale (Acting Director), Michael S. Foster, Gary Greene, Kenneth S. Johnson, Nicholas A. Welschmeyer

*Associate Professors:* Jonathan Geller, James T. Harvey

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The California State University operates the Moss Landing Marine Laboratories (MLML) at Moss Landing on Monterey Bay, California. This facility functions as a seaside extension of the campuses of seven cooperating California State Universities (Hayward, Monterey Bay, San Jose, San Francisco, Sacramento, Stanislaus, and Fresno) and offers course work in marine biology, geology, oceanography, and other marine sciences.

### Facilities

Beginning January 2000, the Laboratories will occupy new facilities in Moss Landing overlooking Monterey Bay and replacing the original laboratory demolished in the 1989 Loma Prieta earthquake. The stunning new building provides modern, up-to-date classrooms, laboratories, research facilities, library and conference room for faculty, staff and students of the consortium campuses.

MLML's Marine Operations Center, located also in Moss Landing, facilitates oceanographic and near-shore classes and research by providing shore support. The Center houses equipment used for in-port maintenance of scientific equipment, SCUBA air compressor, shore-based radio operations, and other support needs.

The MLML maintains a collection of nautical charts and topographical maps with an emphasis on the West Coast and there is a growing collection of reprints. It also subscribes to abstracting services such as "Oceanic Abstracts" and "Aquatic Sciences and Fisheries Abstracts". A terminal is available for

computer literature searches. Close ties are maintained with libraries at Stanford's Hopkins Marine Station, U.C. Santa Cruz, Naval Postgraduate School, San Jose State University, and the Monterey Bay Aquarium Research Institute. Materials are borrowed from these agencies or further afield as the need arises. A special effort has been made to collect materials relating to Monterey Bay and Elkhorn Slough.

As a member of the Central California Oceanographic Cooperative (CENCAL), MLML operates the 135-foot Research Vessel Point Sur. The R/V Point Sur, built in 1981, is well-equipped for instructional use and research, with a trawl winch, two hydrographic winches and three laboratories, scientific equipment for sampling and oceanographic profiling, Smith-McIntyre grabs, rock dredges, and various types of coring devices. Also available is a variety of nets for bottom and midwater trawls.

The Laboratories also own and operate the 56-foot R/V John Martin and the 35-foot R/V Ed Ricketts. These boats are used for trawling, water sampling and other work near shore, and serve as diving platforms.

In addition, faculty and students at MLML utilize other University National Oceanographic Laboratory System (UNOLS) vessels when they have research requirements for larger vessels or for vessels in a different area of the world. MLML personnel have participated in cruises to Baja California, Hawaii, the Bahamas, Mexico, South America, the Arctic, and the Antarctic.

### Graduate Program

A Master of Science in Marine Science degree program is offered at MLML for students from Cal State Hayward and the other consortium schools. Details of this program follow. In addition, graduate students from Cal State Hayward may take such courses at Moss Landing as are appropriate to their degree objectives, including that of an M.S. in Biological Science or an M.S. in Geological Sciences. (See the Biological Science and Geology chapters in the graduate section of this catalog.) A major part of the work leading to the M.S. degree in Biological Science, particularly in the environmental biology option, or to the M.S. degree in Geological Sciences may be completed at the Marine Laboratories. Normally, a minimum of one or two quarters enrollment for other necessary courses on the Hayward campus may also be required.

### Courses Offered

Full-time coursework and research in marine sciences are offered the year around. Emphasis in instruction and research is at the upper-division undergraduate and graduate levels. The Laboratories operate on a semester system during the academic year.

A total of thirty to forty units are offered each term in marine biological and physical sciences. Contact the Cal State Hayward Department of Biological Sciences for a current list of courses for the term you wish to attend, or you can write to Moss Landing Marine Labs, 8272 Moss Landing Road, Moss Landing, CA 95039. Basic courses offered every term include marine ecology, marine science diving, graduate seminar, and selected topics in marine sciences. See graduate course offerings listed at the end

of this section. Also see the Marine Science chapter in the Undergraduate section of this catalog for undergraduate course listings.

### Nature of Instructional Program

Classes usually are small, with major emphasis upon field and laboratory instruction, and with a strong independent study or directed research component. Coursework usually is organized into large blocks of time-all day on a given day. Since field and laboratory activities are more demanding of time and energy than is usual for on-campus courses, the staff recommends that the student limit his or her academic load to twelve units. While it is possible to commute to Moss Landing for part-time work, this is not recommended because of the time and energy drain. In addition to standard course offerings, independent study (undergraduate) and graduate research and thesis work may be undertaken under supervision of staff members currently in residence.

### Research Areas and Emphases at Moss Landing

Stress is upon field-oriented studies of marine and estuarine ecosystems, with physical science researches concerned particularly with geological, chemical, and physical limiting factors, and biological investigations dealing with relationships of organisms to these factors. Where possible, physical and biological studies are paired to provide reciprocal benefits from a team approach and from interdisciplinary faculty sponsorship. The near-shore shallow waters of Monterey Bay, Elkhorn Slough, and the deep waters of the Monterey Submarine Canyon provide a wide diversity of habitats.

### Housing in Moss Landing Area

Commercial housing (apartments, small furnished houses, rooms with or without board, etc.) is available at communities near Moss Landing-Castroville, Salinas, Watsonville, Aptos, Monterey. Short-distance commuting from these areas is necessary; thus, availability of a car or participation in a car pool usually is required.

### Registration Procedures

Since MLML courses are offered on the semester system (Fall and Spring semesters), there are special registration procedures.

Students must complete and submit a "Space Reservation" form to MLML (available through the Cal State Hayward Department of Biological Sciences and through MLML). Permission must be given by the Cal State Hayward Biological Sciences Secretary for Hayward MLML students to register by phone via SAILOR (the on-line registration system). Students must also attend the first day of classes at MLML.

Fall and Spring SAILOR registration for MLML courses is at the same time as Cal State Hayward's regular Fall and Spring registration. Fall registration fees are paid at the same time as regular Fall registration fees. Spring registration fees must be paid at the beginning of Spring semester MLML classes (end of January).

## Program Description

This degree program, offered through the Department of Biological Sciences and the Department of Geological Sciences, provides the opportunity for students to acquire a practical and theoretical education in the marine sciences to prepare them for careers as marine specialists, scientists and teachers. The program at Moss Landing provides interdepartmental work and a field facility for advanced study in the marine sciences which cannot be duplicated on the Cal State Hayward campus.

## Admission to the Program

The master's degree program is administered through either the Department of Biological Sciences or Department of Geological Sciences, depending on the choice of the student. The prospective student must meet the admission requirements of either of these departments. Refer to descriptions of these department graduate programs for complete information. Students will be accepted as "Conditionally Classified Graduate" students in the department of their choice upon completion of the admission requirements. The student will become a "Classified Graduate" student upon completion of MLML's requirements (below).

## MLML Classification in the Program

A "Conditionally Classified Graduate" student may become a fully "Classified Graduate" student in the marine science program as set forth in the following steps.

1. Obtain an adviser at MLML and one from the science department at the home campus. Each new student in the master's program at MLML will be assigned an advisor who may or may not be the final thesis advisor.
2. Make up any coursework deficiencies in either the home campus department (see their regulations) and/or at MLML. M SC 4104 Quantitative Marine Science, and three of the following five courses are prerequisites for "Classified Graduate" standing: M SC 4103 Marine Ecology, 4141 Geological Oceanography, 4142 Physical Oceanography, 4143 Chemical Oceanography, and 4144 Biological Oceanography. These courses may be waived by the graduate committee upon certification that equivalent courses have been satisfactorily completed. M SC 4104 Quantitative Marine Science cannot be counted toward the 45 unit degree requirement.
3. Students who do not receive a grade of "B" or better in the courses described in (2) above taken at MLML, or who wish to substitute equivalent courses taken elsewhere regardless of the grade(s) received, must petition to have the courses accepted, or must pass a written qualifying examination given by the faculty at MLML. The examination will substitute for any equivalent examination given by home campus departments. There is no official time limit, but the exam should be taken as soon as possible; only a limited number of units taken while in "Conditionally Classified" status can be counted toward the degree. The exam may be repeated once, and must be passed before the student can be "Classified." The examination will consist of a choice of five out of six questions designed to test knowledge of the concepts and principles of oceanography, marine ecology, and statistics as covered in the courses listed

under (2) above. It will be used to evaluate the student's background in these subject areas and the ability to write well and formulate answers logically. Each answer will be graded "pass" or "fail" by two faculty members (a third faculty member will resolve disagreements) on accuracy, content, and ability to clearly communicate. For a reading list covering the required material and further details concerning the exam, see MLML's Assistant to the Director.

4. Students must have satisfied the University Writing Skills requirement according to Cal State Hayward standards.

### Advancement to Candidacy

In order to be Advanced to Candidacy, the student must have:

1. attained "Classified Graduate" standing;
2. selected a thesis problem and a thesis advisor committee. The thesis committee will be composed of at least three members, including one faculty member from MLML (who is ordinarily the thesis advisor) and, at the discretion of the home campus, a representative from that campus. The other member or members of the thesis committee may be from MLML, the home campus, or elsewhere, with the approval of the thesis advisor.

### Curricular Requirements

A student becomes eligible for the master's degree in Marine Science after the following requirements have been satisfied:

1. The student has been Advanced to Candidacy
2. The student has satisfied MLML's requirements for the degree
3. The student has completed the following curriculum requirements:
  - a. A minimum total of 22.5 quarter units of 6000-level courses (a minimum of 45 units), including 3 units of M SC 6285, 6286, or 6287, and 6 units of M SC 6910.
  - b. A total of not more than 22.5 units of 3000-, 4000-, and/or 6000-level courses as approved by the thesis committee. Elective courses that may be used to satisfy requirements for the major are listed below by catalog number, title, and quarter units of credit.

M SC 4110 Introduction to Marine Animal Behavior (6), 4112 Marine Birds and Mammals (6), 4113 Marine Ichthyology (6), 4124 Marine Invertebrate Zoology I (6), 4125 Marine Invertebrate Zoology II (4.5), 4131 Marine Botany (6), 4135 Physiological Ecology of Marine Algae (6), 4161 Marine Fisheries (6), 4173 Topics in Marine Biology (1.5-6), 4174 Topics in Oceanography (1.5-6), 4175 Topics in Marine Science (1.5-6), 4177 Microscope Techniques (4.5)

M SC 6202 Marine Instrumental Analysis (6), 6204 Sampling and Experimental Design (6), 6208 Molecular Ecology: Concepts and Methods (6), 6211 Ecology of Marine Birds and Mammals (6), 6212 Advanced Topics in Marine



## Graduate Courses

Vertebrates (1.5-6), 6221 Advanced Topics in Marine Invertebrates (1.5-6), 6222 Biology of the Mollusca (6), 6231 Biology of Seaweeds (6), 6233 Advanced Topics in Marine Ecology (1.5-6), 6234 Advanced Biological Oceanography (6), 6242 Plate Tectonics (4.5), 6244 Paleoceanography (6), 6245 Deep Sea Sedimentation (6), 6251 Marine Geochemistry (6), 6261 Ocean Circulation and Mixing (6), 6262 Satellite Oceanography (6), 6263 Application of Computers in Oceanography (6), 6271 Population Biology (4.5), 6272 Subtidal Ecology (6), 6274 Advanced Topics in Oceanography (1.5-6), 6280 Scientific Writing 3., 6900 Independent Study (1.5-6)

Other electives, including courses from the home campus departments, may be included after consultation with the advisory committee. The combination of required units (seminar and thesis) and elective units must total at least 45 quarter units.

4. The student must have submitted a University Thesis approved by the thesis advisory committee. The thesis must conform to the rules set forth in the Cal State Hayward "University Writing Guide" available in WA 859.
5. The student must successfully give an oral thesis defense in the form of a seminar open to the general public. The thesis advisory committee must be present, may require further oral questioning after the seminar, and will evaluate the success of the presentation.

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*The course prefix for the following courses is M SC. Units are quarter units, class hours are weekly on semester calendar.*

### Biological Science

- 6202** Marine Instrumental Analysis (6)  
Theory and use of advanced instrumentation; advanced field and lab techniques for the interpretation of data collected in marine science research. Prerequisites: GEOL 3400, M SC 4142, 4143. Two hrs. lect., 6 hrs. lab. (Alt. Sp)
- 6204** Sampling and Experimental Design (6)  
Basic design of experiments and field sampling; random sampling, systematic sampling, subsampling, survey techniques, and design of single and multifactorial experiments using randomized and block experiment designs. Prerequisites: M SC 4103 and 4104. Four hrs. lect.
- 6208** Molecular Ecology: Concepts and Methods (6)  
Basic molecular methods such as DNA and RNA isolation, amplification, cloning, and DNA sequencing. Students execute individual or team projects. Prerequisites: a basic course in cellular/molecular biology and consent of instructor. Three hrs. lect., 9 hrs. lab.
- 6211** Ecology of Marine Birds and Mammals (6)

Community approach to ecology of marine birds and mammals using experimental and sampling methodology, examining the distribution, abundance, trophic ecology, and behaviors of birds and mammals in Elkhorn Slough and Monterey Bay. Prerequisites: M SC 4103, 4104 and 4112. Two hrs. lect., 6 hrs. lab/field.

- 6212 Advanced Topics in Marine Vertebrates (6)  
Advanced consideration of the ecology, physiology, and phylogeny of fishes, birds, or mammals, emphasizing current literature and research. Topics and emphasis vary with term and instructor. May be repeated for credit with consent of instructor. Prerequisites: BIOL 3580, M SC 4112, 4113, or BIOL 4570, and consent of instructor. Two hrs. lect., 6 hrs. lab. (Alt. F)
- 6221 Advanced Topics in Marine Invertebrates (6)  
Advanced considerations of the ecology, physiology, and phylogeny of the various invertebrate phyla emphasizing current literature and research. Topics and emphasis vary from term to term. May be repeated for credit with consent of instructor. Prerequisites: M SC 4124 or BIOL 3521, 3522 and consent of instructor. Two hrs. lect., 6 hrs. lab. (On demand)
- 6222 Biology of the Mollusca (6)  
Systematics, functional morphology, ecology and physiology of the mollusca with emphasis on marine forms. Prerequisites: M SC 4124 or BIOL 3521, 3522 and consent of instructor. Two hrs. lect., 6 hrs. lab.
- 6231 Biology of Seaweeds (6)  
Lecture-discussion on marine macroalgal biology with extensive reading of original literature. Ecologically oriented individual research projects involving laboratory culture and field experimentation. Prerequisites: M SC 4131 or equivalent, consent of instructor. Two hrs. lect., 6 hrs. lab. field (Alt. Sp)
- 6233 Advanced Topics in Marine Ecology (1.5-6)  
Selected topics and current issues in marine ecology. The subjects vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisites: M SC 4103 and consent of instructor. (On demand)
- 6234 Advanced Biological Oceanography (6)  
A continuation of biological oceanographic studies. Lectures and discussion of special topics such as human impact on the marine environment. Critical analyses of current literature. An individual research project involving the use of one or more available analytical tools is required. Prerequisites: M SC 4144 or consent of instructor. Two hrs. lect., 6 hrs lab.
- 6271 Population Biology (4.5)  
Principles involved in interaction among marine organisms which result in the alteration of population structures. Techniques for assessment and management of animal populations. Not open to students with credit for BIOL

6170. Prerequisites: M SC 4103, 4104 or STAT 3031 and consent of instructor. Two hrs. lect., 3 hrs. lab/field.

- 6272 Subtidal Ecology (6)  
The ecology of nearshore rocky subtidal populations and communities with emphasis on kelp forests. Lectures and discussions of original literature. Field work with SCUBA including group projects on underwater research techniques and community analysis, and individual research on ecological questions chosen by the student. Prerequisites: MLML diver certification and marine ecology (knowledge of marine algae, invertebrates, and statistics recommended). Two hrs. lect., 6 hrs. lab.
- 6274 Advanced Topics in Oceanography (1.5-6)  
The study of a selected area in oceanography. The subjects vary depending on student demand and availability of instructors. Prerequisite: consent of instructor. May be repeated for credit with consent of instructor.
- 6280 Scientific Writing(3)  
The techniques and strategies of scientific writing used for proposals, journal submissions, and abstracts of meetings. Students will develop their writing skills by preparing, editing, and rewriting manuscripts. Prerequisites: graduate standing and consent of instructor. Two hrs. lect/disc.
- 6285 Graduate Seminar in Marine Biology (3)  
A seminar in marine science for presentation and discussion of advanced studies in special fields. May be repeated once for credit. Prerequisites: graduate standing and consent of instructor. Two hrs. seminar, discussion. (F, Sp, Su)
- 6900 Independent Study (1.5-6)
- 6910 University Thesis (1.5-6)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide" available in WA 859 at Cal State Hayward.)

## Geological Sciences Courses

- 6202 Marine Instrumental Analysis (6)  
Theory and use of advanced instrumentation; advanced field and lab techniques for the interpretation of data collected in marine science research. Prerequisites: M SC 4101 or GEOL 3400, M SC 4102, CHEM 2200. Two hrs. lect., 6 hrs. lab. (Alt. Sp)
- 6204 Sampling and Experimental Design (6)  
Basic design of experiments and field sampling; random sampling, systematic sampling, subsampling, survey techniques, and design of single and multifactorial

experiments using randomized and block experimental designs. Prerequisites: M SC 4103 and 4104. Four hrs. lect.

- 6242 Plate Tectonics (4.5)  
Historical background, modern theory and geophysical evidence of continental drift, sea floor spreading and plate tectonics. Examinations of the impact of the recent revolution in historical geology. Prerequisites: M SC 4141 or consent of instructor. Three hrs. lect. (Alt. F)
- 6244 Paleoceanography (6)  
Interdisciplinary studies of the provenance, biologic and geologic composition of marine sediments and of the organisms contributing to their formation; sedimentary processes affecting these sediments. Prerequisites: M SC 4101 and college geology and biology. Three hrs. lect., 3 hrs. lab. and field. (Alt. Sp)
- 6245 Deep Sea Sedimentation (6)  
Study of the types of marine sediment found in the deepest part of all oceans; the sedimentary processes responsible for the deposition, preservation and re-deposition of these sediments. Prerequisites: M SC 4141 or consent of instructor. Three hrs. lect., 3 hrs. lab.
- 6251 Marine Geochemistry (6)  
Geochemical processes in the oceans: thermodynamics of low temperature aqueous reactions, weathering, oxidation-reducing and biologically mediated reaction, processes occurring at the sea floor and air-sea interface. Prerequisites: M SC 4143, quantitative analysis, one year of calculus, or consent of instructor. Two hrs. lect., 6 hrs. lab.
- 6261 Ocean Circulation and Mixing (6)  
The mathematical description of the distribution of properties (density, dissolved oxygen, etc.) in the oceans relating to physical and biochemical processes. Theory of distribution of variables, geostrophic method. Prerequisites: M SC 4142 and college physics strongly recommended; one year of calculus, or consent of instructor. Three hrs. lect., 3 hrs. lab. (Alt. Sp)
- 6262 Satellite Oceanography (6)  
Basic principles of remote sensing of the oceans, including electromagnetic radiation, physical principles, blackbody radiation, atmospheric scattering and absorption. Principles of radiometric measurements, mapping, imagery. Prerequisites: M SC 4142 and 4143 or consent of instructor. M SC 6263 and computer literacy recommended. Two hrs. lect., 6 hrs. lab.
- 6263 Application of Computers in Oceanography (6)  
Marine Science applications of multi-user computer including use of existing programs, subroutine libraries, computer communications, and scientific programming for data analysis. Prerequisites: M SC 4104, college math, and consent of instructor. Two hrs. lect., 6 hrs. lab.

- 6274 Advanced Topics in Oceanography (1.5-6)  
The study of a selected area in oceanography. The subjects vary depending on student demand and availability of instructors. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.
- 6286 Graduate Seminar in Marine Geology (3)  
Seminar on topics in marine geology with change in subject each term of offering. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. Two hrs. seminar, disc. (Alt. F)
- 6287 Graduate Seminar in Oceanography (3)  
Seminar on topics in oceanography with change in subject each term of offering. Each student will be required to give at least one seminar. May be repeated once for credit. Prerequisite: Consent of instructor. Two hrs. seminar, disc. (F, Sp)
- 6900 Independent Study (1.5-6)
- 6910 University Thesis (1.5-6)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 quarter units per student. (See also "University Thesis Writing Guide," available in WA 859 at Cal State Hayward.)



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- ▶ [M.S. in Taxation](#)
- ▶ [Taxation Certificate](#)
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### Department Information

Departments of Accounting and Computer Information Systems, Economics, Management and Finance, Marketing  
School of Business and Economics

Dean: Jay L. Tontz  
Dean's Office: Music and Business Bldg., Room 2571  
Phone: (510) 885-3311

*Please consult the 2001-2002 online catalog for any changes that may occur.*

- School of Business and Economics Student Service Center (MB 2525, 510-885-3323)
- Department of Accounting and Computer Information Systems (MB 2579, 510-885-3336)  
*Professor Emeritus:* Edward T. Ossman

*Professors:* Doris G. Duncan, Micah Frankel, Vernon T. S. Kam (Chair), Franklin Lowenthal, Christopher W. K. Lubwama, Nancy R. Mangold, Bijan Mashaw, Gary R. McBride, Kenneth Pefkaros, Ray Roberts, Diane Satin, Philip P. Storrer, Kathleen K. Wright

*Associate Professors:* Alexander Bordetsky, Ching-Lih Jan, Y. Robert Lin

*Assistant Professor:* Xinjian Lu

*Lecturers:* Charlene Abendroth, Suzanne M. Busch, James E. Potter, Bruce L. Raine, Lily Sieux, Gregory Sinclair, F. Victor Stanton

- Department of Economics (MB 2583, 510-885-3339)  
See the undergraduate Economics chapter for a listing of Economics faculty and a description of the Economics major and minor.

• Department of Management and Finance (MB 2591, 510-885-3322)

*Professors:* S. David Aviel, Sam N. Basu, Loretta Breuning, Samuel I. Doctors, Spyros Economides, Craig G. Johnson, John G. Kilgour, Duane R. Lambert, John B. Major, Stephen H. Miller, William L. Moore, Surendra Pradhan, Zinovy Radovitsky, Susan D. Schaefer, Allen J. Schuh, Paul D. Staudohar, Harry Waters, Jr., John J. Villarreal, William D. Whisler, Donna L. Wiley, Donald H. Wort (Chair), Richard Zock

*Associate Professors:* Hadi Behzad, Joyendu Bhadury, Alan P. Goldberg, Sharon Green, Guido Krickx, Fung-Shine Pan

*Assistant Professor:* Stephen L. Starling

• Department of Marketing and Entrepreneurship (MB 2583, 510-885-4146)

*Professor Emeritus:* Bruce MacNab

*Professors:* Chong Lee (Chair), Ricardo L. Singson, Norman Smothers, Eric Soares, Steve Ugbah

*Associate Professor:* Jagdish Agrawal

*Assistant Professors:* Cesar Maloles, Stevina Evuleocha

• Institutes and Centers

Center for Business and Environmental Studies.

*Director:* Samuel I. Doctors

Center for Economic Education.

*Director:* Jane E. Lopus

Center for New Ventures and Alliance

*Director:* Ricardo L. Singson

Human Investment Research and Education Center

*Director:* Nan Maxwell

Institute of Research and Business Development

*Executive Director:* Bruce MacNab

Smith Center for Private Enterprise Studies

*Director:* Charles W. Baird; *Associate Director:* Micah Frankel

Graduate Programs (MB 2565, 885-3964)

*Director of Graduate Programs:* Donna L. Wiley

Graduate Faculty Advisors for M.B.A. Options

*M.B.A./Accounting:* Charlene Abendroth

*M.B.A./Business Economics:* Nan Maxwell

*M.B.A./Computer Information Systems:* Doris Duncan, Franklin Lowenthal, Kenneth Pefkaros

*M.B.A./Executive:* Kurt Leube

*M.B.A./Finance:* Sam N. Basu, Surendra Pradhan

*M.B.A./Human Resources Management:* Donna L. Wiley

*M.B.A./International Business:* Loretta Breuning

*M.B.A./Management Sciences:* John Villareal

*M.B.A./Marketing Management:* Jagdish Agrawal, Cesar Maloles



## Program Description

*M.B.A./New Ventures/Small Business Management:* Ricardo L. Singson  
*M.B.A./Operations and Materials Management:* Zinovy Radovitsky, Stephen L. Starling  
*M.B.A./Operations Research:* Alan Goldberg  
*M.B.A./Strategic Management:* Guido Krickx  
*M.B.A./Taxation:* Kathleen K. Wright  
*M.B.A./Telecommunications Management:* Alexander Bordetsky, Kevin Brown

Graduate Coordinators

*M.S./Taxation:* Kathleen K. Wright  
*M.S.B.A./Computer Information Systems/Quantitative Business Methods:* Alan Goldberg, Frank Lowenthal

The mission of the master's programs in the School of Business and Economics (SBE) at Cal State Hayward is to provide an excellent graduate education that will allow you to succeed in a business environment that is characterized by rapid technological advancements; a work force of ethnic, cultural, and gender diversity; demands for continuous improvements in quality and service; the necessity for continuous individual and organizational learning; and need for the understanding and skills to practice in global markets. All SBE programs are accredited by The American Assembly of Collegiate Schools of Business (AACSB).

The Master of Business Administration (M.B.A.) program is designed to provide you with a balance of functional expertise and general managerial competencies. You may select from fifteen areas of concentration called options, each of which includes electives both within and outside of your area of concentration. This allows you to tailor the program to meet your individual career goals. In addition, four specialized master's programs, the M.S. in Business Administration with an Option in Computer Information Systems/Quantitative Methods, M.S. in Taxation, M.A. in Economics (see Economics chapter in graduate section of this catalog), and M.S. in Telecommunication Systems (see Telecommunication Systems chapter in graduate section of this catalog), prepare students who seek specialized careers in these areas.

In pursuit of this mission, graduate programs in the School of Business and Economics will provide you with:

- a balance of theoretical concepts and practical approaches to business problems;
- a balance of quantitative, analytical, and interpersonal skills;
- an understanding of the ethical, political, social, legal, environmental, and technological issues that influence business;
- opportunities to experience and gain expertise in leading edge instructional and business technologies;
- an understanding of global issues facing business and opportunities for international educational experiences; and



- a broad, multidisciplinary, strategic vision that allows you to manage innovation and change.

The School of Business and Economics offers the following master's degrees in the area of business administration:

1. Master of Business Administration (M.B.A.) with the following options:
  - a. Accounting
  - b. Business Economics
  - c. Computer Information Systems (C.I.S.)
  - d. Executive
  - e. Finance
  - f. Human Resources Management
  - g. International Business
  - h. Management Sciences
  - i. Marketing Management
  - j. New Ventures/Small Business Management (NVSBM)
  - k. Operations and Materials Management
  - l. Operations Research
  - m. Strategic Management
  - n. Taxation
  - o. Telecommunications Management
2. Master of Science (M.S. in Business Administration) with an Option in Computer Information Systems/Quantitative Business Methods (Q.B.M.)
3. Master of Science (M.S.) in Taxation

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## Secondary Level Teaching Program

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If you are interested in secondary teaching, be aware that the university does not offer either a subject matter preparation program or a credential program in Business Education. Furthermore, although you can complete the undergraduate Business Administration major on this campus and then enroll in the fifth year credential program elsewhere, the university does not offer all of the coursework prerequisites to some credential programs.

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## Course Offerings

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### Hayward Campus

All requirements for all graduate programs of the School of Business and Economics are offered on the Hayward campus except for the Executive Option. Lower and upper division courses satisfying the graduate program foundation requirements are scheduled both during the day and in the evening. Graduate courses (6000-level) are offered primarily in the evening.

### Contra Costa Campus

The upper division undergraduate courses for the M.B.A. foundation coursework and the 6100-6999 level courses needed for the M.B.A. core and for the Finance and Management Sciences options of the M.B.A. program are also offered at the Cal State Hayward, Contra Costa Campus, 4700 Ygnacio Valley

## Common Requirements

Road, Concord, 94521, phone (925) 602-6700. If you are enrolled in other M.B.A. options, you can complete all of your remaining upper division M.B.A. foundation requirements, the M.B.A. core, and one to three of your option requirements at Contra Costa, leaving you with a maximum of six graduate courses to be completed on the Hayward campus. No lower division courses are offered at Contra Costa; thus, any lower division M.B.A. prerequisites that you have not completed will need to be taken at a community college, the Hayward campus, or another accredited institution.

Upper division courses at Contra Costa are scheduled both during the day and in the evening; graduate 6000-6999 level courses are offered only in the evening. See the General Information chapter and the map at the back of this catalog for additional information on the Cal State Hayward Contra Costa Campus.

### For M.B.A., M.S. Business Administration, and M.S. Taxation Degrees

#### Admission

These programs are open to students who hold a baccalaureate degree from an accredited college or university.

Applications for admission to the M.B.A. Program are accepted for each quarter. Each applicant is evaluated on the basis of: (1) past academic records as reflected in undergraduate grade point average and subsequent coursework; (2) results of the Graduate Management Admissions Test (GMAT).

Admission is automatic for applicants with (1) a minimum 1050 "Index Score" and (2) minimum 20th percentile GMAT verbal and quantitative scores. [Index Score = (Upper Division GPA x 200) + Total GMAT].

Applicants who do not meet the above criteria are referred to the Graduate Admissions Committee for consideration for admission to the program. The applicant should provide the committee with complete background information including: (1) post-baccalaureate academic performance; (2) recent work experience; (3) community activities and service; (4) letters of recommendation; and (5) a statement of purpose that details the candidate's qualifications and objectives and his/her reasons for pursuing an M.B.A.

#### Classification in the Programs

If you have a baccalaureate degree from a regionally accredited institution but have not been admitted to any graduate degree program, you can apply for admission to the university as an "Unclassified Post-baccalaureate" student (formerly called a "non-objective" student). If you are enrolled as an "Unclassified Post-baccalaureate" student and wish to be admitted into the M.B.A. program, you should complete a "Change of Graduate Objective" form, which may be obtained at the Student Services Center (SBE) or Enrollment Services Office. Admission to the university as an "Unclassified Post-baccalaureate" student in no way implies acceptance to a graduate degree program. Undergraduate and "Unclassified Post-baccalaureate" students may not take 6000-level courses with ACCT, CIS, FIN, MGMT, MKTG or TC prefixes.

In addition, certain 6000-level courses in the Department of Economics are also closed to undergraduates and "Unclassified Post-baccalaureate" students (see Economics chapter in graduate section of this catalog).

There are three levels of advancement for you within the M.B.A., M.S. Business Administration, and M.S. Taxation programs: "Conditionally Classified Graduate" standing, "Classified Graduate" standing, and Advancement to Candidacy.

1. *"Conditionally Classified Graduate" standing*

If you have been admitted to a graduate degree program but have not satisfied all of the foundation coursework, other program requirements, and/or the University Writing Skills requirement, you are a "Conditionally Classified Graduate" student. You may be admitted to a graduate degree program as a "Conditionally Classified Graduate" student upon:

- a. submission of an application with required supporting documents and fee payment to the Admissions Office of the university;
- b. acceptance by the program based on past academic performance, GMAT score, and other relevant criteria;
- c. completion of other appropriate requirements as specified in the Graduate and Post-baccalaureate chapter of this catalog.

2. *"Classified Graduate" standing*

If you have been admitted to a graduate degree program by meeting the requirements established in item (1) above, and have fulfilled all foundation coursework proficiencies, and other requirements including the University Writing Skills requirement, you can become a "Classified Graduate" student. As a practical matter, if you enter the program with a strong background in your new field of study and have satisfied the University Writing Skills requirement, you can begin as a "Classified Graduate" student. If you enter the program from a different discipline, you can become a "Classified Graduate" student after completing foundation coursework and have been recommended for such standing by the department. You must have satisfied the University Writing Skills requirement as explained in the Graduate and Post-baccalaureate Studies chapter in this catalog and all other proficiency evaluations (e.g., the School of Business Proficiency Test) specified for your degree program.

3. *Advancement to Candidacy.*

To be Advanced to Candidacy you must:

- a. be a "Classified Graduate" student in good standing;
- b. have completed 12 quarter units of 6100-6999 level courses beyond the 6000 through 6099 foundation courses;
- c. have completed such other requirements as prescribed by the program faculty;
- d. have been recommended for Advancement to Candidacy by the program faculty.

The academic performance of all SBE graduate students will be monitored by the SBE Director of Graduate Programs. Those found to have an unsatisfactory performance at any point in time will be recommended for disqualification from their degree program.

#### Proficiency Evaluations

Proficiency evaluations in writing skills must be satisfied in each of the Business Administration graduate programs. All students must satisfy the University Writing Skills Requirement (UWSR) before they can attain "Classified Graduate" status. If you are enrolling in any Business Administration graduate program (except the executive M.B.A. Program in Vienna, Austria) you must take the Writing Skills Test (WST) during your first quarter after receiving "Conditionally Classified Graduate" standing unless you have met the Writing Skills requirement as an undergraduate or graduate student at one of the CSU system campuses or scored 4.5 or better on the GMAT essay.

Passing the WST satisfies the UWSR. If you fail the WST with an essay score of 6 or below, you must immediately enroll in a first-tier writing course (ENGL 3000 or 3001). After passing this course, you must immediately enroll in a second-tier writing course such as MKTG 3495. Passing the second-tier course and the Writing Skills Essay (WSE) given at the end of the course satisfies the UWSR. If you fail the WST with a score of 7 or 8 you may satisfy the UWSR either by retaking and passing the WST or by passing a second-tier writing course and the WSE.

The Writing Skills Test and Writing Skills Essay are administered by the Office of Assessment and Testing located in Warren Hall (WA 438), phone 885-3661. You should contact this office directly for information on test dates, registration procedures, and fees. The School of Business Proficiency Tests (SBPT) in mathematics and statistics are described in a subsequent section.

If you plan to enroll in the Executive M.B.A. Program in Vienna, Austria, you may satisfy the University Writing Skills Requirement by obtaining a passing score on a supervised essay administered by the Program's Academic Director during the admissions interview process. The essay will be independently graded under normed conditions by two other CSUH faculty members from the School of Business and Economics.

#### Requirements for Graduation

To be eligible for the M.B.A., M.S. in Business Administration, or M.S. in Taxation degree, you must:

1. have been a "Classified Graduate" student and Advanced to Candidacy (see items (2) and (3) under the section on Classification in the Programs)
2. have satisfied the international requirement (see the section directly above)
3. have completed 45 quarter units of which:
  - a. all are beyond the foundation coursework;
  - b. all have a course grade of "C" or better and a 3.00 GPA;

- c. all are applicable to the degree;
  - d. at least 32 are in residence as a "Classified and/or Conditionally Classified Graduate" student;
  - e. not more than 13 are for extension and/or transfer credit (any extension and/or transfer credit must be approved by the SBE Director of Graduate Programs) and/or coursework taken in "Unclassified Postbaccalaureate" status;
  - f. all are earned within the five years immediately preceding the completion of the requirements for the degree;
  - g. the distribution of the 45 units offered for a specific graduate degree must meet the general guidelines specified by the American Assembly of Collegiate Schools of Business (AACSB), the professional accrediting body for Business Administration academic programs;
  - h. not more than 5 units are for thesis, independent study and/or a project, except in the case of the M.B.A./Operations Research Option and the M.S. Business Administration/CIS/QBM Option, where up to 9 units may be taken with the approval of the SBE Director of Graduate Programs.
4. have a 3.0 grade point average for the 45 quarter units offered as satisfying the requirements of the student's degree program.
  5. have completed a satisfactory program of study as determined by the School of Business and Economics and the university.

#### Capstone Requirement

The university requires all masters degree students to complete a capstone requirement prior to graduating. The capstone experience for the M.B.A. program is a project that is incorporated within the Seminar in Strategic Management course (MGMT 6490). For most of the M.S. degree programs, the capstone requirement is a departmental thesis (6909). Consult the catalog description for the specific requirements of your degree program.

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In addition to the set of common requirements for the M.B.A., M.S. in Business Administration, and M.S. in Taxation degrees presented in the preceding section, there are requirements specific to the Master of Business Administration (M.B.A.) degree. These requirements are discussed in this section

#### General Curricular Requirements for M.B.A. Degree Programs Accredited by AACSB

The American Assembly of Collegiate Schools of Business is the professional accrediting body for Business Administration degree programs. All School of Business and Economics degree programs are accredited by AACSB and the graduate programs in the School of Business and Economics are designed to comply with the listed AACSB curriculum guidelines.

## Proficiency Evaluations

The M.B.A. degree program requires the writing skills proficiency evaluation described previously under the Common Requirements for the M.B.A., M.S. in Business Administration, and M.S. in Taxation degrees. In addition, if you are enrolled in the M.B.A. degree program, you are required to pass proficiency tests in the introductory statistics and mathematics sections of the SBPT if you have not completed equivalent coursework in the seven previous years with a grade of "B" or higher. The latter will include introductory differential calculus, college algebra, matrix algebra, and finite math. The content of the mathematics exam will relate to the coverage in MATH 1130, 1810, and 1820 and the statistics exam to the coverage in STAT 2010.

You should complete the mathematics and statistics test sections by the end of your first quarter after admission to one of the Business Administration programs. Proficiencies that are not satisfied through the initial testing must be cleared by completion of comparable coursework with a grade of "B" or higher, or by retaking and passing the mathematics and statistics sections of the SBPT. Mathematics and statistics coursework can be taken at Cal State Hayward or elsewhere, including community colleges, prior to or after admission to a graduate program, to fulfill the requirement. If you do not pass the proficiency exams during your first quarter, such coursework should be started by the beginning of the second quarter after you have enrolled as a "Conditionally Classified Graduate" student. Appropriate additional coursework must then be scheduled each quarter until all proficiency deficiencies have been cleared. Furthermore, until these deficiencies are cleared, you will not be permitted to enroll in any course for which the deficiency course area is either a direct prerequisite or an indirect one through other listed prerequisites, such as MGMT 6100.

All of the proficiency exams are administered by the Office of Assessment and Testing, located in Warren Hall, Room 438 (phone 885-3661). You should contact this office directly for information on test dates, registration procedures, and fees.

## Foundation Coursework for the M.B.A.

The M.B.A. program is built upon a foundation of fundamental disciplines which, in the aggregate, underlie the graduate business curriculum. The nature and composition of this foundation is discussed below. It is not necessary to complete all, or even any, of the foundation coursework before applying for admission to the M.B.A. degree program. In fact, it is strongly recommended that application to the M.B.A. program be made as early as practicable. If you are admissible and have not satisfied the foundation coursework, you will be admitted as a "Conditionally Classified Graduate" student.

Having "Conditionally Classified Graduate" status allows you to enroll in the 6000 to 6099 series of graduate-level foundation courses. These are accelerated courses designed for graduate-level students. Using these courses, where available, substantially reduces the number of undergraduate units that would otherwise be required to achieve "Classified Graduate" standing.

Equivalent previous coursework will satisfy listed foundation courses. Students who have received an undergraduate degree in

Business Administration from an AACSB-accredited institution are exempt from the foundation coursework requirements. Contact the SBE Student Services Center for a list of AACSB-accredited institutions. A grade of "C-" or better is necessary for a transfer of a Cal State Hayward course (whether completed currently or in the past) to be accepted for foundation requirements. Note also that all 6000 to 6099 numbered Business Administration courses (i.e., ACCT, CIS, FIN, MGMT, MKTG, and ECON) with titles beginning with "Graduate Introduction to . . ." are graduate program foundation courses and cannot be calculated as part of the 45 units required for a SBE graduate degree.

Foundation Coursework Common to All M.B.A. Options Except Executive Option (36 units)

ACCT 6011 Graduate Introduction to Financial Accounting (4)  
(Not required if ACCT 2251 and 2252 previously completed, 4-4 units)

ACCT 6022 Graduate Introduction to Managerial Accounting (2) (Not required if ACCT 3200 previously completed, 4 units)

CIS 6070 Graduate Introduction to Computer Information Systems (2) (Not required in CIS Option or if CIS 3060 previously completed, 4 units)

ECON 6051 Graduate Introduction to Economics for Managers (4) (Not required if ECON 3005 and ECON 3551 previously completed, 4-4 units)

FIN 6033 Graduate Introduction to Financial Decisions (4) (Not required if FIN 3300 previously completed, 4 units)

MGMT 6000 Graduate Introduction to Quantitative Methods in Business (4) (Not required if MGMT 3100 previously completed, 5 units)

MGMT 6020 Graduate Introduction to Production and Operations Management (4) (Not required if ECON 3552, or MGMT 3620 previously completed, 4 units)

MGMT 6050 Business and Society (4) (Not required if MGMT 2701 and 4500 previously completed, 4-4 units)

MGMT 6060 Graduate Introduction to Organization and Management (4) (Not required if two of MGMT 3600, 3614, or 3680 previously completed, 4-4 units)

MKTG 6005 Managing Marketing: Theory and Practice (4) (Not required if MKTG 3401 previously completed, 4 units)

Proficiencies to be satisfied: Mathematics, Statistics, and Writing Skills (WST) See "Proficiency Evaluations" in this section, Master of Business Administration)

Additional Prerequisites Required for Some Options

*Accounting Option (12 units)*

- ACCT 3211-12-13 Intermediate Accounting I, II, III (12)



*Computer Information Systems Option (8 units)*

- CIS 3271 COBOL Programming I (4) or CIS 4272 or CS 2360 or any advisor-approved equivalent third-generation programming language taken during the last three years. (Students who have no background in programming a computer should take CIS 3270 or CS 1160 prior to enrolling in any of the above classes.)
- CIS 3281 Systems Analysis and Design I (4)

*Taxation Option (4 units)*

- ACCT 3220 Federal Income Tax Accounting/Individuals (4)

*Telecommunications Option (4 units)*

- CIS 3270 Fundamentals of Business Programming (4) or any advisor-approved third-generation programming language taken during the last three years.

## M.B.A. Curricular Requirements

A. Policy on the use of 3000-, 4000-, and unrestricted 6000-level courses in the M.B.A.

Most M.B.A. options restrict the use of 3000-, 4000-, and unrestricted 6000-level courses. You should clear any planned use of upper division undergraduate coursework in the 45 units for your M.B.A. degree with either the graduate option advisor or the SBE Director of Graduate Studies.

B. International Requirement (4 units)

To receive an M.B.A., you must have completed a 4-unit course in international business/international economics as part of the 45 units of the M.B.A. degree (ACCT 6470; ECON 6700, 6710; FIN 6375; MGMT 6440, 6570, 6675; MKTG 6470). In order for a course to both satisfy the International Requirement and count as part of your 45 degree units beyond core courses, the course must be selected from the above list of 6100-6999 level courses or must be approved by your graduate advisor or the SBE Director of Graduate Programs.

C. Core Requirements Except Executive Option (12 units)

FIN 6300 Seminar in Corporate Financial Management (4)

MGMT 6100 Quantitative Business Methods (4)

An "Interpersonal Skills" course selected from the following (4 units): MGMT 6560, 6612, 6630, 6635; MKTG 6403; or new courses to be developed in this area.

D. Capstone Experience (5 units)

MGMT 6490 Seminar in Strategic Management (5)

This course is taken as one of the final courses in an M.B.A. student's program. In this comprehensive course, students will integrate knowledge gained in their core requirement and option courses. A project is required in this course and serves in place of either a comprehensive examination or a thesis as the required capstone experience.

E. Option Requirements

In addition to these required courses, students must satisfy the requirements of one of the options as outlined below. If you



wish to have more than one option recorded on your permanent record, the pattern of courses you take to fulfill each additional option must differ by at least 3 courses and 12 units from any other option or combination of options you have taken. The Executive option is a 47-unit package of courses in which there is no separation of core and option requirements.

1. *Accounting Option (28 units)*

a. *Prerequisites*

See previous section on additional prerequisites required for some options.

b. *Required Courses (16 units)*

ACCT 6211-12 Seminar in Accounting and Auditing Theory I, II (8)

ACCT 6230 Seminar in Strategic Cost Management (4)

ACCT 6260 Accounting Research Methods Seminar (4)

c. *Electives within Accounting (4 units)*

Select one course from the following:

ACCT 6250 Seminar in Auditing; or any 6100-6999 level Taxation course.

d. *Electives outside Accounting (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside the ACCT prefix. MGMT 6100 Business and Economic Forecasting is recommended as one of these elective courses.

2. *Business Economics Option (28 units)*

a. *Required Courses (16 units)*

ECON 6101 Seminar: Micro-Economic Theory I (4)

ECON 6105 Seminar: Macro-Economic Theory (4)

ECON 6400 Seminar: Econometrics (4)

MGMT 6550 Research Methods and Communications (4)

b. *Electives within Business Economics (4 units)*

Select at least one of the following:

ECON 6102 Seminar: Microeconomic Theory II, 6250 Seminar: Project Analysis, 6315 Seminar: Monetary Theory, 6370 Seminar: Public Sector Economics, 6520 Seminar: Industrial Organization and Public Policy, 6680 Seminar: Labor Economics, 6700 Seminar: International Trade, 6710 Seminar: International Development

c. *Electives outside of Business Economics (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside of Economics. MGMT 6100 Business and Economic Forecasting is strongly recommended as one of these elective courses.

3. *Computer Information Systems Option (28 units)*

a. *Prerequisites*

See section on additional prerequisites required for

some options.

*b. Required Courses (20 units)*

CIS 6270 Advanced Study of Computer Information Systems (4)  
CIS 6274 Data Base Theory and Administration (4)  
CIS 6275 Decision Support and Expert Systems (4)  
CIS 6276 Data and Voice Communications (4)  
CIS 6550 Research Methods and Communication in Information Systems (4)

*c. Electives outside Computer Information Systems (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside of Computer Information Systems, or any other department-approved graduate-level course (including Mathematics and Computer Science) outside Computer Information Systems. MGMT 6100 Business and Economic Forecasting is strongly recommended as one of these elective courses.

*4. Executive Option (45-47 units)*

*a. Vienna Program (47 units)*

Required Courses:

ACCT 6700 Managerial Accounting for Executives (4)  
ECON 6715 Executive Introduction to Social Philosophy, Ethics, and the History of Economic Thought (5)  
ECON 6720 The European Union, Its Institutions, and International Trade (5)  
ECON 6725 Money, Banking, and International Finance (5)  
ECON 6751 Managerial Economics (4)  
FIN 6720 Strategic Corporate Financial Management (5)  
MGMT 6700 Global Business and Economic Forecasting; the Economics of Information Technology (4)  
MGMT 6710 Management of the Multinational Firm in a Changing World (4)  
MGMT 6730 Strategic Human Resource Management (4)  
MGMT 6909 Departmental Thesis (2)  
MKTG 6705 Strategic International Marketing Research (4)  
MKTG 6710 Executive Development Seminar (1)

*b. Beijing Program (45 units)*

Required Courses for Accounting Specialization:

ACCT 6230 Seminar in Strategic Cost Management (4)  
ACCT 6470 International Taxation (4)  
ACCT 6701 Advanced Financial Reporting and Analysis I (4)  
ACCT 6702 Advanced Financial Reporting and Analysis II (4)  
ACCT 6703 Advanced Financial Reporting and Analysis III (4)

FIN 6300 Seminar in Corporate Financial Management (4)  
FIN 6310 Seminar in Security Analysis and Portfolio Management (4)  
FIN 6320 Studies in Financial Markets (4)  
MGMT 6490 Seminar in Strategic Management (5)  
MGMT 6612 Seminar in Strategic Human Resources Management (4)  
MKTG 6720 Management of Marketing Functions (4)

Required Courses for Finance Specialization:

ACCT 6713 Financial Statement Analysis (4)  
FIN 6300 Seminar in Corporate Financial Management (4)  
FIN 6310 Seminar in Security Analysis and Portfolio Management (4)  
FIN 6315 Seminar in Options and Futures (4)  
FIN 6320 Studies in Financial Markets (4)  
FIN 6325 Financial Management of Banking Institutions (4)  
FIN 6375 International Financial Management (4)  
MGMT 6100 Quantitative Business Methods (4)  
MGMT 6490 Seminar in Strategic Management (5)  
MGMT 6612 Seminar in Strategic Human Resources Management (4)  
MKTG 6720 Management of Marketing Functions (4)

Required Courses for Management Specialization:

ACCT 6230 Seminar in Strategic Cost Management (4)  
ACCT 6713 Financial Statement Analysis (4)  
FIN 6300 Seminar in Corporate Financial Management (4)  
FIN 6310 Seminar in Security Analysis and Portfolio Management (4)  
FIN 6320 Studies in Financial Markets (4)  
MGMT 6130 Enterprise Planning and Control (4)  
MGMT 6490 Seminar in Strategic Management (5)  
MGMT 6570 Management of the Multinational Firm (4)  
MGMT 6612 Seminar in Strategic Human Resources Management (4)  
MKTG 6420 Seminar in Marketing Strategy (4)  
MKTG 6720 Management of Marketing Functions (4)

Required Courses for Marketing Specialization:

ACCT 6230 Seminar in Strategic Cost Management (4)  
ACCT 6713 Financial Statement Analysis (4)  
FIN 6300 Seminar in Corporate Financial Management (4)  
MGMT 6140 Seminar in Advanced Operations Management (4)  
MGMT 6490 Seminar in Strategic Management (5)  
MGMT 6612 Seminar in Strategic Human Resources Management (4)  
MKTG 6401 Marketing Research (4)  
MKTG 6420 Seminar in Marketing Strategy (4)  
MKTG 6450 Seminar in Selected Marketing Topics (4)  
MKTG 6730 Pricing and Product Management (4)  
MKTG 6740 Promotion and Distribution (4)

5. *Finance Option (28 units)*

a. *Required Course (4 units)*

MGMT 6550 Research Methods and Communications  
(4)

b. *Electives within Finance (16 units)*

Select 16 units of graduate-level Finance courses beyond FIN 6300.

c. *Electives outside Finance (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside Finance or any other department-approved coursework outside Finance.

6. *Human Resources Management Option (28 Units)*

a. *Required Courses (12 units)*

MGMT 6550 Research Methods and Communications  
(4)  
MGMT 6612 Seminar in Strategic Human Resources  
Management (4)  
MGMT 6680 Seminar in Labor-Management Relations  
Administration (4)

b. *Electives within Human Resources Management (8 units)*

Select 8 units from the following:

MGMT 6613 Topics in Human Resources Management and/or Industrial Relations, 6615 Compensation Administration, 6618 Human Resources Training and Development, 6630 Organization Theory, 6635 Managerial Psychology, 6675 Seminar in International Human Resources Management, 6900 Independent Study (1-4)

One course may be selected from the following:

CIS 6270 Analysis of Information Systems; MGMT 3616 Human Resources Evaluation, 4680 Collective Bargaining and Labor Law; PUAD 6764 Intervention Strategies for Changing Organizations, 6812 Changing Human Organizations, 6850 Human Resource Management in the Public Sector, 6854 Seminar Public Labor Relations; SPCH 4830 Intercultural Communication

c. *Electives outside Human Resources Management (8 units)*

Select 8 units of 6100-6999-level School of Business and Economics courses outside HRM or any other department-approved coursework outside HRM.

7. *International Business Option (28 units)*

a. *Required Courses (12 units)*

FIN 6375 International Financial Management (4)  
MGMT 6550 Research Methods and Communications  
(4)  
MGMT 6570 Management of the Multinational Firm (4)

*b. Electives within International Business (8 units)*

Select 8 units from the following:

ACCT 6470 International Taxation; ECON 6700 Seminar: International Economics or ECON 6710 Seminar: Economic Development; MGMT 6440 Global Strategic Management and Strategic Alliances, 6675 Seminar in International Human Resources Management, 6900 Independent Study (1-4); MKTG 6470 Seminar in International Marketing Management; One department-approved, upper division or graduate-level area studies course with an international or regional orientation. The selected course must deal primarily with cultural or social factors, and its principal content should reach beyond the student's native cultures and/or geographical region.

*c. Electives outside International Business (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside International Business or any other department-approved coursework outside International Business.

*d. Recommended:* It is strongly recommended that students who are serious about careers in international agencies, international business, State Department, etc., achieve a proficiency equivalent to at least two years of college-level coursework in at least one language beyond their native tongue.

*8. Management Sciences Option (28 units)*

*a. Required Course (4 units)*

MGMT 6550 Research Methods and Communications (4)

*b. Electives within Management Sciences (16 units)*

Select 16 units from the following:

Any 6100-6999 level courses with a MGMT prefix.

*c. Electives outside Management Sciences (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses (or any other department-approved coursework) outside any field of specialization resulting from selections made under "Electives within Management Sciences." A "field of specialization" is defined as 12 or more units of graduate coursework taken in an identifiable professional area within the Department of Management and Finance.

*9. Marketing Management Option (28 units)*

*a. Required Courses (8 units)*

MKTG 6401 Marketing Research (4)

MKTG 6420 Seminar in Marketing Strategy (4)

*b. Select twelve units from the following (12 units):*

MKTG 6410 Buyer Behavior (4)

MKTG 6411 Product Management (4)  
MKTG 6412 Pricing Management (4)  
MKTG 6413 Integrated Marketing Communications (4)  
MKTG 6414 Distribution Management (4)  
MKTG 6450 Seminar in Selected Marketing Topics (4)  
MKTG 6470 International Marketing (4)  
MKTG 6490 Graduate Practicum in Small Business Management (4)  
MKTG 6900 Independent Study (1-4)

*c. Electives outside Marketing Management (8 units)*  
Select 8 units of 6100-6999 level School of Business and Economics courses outside Marketing Management.

**10. New Ventures/Small Business Management (NVSBM) Option (28 units)**

*a. Required Courses (16 units)*  
FIN 6305 New Venture Financing (4)  
MKTG 6480 New Venture Management (4)  
MKTG 6485 New Venture Project Seminar (4)  
MKTG 6490 Graduate Practicum in Small Business Management (4) (Can be repeated once as an elective if the student has not taken MKTG 4490 or its equivalent as an undergraduate or graduate student.)

*b. Electives within New Ventures/Small Business Management (4 units)*  
Select 4 units from any one department from the following:

ACCT 6230 Seminar in Strategic Cost Management, 6420 Fundamentals of Federal Income Taxation; CIS 6270 Analysis of Information Systems; MGMT 6550 Research Methods and Communications, 6612 Seminar in Strategic Human Resources Management, 6615 Compensation Administration, 6635 Managerial Psychology, 6680 Seminar in Labor-Management Relations Administration; MKTG 6401 Marketing Research, 6420 Seminar in Marketing Strategy, 6490 Graduate Practicum in Small Business Management; ACCT, MGMT, or MKTG 6900 Independent Study (1-4)

*c. Electives outside New Ventures/Small Business Management (8 units)*  
Select 8 units in 6100-6999 level School of Business and Economics courses outside New Ventures/Small Business Management.

**11. Operations and Materials Management Option (28 units)**

*a. Required Courses (12 units)*  
MGMT 6125 Purchasing and Materials Management (4)  
MGMT 6140 Seminar in Advanced Operations Management (4)  
MGMT 6141 Service Operations Management (4)

*b. Electives within Operations and Materials Management*

(8 units)

Select two courses from the following:

(A student may choose one course from outside this list of electives. The course must be approved by the option advisor.)

MGMT 6103 Seminar in Management Decision Making Under Uncertainty (4), 6121 Seminar in the Design and Use of Computer Simulation Models (4), 6126 Seminar in Management Sciences/Operations Research (4), 6130 Enterprise Planning and Control (4), 6145 Logistics Management (4), 6526 Quality Management (4)

*c. Electives outside Operations and Materials Management (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside Operations and Materials Management. MGMT 6100 Business and Economic Forecasting is strongly recommended as one of these elective courses.

*12. Operations Research Option (28 units)*

*a. Required Courses (8 units)*

MGMT 6193 Seminar in the Fundamentals of Operations Research (4)

MGMT 6550 Research Methods and Communications (4) or MKTG 6401 Marketing Research (4)

*b. Electives within Operations Research (12 units)*

Select 12 units from the following:

MGMT 6103 Seminar in Management Decision Making Under Uncertainty, 6104 Seminar in Quantitative Business Methods Applications, 6119 Seminar in Advanced Techniques of Quantitative Business Methods, 6121 Seminar in the Design and Use of Computer Simulation Models, 6126 Seminar in Management Sciences/Operations Research (may be repeated for credit with approval of the department), 6140 Seminar in Advanced Operations Management, 6900 Independent Study (1-4)

*c. Electives outside Operations Research (8 units)*

Select 8 units of 6100-6999-level School of Business and Economics courses outside Operations Research or any other department-approved graduate-level course (including Computer Science and Mathematics) outside Operations Research. MGMT 6100 Business and Economic Forecasting is strongly recommended as one of these elective courses.

*13. Strategic Management Option (28 units)*

*a. Required Courses (12 units)*

Select one of the following research methods courses (4 units):

ACCT 6260, MGMT 6550, MKTG 6401



Select two courses from the following (8 units):

MGMT 6420 Competitive Strategy (4), 6430 Corporate Strategic Management (4), 6440 Global Strategic Management and Strategic Alliances (4)

*b. Electives within Strategic Management and Related Disciplines (8 units)*

Select 8 units from the following:

MGMT 6420, 6430, or 6440 (whichever not taken above); MGMT 6460 Strategic Management for a Sustainable Society, 6465 Legal Aspects of Corporate Management, 6470 Management of Technology and Innovation, 6570 Management of the Multinational Firm, 6612 Seminar in Strategic Human Resources Management; MKTG 6420 Seminar in Marketing Strategy

*c. Electives outside Strategic Management (8 units)*

Select 8 units from any 6100-6999 level School of Business and Economics courses except those listed in (b) above.

**14. Taxation Option (28 units)**

*a. Prerequisites*

See section on additional prerequisites required for some options.

*b. Required Courses (20 units)*

ACCT 4220 Advanced Studies in Taxation (4)  
ACCT 6222 Income Taxation of Partners and Partnerships (4)  
ACCT 6223 Federal Tax Research, Procedures, and Penalties (4)  
ACCT 6224 Advanced Corporate Taxation (4) or ACCT 6227 S Corporations and Other Flow-Through Entities (4)  
ACCT 6410 Tax Accounting Periods and Methods (4)

*c. Electives outside Taxation (8 units)*

Select 8 units of 6100-6999 level School of Business and Economics courses outside Taxation or any other department-approved courses outside Taxation.

**15. Telecommunications Management Option (28 units)**

*a. Prerequisites*

See section on additional prerequisites required for some options.

*b. Required Courses (12 units)*

TC 6101 Analysis and Design of Telecommunications Systems (4)  
TC 6205 Routing and Data Networking Models in Telecommunications (4)  
TC 6207 Telecommunications Management Systems (4)



*c. Electives within Telecommunications Management (4 units)*

One course selected from the following:

TC 6210 Collaborative Multimedia Networking and Telepresence (4), 6277 Telecommunications Industry and Service Management (4), 6279 Seminar in Advanced Satellite Communications and Services (4), 6284 Management of Satellite/Wireless Communications (4)

*d. Electives outside Telecommunications Management (12 units)*

Three courses selected from the following:

CIS 6271 Seminar in Current Topics in Information Systems (4); MGMT 6110 Business and Economic Forecasting (4), 6141 Service Operations Management (4), 6470 Management of Technology and Innovation (4), 6526 Quality Management (4), or other course approved by the graduate advisor

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Computer Information Systems/Quantitative Business Methods Option (C.I.S./Q.B.M.)

I. Foundation Coursework (14 units)

Students with foundation courses yet to be completed are encouraged to secure "Conditionally Classified Graduate" standing as early as possible. Having "Conditionally Classified Graduate" status qualifies a student for enrollment in the 6000 to 6099 series of graduate-level foundation courses given below. These are faster-moving courses designed for graduate-level students.

In order to be considered for "Classified Graduate" standing in the M.S./Business Administration C.I.S./Q.B.M. option program, a student must satisfy the following foundation courses (16 units):

CIS 3271 or 4272 or CS 2360 or any advisor-approved equivalent third-generation programming language. Students with no background in programming should take CIS 3270 or CS 1160 before enrolling any of the above classes.

CIS 3281 Systems Analysis and Design I (4)

MGMT 6000 Graduate Introduction to Quantitative Methods in Business (4) (Not required if MGMT 3100 previously completed, 5 units)

MGMT 6020 Graduate Introduction to Production and Operations Management (4) (Not required if ECON 3552, or MGMT 3620 previously completed, 4 units)

Proficiency Evaluations to be satisfied:  
Mathematics, Statistics, and Writing Skills Test (WST) (See the Proficiency Evaluations section under the Master of

Business Administration and under the Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation Degrees. The former deals with statistics and mathematics proficiency and the latter with writing skills evaluations.)

## II. Curricular Requirements (45 units)

### A. *Required Courses (36 units)*

CIS 6270 Advanced Study of Computer Information Systems (4)  
CIS 6274 Data Base Theory and Administration (4)  
CIS 6275 Decision Support and Expert Systems (4)  
CIS 6276 Data and Voice Communications (4)  
ECON 6400 Seminar: Econometrics (4)  
MGMT 6110 Business and Economic Forecasting (4)  
MGMT 6121 Seminar in the Design and Use of Computer Simulation Models (4)  
MGMT 6195 Seminar in Probabilistic Techniques of Quantitative Business Methods (4) or MGMT 6100 Quantitative Business Methods (4)

Select one from the following: CIS 6271; MGMT 6119, 6130, 6140; TC 6101, 6205

### B. *Electives (8 units)*

Select 8 units in 6100-6999 level School of Business and Economics courses.

### C. *Capstone Experience (1 unit)*

CIS 6899 Project (1)

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## M.S. in Taxation

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In addition to the set of Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation degrees described earlier, the following specific requirements must be met for the Master of Science in Taxation degree.

### Foundation Coursework (24 units)

If you have foundation courses yet to be completed, you are encouraged to secure "Conditionally Classified Graduate" standing as early as possible. Having "Conditionally Classified Graduate" status qualifies you for enrollment in the 6000 to 6099 series of graduate-level foundation courses given below. These are accelerated courses designed for graduate-level students. Using the 6000 to 6099 courses, where they are available, enables you to complete the M.S./Taxation foundation coursework in 24 units compared to the 32 units needed if all foundation coursework is met through your equivalent undergraduate coursework.

In order to be considered for "Classified Graduate" standing in the Master of Science in Taxation program, you must satisfy the following foundation courses or your undergraduate equivalents given in parentheses:

ACCT 3220 Federal Income Tax Accounting/Individuals (4)

ACCT 6011 Graduate Introduction to Financial Accounting (4)  
(Not required if ACCT 2251 and 2252 previously completed, 4-4

units)

ACCT 6022 Graduate Introduction to Managerial Accounting (2) (Not required if ACCT 3200 previously completed, 4 units)

CIS 6070 Graduate Introduction to Computer Information Systems (2) (Not required if CIS 3060 previously completed, 4 units)

ECON 6051 Graduate Introduction to Economics for Managers (4) (Not required if ECON 3005 and ECON 3551 previously completed, 4-4 units)

FIN 6033 Graduate Introduction to Financial Decisions (4) (Not required if FIN 3300 previously completed, 4 units)

### Proficiency Evaluation

Proficiency Evaluation to be satisfied: Writing Skills Test (WST). (See the "Proficiency Evaluations" section under Common Requirements for the M.B.A., M.S. Business Administration, and M.S. Taxation Degrees.)

### International Requirement

To receive an M.S. Taxation degree, you must have completed a 4-unit course in international business/international economics as part of the 45 units of the M.S. Taxation degree (ACCT 6470; ECON 6700, 6710; FIN 6375; MGMT 6440, 6570, 6675; MKTG 6470). In order for a course to both satisfy the International Requirement and count as part of your 45 degree units beyond core courses, the course must be selected from the above list of 6100-6999 level courses or must be approved by your graduate advisor or the SBE Director of Graduate Programs.

### Curricular Requirements (45 units)

Also see the section on Common Requirements for the M.B.A., M.S. Business Administration, and M.S. in Taxation degrees.

#### A. Required Courses (24 units)

ACCT 4220 Advanced Studies in Taxation (4)

ACCT 6222 Income Taxation of Partners and Partnerships (4)

ACCT 6223 Federal Tax Research, Procedures, and Penalties (4)

ACCT 6224<sup>1</sup> Advanced Corporate Taxation (4) or ACCT 6227<sup>1</sup> S Corporations and Other Flow-Through Entities (4)

ACCT 6258 Tax Planning for Individuals (4)

ACCT 6410 Tax Accounting Periods and Methods (4)

#### B. Elective Courses (20 units)

*Select 20 units from the following:*

ACCT 6224<sup>1</sup> Advanced Corporate Taxation or 6227<sup>1</sup> S Corporations and Other Flow-Through Entities, 6226<sup>2</sup> Issues in State Taxation: California Income and Sales Taxes, 6229 Estate/Gift Tax and Income Taxation of Estates and Trusts, 6259 Tax Clinic (1-4), 6470 International Taxation; ECON 6370 Seminar: Public Sector Economics; one advisor-approved 6100-6999-level course in the School of Business and Economics.

#### C. Capstone Experience (1 unit)

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## Taxation Certificate

The graduate Taxation certificate program is designed to meet the needs of those who wish to focus on taxation courses.

### Admission

The program is open to students who hold a baccalaureate degree from an accredited college or university. Admission into the graduate Taxation certificate program requires that at least two of the following standards be met:

1. Satisfactory performance on the Graduate Management Admissions Test (GMAT)
2. Acceptable grade point average on all course work prior to admission into the certificate program;
3. A record of appropriate employment.

### Prerequisite Courses (12 units)

(These prerequisite courses may be satisfied through equivalencies.)

- ACCT 2251 Principles of Accounting I (4)
- ACCT 2252 Principles of Accounting II (4)
- ACCT 3220 Federal Income Tax Accounting/Individuals (4)

### Curricular Requirements

#### A. Required Courses (20 units)

- ACCT 4220 Advanced Studies in Taxation (4)
- ACCT 6222 Income Taxation of Partners and Partnerships (4)
- ACCT 6223 Federal Tax Research, Procedures, and Penalties (4)
- ACCT 6258 Tax Planning for Individuals (4)
- ACCT 6410 Tax Accounting Periods and Methods (4)

#### B. Elective Courses (8 units)

Two of the following, one of which must be ACCT 6224 or ACCT 6227:

- ACCT 6224 Advanced Corporate Taxation (4), 6226 Issues in State Taxation: California Income and Sales Taxes (4), 6227 S Corporations and Other Flow-Through Entities (4), 6229 Estate/Gift Tax and Income Taxation of Estates and Trusts (4), 6470 International Taxation (4)

Participants in the program will be required to have a minimum 3.0 grade point average in order to receive the certificate. No grade below a "B" in graduate courses and no grade below a "C" in undergraduate courses can be used in the program. All of the coursework must be completed within five years.

## Accounting

*The course prefix for the following courses is ACCT.*

- 6011** Graduate Introduction to Financial Accounting (4)  
Accounting concepts, principles and procedures focused on the preparation of financial statements. Emphasis on the interpretation and use of financial statements for decision-making.
- 6022** Graduate Introduction to Managerial Accounting (2)  
Use of accounting information for managerial decision-making. Topics include costing systems, cost-volume-profit relationships, cost estimation, profit planning, and capital budgeting. Prerequisite: ACCT 6011.
- 6211, 6212** Seminar in Accounting and Auditing Theory I, II (4 units each)  
Critical study of the concepts and principles characteristic of accounting and auditing; an examination of alternative theories in the formulation of accounting principles and auditing standards. Courses are sequential. Prerequisites: ACCT 3213, 6022.
- 6222** Income Taxation of Partners and Partnerships (4)  
Concepts and principles governing the taxation of partners and partnerships; including the tax effect of formation, partnership agreements, distributions, and dissolutions. Prerequisite: ACCT 3220 or 6420.
- 6223** Federal Tax Research, Procedures, and Penalties (4)  
Methods of researching federal tax issues using LEXIS and other research materials with a focus on case studies. Emphasis on administrative procedures, introduction to the judicial process, and taxpayer and preparer penalties. M.B.A./Taxation and M.S./Taxation students selecting the departmental thesis as their terminal exercise should enroll concurrently in ACCT 6909. Prerequisite: ACCT 3220 or 6420.
- 6224** Advanced Corporate Taxation (4)  
Corporate liquidations, redemptions, reorganizations, carryovers of tax attributes, personal holding companies, accumulated earnings tax, collapsible corporations, consolidated returns, and employee compensation plans. Prerequisite: ACCT 4220 or 6420 or consent of instructor.
- 6226** Issues in State Taxation: California Income and Sales Taxes (4)  
Comprehensive study of California income and sale tax issues. Nonconforming items, issues relating to residency, computation of taxable income of nonresident, apportionment of business income, taxation of flow through entities. Overview of sales tax. Prerequisite: ACCT 3220 or 6420 or consent of instructor.

- 6227 S Corporations and Other Flow-Through Entities (4)  
Concepts and principles governing the taxation of S corporations and S shareholders; including the tax effect of formation, operations, distributions, and liquidations. Selected advanced partnership issues.
- 6229 Estate/Gift Tax and Income Taxation of Estates and Trusts (4)  
Taxation of beneficiary, estate, gift, and related tax treatment of fiduciary entity. Focus on estate tax planning. Prerequisite: ACCT 3220 or 6420.
- 6230 Seminar in Strategic Cost Management (4)  
Management control systems including operational auditing, preparation and administration of budgets, quantitative analysis of special cost and managerial problems, cost problems in not-for-profit organizations. Prerequisites: ACCT 6022 and CIS 6070, or consent of department.
- 6250 Seminar in Auditing (4)  
Standards and procedures in auditing. Analysis of the interrelationship of audit standards, ethics, and procedures. Not open to students who have credit for an undergraduate or graduate course in auditing. Prerequisite: ACCT 3213 or equivalent.
- 6258 Tax Planning for Individuals (4)  
Individual tax planning, minimizing taxes. Comprehensive personal financial planning-retirement income planning, estate planning, short-term investment planning. Tax consequences of property transactions and different arrangements, such as family trusts, wills, private annuities. Prerequisite: ACCT 3220 or 6420.
- 6259 Tax Clinic (1-4)  
Students will represent taxpayers before the IRS in routine office audit cases. Instructor will provide individual supervision throughout the audit process. May be repeated twice for credit with the approval of the department. Prerequisites: consent of instructor and ACCT 3220 or 6240.
- 6260 Accounting Research Methods Seminar (4 units)  
Accounting research methods including role and nature of research, data sources, problem formulation, research design, data collection, writing of accounting research paper. Prerequisites: ACCT 6211, CIS 6070.
- 6410 Tax Accounting Periods and Methods (4)  
Cash and accrual methods, startup and organization costs, installment sales, accounting periods and the appropriate tax year-end, inventory methods including the uniform capitalization rules, original issue discount, bad debt reserves, and FASB 109. Prerequisite: ACCT 3220 or 6420.

- 6420 Fundamentals of Federal Income Taxation (4)  
Federal income taxation concepts applicable to individuals, corporations, partnerships. Gross income, deductions, credits, property transactions, tax accounting methods. Rules governing formation, operation, disposition of partnerships/corporations. Not open to students in M.B.A. option in Taxation or M.S. Taxation. Prerequisite: ACCT 6011 or equivalent.
- 6470 International Taxation (4)  
U.S. taxation of foreign source income, controlled foreign corporations/subpart F, foreign sales corporations, foreign tax credits, and provisions used to reduce offshore tax deferral. Limited discussion of U.S. taxation of non-residents/foreign corporations. Prerequisites: ACCT 6420, or ACCT 3220 and 4220.
- 6700 Managerial Accounting for Executives (4)  
The managerial use of cost data for decision-making including the latest development in activity based cost accounting and its implications for financial planning and budgeting. Prerequisite: graduate standing.
- 6701 Advanced Financial Reporting and Analysis I (4)  
Critical study of concepts and practices of U.S. accounting standards for reporting corporate financial position and accounting results. Specific assets and income. Prerequisite: ACCT 6022.
- 6702 Advanced Financial Reporting and Analysis II (4)  
Critical study of concepts and practices of U.S. accounting standards for reporting corporate financial position and operating results. Liabilities and stockholders' equity. Prerequisite: ACCT 6701.
- 6703 Advanced Financial Reporting and Analysis III (4)  
Critical study of concepts and practices of U.S. accounting standards. Analysis and use of cash flows and financial statements for company performance evaluation, forecast and business valuation. Comparison with competitors and industry over time. Prerequisite: ACCT 6702
- 6713 Financial Statement Analysis (4)  
In-depth analysis and use of financial statements for company performance evaluation and business valuation. Comparison of company, competitors and industry over time. Prerequisite: ACCT 6022.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 4 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only.



- 6900 Independent Study (1-4)
- 6909 Departmental Thesis (1)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Maximum of one unit per student. Should be taken concurrently with ACCT 6223 or 6260 by students using ACCT 6909 for their terminal exercise. Prerequisite: "Conditionally Classified Graduate" standing.
- 6915 Graduate Internship in Accounting (1-4)  
Supervised work/educational experience with a company, CPA firm, non-profit organization, or governmental agency in a department-approved program for graduate students. May be repeated once for credit. Prerequisites: vary according to agency or firm.

## Computer Information Systems

*The course prefix for the following courses is CIS.*

- 6070 Graduate Introduction to Computer Information Systems (2)  
Oriented toward computer user. Planning, developing, implementing computer information systems including problem definition, feasibility study, alternative solutions, cost-benefit analysis, hardware/software selection. Computer-based solutions to business problems. Closed to students with credit for CIS 3060, or 3281 or 3282.
- 6270 Advanced Study of Computer Information Systems (4)  
Introduction to the theory and practice of information systems in the areas of database, decision support and expert systems and telecommunications. Prerequisites: CIS 6070 (except students in MSBA CIS/QM option) and CIS 3281.
- 6271 Seminar in Current Topics in Information Systems (4)  
Selected topics dealing with design, installation, control, and communication problems relevant to the total management information systems environment. May be repeated for credit with consent of department. Prerequisite: CIS 6270 or consent of instructor.
- 6273 Seminar in Audit, Control, and Legal Aspects of Information Systems (4)  
Audit standards, techniques, and types of controls; risk assessment; role of the internal and external auditor in information systems auditing. Computer abuse, ethics, privacy, and security. Legal considerations including contracts, copyrights, patents, and legislation. Prerequisites: ACCT 6011, CIS 6070.
- 6274 Data Base Theory and Administration (4)



Role of data base administrator in managing data resources. Conceptual frameworks for selecting, implementing, maintaining commercial data base management packages. Data structures, data dictionaries, security, distributed data bases. Current technologies, future directions. Prerequisites: CIS 3271, 6270, or consent of instructor.

- 6275 Decision Support and Expert Systems (4)  
Theory and practice of decision support and expert systems. Topics include the formulation, development, application, analysis and design of decision-oriented and knowledge-based systems, with appropriate hands-on projects. Prerequisite: CIS 6270.
- 6276 Data and Voice Communications (4)  
Voice and computer communication facilities used in business. Network design and operation including common carriers, transmission technologies, protocols, and standards. Integration of voice and data communication and computing technologies. Prerequisite: CIS 6270.
- 6550 Research Methods and Communication in Information Systems (4)  
Application of scientific research methods to CIS research projects. Topics include identifying research projects, formulating hypotheses, developing a theoretical framework, methods of conducting research, sample selection, data collection and analysis and report writing. Prerequisite: CIS 6270 and concurrent enrollment in CIS 6909 recommended for students using departmental thesis as their terminal exercise.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 4 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only.
- 6899 Project (1)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. CR/NC grading only. Prerequisites: all foundation coursework; completion of at least 32 units of MSBA CIS/QBM program; prior or current registration in MGMT 6121.
- 6900 Independent Study (1-4)
- 6909 Departmental Thesis (1)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of

whom must be a Cal State Hayward faculty member. Oral defense normally required. Maximum of one unit per student. Prerequisite: "Conditionally Classified Graduate" standing.

## Economics

See graduate Economics chapter for list of Economics courses.

## Finance

*The course prefix for the following courses is FIN.*

- 6033** Graduate Introduction to Financial Decisions (4)  
Application of financial and analytical techniques to concepts of asset valuation, risk assessment, capital budgeting, financial markets and financial decision making. Emphasis on market values. Prerequisites: ACCT 6022 or equivalent, and math proficiency.
- 6300** Seminar in Corporate Financial Management (4)  
Theory and practice of financial decision-making. Financial indicators of corporate performance, market valuation of stocks and bonds, capital project evaluation, risk-return analysis, asset valuation theories, cost of capital and capital structure decisions, dividend policy decisions. Prerequisite: FIN 6033.
- 6305** New Venture Financing (4)  
Concepts and practices of financing and financial management of a new venture or expansion of an existing growth business. Valuation, financial planning, corporate structuring, exit strategies, private placement, initial public offerings venture capital, and other current issues. Prerequisite: FIN 6300.
- 6310** Seminar in Security Analysis and Portfolio Management (4)  
Theory and practice of security investment. Investment environment and instruments, capital asset pricing theory, technical and fundamental analysis of common stock portfolio analysis, bond analysis and management, mutual funds and investment companies, and financial derivatives. Prerequisites: FIN 6300.
- 6315** Seminar in Options and Futures (4)  
Financial derivative markets. Option markets, valuation, and strategies; futures markets and strategies; risk management and hedging; swaps and financial engineering. Prerequisite: FIN 6300.
- 6320** Studies in Financial Markets (4)  
Evolution and structure of financial markets, instruments, and institutions. The process of intermediation including the development of risk reduction devices and the growth of securitization. Focus is on debt instruments and the role of global regulation. Prerequisite: FIN 6033 (or FIN 3300).

- 6325 Financial Management of Banking Institutions (4)  
Comprehensive treatment of commercial bank management in today's financial services industry. Modern approach to understanding and managing the risks faced by banks. Methods of optimizing shareholder value, risk-return tradeoffs, regulatory and strategic issues.
- 6360 Management of Risk and Insurance (4)  
Identification, measurement, analysis, treatment, and administration of risk in the business firm. Insurance for commercial, professional, family and personal risk exposures and contract provisions for property, liability, health, and life insurance. Regulation and operation of insurance companies and related public policy issues.
- 6375 International Financial Management (4)  
Financial decision-making for multinational corporations, management of foreign exchange risk, foreign direct investment, multinational project evaluation, international diversification and risk-return analysis, international capital markets and capital structure. Prerequisite: FIN 6300.
- 6720 Strategic Corporate Financial Management (5)  
Analysis and evaluation of managerial issues and problems affecting financial decision-making in a corporation; corporate goals and linkages with financial strategy and corporate policy formulation; strategic financial planning and control; case studies. Prerequisite: graduate standing.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only.
- 6900 Independent Study (1-4)
- 6910 University Thesis (1-5)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: classified graduate standing and advisor approval. Maximum of 5 units per student. (See also, "University Thesis Writing Guide," available in WA 859.)

## Management Sciences

*The course prefix for the following courses is MGMT.*

- 6000 Graduate Introduction to Quantitative Methods in Business (4)  
Graduate level survey of linear programming,

transportation models, CPM/PERT, deterministic inventory models, and decision analysis. Emphasis on problem formulation and applications. Use of appropriate computer software. Prerequisites: CIS 6070, MATH and STAT proficiencies.

- 6020 Graduate Introduction to Production and Operations Management (4)  
Up-to-date concepts, strategic and tactical decisions in managing operations in both manufacturing and service organizations. Topics include global operations, management of total quality, new product development, process development, capacity planning, inventory decisions, just-in-time systems, and supply-chain management. Prerequisite: MGMT 3100 or 6000.
- 6050 Business and Society (4)  
The relationship of business to society and government; the American legal system and legal reasoning; business law issues, antitrust policy, ethics, social responsibility; regulatory agencies, deregulation, self-regulation. Closed to students with credit for MGMT 4500. Prerequisites: ECON 3005, 6051; MGMT 6060.
- 6060 Graduate Introduction to Organization and Management (4)  
The process of management as it applies to the various functional areas including research and development, finance, production, human resources management, marketing, and controllership. Consideration of current theory and applications, individual and group behavior in the organization. Strong emphasis on verbal and written communication skills to be demonstrated through graded exercises, papers, and presentations.
- 6100 Quantitative Business Methods (4)  
Optimization of management decisions by applying quantitative methods of linear and dynamic programming, inventory modeling, queuing analysis, and simulation. Emphasis on developing skills of quantitative analysis and computerized solutions. Prerequisite: MGMT 6000 or 6194, and MATH and STAT proficiencies satisfied.
- 6103 Seminar in Management Decision Making Under Uncertainty (4)  
Topics in management decision making under uncertainty including utility, risk, and decision trees. Emphasis on problem formulation and use of computer programs. Selected case studies from business and government. Prerequisites: MGMT 6195, 6550; or MGMT 6100 and consent of instructor.
- 6104 Seminar in Quantitative Business Methods Applications (4)  
A seminar, case study course which will examine in detail applications of quantitative business methods in various areas. Prerequisites: MGMT 6119, 6121, 6550; or MGMT 6100 and consent of instructor.
- 6110 Business and Economic Forecasting (4)

Survey of major methods of short- and long-range forecasting for national economy, industry, or firm; emphasis on applications and evaluation. Prerequisites: ECON 3005, 6051; MGMT 6000 or 6194; MGMT 6060, 6550, equivalents, or consent of instructor.

- 6119 Seminar in Advanced Techniques of Quantitative Business Methods (4)  
Seminar topics in mathematical programming and network models. Prerequisites: MGMT 6194, 6550; STAT 3401.
- 6121 Seminar in the Design and Use of Computer Simulation Models (4)  
The design and use of computer simulation models, including topics in randomization, comparison of simulation languages, and the design and analysis of simulation experiments. Prerequisites: MGMT 6195, 6550; or MGMT 6100 and consent of instructor.
- 6125 Purchasing and Materials Management (4)  
Modern techniques in sourcing and negotiation, contract management, supply chain management, and computer-based purchasing systems. Seminar format with case studies and projects.
- 6126 Seminar in Management Sciences/Operations Research (4)  
The seminar will examine recent developments in operations research and management science. Topics will be chosen by the instructor and course participants. May be repeated for credit with approval of instructor. Prerequisites: MGMT 6195, 6550; or MGMT 6100 and consent of instructor.
- 6130 Enterprise Planning and Control (4)  
Modern methods of planning and managing resources in an organization including aggregate planning, enterprise resource planning and control, short-term scheduling, and maintenance. Emphasis on developing practical skills and utilizing modern computer applications in enterprise resource planning and control.
- 6140 Seminar in Advanced Operations Management (4)  
Modern techniques in total quality management, location planning, aggregate planning, inventory management, and operations scheduling. Emphasis on problem solving and use of computer software. Prerequisite: MGMT 6020, or 3620 and 4640.
- 6141 Service Operations Management (4)  
Contemporary methods and applications of service operations management, including those in service processes, planning, and scheduling. Seminar format with case studies, problem solving, and use of computer software. Prerequisite: MGMT 3620 or 6020.
- 6145 Logistics Management (4)  
Analysis of physical distribution of goods. Methods of logistics analysis, planning, and scheduling. Emphasis on

problem solving and use of computer software. Dual-listed course: undergraduate upper division course, MGMT 3645 Logistics Management, plus a graduate tutorial module. Prerequisite: MGMT 3600 or 6060.

- 6193 Seminar in the Fundamentals of Operations Research (4)  
Seminar in the philosophy and application of Operations Research methods for modeling and decision-making. Emphasis on the role of Operations Research in the managerial functions. Prerequisites: CS 1700 or CIS 3270; MATH 1820 or 2304; MGMT 6550; or consent of instructor.
- 6194 Seminar in Deterministic Techniques of Quantitative Business Methods (4)  
Seminar in the techniques of linear programming, network models, deterministic inventory and production models, and deterministic dynamic programming. Prerequisites: MATH 1820 or 2304, CS 1020, 1031 or CIS 3270; or consent of instructor.
- 6195 Seminar in Probabilistic Techniques of Quantitative Business Methods (4)  
Seminar in the techniques of probabilistic inventory and production models, probabilistic dynamic programming, simulation, queuing models, Markov Chains and decision analysis. Prerequisite: MGMT 6194, 6550; STAT 3401.
- 6420 Competitive Strategy (4)  
Integrative treatment of competitive strategy, using research findings and cases. Emphasis is on industry analysis, competitive rivalry, and competitive advantage. Objective is to develop an analytical understanding of the factors that contribute to sustainable competitive advantage.
- 6430 Corporate Strategic Management (4)  
A critical examination of the theory of corporate strategic management and, through case studies, how the internal dynamics of an organization, as well as external forces, determine or constrain particular strategic choices.
- 6440 Global Strategic Management and Strategic Alliances (4)  
Integrative treatment of global strategic management and strategic alliances. Emphasis is on the firm in the global competitive context, decisions to enter markets, how to compete in global markets, and how to develop and implement a global strategy.
- 6460 Strategic Management for a Sustainable Society (4)  
Examines the strategic management of environmental issues and the functional and strategic responses of firms to deal with environmental issues. The domain of strategy and industry is expanded to incorporate environmental issues.
- 6465 Legal Aspects of Corporate Management (4)

Examines the law governing business corporations, duties and ethical responsibilities of managers and directors in such situations as mergers, acquisitions, securities offerings, and litigation, negotiation techniques, arbitration, and mediation.

- 6470 Management of Technology and Innovation (4)  
Examines the management of technology and innovation, the strategic problems of firms in high technology industries, with special attention to market structure, standards issues, and strategic responses by firms in highly turbulent environments.
- 6490 Seminar in Strategic Management (5)  
A "Capstone Experience" course that integrates and bridges the student's knowledge from the functional areas of business to the practice of management. Prerequisites: all foundation coursework and SBE proficiencies and completion of at least 32 units of the graduate program.
- 6526 Quality Management (4)  
Topics in modern quality management, including planning, organizing, and controlling quality, implementing, and improving quality. Seminar format with case studies and projects. Prerequisite: MGMT 3620 or 6020.
- 6550 Research Methods and Communications (4)  
Methods of business research including the role and nature of research, sources of data, problem formulation, research design, data collection, and report writing. To be taken at beginning of M.B.A./Finance, Management, or Business Economics program. Prerequisites: all foundation coursework.
- 6560 High Performance Management (4)  
Development of skills essential for managerial success. Use of a combination of self-assessment instruments, readings, experiential exercises, cases, and application in real-life settings, to develop skills in areas such as team effectiveness, leadership, communication, goal-setting, empowering people, persuasion, and conflict resolution.
- 6570 Management of the Multinational Firm (4)  
A study of the operation of multinational firms in terms of marketing, finance, accounting, production, and personnel policies using case studies and current readings. Prerequisites: MGMT 6550 and consent of instructor.
- 6612 Seminar in Strategic Human Resources Management (4)  
Seminar in strategic human resources management from the perspective of human resources professionals and general managers. Focus on how firms use human resource functions, such as recruitment and selection, training and development, performance management, compensation and benefits, to gain a competitive advantage. Prerequisites: MGMT 6550, 6060 or consent of instructor.
- 6613 Topics in Human Resources Management



and/or Industrial Relations (4)  
Current topics in human resources management and/or industrial relations selected by the instructor. May be repeated for credit with the approval of the department. Prerequisite: MGMT 6060.

- 6615 Compensation Administration (4)  
Current theory, law, and practice in wage, salary, and benefits administration. Not open to students having credit for MGMT 4615 or equivalent. Prerequisites: ECON 6051, MGMT 6060, and 6550.
- 6618 Human Resources Training and Development (4)  
Focus on the systems approach to human resources training and development. Topics include needs assessment, learning theories, instructional design, training methodologies, presentation techniques, and program evaluation. Students will design and present sample training and development programs. Not open to students having credit for MGMT 4618 or equivalent. Prerequisites: MGMT 6050 and 6060.
- 6630 Organization Theory (4)  
The study of how organizations function and how they affect and are affected by the people and the society in which they operate. The focus of the course will be on the process by which managers select and manage aspects of structure and culture so that an organization can control those activities necessary to achieve its goals.
- 6635 Managerial Psychology (4)  
A seminar on using psychological techniques to enhance managerial creativity and effectiveness. Participants are required to fully participate in all exercises and weekly assignments.
- 6675 Seminar in International Human Resources Management (4)  
Seminar on how multinational firms use human resource functions, such as recruitment and selection, training and development, performance appraisal, compensation and benefits, to compete internationally. Focus on international and comparative labor-management relations and management of multicultural teams. Prerequisite: MGMT 6050, 6060 and 6550.
- 6680 Seminar in Labor-Management Relations Administration (4)  
Research, analysis, reporting and discussion of selected topics in labor-management relations, such as contract negotiations, grievance procedures, and governmental involvement and regulations. Prerequisite: MGMT 6060 or equivalent and MGMT 6550.
- 6700 Global Business and Economic Forecasting; the Economics of Information Technology (4)  
A comprehensive review of major state-of-the-art methods and techniques of international business forecasting. Computer simulations and strategic decision



analysis for corporate planning. The evaluation and analysis of international economic and political long-and-short-range trends in information technology. The economics of information superhighways. Prerequisite: graduate standing.

- 6710 Management of the Multinational Firm in a Changing World (4)  
An in-depth global competitive analysis of the economic and legal environment of international business. Host country interests and corporate strategies for international growth in rapidly shifting structures. Single-nation cases versus multi-nation case. The role of parent-subsidizing relationships. Prerequisite: graduate standing.
- 6730 Strategic Human Resource Management (4)  
Current practices and law in strategic human resource management. Human resource management's role in strategy formulation and implementation and its contribution to competitiveness. International human resource management employment laws emphasizing functional areas such as planning, recruiting, selection, training, evaluation, and salary and benefits administration. Prerequisite: graduate standing.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only.
- 6900 Independent Study (1-4)
- 6909 Departmental Thesis (2)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a faculty committee at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing.
- 6910 University Thesis (1-5)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: "Classified Graduate" standing and advisor approval. Maximum of 5 units per student. (See also, "University Thesis Writing Guide," available in WA 859.)

## Marketing

*The course prefix for the following courses is MKTG.*

- 6005 Managing Marketing: Theory and Practice (4)  
Theories, principles, concepts, practices, and tools of

marketing analysis. Emphasis on theoretical concepts and their practical applications through marketing decision-making in a simulated business environment and/or through case analysis. Prerequisite: post-baccalaureate status.

- 6401 Marketing Research (4)  
Knowledge and training in process and techniques of acquiring, analyzing, interpreting and reporting information for decision-making. Topics include data collection instruments, sampling plan, statistical analysis and reporting of results. Hands-on learning is emphasized through assignments and/or project. Prerequisites: MKTG 3401 or 6005 and successful completion of STAT proficiency requirement.
- 6403 Managerial Communication (4)  
Students will learn and apply the following advanced business communication concepts: performance appraisal, persuasion and motivation, negotiation and bargaining, leadership, conflict management, and written and oral communications. Lectures, case discussions, and a term project will be used to integrate concepts.
- 6410 Buyer Behavior (4)  
Theories, concepts, methods, and empirical findings regarding buyers' decision-making processes and choice behavior from buyers, marketers, and public policy makers' perspectives. Lectures, discussion of research articles, case analysis, and research project emphasized. Prerequisite: MKTG 3401 or MKTG 6005; recommended: MKTG 6401.
- 6411 Product Management (4)  
Knowledge and skills in the process of designing and marketing of new and existing products. Topics include product design, product positioning, market definition, segmentation, test marketing, and demand forecasting. Lectures, cases, and hands-on experience emphasized. Prerequisites: MKTG 3401 or 6005; MKTG 6401.
- 6412 Pricing Management (4)  
Pricing strategies, tactics, methods, laws, treatment of costs, effect of sales promotion, consideration of competition and customers for pricing. Lectures, discussion of relevant articles, and analyses of cases and pricing problems emphasized. Prerequisite: MKTG 3401 or MKTG 6005.
- 6413 Integrated Marketing Communications (4)  
Students learn marketing communications and promotion and apply knowledge and skills to develop an integrated marketing communication plan. Students learn decision techniques for positioning a brand using appropriate mix of advertising, sales promotion, sales force, and public relations. Prerequisite: MKTG 3401 or MKTG 6005.
- 6414 Distribution Management (4)  
Students learn about marketing channels and design and manage appropriate channels and logistics for a variety of

products. Lecture, project, case studies, and/or a simulation may be used to assist students in understanding distribution models. Prerequisites: MKTG 3401 or 6005; MKTG 6401.

- 6420 Seminar in Marketing Strategy (4)  
Development of marketing strategy and plan based on the analysis of the environment, organization, competition, and customers. Topics include product portfolio analysis, demand estimates, market boundary, segmentation, competitive analysis, and planning. Emphasis on development of skills using analytical tools, cases, and/or simulation. Prerequisites: MKTG 3401 or 6005; MKTG 6401 or an equivalent graduate-level research methodology course.
- 6450 Seminar in Selected Marketing Topics (4)  
Concepts, tools and techniques associated with a special topic in marketing such as consumer behavior, or application of marketing to a specific situation such as business-to-business marketing, international marketing, marketing through the Internet. Prerequisite: MKTG 3401 or 6005.
- 6470 International Marketing (4)  
Using cases and a project, students learn how to respond to differences in the cultural, political, legal and economic environments in other countries in designing effective market-entry, segmentation, positioning, and marketing-mix strategies. Ethical issues confronting global marketers are also discussed. Prerequisite: MKTG 3401 or 6005.
- 6480 New Venture Management (4)  
Topical coverage of key decision and control areas in establishing and managing new enterprises. Cases, class reports, resource speakers. Prerequisites: ACCT 6011, FIN 6033, MGMT 6060, and MKTG 3401.
- 6485 New Venture Project Seminar (4)  
Term projects involving feasibility research and completion of business plans for new ventures, in-process class discussion of projects and assigned readings. Prerequisites: ACCT 6011, FIN 6033, MGMT 6060, and MKTG 3401; strongly recommended: MKTG 6480.
- 6490 Graduate Practicum in Small Business Management (4)  
Student consultants assisting small businesses; reviewing performance, isolating problems, researching solutions, presenting analyses, preparing reports. May be repeated once if MKTG 4490 or equivalent never taken. Prerequisites: ACCT 6011, ECON 6051, FIN 6033, MGMT 3401, MGMT 6000; recommended: MKTG 6480.
- 6705 Strategic International Marketing Research (4)  
Near real-life experience developing international marketing research and strategy, based on a program-core competitive business simulation, played by "company" teams throughout the Executive M.B.A. option. Concluding "post-mortem" of own and competitors'

performances completed during a terminal exercise at Cal State Hayward. Prerequisite: graduate standing.

- 6710 Executive Development Seminar (1)  
One-week course on the Cal State Hayward campus including presentation of final reports on marketing simulation, concluding seminar, and corporate visitations. Prerequisite: graduate standing.
- 6720 Management of Marketing Functions (4)  
Management of marketing mix. Training managers/consultants in making decisions regarding product, pricing, promotion and distribution of existing and new brands. Emphasis on developing operations skills in solving marketing problems using analytical techniques and cases. Prerequisite: MKTG 6005.
- 6730 Pricing and Product Management (4)  
Designing and developing products and making pricing decisions. Topics include product design and development, brand equity, product line, pricing methods, and pricing strategies. Emphasis on developing concepts and skills to make product and pricing decisions using analytical tools and cases. Prerequisite: MKTG 6005.
- 6740 Promotion and Distribution (4)  
Management of integrated promotion system and distribution channels. Topics include advertising, sales promotion, sales force, public relations, store location, wholesaling, and retailing. Emphasis on developing concepts and skills to make promotion and distribution decisions using analytical tools and cases. Prerequisite: MKTG 6005.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA, departmental approval of activity. CR/NC grading only.
- 6900 Independent Study (1-4)
- 6910 University Thesis (1-5)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: "Classified Graduate" standing and advisor approval. Maximum of 5 units per student. (See also "University Thesis Writing Guide," available in WA 859.)

## Telecommunications

*The course prefix for the following courses is TC.*

- 6101 Analysis and Design of Telecommunications

Systems (4)

Four-step telecommunications decision framework. Analytical and knowledge-based models for network management. Architectures of Internet, ISDN, ATM, SONET and advanced satellite communications. Telecommunications business problem solving. Prerequisite: CIS 6070.

- 6205 Routing and Data Networking Models in Telecommunications (4)  
Communication models for physical and link layers, error detection and framing. Packet switching and flow control in TCP/IP. Asynchronous Transfer Mode algorithms. Splitting algorithms, carrier sensing, reservations. Routing in data networks. Network algorithms and shortest path routing. Prerequisite: MGMT 6100.
- 6207 Telecommunications Management Systems (4)  
Planning, configuration and performance management, fault maintenance approaches to telecommunications systems. TMN and SNMP standards. Knowledge-based management of ATM/SONET and wireless communications. Management concepts of satellite communications. Existing management systems. Prerequisite: TC 6101.
- 6210 Collaborative Multimedia Networking and Telepresence (4)  
Fundamentals of multimedia communications in business. Concepts of virtual organization. Audio-video and desktop conferencing. Cooperative work and groupwork. Multipoint teleconferencing. Mbone, ISDN, and ATM IP multicasting solutions. Prerequisite: TC 6101.
- 6277 Telecommunications Industry and Service Management (4)  
Development of telecommunications technology, services and regulations. High-speed and wireless markets. Trends in terrestrial wireless and satellite communications. Procedures for orbital and frequency registration, earth station approval, public policy for security, tariffing and charging policies. Prerequisite: CIS 6070.
- 6279 Seminar in Advanced Satellite Communications and Services (4)  
Low and medium earth orbiting satellite systems, their integration with mobile, ISDN, and ATM communications. Problem-solving research projects on design and evaluation of new telecommunications services, satellite constellation, heterogeneous satellite/terrestrial communications. Hands-on practice with LEONART simulator. Prerequisite: TC 6205.
- 6284 Management of Satellite/Wireless Communications (4)  
Hands-on practice with PCS technology, control centers for wireless communications. Implementation of COMNET system for visual modeling. Artificial intelligence and expert system technology applied to wireless/satellite communication management. Internet, Web,

teleconferencing technologies in management of wireless communications. Prerequisite: TC 6207.

- 6458** Optical Fiber Technologies (4)  
Theory of light propagation in optical fibers, bandwidth and attenuation of fiber optic systems, principles of semiconductor lasers and photodiodes, noise in optical receivers, modulation techniques, coherent optical communication systems. Prerequisites: CS 6585, TC 6101. Cross-listed with CS 6458.
- 6815** Artificial Intelligence in Telecommunications (4)  
Overview of TMN requirements to knowledge based models in telecommunications. Knowledge representation models. Distributed AI. Intelligent agents. Implications to network management: fault maintenance, configuration planning, intelligent routing, and filtering traffic patterns. Hands-on practice with ART\* Enterprise knowledge-based systems development tool. Prerequisites: CS 6585, TC 6101. Cross-listed with CS 6815.
- 6844** Digital Image Processing (4)  
(See CS 6844 for course description.)
- 6909** Departmental Thesis (1-4)  
Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a departmental committee, at least one of which must be a CSU Hayward faculty member. May be repeated for a maximum of 4 units. Prerequisites: Advancement to Candidacy and approval of thesis proposal by advisor and departmental committee.

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## Footnotes

<sup>1</sup>If ACCT 6224 is selected, then ACCT 6227 may be chosen as a taxation elective, and vice versa.

<sup>2</sup>ACCT 6226 may be repeated for credit with consent of the department.



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HELP



## Mathematics

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### Department Information

Department of Mathematics and Computer Science  
School of Science  
Office: North Science 335  
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E-mail: [mathcs@csuhayward.edu](mailto:mathcs@csuhayward.edu)  
<http://www.mcs.csuhayward.edu>  
Student Service Center: North Science 337  
Phone: (510) 885-4011

*Professor Emeriti:* Peter A. Fowler, Marvin R. Winzenread

*Professors:* James S. Daley, Edward L. Keller (Chair), Gary E. Lippman, Massoud Malek, Charles M. Marut, Russell L. Merris, Christopher L. Morgan, William R. Nico (Computer Science Coordinator), Edna E. Reiter (Associate Chair), Istvan Simon, Stuart Smith, William Thibault, Bruce E. Trumbo, Donald L. Wolitzer, Ytha Y. Yu

*Associate Professors:* Kathleen Hann, Dan Jurca, Farzan Roohparvar, Hwa Tang

*Assistant Professors:* Jagdish Bansiya, Edward A. Billard, Kevin Brown, Kevin E. Callahan, Leann Christianson, Julie S. Glass, Chung-Hsing OuYang, Thomas W. Roby, Assim Sagahyoon

*Lecturers:* Jane Brecha, Paula Albert, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Phil Gonsalves, Ching-Cheng Lee, David L. Pugno, Denise Sargent-Natour, Jean Simutis

*Graduate Coordinator:* Donald L. Wolitzer

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### Program Description

The Mathematics and Computer Science Department offers graduate study leading to the degree of Master of Science in Mathematics. The goal of the faculty is to provide excellent instruction in advanced mathematics and to maintain a supportive environment for graduate students. Students who complete the program should be equipped for careers in community college



teaching or positions in industry that require knowledge of mathematics beyond the undergraduate level. The M.S. degree in Mathematics can also serve as preparation for advanced study toward a Ph.D. degree in mathematics or a related field.

Our program features small classes that allow for close contact between students and faculty. Most graduate classes are offered in the late afternoon or early evening, making it possible for working students to attend. Courses toward the M.S. degree may also be taken during the summer quarter. Students may begin their studies in any one of the four quarters.

Students interested in the M.S. degree program in Mathematics should speak with the Mathematics Graduate Coordinator.

### Career Opportunities

A number of former Cal State Hayward students currently hold positions as community college mathematics teachers. Others have found the M.S. degree in mathematics to be an ideal preparation for further studies at doctorate-granting institutions and have continued by working towards a Ph.D. degree in mathematics or a related field such as operations research, physics, or economics. A number of these alumni are now professors at four-year institutions. Still others are in mathematics-related careers in industry.

### Faculty

The faculty of the Mathematics and Computer Science Department hold doctorates in a wide variety of areas of specialization and offer courses encompassing a broad range of pure and applied mathematics, including standard graduate mathematics courses as well as courses in new areas. Areas of emphasis include numerical analysis, pure and applied algebra, differential equations, real and complex analysis, topology, geometry, mathematical optimization, computer simulation, probability, statistics, and selected topics in applied mathematics.

### Special Features

Each quarter, a limited number of teaching positions is available to qualified graduate students. These positions, which generally involve teaching one lower division mathematics course per quarter, provide valuable experience, especially for those who intend to become community college teachers. The department also employs qualified students as paper graders.

Mathematics students at Cal State Hayward have access to modern computer equipment, including various mathematical software packages.

The Cal State Hayward Mathematics Club is open to all interested students. This club features lectures by students and faculty and offers a variety of social activities.

### Scholarships

Each year the department awards a number of scholarships covering a large portion of the fees for the subsequent year. Scholarship applications may be obtained from the department office during the Winter quarter.



# Options

There are three options available. Option I emphasizes coursework drawn from fundamental branches of mathematics: algebra, topology, and real and complex analysis. Option II, Mathematics Teaching, is intended for those who hold secondary teaching credentials and who intend to pursue a career in secondary education. Option III, Applied Mathematics, is designed to expose students to various aspects of applied mathematics, while allowing some coursework in "pure" mathematics as well. Students who intend to become community college teachers or go on to further graduate study should select Option I or Option III.

## Option I

### Admission

To enter the program with "Classified Graduate" status, a student must have completed at least 36 quarter units of acceptable upper division mathematics with a grade point average of "B" or higher. Included among these units must be courses in:

- Analysis
- Abstract algebra
- Linear algebra
- Differential equations

A student may be admitted to the program with "Conditionally Classified Graduate" status while making up course or grade point deficiencies. Units taken to meet any course deficiencies may not be applied toward the master's degree, and no more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree.

A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or higher average in at least 12 quarter units of postbaccalaureate study, and has satisfied the University Writing Skills requirement, should petition the graduate coordinator for admission to the master's degree program with "Classified Graduate" status.

### Advancement to Candidacy

A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units toward the master's degree with a "B" or higher average, including at least two 6000-level mathematics courses with a "B" or higher average. Before being Advanced to Candidacy, a student's complete course of graduate study must be approved by the Mathematics Graduate Studies Committee.

### Degree Requirements

The following departmental requirements must be satisfied:

- A. The following four courses (or their equivalents) must be completed, either as an undergraduate or as a graduate student:

MATH 4121 Advanced Algebra (4)

MATH 4340 Introduction to Complex Variables (4)

MATH 4350 Theory of Functions of a Real Variable (4)

MATH 4360 Introduction to Topology (4)

B. The 45 quarter units applied to the degree must include:

1. At least 24 quarter units of 6000-level courses, of which at least 20 quarter units are mathematics courses. Credit will be given for the seven M.A.T.H. courses (MATH 6015-6065, and 6899), only with the permission of the Mathematics Graduate Committee.
2. At least two of the following four courses:  
MATH 6121 Topics in Advanced Algebra I (4)  
MATH 6201 Topology (4)  
MATH 6340 Complex Analysis (4)  
MATH 6350 Real Analysis (4)

C. A comprehensive examination must be passed. Details are available in the department office.

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

## Option II (Mathematics Teaching)

### Admission

The M.A.T.H. (Mathematics and Teaching at Hayward) option is available only to holders of teaching credentials, unless special permission is obtained. In order to be admitted to the master's degree program with "Classified Graduate" status, a student must have completed 24 or more quarter units of acceptable upper division mathematics with an average of "B" or higher. A student may be admitted to the program with "Conditionally Classified Graduate" status while making up course or grade point deficiencies. Units taken to meet any course deficiencies may not be applied toward the master's degree, and no more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree. A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or higher average in at least 12 quarter units of post-baccalaureate study, and has satisfied the University Writing Skills requirement, should petition the graduate coordinator for admission to the master's degree program with "Classified Graduate" status.

### Advancement to Candidacy

A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units of work toward the master's degree with a "B" or higher average.

Before being Advanced to Candidacy, a student's complete course of study must be approved by the Mathematics Graduate Studies Committee.

### Degree Requirements

The following departmental requirements for the M.S. degree are in addition to the general University requirements:

A. Six M.A.T.H core courses (24 units)

MATH 6015 Algebra for Teachers (4)  
MATH 6025 Geometry for Teachers (4)  
MATH 6035 Analysis for Teachers (4)  
MATH 6045 Mathematics in the Sciences (4)  
MATH 6055 Discrete Mathematics (4)  
MATH 6065 Connections in Mathematics (4)

B. Two Teacher Education courses selected from the following (8 units):

TED 6010 Seminar in Teaching and Learning Mathematics (4)  
TED 6021 Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)  
TED 6030 Seminar on Problem Solving and Critical Thinking in Mathematics (4)  
TED 6040 Advanced Curriculum and Instruction in Mathematics (4)

C. An upper division or graduate-level course offered by the Statistics Department and approved by the Math Graduate Coordinator (4 units)

D. One or two upper division or graduate electives approved by the Math Graduate Coordinator (4-8 units)

E. MATH 6899 Project (1-5 units)

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills Requirement.

### Option III (Applied Mathematics)

#### Admission

To enter the program with "Classified Graduate" status, a student must have completed a course in computer science and at least 36 quarter units of acceptable upper division mathematics, statistics, or computer science courses with a grade point average of "B" or higher. Included among these units must be courses in:

- Analysis
- Abstract algebra
- Linear algebra
- Differential equations

A student may enter the program with "Conditionally Classified Graduate" status while making up course or grade point deficiencies. Units taken to meet course deficiencies may not be applied toward the master's degree, and no more than 20 quarter

units taken while in "Conditionally Classified Graduate" status may be applied to the degree.

A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or higher average in at least 12 quarter units of post baccalaureate study, and has satisfied the University Writing Skills Requirement, should petition the department graduate coordinator for a change to "Classified Graduate" status.

#### Advancement to Candidacy

A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units towards the master's degree with a "B" or higher average, including at least two 6000-level mathematics courses with a "B" or higher average.

Before being Advanced to Candidacy, a student's complete course of study must be approved by the Mathematics Graduate Studies Committee. In particular, approval must be obtained for any course(s) taken outside the Mathematics and Computer Science Department.

#### Degree Requirements

The following departmental requirements must be satisfied:

- A. The following four courses (or their equivalents) must be completed, either as an undergraduate or as a graduate student:

MATH 3301 Analysis II (4)  
MATH 3401 Introduction to Probability Theory I (4)  
MATH 3750 Numerical Analysis I (4)  
MATH 3841 Linear Programming (4)

- B. The 45 quarter units applied to the degree must include:

1. At least 22 1/2 quarter units of 6000 level courses of which at least 18 are mathematics courses. Credit will be given for the seven M.A.T.H. courses (MATH 6015-6065, and 6899), only with the permission of the Mathematics Graduate Committee.

2. At least two of the following five courses:

MATH 6100 Applied Algebra (4)  
MATH 6331 Topics in Differential Equations (4)  
MATH 6401 Advanced Probability I (4)  
MATH 6870 Computer Simulation (4)  
MATH 6750 Topics in Advanced Numerical Analysis (4)

- C. A comprehensive examination must be passed. Details are available in the department office.

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

## Upper Division Mathematics, Computer Science, and Statistics Courses Acceptable for M.S. in Mathematics

Upper division and graduate computer science courses may be used with the approval of the Mathematics Graduate Studies Committee.

Other upper division mathematics courses may be used with the approval of the Mathematics Graduate Studies Committee. Math 4021, 4022, 4023, 4024 will not be approved.

STAT 3401, 3402 Introduction to Probability Theory I, II (4 each), 3502, 3503 Statistical Inference I, II (4 each), 4401 Introduction to Stochastic Processes (4)

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*The course prefix for the following courses is MATH.*

- 6100** Applied Algebra (4)  
A survey course covering significant areas of applied algebra. Topics might include applied matrix theory, game theory, convexity and inequalities, and/or algebraic coding theory. Prerequisite: MATH 3100 or equivalent. May be repeated once for credit with consent of Mathematics Graduate Studies Committee.
- 6121** Topics in Advanced Algebra I (4)  
Continuation of MATH 4121. Topics include ideals, commutative rings, modules; field extensions and Galois theory. Prerequisite: MATH 4121.
- 6125** Introduction to Lie Algebras (4)  
An introduction to the theory of semisimple Lie algebras. Theorems of Lie, Engel, and Weyl; Cartan's Criterion; the classification of root systems; and abstract theory of weights. Prerequisite: MATH 3100 or consent of instructor.
- 6130** Finite Group Representations and Applications (4)  
Reducible and irreducible representations, Maschke's theorem, characters, Schur's lemmas, orthogonality theorems, the group algebra, induced representations and Frobenius reciprocity, Young tableaux and representations of the symmetric group, applications in chemistry and physics. Prerequisites: MATH 3100 and 3121 or consent of instructor.
- 6140** Lie Groups and Applications (4)  
Matrix groups and linear algebra; manifolds; Lie groups and algebras; solvable, nilpotent, simple and semisimple Lie groups and algebras; decomposition and structure theorems; compact Lie groups and applications. Prerequisites: MATH 3100, 3121, 3300; or consent of instructor.
- 6155** Advanced Combinatorics (4)

Selected topics from advanced counting theory, including formal power series, partially ordered sets, symmetric groups, and related algorithms plus an additional graduate module. Prerequisites: MATH 3121 or 3151 or consent of instructor and graduate status. Not open to students with credit for MATH 4155.

- 6201 Topology (4)  
Continuation of MATH 4360. Topics may include countability and separation axioms, Tychonoff theorem, metrization theorems, homotopy theory. Prerequisite: MATH 4360.
- 6210 Convex Polytopes-Combinatorial Geometry (4)  
Convex sets including convex hulls, supporting hyperplanes and duality. Convex polytopes, including simple, simplicial, and cyclic polytopes. Combinatorial theory, including Euler's Relations, Dehn-Somerville Relations and Upper Bound Theorem. Prerequisites: MATH 3100 and MATH 3300 or consent of instructor.
- 6250 Topics in Differential Geometry and Topology (4)  
Topics in differential geometry and topology such as manifolds, bundles, differential forms, curvature, theorems of Sard-Smale, Poincaré-Hopf, Gauss-Bonnet, de Rham, and Hodge. Prerequisites: MATH 3100, 3301, or consent of instructor.
- 6260 Computational Complexity (4)  
(See CS 6260 for course description.)
- 6331 Topics in Differential Equations (4)  
Topics selected from the theory of ordinary and partial differential equations. May be repeated for credit with consent of Mathematics Graduate Studies Committee. Prerequisites: MATH 3100, 3331, 3301 or instructor's permission.
- 6340 Complex Analysis (4)  
Cauchy integral formula, Mittag-Leffler's theorem, Weierstrass' factorization theorem, normal families, Riemann mapping theorem, and selected topics. Prerequisite: MATH 4340.
- 6341 Elliptic Curves (4)  
Introduction to the geometry and arithmetic of elliptic curves. Elliptic integrals and functions, theta functions, automorphic functions, and modular forms. Algebraic curves over finite fields. Elliptic curve factorization algorithms and cryptosystems. Prerequisites: MATH 4340 or consent of the instructor.
- 6350 Real Analysis (4)  
Theory of Lebesgue measure and integration on the real line. Selected topics and applications. Prerequisite: MATH 4350.
- 6370 Applied Functional Analysis (4)  
Theory and applications of functional analysis. Function

spaces, convexity and fixed point theory, spectral theory, and applications. Prerequisites: MATH 3100, 3300, and 3331; or consent of instructor.

- 6375 Introduction to Nonlinear Analysis (4)  
An introduction to nonlinear analysis for applications. Basic functional analysis, fixed point theory, Leray-Schauder theory, bifurcation theory, and application to Sturm-Liouville problems and Euler buckling. Prerequisites: MATH 3100, 3300, 3331, or consent of instructor.
- 6380 Geometry and Topology of Dynamical Systems (4)  
Introduction to geometrical and topological aspects of dynamical systems. Manifolds, bundles, vector fields, and differential forms. Lagrangian and Hamiltonian systems and symplectic mechanics. Prerequisites: MATH 3100 and MATH 3300, or consent of instructor.
- 6381 Geometry and Topology of Dynamical Systems II (4)  
Bundles. Lagrangian and Hamiltonian systems and symplectic mechanics. Prerequisite: MATH 6380 or consent of instructor.
- 6401, 6402 Advanced Probability I, II (4,4)  
(See STAT 6401, 6402 for course description.)
- 6501, 6502 Mathematical Statistics I, II (4,4)  
(See STAT 6501, 6502 for course description.)
- 6510 Analysis of Variance (4)  
(See STAT 6510 for course description.)
- 6750 Topics in Advanced Numerical Analysis (4)  
Topics selected from approximation theory; spline theory; numerical linear algebra; the algebraic eigenvalue problem; numerical solutions to non-linear systems of equations, partial differential equations, and boundary value problems. May be repeated for credit with consent of Mathematics Graduate Studies Committee. Cross-listed with CS 6750. Prerequisites: MATH 4750 and 3301 or instructor's permission.
- 6870 Computer Simulation (4)  
(See CS 6870 for course description.)
- 6900 Independent Study (1-4)
- 6910 University Thesis (1-6)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide" available in WA 859.)

## Mathematics Education (M.A.T.H. Option Courses)

- 6010 Seminar in Teaching and Learning Elementary Mathematics (4)  
(See T ED 6010 for course description.)
- 6015 Algebra for Teachers (4)  
Polynomials, groups, fields, and rings from an advanced standpoint as they relate to the high school algebra curriculum. Discussion of strategies to help secondary students develop their algebraic thinking skills.  
Prerequisite: permission of instructor.
- 6021 Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)  
(See T ED 6021 for course description.)
- 6025 Geometry for Teachers (4)  
Rigorous development of a non-Euclidean geometry, such as spherical, projective, or hyperbolic geometry. Models and technology used where appropriate. Discussion of implementation strategies for teaching geometry and proof techniques for high school students. Prerequisite: permission of instructor.
- 6035 Analysis for Teachers (4)  
A rigorous development of calculus. The real line, functions, limits, continuity, differential and integral calculus. Technology used to develop an intuitive understanding of calculus which can be implemented in the high school classroom. Prerequisite: permission of instructor.
- 6040 Advanced Curriculum and Instruction in Mathematics (4)  
(See T ED 6040 for course description.)
- 6045 Mathematics in the Sciences (4)  
Mathematics as found throughout the sciences. The mathematics used to model phenomena in biology, chemistry and/or physics. Students discover some of this mathematics through scientific experiments. Prerequisite: permission of instructor.
- 6055 Discrete Mathematics (4)  
Topics in discrete mathematics relating to the high school curriculum such as combinatorics, number theory, and graph theory. Prerequisite: permission of instructor.
- 6065 Connections in Mathematics (4)  
Topics which illustrate connections between different fields and applications of mathematics such as neural networks, tomography, coding theory, symmetry groups, optimization theory, and applications found in differential equations or complex analysis. Prerequisite: permission of instructor.
- 6899 Project (1-5)



Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate status. Maximum of 5 units per student.

6900 Independent Study (1-4)



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## Department Information

## Chemistry

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Department of Chemistry  
School of Science  
Office: North Science 431  
Phone: (510) 885-3452

*Professors Emeriti:* Richard E. Bozak, John C. Shelton

*Professors:* Kevin D. Cadogan, Leroy Chauve (Chair), Michael K. Leung, Richard T. Luibrand, Richard S. Monson, Charles T. Perrino, Larry G. Scheve

*Associate Professor:* Ann A. McPartland

*Assistant Professor:* Joy C. Andrews, Christopher M. Holman

*Graduate Coordinator:* Larry G. Scheve

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## M.S. in Chemistry

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### Program Description

The Master of Science degree in Chemistry mainly serves students in one of four categories: those seeking opportunities in the chemical industry requiring training beyond the baccalaureate level, fully employed chemists who wish to enhance their career potential, future teachers of high school or community college chemistry, and graduates contemplating subsequent study at the Ph.D. level.

Because the program is relatively small at the present time, all qualified applicants are currently accepted. Applicants may select either a general option permitting emphasis in any area of chemistry or an option in biochemistry. At present, enrollment is about the same in both options. To make the program more accessible to employed students, most required courses are offered in the evening.

### Program Options

Within the general Chemistry option, candidates may pursue either Plan A, which requires a University Thesis, or Plan B,

which entails passing a comprehensive examination over all coursework applied to the degree. The Biochemistry option requires a University Thesis, but candidates may also elect to concentrate in biochemistry under Plan B of the general option.

## Faculty

The faculty of the department numbers ten, each holding the Ph.D. degree. Most came to Cal State Hayward with postdoctoral experience either in academia or industry, or both. Added breadth of experience is provided by occasional visiting lecturers in graduate lecture courses.

## Facilities

The laboratories are modern and well equipped. Major instrumentation includes continuous-wave proton and fourier-transform C-13 nuclear magnetic resonance spectrometers, capillary gas chromatographs with both flame-ionization and mass-spectral detection, a fourier-transform infrared spectrophotometer, an atomic absorption spectrophotometer with graphite furnace and cold vapor attachments, and a diode-array visible-ultraviolet spectrophotometer used alone or as a detector for stopped-flow kinetics studies. Electron microscopy including scanning electron microscopy is available through the Department of Biological Sciences and x-ray analysis, including x-ray fluorescence spectroscopy, through the Department of Geological Sciences. The department has a variety of computers and associated software including a silicon graphics system.

The department is served by an office staff of a department secretary and a part-time clerical assistant, and by a staff of four full-time technicians and one part-time person.

## Additional Information

The masters' degree program is under the nominal direction of the graduate coordinator, with the participation of the department's Graduate Studies Committee. All inquiries should be directed to the graduate coordinator or to the department chair.

## Admission Requirements

The basic requirements for entry in the program are possession of a baccalaureate degree major equivalent to that at Cal State Hayward and an upper division GPA of at least 2.6 in upper division courses in chemistry and biochemistry. The equivalent major for the three tracks, Plan A, Plan B, and the Biochemistry Option are the B.S. Major in Chemistry, B.A. Major in Chemistry, General Option, and B.A. Major Option in Biochemistry, respectively. Applicants not meeting the GPA requirement may still be accepted subject to receipt of acceptable letters of recommendation; the G.R.E. is not required.

Qualified applicants are accepted in "Conditionally Classified Graduate" status and must pass placement tests in organic, physical, and one of analytical, inorganic, or biochemistry; remove any deficiencies in the undergraduate major, complete 12 units applicable to the degree, and pass the University Writing Skills Graduation Test to become fully "Classified Graduate" students. Applicants not having an undergraduate major in chemistry may be accepted in the program depending on the amount of undergraduate coursework required to remove deficiencies.

## Plan A, Thesis

A University Thesis is required both in Plan A and in the Biochemistry Option. A thesis topic is decided by mutual agreement between a graduate student and an appropriate faculty member.

### *On-Site Research*

Candidates whose employers permit the use of appropriate facilities and approve the release of the applicable findings may arrange to conduct research on their employers' premises in support of their M.S. theses, subject to prior approval by the department.

## Plan B, Comprehensive Examination

Plan B entails the completion of additional specified coursework in lieu of a thesis and completion of a significant literature search and report on a selected topic. Applicants must pass a comprehensive examination which consists of an oral portion covering the report of the literature search and a written portion covering all other coursework applied to the degree.

## Required Coursework

Units are specifically required in courses covering thermodynamics, the chemical bond, and advanced topics in other areas. Plan B additionally requires courses in instrumental analysis and the chemical literature. The total 45 units are rounded out by approved upper division courses in chemistry, biochemistry, biology, and occasionally other subjects in science or mathematics.

## Advancement to Candidacy

In order to progress in the program, a student must pass or obtain a waiver for the placement exams. A waiver is usually obtained by enrolling in an undergraduate course covering appropriate material. The exams must be completed within one year of entry into the Department of Chemistry. Additionally, students must pass the Writing Skills Test and qualify for "Classified Graduate" status within two years of admission.

Advancement to Candidacy requires that the student complete 12 units in 6000-level courses applicable towards the degree with an average grade of 3.0 or better and select a research advisor for the thesis or a supervisor for the Plan B literature search and comprehensive examination.

## General Chemistry Option Requirements

(Plan A or Plan B must be selected)

### Plan A, Thesis

In order to be eligible for the degree, the student must satisfy the following departmental requirements:

1. Complete a total of 22 units in required courses in Chemistry comprising the following:

CHEM 4521 Elements of Chemical Thermodynamics (4)  
CHEM 6521 The Chemical Bond (3)  
CHEM 6820 Seminar (1,1,1)  
CHEM 6830 Research (6)  
CHEM 6850 Methods of Graduate Research (3)

CHEM 6910 University Thesis (3)

2. Complete a minimum of nine units from the Advanced Topics courses 6310 and 6510
3. Complete additional units to total the minimum 45 units required-to be selected, with the approval of the student's advisor, from additional graduate courses in chemistry. These units must be selected from the list of upper division courses in chemistry acceptable for the master's degree and must not include more than four units of 6900 and three units of 6830. A maximum of six units from applicable courses in related fields may be included (e.g., in physics, geological sciences, or mathematics), and additional units must be taken to replace any courses in (1) or (2) above taken as an undergraduate
4. Submit to the department an acceptable master's degree thesis (University Thesis, CHEM 6910)

*Upper Division Chemistry Courses Acceptable for the Master's Degree*

A maximum of 15 units may be chosen from this category: all choices must be approved by the candidate's advisor.

CHEM 4110 Introduction to Geochemistry, 4162 Advanced Inorganic Chemistry, 4310 Qualitative Organic Analysis, 4311 Advanced Organic Chemistry 4330 Synthetic Organic Methods, 4340 Physical Organic Chemistry, 4411, 4412 General Biochemistry, 4420 Advanced Biochemistry, 4430 General Biochemistry Laboratory, 4700 Survey of Chemical Literature

Plan B, Comprehensive Examination

In order to be eligible for the degree, the student must satisfy the following departmental requirements:

1. Complete a total of 21 units in the following required Chemistry courses:

CHEM 4240 Instrumental Methods of Analysis (4)  
CHEM 4521 Elements of Chemical Thermodynamics (4)  
CHEM 4700 Survey of Chemical Literature (2)  
CHEM 6521 The Chemical Bond (3)  
CHEM 6820 Seminar (1, 1, 1)  
CHEM 6850 Methods of Graduate Research (3)  
CHEM 6901 Comprehensive Review (2)
2. Complete a minimum of 12 units from the Advanced Topics courses 6310, 6410 and 6510
3. Complete additional units to total the minimum required 45 to be selected, with the approval of the student's advisor, from additional graduate courses in chemistry (to include no more than two units of 6900 and none of 6830 or 6910), from the lists of upper division courses in chemistry acceptable for the master's degree (including those acceptable for the biochemistry option, see below), up to a maximum of 12 units in applicable courses in related fields, and additional units to

## Option in Biochemistry

replace any courses in (1) or (2) above taken as an undergraduate

4. Pass a comprehensive examination consisting of a written portion covering the courses taken and an oral portion covering the content of CHEM 6901.

### Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

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To be eligible for the Option in Biochemistry, M.S. in Chemistry, the student must satisfy the following departmental requirements:

1. Complete the following required courses in biochemistry and chemistry (22 units):

CHEM 6410 Advanced Topics in Biochemistry (3)  
CHEM 6430 Protein Chemistry Techniques (4)  
CHEM 6820 Seminar (1, 1, 1)  
CHEM 6830 Research (Biochemistry Specialization) (6)  
CHEM 6850 Methods of Graduate Research (3)  
CHEM 6910 Thesis (Biochemistry Specialization) (3)

2. Complete a minimum of six units from the following courses:

CHEM 4521, 6310, 6410, 6521 including at least one of CHEM 4521 and 6521

3. Complete additional units to total the minimum 45 units required-to be selected, with the approval of the student's advisor, from additional graduate courses in chemistry and biochemistry. These units must be selected from the list of upper division courses in chemistry acceptable for the master's degree, Option in Biochemistry, and must not include more than four units of 6900 and three units of 6830. A maximum of eight units from applicable courses in Biological Sciences may be selected from the following:

BIOL 4120 Radiation Biology (4)  
BIOL 4450 Cell Culture Techniques (4)  
BIOL 6140<sup>□</sup> Recombinant DNA Techniques (4)  
BIOL 6151-52 Cell Biology (4, 4)

Additional units must be selected to replace any courses in (1) and (2) above taken as an undergraduate

4. Submit to the department an acceptable master's degree thesis (University Thesis, CHEM 6910).

*Upper Division Chemistry Courses Acceptable for the*

## Graduate Courses

### *Biochemistry Option, Master's Degree in Chemistry*

CHEM 3531, 3532 Physical Chemistry Laboratory, 4161, 4162 Advanced Inorganic Chemistry, 4180 Inorganic Chemistry Laboratory, 4240 Instrumental Methods of Analysis, 4310 Qualitative Organic Analysis, 4311 Advanced Organic Chemistry, 4330 Synthetic Organic Methods, 4340 Physical Organic Chemistry, 4700 Survey of Chemical Literature

*The course prefix for the following courses is CHEM.*

- 6140** Recombinant DNA Techniques (4)  
(See BIOL 6140 for course description.)
- 6310** Advanced Topics in Organic Chemistry (3)  
Selected topics in special advanced fields of organic chemistry. Topics vary each quarter. May be repeated for maximum of 9 units credit. Prerequisite: CHEM 4311 or consent of instructor. (Y)
- 6321** Aqueous Geochemistry (4)  
(See GEOL 6321 for course description.)
- 6410** Advanced Topics in Biochemistry (3)  
Selected topics in biochemistry, e.g., advanced discussion of proteins, enzyme kinetics, physical biochemical techniques, nucleic acid chemistry. May be repeated for a maximum of six units. Prerequisite: CHEM 4420 or consent of instructor. (Y)
- 6430** Protein Chemistry Techniques (4)  
Techniques in protein chemistry. Methods for protein quantitation, separation, identification, purification and sequence analysis. Emphasis on modern procedures employing techniques such as chromatography, electrophoresis, isoelectric focusing, gene splicing and immunological probing. Prerequisites: CHEM 4412 (or equivalent) and permission of instructor. Two hrs. lect., 6 hrs. lab. (Alt. Y)
- 6510** Advanced Topics in Physical Chemistry (3)  
Selected topics in physical chemistry, e.g., molecular structure, spectroscopy, quantum mechanics, and crystallography. May be repeated for maximum of 9 units. Prerequisite: 1 year physical chemistry. (Y)
- 6521** The Chemical Bond (3)  
The quantum mechanical description of the structure and spectroscopic properties of atoms and molecules, of the chemical bonding in molecules, and of bonding in solids and liquids. Prerequisite: CHEM 3513. (Sp)
- 6820** Seminar (1)  
Written and oral review of topics in the current chemical literature; reports of research in progress. May be taken three times for credit. CR/NC grading only. Prerequisite: upper division or graduate standing in chemistry. (A)

- 6830** Research (1-5)  
Original research in chemistry, under the supervision of a member of the graduate faculty. May be repeated for a total of nine units. Prerequisites: Advancement to Candidacy and departmental approval. (A)
- 6850** Methods of Graduate Research (3)  
An introduction to advanced research methods including bibliographical, instrumental, and laboratory applications. Prerequisites: "Classified Graduate" standing in chemistry and departmental approval. (Y)
- 6898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. No units may be counted toward the Chemistry major. CR/NC grading only. Prerequisites: at least a 3.0 GPA and departmental approval of activity. (A)
- 6900** Independent Study (1-3)  
A maximum of four units may be applied toward the degree. (A)
- 6901** Comprehensive Review (2)  
Preparation for Comprehensive Examination including review of relevant areas and preparation of a substantial written report on a selected topic under the direction of a faculty advisor. The final examination covers the selected topic and is the oral portion of the Comprehensive Examination. CR/NC only. Prerequisite: completion of or concurrent enrollment in all courses required in categories (1), (2) and (3) of M.S. program excluding one unit of CHEM 6820. (A)
- 6910** University Thesis (1-3)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisites: Advancement to Candidacy and departmental approval. Maximum of 3 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

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## Footnotes

- 1** Majors may enroll in cross-listed equivalent CHEM 6140, but course still counts in this category.



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## Multimedia

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### Department Information

Multimedia Program Committee  
School of Arts, Letters, and Social Sciences; School of  
Business and Economics; School of Education; School  
of Science

Office: Graduate Programs, Warren Hall 891  
Phone (510) 885-3286

*Professor:* Christopher L. Morgan (Mathematics and Computer  
Science)

*Associate Professors:* Hadi Bezhad (Management and Finance);  
Alexander Bordetsky (Accounting and Computer Information  
Systems); Bijan Gillani (School of Education: Interdisciplinary  
Studies); Tung-Shing Lan (Accounting and Computer Information  
Systems); James Petrillo (Art); William Thibault (Mathematics and  
Computer Science)

*Assistant Professor:* Anju Relan (School of Education:  
Interdisciplinary Studies)

*Graduate Coordinator:* James Petrillo (Art)

*Please consult the 2001-2002 online catalog for any changes that  
may occur.*

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### M.A. in Multimedia

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#### Program Description

The Multimedia master's degree is a unique interdisciplinary program that focuses on the creative and technical aspects of using computer technology to create, control, deliver, and present information in a variety of interactive digital forms. This degree draws upon elements from a number of fields, including art, computer science, education, business, and telecommunications.

The Multimedia graduate program mirrors real world conditions by emphasizing teamwork and production-oriented goals. Students learn the skills needed to adapt quickly to new environments, a valuable asset for any profession. Because multimedia is a rapidly developing and rapidly changing field, the program focuses as much on the enduring creative processes as on the transient

technology.

The Multimedia master's is a two-year degree designed for working students and professionals, and courses are offered in the evening. During the first year, students develop a theoretical foundation in multimedia, enhance their technical skills, and learn to work effectively in teams. During the second year, students join a group of four to five fellow students with various backgrounds and talents to create a professional-quality multimedia product.

Ideas for group projects originate from students, faculty, or external sources, but each finished project is a complete, operating multimedia production with computer technology used to create and integrate interactive text, graphics, video, and sound. Moreover, as the equivalent of a thesis requirement, the project reflects the quality demanded by the faculty as well as multimedia industry experts. For example, the program's first student project was honored with a 1997 Invision Award sponsored by New Media Magazine.

Students in the Multimedia graduate program enjoy a number of benefits including small student-teacher ratios, a dedicated interdisciplinary faculty, and 24-hour access to professional quality multimedia production facilities. These facilities are well-equipped and maintained with the latest technology.

### Career Opportunities

The Multimedia graduate program prepares students for successful careers in the new and thriving multimedia industry. As the only multimedia master's program in the state, it leads the way in training future multimedia producers and artists. Graduates can seek employment in positions where they work in teams or individually to produce artistic and commercial multimedia materials. Potential places of employment include film and video studios, production and post-production houses, CD-ROM publishers, corporate training and communication groups, support groups for scientific visualization, support groups for business presentation, and support groups for educational institutions.

Added career-oriented features of the Multimedia graduate program are its location in the San Francisco Bay Area, home to the hottest interactive digital media industry in the world, and excellent industry connections. The Multimedia graduate program has a Board of Advisors comprised of representatives from major media and computer organizations such as, Apple Computer, Electronic Arts (EA), Dolby Laboratories, Dream Works, Netscape, Sun Microsystems, and Pacific Data Images (PDI).

### Faculty

This is an interdisciplinary program involving all four schools in the university. The program is administered by a Multimedia Program Committee comprised of one faculty member from each school. Committee members typically include faculty from the departments of: Art, Management and Finance, Mathematics and Computer Science, Accounting and Computer Information Systems, and Interdisciplinary Studies in Education. The Graduate Dean serves as a member of the Committee.

### Admission

Applicants are individually evaluated for admission to the

Multimedia graduate program using the following criteria:

- A minimum GPA of 3.0 in the last 90 units of undergraduate work
- A work sample reflecting the applicant's talents and abilities
- Evidence of professional experience in related fields

In addition to submitting a university application and application fee to the Admissions Office, applicants must complete a departmental application and submit it along with a statement of purpose, resume, work sample, two reference letters, and copies of academic transcripts. Applicants are selected by an admissions panel of the Multimedia Program Committee.

Students are admitted for the Fall quarter only. The application deadline is mid-March. No entrance exam is required for admission; however, international students must take the TOEFL exam and pass with a score of 550 or better.

Applicants who have not completed all prerequisite requirements may be placed in "Conditionally Classified Graduate" status if they can demonstrate the ability to complete these requirements.

### Requirements for Continuation

Once admitted to the program, students must satisfy further requirements, e.g., they must satisfy the University Writing Skills requirement. Students who have completed all the prerequisite requirements and the University Writing Skills requirement are given "Classified Graduate" status. Advancement to Candidacy is a university requirement for graduation. A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units towards the master's degree with a "B" average. Before being Advanced to Candidacy, a student's complete course of study and progress must be approved by the Multimedia Program Committee.

### Curricular Requirements (52-54 units)

#### I. Required Courses (44 units)

- MM 6100 Principles of Digital Media (4)
- MM 6101 Mind and Media Seminar (4)
- MM 6102 Application of Learning Theories to Multimedia Design (4)
- MM 6103 Management of Multimedia Business (4)
- MM 6310 Multimedia Software Development (4)
- MM 6410 Collaborative Multimedia Computing (4)
- MM 6805 Forum (1) (Must be repeated for a total of 4 units)
- MM 6860 Introduction to Multimedia Project Development (4)
- MM 6870 Multimedia Development I (4)
- MM 6880 Multimedia Development II (4)
- MM 6899 Project (4)

#### II. Electives (8-10 units)

- ART 3800 Multimedia I: Animation (4)
- ART 3820 Multimedia II: Digital Video and Audio (4)
- ART 3830 Digital Graphics II, Digital Imaging (4)
- ART 3870 Art for the Web (4)
- ART 4200 Multimedia IV: Interactive Design/Authoring (4)

## Graduate Courses

CS 3860 Computer Music Programming (4)  
CS 4840 Computer Graphics (4)  
CS 4848 Computer Animation Programming (4)  
CS 6840 Principles of Computer Graphics (4)  
EDUI/MM 6098 Designing Effective Multimedia Instruction (4)  
EDUI/MM 6099 Introduction to Instructional Multimedia (4)  
EDUI/MM 6210 Principles of Instructional Design (4)  
MM 6350 Audio Production for Multimedia (4)  
MM 6898 Cooperative Education (1-8)

### Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of this catalog. These requirements include the 39-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

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*The course prefix for the following courses is MM.*

- 6098** Designing Effective Multimedia Instruction (4)  
(See EDUI 6098 for course description.)
- 6099** Introduction to Instructional Multimedia (4)  
(See EDUI 6099 for course description.)
- 6100** Principles of Digital Media (4)  
The nature of sound and light: physical basis, perception, and digital representation. Capture, conversion, storage, transport, and display of digital multimedia information. Multimedia devices and architectures. Hands-on experience using multimedia development tools. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Prerequisite: CS 1020, CS 1160, T ED 5099, CIS 3270, or CIS 4275 or equivalent.
- 6101** Mind and Media Seminar (4)  
A seminar on the evolution and role of multimedia and telecommunications technology in the making of culture, and the effects of electronic communication on meaning and values. Particular emphasis on small group working dynamics.
- 6102** Application of Learning Theories to Multimedia Design (4)  
Learning theories in creating effective educational multimedia for CD and World Wide Web. Trends in cognitive, social, psychological, developmental, and humanistic theories for multimedia content development. Prerequisite: MM 6101 and familiarity with at least one development methodology (e.g., computer software development, theater or video scripting, educational materials development).
- 6103** Management of Multimedia Business (4)

The legal, financial, and managerial environments of multimedia business and the management of multimedia projects, production, R & D, marketing, and finance. Prerequisite: MM 6101.

- 6210 Principles of Instructional Design (4)  
(See EDUI 6210 for course description.)
- 6310 Multimedia Software Development (4)  
Developing multimedia application programs using high level, object-oriented, programming environments. Study of device-independent approaches to controlling multimedia devices. Student projects to develop multimedia application programs. Prerequisite: MM 6101. Two hrs. lect., 4 hrs. act.
- 6350 Audio Production for Multimedia (4)  
Developing effective audio for multimedia programs using a variety of digital production tools. Students will develop multimedia audio presentations. Prerequisite: MM 4850. Two hrs. lect., 4 hrs. act.
- 6410 Collaborative Multimedia Computing (4)  
Characteristics, treatment, and transmission of multimedia data. Design of point-to-point, multipoint, and broadcast networks for specific multimedia applications. Project-oriented. Prerequisite: MM 6100.
- 6805 Forum (1)  
Recent developments in the multimedia industry and the infusion of the latest conceptual and technical advances. Presentations by CS faculty, industry professionals, and student project teams. Maximum credit of 4 units.
- 6860 Introduction to Multimedia Project Development (4)  
Small development projects to establish processes of collaborative work practices, evaluate the potential of individual students to succeed as members of a project team, and identify leadership skills. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Prerequisite: "Classified" or "Conditionally Classified Graduate" standing in Multimedia M.A. program.
- 6870 Multimedia Development I (4)  
Collaborative interdisciplinary student teams begin to develop the multimedia project. Creation and design of audio, video, graphic, literary content, and employment of the latest technology. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Prerequisite: MM 6860.
- 6880 Multimedia Development II (4)  
Continuation of multimedia projects begun by the teams established in Multimedia Development I. Project prepared for completion in MM 6899. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Prerequisite: MM 6870.

**6898** Cooperative Education (1-8)

Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 8 units will be accepted toward the major. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity.

**6899** Project (4)

Development of an original professional-quality multimedia project which is summarized in a written abstract. Both the project and the abstract are submitted to the program committee which specifies their format. Supervision by a faculty committee, at least one of whom must be a Cal State Hayward faculty member. Required oral defense consisting of a presentation of the multimedia project and evaluation of the contribution of individual team members. A miscellaneous course fee will be charged. Consult the quarterly Class Schedule for the current fee. Prerequisite: MM 6808.



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## Department Information

## M.S. in Computer Science

## Computer Science

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Department of Mathematics and Computer Science  
School of Science  
Office: North Science 335  
Phone: (510) 885-3414

E-mail: [mathcs@csuhayward.edu](mailto:mathcs@csuhayward.edu)  
<http://www.mcs.csuhayward.edu>  
Student Service Center: North Science 337  
Telephone: (510) 885-4011

*Professor Emeritus:* Peter A. Fowler, Marvin R. Winzenread

*Professors:* James S. Daley, Edward L. Keller (Chair), Gary E. Lippman, Massoud Malek, Charles M. Marut, Russell L. Merris, Christopher L. Morgan, William R. Nico (Computer Science Coordinator), Edna E. Reiter (Associate Chair), Istvan Simon, Stuart Smith, William Thibault, Bruce E. Trumbo, Donald L. Wolitzer, Ytha Y. Yu

*Associate Professors:* Kathleen Hann, Dan Jurca, Farzan Roohparvar, Hwa Tang

*Assistant Professors:* Jagdish Bansiya, Edward A. Billard, Kevin A. Brown, Kevin E. Callahan, Julie S. Glass, Leann Christianson, Chung-Hsing OuYang, Thomas W. Roby, Assim Sagahyoon

*Lecturers:* Paula Albert, Jane Brecha, Jack A. Carter, Michael A. Contino, Dorothy E. Fujimura, Phil Gonsalves, Ching-Cheng Lee, David L. Pugno, Denise Sargent-Natour, Jean Simutis

*Graduate Coordinator:* Donald L. Wolitzer

*Please consult the 2001-2002 online catalog for any changes that may occur.*

## Program Description

The Mathematics and Computer Science Department offers graduate study leading to the degree of Master of Science in Computer Science. This program is designed to extend the student's knowledge in a broad manner beyond the baccalaureate degree major in Computer Science. It will both (1) deepen general

understanding of theoretical principles and (2) provide specific professional background. This approach is especially important in Computer Science, where training in specific languages and systems and on specific machines is transitory, as these languages, systems, and machines evolve. In contrast, many of the principles will last and generally apply to a wide variety of specializations within the field. This breadth is important to individual students because many of them will have a number of different job classifications in their working lives.

Our program features small classes that allow for close contact between students and faculty. Most graduate classes are offered in the late afternoon or early evening, making it possible for working students to attend. Courses toward the M.S. degree may also be taken during the summer quarter. Students may begin their studies in any one of the four quarters.

Students interested in the M.S. degree program in Computer Science should speak with the Computer Science Graduate Coordinator. The Math/Computer Science and Accounting/Computer Information Systems Departments offer an interdisciplinary Master of Science degree program in Telecommunication Systems.

### Career Opportunities

Systems Analyst • Program Analyst or Designer • Systems Manager or Programmer • Scientific Applications Programmer • Computer Operations Manager • Graphics Specialist • Software Engineer • Programming Team Member, possibly specializing in Design, Testing, or Documentation • Computer Network Support • Database Applications Programmer or Administrator • Computer Sales Representative • Customer Support • Technical Writer • Teacher/Professor

### Faculty

The faculty of the Mathematics and Computer Science Department hold doctorates in a wide variety of areas. They have a strong commitment to high quality teaching, and have interests in fields such as computer graphics, networks, numerical analysis, compiler design, computer simulation, parallel programming, computer architecture, automata, multimedia, cryptography, computational complexity, language design and implementation, graph theory, microcomputer architecture, and database systems.

### Features

Computer Science students at Cal State Hayward have access to some of the most modern and powerful computer equipment available. The campus provides a network backbone, including connection to the Internet, and hundreds of personal computers. The department also has equipment of its own, including a network of Unix workstations (mostly SUN SPARC stations), and three classrooms equipped for computerized demonstrations. Several computer labs on campus offer terminal access and assistance with problems.

Cal State has an active Computing Club, which hosts industry tours as well as academic and social events and is involved with a number of ongoing projects.

### Scholarships



Each year the department awards a number of scholarships covering a large portion of the fees for the subsequent year. Scholarship applications may be obtained from the department office during the Winter quarter.

## Admission

To apply for admission to the Master of Science program in Computer Science, a student must submit the proper forms, fees and transcripts to the university's Office of Admissions, which reviews each application initially. The department then reviews the application, making the decision whether to accept or reject the applicant. Each applicant must have the score on the general portion of Graduate Record Examination (GRE) submitted directly to the department. Submission of scores on the Computer Science portion is optional.

A student wishing to enter this program must normally have an undergraduate degree in Computer Science or in a related field, with courses in Computer Science as indicated below, and must have a grade point average of 2.75 in all undergraduate work and a 3.00 grade point average in the Computer Science Core and Mathematics courses listed below.

### Computer Science Admission Requirements

Twenty-eight (28) quarter units (7 courses) of upper division Computer Science coursework that covers a broad range of Computer Science and includes the following four courses or their equivalents.

- CS 3120 Programming Language Concepts
- CS 3240 Data Structures and Algorithms
- CS 3430 Computer Architecture
- CS 4560 Operating Systems

Successful completion of equivalents to all the following mathematics requirements is also required.

### Mathematics Requirements for Admission

- A year of Calculus (MATH 1304, 1305, 2304)
- Discrete Structures (MATH 2150)
- Linear Algebra (MATH 2101)

- An upper division course in Probability or Statistics (STAT 3401 or STAT 3502)

A student who has not met all of the above requirements may be admitted to the program at the discretion of the department as a "Conditionally Classified Graduate" student, provided the student's record clearly demonstrates the capability of meeting all these requirements.

No more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied to the degree. Note that courses used to make up deficiencies for admission may not be applied toward the master's degree. A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or better average in at least 12 quarter units of post-baccalaureate study, and has satisfied the University Writing Skills requirement should petition the graduate coordinator for admission to the master's

degree program with "Classified Graduate" status. A maximum of 13 units taken as an "Unclassified Post-baccalaureate" student may be applied to a master's degree.

### Advancement to Candidacy

Advancement to Candidacy is a university requirement for graduation for a master's degree program. A student with "Classified Graduate" status may apply for Advancement to Candidacy after completing at least 16 quarter units towards the master's degree with a "B" average, including at least two 6000 level Computer Science courses with a "B" or better average.

Before being Advanced to Candidacy, a student's complete course of study must be approved by the Computer Science Graduate Committee.

### Degree Requirements

The following departmental requirements are in addition to the university requirements.

#### A. Research Methodologies Requirement (2 units)

CS 6000 Research Methodologies (2)

#### B. Breadth Requirement (20 units)

CS 6260 Computational Complexity (4)

CS 6560 Operating System Design (4)

*At least one course from each of the following three groups:*

##### 1. Theory

CS 6140 Language Design (4), 6170 Automata and Formal Languages (4), 6245 Combinatorial Algorithms (4), 6360 Formal Specification and Verification (4), 6520 Cryptography and Data Security (4); MATH 6750 Topics in Numerical Analysis (4)

##### 2. Architecture

CS 6430 Computer Systems Architecture (4), 6432 VLSI Theory & Design (4), 6580 Distributed Systems (4), 6585 Distributed and Client/Server Systems (4)

##### 3. Systems

CS 6110 Theory and Design of Compilers (4), 6570 Distributed Computation (4), 6660 Database Systems (4), 6715 Data Compression (4), 6810 Topics in Artificial Intelligence (4), 6840 Principles of Computer Graphics (4)

#### C. Capstone Experience (0-5 units). Select (1) or (2)

1. A comprehensive written examination. Details are available in Mathematics/Computer Science Department,

2. A Departmental Thesis (CS 6909). Students who write a thesis must have an advisor who agrees to oversee the work, and must have the proposed topic approved by the Computer Science Graduate Studies Committee.

#### D. Electives (18-23 units)

The following Cal State Hayward courses (or their equivalents)

## Graduate Courses

may be counted toward the master's degree:

MATH 3151 Combinatorics  
MATH 4151 Graph Theory

All 3000-level (except for CS 3898), 4000-level and 6000-level Computer Science courses not used in categories (A), (B), and (C) above or as an admission requirement may be used as electives toward the master's degree. All 6000-level Mathematics courses may be used as electives toward the master's degree in Computer Science.

### Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

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*The course prefix for the following courses is CS.*

#### 6000 Research Methodologies (2)

Seminar in recent research in Computer Science. Use of periodical and non-periodical literature for research in computer science. Students read, analyze, present, and discuss papers of current interest in Computer Science. Prerequisite: "Classified Graduate" standing in Computer Science M.S. degree program and permission of instructor. (Y)

#### 6110<sup>1</sup> Theory and Design of Compilers (4)

Grammars and parsing techniques, advanced theory and methods of code generation, code optimization, error recovery, use of compiler-generator tools. Prerequisite: CS 4110.

#### 6140<sup>1</sup> Language Design (4)

Topics in design and use of programming languages: object-oriented languages, functional and applicative languages. Exception handling, parallel processing and concurrency control. Fourth generation languages. Prerequisites: CS 3120 and 4110.

#### 6170<sup>1</sup> Automata and Formal Languages (4)

Deterministic and nondeterministic finite automata. Regular grammars, languages, and expressions. Kleene's Theorem, algebraic characterizations. Chomsky hierarchy. Languages: regular, context free, context sensitive, recursive, type 0. Normal forms, pushdown automata, pumping lemmas, closure. Time and tape bounded Turing machines. Decision problems. Prerequisite: CS 4170.

#### 6245<sup>1</sup> Combinatorial Algorithms (4)

Design and analysis of efficient combinatorial algorithms.

Graph theory and algorithms: flows in networks, max flow/min cut theorem. Theorems of Menger, Hall, Tutte, Dilworth. Examples of algorithms drawn from matching, maxflow, mincost flow, Hitchcock Problem, weighted matching, linear programming. NP-complete problems, approximation algorithms. Prerequisites: CS 4245; MATH 4151 recommended.

**6260** Computational Complexity (4)

Models of computation, particularly deterministic and nondeterministic Turing machines. Decision problems, measures of complexity (e.g. P, NP, PSPACE). Approximation algorithms, randomized algorithms. Prerequisites: CS/MATH 4170 or CS/MATH 4245 or permission of instructor. Cross-listed with MATH 6260.

**6310** Software Engineering (4)

Theory and practice of large software development projects, including methods of requirement specifications, programming approaches, program management, testing strategies, and performance evaluation. Team organization and management. Software life cycles. Prerequisites: CS 2360, CS 3240, and a senior level Computer Science course in which programs are written.

**6315** Object-oriented Software Development for Telecommunications (4)

Networking and telecommunications APIs. Class libraries for networking and distributed services. Object-oriented software development tools, languages, and techniques. Programming exercises. Prerequisites: CS 3240, CS 3590.

**6360** Formal Specification and Verification (4)

Fundamental techniques of program specification and verification. Inductive methods for proving program correctness, including invariant, inductive and intermittent assertion methods and subgoal, structural and computational induction. Prerequisites: CS 3240 and MATH 2150 (or upper division mathematics course in which theorems are proved).

**6425** Digital Design using Verilog HDL (4)

Traditional and contemporary design paradigms; top down design methods using Hardware Descriptive Languages (HDL); examples ranging from simple circuits to complex design; other topics include logic synthesis, timing analysis, design for testability, comparison of Verilog HDL and VHDL. Prerequisites: CS 3430 and CS 4560.

**6430** Computer System Architecture (4)

Processor design: register transfer, processor control, microprogramming. Design of instruction sets. Pipelining. Microprocessor-based architectures. RISC architectures. Memory hierarchies and organization: cache, RAM, mass storage. Addressing mechanisms, I/O organization: polling, interrupts, DMA. Highly parallel architectures. Prerequisites: CS 3430; CS 3432 and/or CS 3434 recommended.

**6432** VLSI Systems Design (4)

The use of a highly integrated suite of CAD (Computer Aided Design) tools to design and test a bitsliced microprocessor that implements concepts from CS 6430, Computer System Architecture. Prerequisites: CS 4432 and CS 6430 or consent of instructor.

6458 Optical Fiber Technologies (4)  
(See TC 6458 for course description.)

6520 Cryptography and Data Security (4)  
Cryptographic theory with applications to data and file access security. Substitution ciphers, stream and block cyphers, algebraic codes, error correcting codes, Shannon's theorem. Cryptosystems, including public key. The Data Encryption Standard. Issues of privacy, authenticity, integrity. Implementation issues, including key management and chaining. Prerequisites: CS 4560, CS 4170 or 4245, and a course in probability; or permission of instructor.

6522 Advanced WWW Software Development (4)  
Advanced WWW system architecture and software development. Database access, 2- and 3-tier systems, objects and components, ORB, CORBA, COM, ActiveX, Java Beans. Programming exercises. Prerequisites: CS 6585, TC 6205.

6525 Network Security (4)  
Principles of secure network communications. Techniques of authentication and identification, cryptographic key distribution and management, assurances of data integrity. Access control. Security policy; conformance of implementation to policy. Discussion of particular systems, protocols, and utilities, e.g., Kerberos, firewalls, various commercial standards. Prerequisites: CS 6585, TC 6205.

6560 Operating Systems Design (4)  
Theory of operating systems. Process synchronization, concurrency, resource management, security, performance evaluation, analytic models, human interfaces. Implementation issues. Prerequisite: CS 4560

6565 UNIX Internals (4)  
Design and implementations of the BSD UNIX operating system: kernel, process management, memory management, file systems, i/o subsystems, device drivers, interprocess communications, network communications. Prerequisites: CS 2170, 3590, 4560.

6570 Distributed Computation (4)  
Classical problems which abstract real-world network problems. Process synchronization and communication using message-passing systems. Topics may include mutual exclusion, leader election, global snapshots, Byzantine generals, consensus, shared registers, common knowledge and distributed spanning trees. Prerequisite: CS 4560.

6580 Distributed Systems (4)  
Issues in the design and implementation of distributed

systems. Network layers, architectures, and topologies. Distributed process management, concurrency control, deadlock, and recovery. Prerequisites: CS 4560 and 4590.

- 6585** Distributed and Client/Server Systems (4)  
Distributed services, goals, and issues. Computer network architectures and communications models. Remote procedure calls, event ordering, naming, concurrency control, transactions, voting algorithms. Case studies: ONC, DCOM. Development and management tools. Programming exercises. Prerequisites: CS 3240 and CS 3590, or TC 3265.
- 6660** Database Systems (4)  
Design issues in current database systems: data models, storage management and access, distributed systems, query languages and query optimization, database integrity and security, encryption and decryption, concurrency control. Prerequisites: CS 4560 and 4660.
- 6715** Data Compression (4)  
Algorithms for data compression, Huffman coding, arithmetic coding, Lev-Zimpel coding. Adaptive variations of compression algorithms. Lossless and lossy compression. Transform methods and image compression. Coding theory and information-theoretic bounds. Applications to data transmission. Prerequisite: CS 3240, STAT 3401 or STAT 3502.
- 6750** Topics in Numerical Analysis (4)  
(See MATH 6750 for course description.)
- 6752** Digital Signal Processing (4)  
Linear systems and complex numbers, Fourier and Z transforms, A/D and D/A conversion techniques, Discrete Fourier Transform, Fast Fourier Transform, linear prediction, digital filters, speech processing. Prerequisites: MATH 1304, MATH 2101, CS 3240.
- 6800** Topics Seminar (4)  
Presentation of selected topics beyond regular courses. Subjects will vary. Prerequisites: "Classified Graduate" standing in Computer Science M.S. degree program and consent of instructor.
- 6810** Topics in Artificial Intelligence (4)  
Knowledge representation and reasoning. Theory and advanced programming techniques. Topics selected from areas of expert systems, natural language processing, image understanding, machine learning, games, and robotics. Prerequisite: CS 4810.
- 6815** Artificial Intelligence in Telecommunications (4)  
(See TC 6815 for course description.)
- 6825** Computer Vision (4)  
Mathematical and algorithmic approaches to the problem of computing properties of the 3-D world from one or more digital images. Imaging, image processing, feature detection, calibration, stereopsis, motion, object

recognition, tracking. Prerequisites: MATH 2101, 2034; CS 3240.

**6840**<sup>1</sup>Principles of Computer Graphics (4)

Advanced graphics algorithms including viewing, scan conversion, hidden line, hidden surface, ray tracing, shading and lighting, fractals. Solid modeling. Software packages, development, and standards. Software development on advanced graphics workstations. Prerequisite: CS 4840.

**6844**<sup>1</sup>Digital Image Processing (4)

Digital image acquisition, display, analysis, manipulation, and transmission. Color space conversion, convolution, geometric transformations, and compression. Programming exercises. Prerequisites: CS 6585, TC 6101. Cross-listed with TC 6844.

**6870**<sup>1</sup>Computer Simulation (4)

Introduction to construction and analysis of models by computer simulation. Study of one discrete and one continuous simulation language. Application to modeling biological, industrial, and physical processes. Prerequisites: MATH 3100, 3331, and a course in computer programming. Cross-listed with MATH 6870.

**6900** Independent Study (1-4)

**6909** Departmental Thesis (1-5)

Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a departmental committee, at least one of which must be a Cal State Hayward faculty member. May be repeated for a maximum of 5 units. Prerequisites: CS 6000, advancement to candidacy, and approval of thesis proposal by advisor and departmental committee.

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## Footnote

<sup>1</sup>Enrollment in these courses is restricted to "Classified" and "Conditionally Classified Graduate" students. Others may enroll with the permission of the department.



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## Music

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### Department Information

Department of Music  
School of Arts, Letters, and Social Sciences  
Office: Music and Business Bldg. 1501  
Phone: (510) 885-3135 FAX: (510) 885-3461

*Professor Emeritus:* Nathan Rubin

*Professors:* Thomas W. Acord, Roberta Brokaw, David H. Eshelman, Frank J. La Rocca, Timothy M. Smith, David B. Stein, Ellen Wassermann, William G. Wohlmacher (Chair)

*Assistant Professor:* Brian K. Breeding

*Lecturers:* Giancarlo Aquilanti, Lawrence G. Granger, Priscilla Granger, Eric E. Hansen, Denis B. Harper, Craig P. Knox, Betsy London, Ronald McKean, Jeffrey L. Miller, Jennifer S. Navarrete, Rufus Olivier Jr., Janice D. Ortega, Terence D. Richards, David P. Ridge, Jay Rizzetto, Philip Santos, Kathryn Smith, Laura D. Stanfield, Carl R. Stanley, Arthur L. Storch, Marc S. Teicholz, Richard A. Wagner, Daniel L. Zinn

*Graduate Coordinator:* David B. Stein

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.A. in Music

#### Program Description

The Master of Arts degree in Music is designed for those individuals pursuing careers as public or private school teachers; for professional performers and composers; for school and college music teachers who wish to increase their professional effectiveness; and for those who plan further music study at the doctoral level. Courses emphasize scholarly performance and include in-depth work and research in the student's major field of interest. The ultimate goal of the Department of Music is to develop well-informed performers, independent scholars, and inspired teachers.

#### Faculty

The Department of Music faculty have achieved an enviable



reputation for their high degree of academic, professional, and classroom expertise. Faculty, students and alumni are proud of the program and its success in graduating well-prepared students who have continued to work in the music field locally, nationally, and internationally. The programs of the Department of Music are fully accredited by the National Association of Schools of Music.

## Areas of Emphasis

Within the M.A. degree program, students will concentrate their study in one of four areas of emphasis: (1) Performance, (2) Composition-Theory, (3) Music Education, and (4) Music History and Literature.

### Performance

The performance emphasis is designed to prepare the student as a professional performer or teacher through the advancement of instrumental or vocal skills and the study of selected historical, stylistic, and theoretical courses. An audition is required before a student is accepted into this area of emphasis. Performance of a Graduate Recital is a major goal of this program. Graduate performance students will receive a sixty-minute lesson each week of the regular quarter.

### Composition-Theory

This area of emphasis is designed for the student who wishes to continue developing toward a professional level as a composer, and who wishes to continue further study of music theory. Most students in this program aim toward careers as professional composers and teachers. Some continue into doctoral programs at other universities. Composition students are given a sixty-minute lesson each week. The successful completion of a substantial original composition, accompanied by a written analysis, is required for students in this area.

### Music Education

Courses in Music Education are designed to deal with the practical aspects of teaching music in the public and private schools. Emphasis is placed on conducting skills, conceptual teaching, rehearsal techniques, organizational procedures, and appropriate pedagogical approaches for all levels of teaching development. Students who adopt this emphasis usually will have had previous teaching experience, but this program is open to all qualified applicants. A standard thesis or project is a requirement in this area.

### Music History and Literature

This area of emphasis is designed to give sufficient academic work and background to those students who wish to continue graduate study at the doctoral level or for students wishing to teach in the areas of history, literature and music appreciation. Classes offered by the Department of Music cover all the major historical periods and specific historical studies are offered as seminars. A student who pursues this option is expected to be able to do independent research and will complete a standard thesis.

## Scholarships

Scholarships, including the Graduate Equity Fellowships, are available for new and continuing graduate students. Contact the Department of Music office at (510) 885-3135 for more

information.

## Admission Requirements

Upon making application to the program, a candidate may be admitted for graduate study in the Department of Music as a "Conditionally Classified Graduate" student if: (1) the general requirements for graduate standing have been met, and (2) the student holds a baccalaureate degree with a major in music and an upper division grade point average of at least 3.0 ("B") in music.

Students wishing to enroll in the graduate program who do not have a major in music must first complete an equivalency of the Cal State Hayward B. A. degree major in Music. When the equivalency has been completed, the student will then be eligible for entrance into the graduate program, subject to the entrance requirements stated above.

### Graduate Music Advisory Examinations

The Graduate Music Advisory Examinations, given by the Department of Music, must be taken prior to the beginning of the student's first quarter in residence. These examinations include dictation, theory, history and literature, and piano proficiency. Contact the department for the date of these examinations.

### Graduate Entrance Audition-Performance, Composition

All graduate applicants seeking admission into the Performance or Composition-Theory areas of emphasis must perform an audition or submit original scores prior to being accepted for graduate level applied lessons. These evaluations are held prior to the registration period for the Fall, Winter and Spring quarters. Performance auditions are twenty minutes in length. Composition students should submit tapes and scores of their works for evaluation. Contact the department for the date of these auditions.

## Classification in the Program

A student may be a "Classified Graduate" student if (s)he:

1. Has completed all undergraduate deficiencies;
2. Has completed at least 12 quarter units in residence at the 6000-level applicable toward the master's degree, including Music 6000, with a minimum grade point average of 3.0;
3. Has passed the Graduate Advisory Examinations in basic piano proficiency, ear training, music history and literature, and music theory. The Graduate Advisory Examinations must be passed by the time the student has completed 20 units applicable to the degree or the student will be dropped from the program;
4. As a graduate student pursuing the history-literature area of emphasis, has demonstrated reading ability in French, German, or Italian; other languages may be substituted by approval of the department;
5. Has fulfilled the University Writing Skills requirement.

## Advancement to Candidacy

A student who holds "Classified Graduate" standing may be considered for Advancement to Candidacy when (s)he:

1. Has filed a study program for the completion of the degree which has been approved by the departmental Graduate Studies Committee;
2. If electing the performance emphasis, has successfully demonstrated a graduate standard of excellence before an auditions committee.

## Degree Requirements

To be eligible for the Master of Arts degree a student must:

- A. Be Advanced to Candidacy;
- B. Complete 45 units of approved courses of which:
  1. 32 must be completed in residence;
  2. 24 must be at the 6000 level;
  3. A minimum of 9 units must be in one of the four possible areas of emphasis: composition-theory, history-literature, music education or performance;
  4. Not more than 12 units of applied music will be counted in
  5. Up to, but no more than 3 units of applied music, when approved by an advisor, may be applied toward degree requirements by candidates outside the performance area of emphasis;
  6. At least 3 units in addition to those in the area of emphasis must be completed in each of the following areas: composition-theory, history-literature, music education;
  7. Up to, but no more than 9 units of study outside of music may be counted toward the degree (these units must be approved by a graduate advisor and must be at the 3000 level or above);
- C. Present a thesis or project in one of the following forms:
  1. In the history-literature area, a standard research thesis (University Thesis, MUS 6910);
  2. In the composition-theory area, an original composition;
  3. In the music education area, either a standard research thesis (University Thesis, MUS 6910) or a project (Project, MUS 6899);
  4. In the performance area, a final graduate recital;
- D. Pass both written and oral examinations upon completion of all coursework. (Students who do not complete a thesis or project are required to pass a comprehensive examination.)

The candidate must observe the specific departmental

requirements stated here and in the Handbook for Graduate Music Majors. In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Postbaccalaureate Studies chapter in this catalog. These include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirement. The candidate is responsible for seeing an advisor and planning a tentative program, for completing the prerequisites to program approval, and for taking the Graduate Advisory Examinations.

### Curricular Requirements (45 units)

- I. Core Classes (12-15 units)
  - MUS 6000 Seminar in Bibliography and Research Methods (3)
  - One course in Theory (3)
  - One course in History/Literature (3)
  - One course in Music Education (3)
  - Applied Music (0-3)
- II. Other Required Studies in Music (9-18 units)
  - Emphasis area classes (9-12)
  - University Thesis or Project (0-6)
- III. Electives (12-21 units)
  - In Music (6-12)
  - In Music, or, with approval, outside of Music (9)
  - Pass written and oral examinations (0)

### Performance Activities

While it is not required that graduate music students enroll in performance activities and/or chamber ensembles, it is recommended, and the additional experience earned will be beneficial. Credit earned in these activities is not included in the 45 quarter units required for the M. A. degree in Music.

### Upper Division Music Courses Acceptable for Master's Degree

Before enrolling in any undergraduate course the graduate student should be aware of the minimum requirement of 6000-level units and should consult his or her advisor in the department.

4054 Instrumentation  
4110 Seminar in Music Literature  
4120 Seminar in Music History  
4435 Seminar in Public School Instrumental Teaching Techniques  
4440 Seminar in Public School Choral Teaching Techniques  
4445 Seminar in Elementary Classroom Music Teaching Techniques  
4501 Seminar in the Art and Science of Vocal Pedagogy I  
4502 Seminar in the Art and Science of Vocal Pedagogy II

3000-level courses may be acceptable for the master's degree with approval of the graduate advisor.

*The course prefix for the following courses is MUS.*

## General

- 6000** Seminar in Bibliography and Research Methods (3)  
Analysis of specialized bibliography and methodology employed in the four main areas of music history/literature, theory and composition, music education, and performance. Individual research on selected topics. Required for Advancement to Candidacy. Prerequisite: graduate standing in music or consent of the instructor. (F)
- 6899** Project (1-3)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 3 units per student. (A)
- 6910** University Thesis (1-6)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)

## Music Education

- 6380, 6390** Advanced Conducting (Choral I, Instrumental II) (3, 3)  
Analysis, interpretation, score reading, and actual experience in conducting in an advanced rehearsal situation. May be repeated for credit, with permission of the instructor. Prerequisites: MUS 3380, 3390 or equivalents. (Alt. Y)
- 6415** Seminar in Developing Music Concepts Through the Rehearsal (3)  
Analysis of selected instrumental and choral music to discover theory, structural, and stylistic concepts which may be developed during the rehearsal. Prerequisite: graduate standing in music or consent of instructor.
- 6420** Seminar in Advanced Instrumental Techniques (3)  
Development of techniques and skills applicable to junior and senior high school instrumental music teaching. Discussions and presentations, with focus on practical application. Prerequisite: graduate standing in music or consent of instructor.

## Music History and Literature

- 6100** Seminar in History of Western Music (4)  
Advanced review of the history of Western music from the Medieval period to the present. Emphasis on stylistic, formal and theoretical development. Not applicable toward the M.A. degree in music. Prerequisite: graduate standing or consent of instructor.
- 6105** History of Music, Medieval to Renaissance (3)  
A comprehensive study of musical forms and styles from 1100 to 1600 with detailed analyses of representative works and theoretical writings. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)
- 6115** Music in the Baroque Period (3)  
A detailed study of musical styles, forms, and performance practice from 1600 to 1750, with analyses of representative works. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)
- 6125** Music of the Classical Period (3)  
A detailed study of the development of musical forms and performance media, from the Rococo to the end of the 18th Century. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)
- 6135** Music of the Romantic Period (3)  
An intensive study of the structure and development of music from Beethoven through the end of the 19th Century. Prerequisites: graduate standing in music or consent of instructor, MUS 3155-57 or equivalents. (Alt. Y)
- 6160** Music of the Orient (3)  
A study of the tuning systems, instruments, and performance practices in Oriental music, with emphasis on the classical traditions in Indian, Chinese, and Japanese music. Prerequisite: MUS 3034 or consent of instructor. (Alt. Y)
- 6180** Contemporary Music (3)  
Research of developments in music since 1950, including recent 12-tone theory, aleatoric techniques and electronic music. Prerequisites: MUS 3157 and 3034 or consent of instructor. (Alt. Y)

## Music Theory

- 6010** Seminar in Theory and Analytic Techniques of Western Music (4)  
Advanced review of the vocabulary and analytic techniques of Western music from modal through set theory. Emphasis on application of techniques to analysis of representative styles. Not applicable toward the M.A.

degree in music. Prerequisite: graduate standing or consent of instructor.

6015, Analysis of Musical Styles I, II (3,3)

6016 Analysis of compositional styles from chant to present day music. Compositional principles are derived from the music with results then generalized according to composer and period. Prerequisite: MUS 3034 or consent of instructor.

6051 Seminar in Theoretical Problems (3)

Special problems in music theory, analysis. Directed reading and reports. May be repeated for credit.

Prerequisite: MUS 6015 or 6016 or consent of instructor.

## Applied Music

6210- Graduate Applied Music (1-5)

6270 Individual advanced instruction for graduate music majors. Open to graduate students who have been accepted by audition. May be repeated for credit. (A)

6210 Advanced Piano

6211 Advanced Organ

6212 Advanced Harpsichord

6220 Advanced Voice

6230 Advanced Violin

6231 Advanced Viola

6232 Advanced Cello

6233 Advanced String Bass

6234 Advanced Harp

6235 Advanced Guitar

6240 Advanced Flute

6241 Advanced Oboe

6242 Advanced Clarinet

6243 Advanced Bassoon

6244 Advanced Saxophone

6250 Advanced Trumpet

6251 Advanced French Horn

6252 Advanced Trombone

6253 Advanced Baritone

6254 Advanced Tuba

6260 Advanced Percussion

6270 Advanced Composition

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## Miscellaneous

6900 Independent Study (1-4)



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HELP



## Economics

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### Department Information

Department of Economics  
School of Business and Economics  
Office: Music and Business Bldg. 2583  
Phone: (510) 885-3339

*Professors:* James C. W. Ahiaokpor (Chair), Charles W. Baird, Alexander E. Cassuto, Gregory B. Christainsen, Shyam J. Kamath, Kurt R. Leube, Anthony K. Lima, Jane E. Lopus, Nan L. Maxwell, Lynn C. Paringer, Stephen Shmanske, David J. St. Clair, Jay L. Tontz

*Associate Professor:* Leo Kahane

*Graduate Advisor:* Nan L. Maxwell

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.A. in Economics

#### Admission Requirements

To be considered for admission, students must hold a baccalaureate degree from an accredited college or university and have a grade point average of 2.75 or better over the last 90 quarter units of their undergraduate program. A student who does not meet the grade point requirements may be admitted at the discretion of the department pending receipt of other evidence of the student's academic achievement.

Students enrolling in the program are expected to have completed MATH 1810-20 or a two-course sequence in calculus, STAT 2010 or equivalent, and at least one course in intermediate micro-economics and one course in intermediate macro-economics. Students who have not completed the Economics prerequisites may enroll in the undergraduate courses and in ECON 6051 to fulfill the prerequisites.

#### Graduate Student Participation in Upper Division Undergraduate Courses

The department allows graduate students to enroll in selected upper division undergraduate courses under a graduate number for graduate course credit provided undergraduate credit had not



already been earned for the courses. The graduate student is responsible for attending the lecture and discussion meetings of the undergraduate course and for participation in any undergraduate assignments and testing specified by the instructor as being required of the graduate students. In addition, the graduate student must complete an added tutorial-type module involving independent reading assignments, reports, and research papers coupled with periodic, individual and/or small group meetings with the instructor. This approach to graduate student participation in undergraduate courses makes part of the greater breadth of the department's undergraduate course offerings available to the graduate students while still maintaining (1) the heavier workload, (2) the greater responsibility on the part of the student for independent learning, and (3) the higher performance expectations appropriate to graduate level instruction.

The following courses are available under the special graduate credit program described in the preceding paragraph. Graduate students may use units from these courses to satisfy the required elective units for their M.A. degree - i.e., they may have from a minimum of zero to a maximum of 7-12 such units in their degree program. All of the listed courses have the same course descriptions as their parallel upper division courses; have a common set of prerequisites of ECON 3005 and ECON 3000 or 3551 or 6051, or consent of the instructor; and have a graduate tutorial module required. The specific content of each tutorial module is specified by the individual instructor. In order to have the units that are earned through any of the graduate/upper division courses count toward the 45 units of the M.A. degree, the graduate student must be enrolled in the course under the graduate number.

ECON 6140 Topics in Economic History (4)  
ECON 6170 History of Economic Thought (4)  
ECON 6180 Selected Topics in Economic Thought (4)  
ECON 6190 Market Processes-Theory and Applications (4)  
ECON 6306 Environmental Economics (4)  
ECON 6310 Money, Banking, and Financial Intermediaries (4)  
ECON 6375 Public Choice (4)  
ECON 6500 Regional and Urban Economics (4)  
ECON 6590 Selected Topics in Economic Analysis (4)  
ECON 6685 Labor Institutions (4)  
ECON 6705 International Finance (4)

### Classification in the Program

There are three levels of advancement for students within the M.A. program: "Conditionally Classified Graduate" standing, "Classified Graduate" standing, and Advancement to Candidacy. Note: If a student is in post-baccalaureate status but has not been accepted into a graduate degree program s(he) is an "Unclassified Post-baccalaureate" student. Admission to the university as an "Unclassified Post-baccalaureate" student in no way implies acceptance to a graduate degree program.

#### *A. Conditionally Classified Graduate Standing*

A student who has been admitted to a graduate degree program but who has not satisfied all prerequisite coursework or other requirements such as the University Writing Skills Requirement is a "Conditionally Classified Graduate" student. A student may be admitted to a graduate degree program as a

"Conditionally Classified" graduate student upon:

1. submission of a written application, with required supporting documents, to the Admissions Office declaring an intent to pursue the M.A. degree in Economics;
2. acceptance by the department; and
3. completion of other appropriate requirements as specified in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.

*B. Classified Graduate Standing*

A student who has been admitted to the M.A. program by meeting the requirements established in item 1 above; has fulfilled all prerequisite coursework and other requirements such as the University Writing Skills requirement; and has a strong background in economics may begin as a "Classified Graduate" student. Students admitted into the program but lacking such background will be designated as "Conditionally Classified Graduate" students until deficiencies are made up and they are recommended for "Classified Graduate" standing by the department. The student must have fulfilled the University Writing Skills requirement to become a "Classified Graduate" student.

*C. Advancement to Candidacy*

To be Advanced to Candidacy in the M.A. program a student must:

1. be a "Classified Graduate" student in good standing;
2. have filed an approved program of study with the department;
3. have completed at least 12 quarter units in Economics considered applicable by the department toward the M.A. degree requirements, including at least 8 quarter units of graduate level (6100-6999 series) work in residence at Cal State Hayward; and
4. have been recommended for Advancement to Candidacy by the department.

## Requirements for Graduation

To be eligible for the M.A. degree in economics a student must:

- A. Have been Advanced to Candidacy;
- B. Have completed 45 quarter units of graduate work as indicated in (C) below, of which:
  1. All must have been earned within the five years just preceding the completion of the requirements for the degree;
  2. Not fewer than 32 must have been completed in residence;
  3. Not fewer than 28 must have been in Economics courses in the 6100-6999 series;

4. Not more than 5 may have been for a thesis (ECON 6910);
  5. Not more than 13 have been taken in "Unclassified Post-baccalaureate" status and/or for extension and/or transfer course credit, as approved by the department; and
- C. Have completed a satisfactory program of study (45 units) as approved by the department and the graduate coordinator, to include:
1. *Required Courses (20 units)*  
 ECON 6101-2 Seminar: Micro-Economic Theory I, II (8)  
 ECON 6105 Seminar: Macro-Economic Theory (4)  
 ECON 6400 Seminar: Econometrics (4)  
 MGMT 6110 Business and Economic Forecasting (4)
  2. *Choice of one of the following groups (20-24 units):*
    - a. Three graduate seminars (12 units) in Economics chosen from the following list: ECON 6195, 6200, 6250, 6315, 6370, 6520, 6680, 6700, 6710, (12) and two or three electives (8-12 units) chosen from graduate Economics courses or approved upper division electives in Mathematics, Statistics, Finance
    - b. Complete one of the six approved options listed below (8 units), and one or two additional graduate seminars (4-8 units) from the above list, and one to three additional electives (4-12 units) chosen from graduate Economics courses or approved upper division or graduate electives in Mathematics, Statistics, Finance
  3. *Choice of the following (1-5 units):*
    - a. ECON 6896 Research Methods (5),
    - b. ECON 6910 University Thesis (1-5)
  4. *Pass a two-part comprehensive exam: one in micro-economic theory and one in macro-economic theory*
  5. *Satisfy the other university requirements for graduation described in the Graduate and Postbaccalaureate Studies chapter at the beginning of the graduate section in this catalog. These include a 3.00 GPA and the University Writing Skills requirement.*

### Comprehensive Field Examination

The Comprehensive Field Examination consists of an examination in a specialized area within Economics. Reading lists, on which examinations are based, are available for students. The following areas of specialization are available: Austrian School of Economics, Comparative Economic Systems, Econometrics, Economic Development, Industrial Organization, International Economics, Labor Economics, Monetary Economics, and Public Sector Economics. Students wishing to take an examination in an area not listed should consult with the graduate coordinator.

required for the M.A. degree. Successful completion of an option consists of coursework in a designated seminar and elective, and passing a Comprehensive Field Exam in that area or writing a thesis in the area. The student can further specialize in the area by focusing on other coursework. The department offers six options: Austrian School of Economics, Comparative Economic Systems, International Economics, Labor Economics, Monetary Economics, and Public Sector Economics. Please see the option descriptions for more detail.

### Austrian School of Economics Option (8 units)

*Required courses (8 units)*

ECON 6190 Market Processes-Theory and Applications (4)  
ECON 6195 Seminar: Austrian School Economics (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Austrian School of Economics.

*Suggested electives (not required)*

ECON 6170 History of Economic Thought (4), 6180 Selected Topics in Economic Thought (4), 6375 Public Choice (4)

### Comparative Economic Systems Option (8 units)

*Required courses (8 units)*

ECON 6200 Seminar: Comparative Economic Systems (4),  
ECON 6710 Seminar: International Economic Development (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Comparative Economic Systems.

*Suggested electives (not required)*

ECON 6370 Seminar: Public Sector Economics (4), 6375 Public Choice (4), 6700 Seminar: International Trade (4), 6705 International Finance (4)

### International Economics Option (8 units)

*Required courses (8 units)*

ECON 6700 Seminar: International Trade (4)  
ECON 6705 International Finance (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in International Economics.

*Suggested electives (not required)*

ECON 6710 Seminar: International Economic Development (4),  
6200 Seminar: Comparative Economic Systems (4)

### Labor Economics Option (8 units)

*Required courses (8 units)*

ECON 6680 Seminar: Labor Economics (4)  
ECON 6685 Labor Institutions (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Labor Economics.

*Suggested electives (not required)*

ECON 6500 Regional and Urban Economics (4), 6520 Seminar: Industrial Organization and Public Policy (4); MGMT 6612 Seminar in Human Resource Management (4), 6615 Compensation Administration (4)

### Monetary Economics Option (8 units)

*Required courses (8 units)*

ECON 6310 Money, Banking, and Financial Intermediaries (4)  
ECON 6315 Seminar: Monetary Theory (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Monetary Economics.

*Suggested electives (not required)*

ECON 6705 International Finance (4); FIN 6325 The Financial Management of Banking Institutions (4)

### Public Sector Economics Option (8 units)

*Required courses (8 units)*

ECON 6370 Seminar: Public Sector Economics (4)  
ECON 6375 Public Choice (4)

Either University Thesis or Research Analysis paper and the Comprehensive Field Exam must be in Public Sector Economics.

*Suggested electives (not required)*

ECON 6250 Seminar: Project Analysis (4), 6520 Seminar: Industrial Organization and Public Policy (4), 6680 Seminar: Labor Economics (4)

### Business Economics Option, (M.B.A.)

An option in Business Economics is provided in the Master in Business Administration programs for students with an interest in Economics. (See the Business Administration chapter in the graduate section of this catalog.)

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## Graduate Courses

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*The course prefix for the following courses is ECON.*

Students who are not graduate students in the School of Business and Economics must consult with the instructor before registering for a graduate course in Economics. (See last page of this chapter for all footnotes.)

**6051<sup>1</sup>** Graduate Introduction to Economics for Managers (4)

Macro and micro-economic theories as applied to business situations to facilitate managerial decision-making relevant to the domestic and international marketplaces.

Prerequisites: MATH and STAT proficiencies.

**6101<sup>2</sup>** Seminar: Micro-Economic Theory I (4)

First of two-quarter sequence: Selected topics in periodical literature in consumer behavior; price determination; and resource allocation patterns in a decentralized economy. Prerequisites: ECON 3005 and ECON 3000 or 3551 or 6051, or consent of instructor. (W)

- 6102<sup>2</sup> Seminar: Micro-Economic Theory II (4)  
Second of two-quarter sequence: Selected topics in periodical literature in general equilibrium; welfare theory and economic efficiency; capital theory. Prerequisite: ECON 6101. (Sp)
- 6105<sup>2</sup> Seminar: Macro-Economic Theory (4)  
Review of periodical literature on inflation, employment and economic growth. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor. (F)
- 6140<sup>2</sup> Topics in Economic History (4)  
History of economic development of a specific area or region of the world. Topics include U.S. history, African history, Eastern or Western European history, Middle Eastern history. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 3005 and 3000 or 6051; or consent of instructor.
- 6170<sup>2</sup> History of Economic Thought (4)  
The key theories and individuals in the history of economic thought including Adam Smith, David Ricardo, and Karl Marx. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6180<sup>2</sup> Selected Topics in Economic Thought (4)  
Particular economic theorists, methodologies, schools of thought, and themes in the history of economics. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6190<sup>2</sup> Market Processes-Theory and Applications (4)  
Austrian School analysis of socioeconomic phenomena including: methodology of the social sciences, theory of subjective value, entrepreneurship, competition as a discovery procedure, spontaneous orders, the division of knowledge, the capital structure, and trade cycles. Historical applications used throughout. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor.
- 6195 Seminar: Austrian School Economics (4)  
An in-depth study of the development of the Austrian School including emphasis on its cultural and historical settings. The original works of the main, as well as some of the lesser-known, contributors from Carl Menger to the present will be analyzed. Prerequisite: ECON 6190 or consent of instructor.
- 6200 Seminar: Comparative Economic Systems (4)  
Selected problems and approaches to resource allocation,

income distribution, economic development, and planning in alternative economic systems. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

- 6250<sup>2</sup> Seminar: Project Analysis (4)  
Benefit-cost analysis applied to resource allocation and planning. Applications to such areas as education, manpower programs, medical care, transportation, and non-profit enterprises. Prerequisite: ECON 6101 or consent of instructor.
- 6306<sup>3</sup> Environmental Economics (4)  
Readings, reports, and discussion on economic aspects of environmental problems and alternative proposed solutions: pollution, congestion, and population. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6310<sup>2</sup> Money, Banking, and Financial Intermediaries (4)  
Essentials of commercial and central banking; financial intermediaries; monetary policy. Prerequisites: ECON 3005 or consent of instructor.
- 6315<sup>2</sup> Seminar: Monetary Theory (4)  
Review of periodical literature on static and dynamic issues of the supply and demand for money. Prerequisite: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6370<sup>2</sup> Seminar: Public Sector Economics (4)  
Economic analysis as applied to the public sector including public finance, welfare economics, public expenditure evaluation, theories of taxation, analysis of the U.S. tax structure, public choice, and policy issues. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor. (Sp)
- 6375<sup>3</sup> Public Choice (4)  
Economic theory applied to political institutions and decision-making within governments. Allocations under various property right systems; coalitions and voting behavior; theory of constitutions; theory of bureaucracy; political economy of income redistribution, crime, violence, discrimination, federalism, nationalism, anarchy. Prerequisites: ECON 3005 and ECON 3000 or 3551 or 6051, or consent of instructor.
- 6400<sup>2</sup> Seminar: Econometrics (4)  
Statistical analysis of economic relationships. Regression analysis, multi-equation models and time series analysis. Prerequisites: ECON 3005, MGMT 6110, and ECON 3000 or 3551 or 6051.
- 6500<sup>3</sup> Regional and Urban Economics (4)  
Economic analysis as applied to urban and regional economic problems and policies. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6520<sup>2</sup> Seminar: Industrial Organization and Public Policy (4)



Selected topics in industrial organization and public policy including antitrust policy. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.

- 6590<sup>2</sup> Selected Topics in Economic Analysis (4)  
Application of economic analysis to past/contemporary economic issues. With department permission, may be repeated once for credit with a different instructor or different topics. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6680<sup>2</sup> Seminar: Labor Economics (4)  
Selected topics on theoretical models of labor markets with applications to current micro and macro-economics manpower problems. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6685<sup>5</sup> Labor Institutions (4)  
Development of the labor sector in the American economy with emphasis on labor institutions, labor legislation, and public policy toward labor organizations. Prerequisites: ECON 3005 and 3000 or 3551 or 6051, or consent of instructor.
- 6700<sup>2</sup> Seminar: International Trade (4)  
Selected topics in the modern theory of international trade and investment, multinational enterprise, commercial policy and international trading systems and methods.  
Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051, or consent of instructor.
- 6705<sup>5</sup> International Finance (4)  
Comprehensive coverage of the organization, operation and theory of foreign exchange markets, Eurocurrency and offshore financial markets, balance of payments and international adjustment, international capital flows and different types of international monetary systems.  
Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor.
- 6710<sup>2</sup> Seminar: International Economic Development (4)  
Selected topics in the theory and practice of international economic development with a focus on the nature and causes of development in specific areas and nations of the world. Prerequisites: ECON 3005 and one of the following: ECON 3000 or 3551 or 6051; or consent of instructor.
- 6715 An Executive Introduction to Social Philosophy, Ethics, and the History of Economic Thought (5)  
An in-depth review of major controversial socio-philosophical concepts: the State, the society, individual freedom, the environment, justice, and free markets; conflicting trains of economic thought; the key figures and their main social theories; methodological problems of implementation and realization of political ideals.  
Prerequisite: graduate standing.
- 6720 The European Union, Its Institutions, and International Trade (5)



An economic analysis of the institutional evolution of European legal, cultural, and political integration, and competition from eastern Europe. The leading institutions of the European Union: their tasks, procedures, and effects on business regulations, industrial policy, and international trading systems. Prerequisite: graduate standing.

**6725** Money, Banking, and International Finance (5)  
A theoretical and applied analysis of international monetary policies, commercial and central banking, international capital markets, capital flows, and exchange rates determination. A comprehensive coverage of the most important international financial institutions, their structures, network operations, and socioeconomic tasks. Prerequisite: graduate standing.

**6751** Managerial Economics (4)  
Selected topics in the socioeconomic application of intermediate micro-economic theory with an emphasis on the needs of the international business community. Prerequisite: graduate standing.

**6896** Research Methods (5)  
Research methodologies, data analysis, and report writing. Provides students with analytic and research tools to increase their capacity to pose, answer, and critically evaluate research questions. Culminates in research project that synthesizes research methods, statistical analysis, and reporting of empirical results. Prerequisites: ECON 6101, 6102 or 6105, 6400, and at least one graduate seminar in Economics. Four hrs. lect., 2 hrs. lab.

**6898**<sup>1</sup> Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities within the quarter enrolled. May be repeated for up to 8 units. No units may be counted toward any SBE graduate degree. Prerequisites: at least 3.0 GPA; departmental approval of activity. CR/NC grading only. (A)

**6900** Independent Study (1-4)

**6910**<sup>2</sup> University Thesis (1-6)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and an officially appointed thesis director or committee. Maximum of 6 units per student. (See also "University Thesis Writing Guide," available in WA 859). (A)

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## Footnotes

<sup>1</sup> Enrollment in this course is restricted to "Classified" and "Conditionally Classified Graduate" students. The course is a graduate program prerequisite, and its units cannot be applied to the 45 units required for any SBE graduate

degree.

**2** Enrollment in these courses is restricted to "Classified" and "Conditionally Classified Graduate" students.

**3** Undergraduate, upper division course plus a graduate tutorial module. Not open to students who have completed the parallel-numbered undergraduate course at Cal State Hayward for credit.



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## Nursing

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### Department Information

Department of Nursing and Health Sciences  
School of Science  
Office: North Science 143  
Phone: (510) 885-3481

*Professors:* Martha A. Auvenshine, Brenda Bailey (Chair), Bette Felton, Arlene J. Kahn, Linda Kinrade, Pamela Parlocha, Charlotte Perry

*Associate Professor:* Theresa Gorman

*Assistant Professor:* Christine M. Wood

*Lecturer:* Julie L. Severett

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.S. in Nursing

The university offers a Master of Science degree in Nursing which also prepares graduates for certification as Geriatric Nurse Practitioners. There are no formal options in the program.

#### Career Opportunities

Geriatric Nurse Practitioners (GNPs) provide primary care for elderly clients in a variety of settings. GNPs may practice in physicians' offices, health maintenance organizations, community ambulatory care centers, skilled nursing/long term care facilities and in clients' homes.

#### Admission Requirements

Students must hold baccalaureate degrees from nursing programs accredited by the National League for Nursing with GPAs of at least 3.0 on a 4.0 scale. Furthermore, each must have successfully completed an introductory statistics course and upper division pathophysiology and physical assessment courses. Students must hold California registered nurse licenses and have at least one year of experience in registered nurse practice. They must also complete the Graduate Record Exam (GRE) and submit three letters of reference to apply.

Admission decisions will be made using a profile approach on the following factors: satisfaction of prerequisite courses, GPA, GRE scores, work experience, creativity in community service, commitment to elder care, and congruence of applicant's goals with the resources of the program.

### Classification in the Program

Students may be admitted to the program with "Conditionally Classified Graduate" status if prerequisite courses are incomplete or if the student profile warrants admission in spite of lower GPA or GRE scores. Students admitted in the "Conditionally Classified Graduate" status may remain so until they have earned a maximum of 12 quarter units. To attain "Classified Graduate" status, either at admission or later, students must: (1) complete prerequisite courses, (2) maintain a minimum 3.0 GPA, and (3) pass the university Writing Skills Test. Students whose GPAs drop below 3.0 in graduate level courses, whether taken at California State University Hayward or elsewhere, will be placed in the "Conditionally Classified Graduate" status. Failure to increase the GPA and return to "Classified Graduate" status following completion of 9 additional quarter units will result in dismissal from the program.

### Advancement to Candidacy

The student must have:

1. attained "Classified Graduate" status;
2. completed at least 12 quarter units of satisfactory work in courses applicable to the M.S. degree. This must include at least one clinical residency (NURS 6400) of at least 4 quarter units at Cal State Hayward;
3. gained approval from his or her advisory committee for plans to complete the capstone experience (i.e., thesis, comprehensive exam, or project).

### Curricular Requirements (58-59 units)

All students must complete 54 units of graduate coursework in nursing. In addition to the coursework, students have a choice of a comprehensive exam (4 units), project (4-5 units), or departmental thesis (4-5 units) for the capstone experience.

### Required Courses

- NURS 6110 Theoretical Foundations of Advanced Nursing Practice (3)
- NURS 6120 Normal and Pathophysiology Associated with Aging (4)
- NURS 6130 Psychosocial Experience of Aging (2)
- NURS 6150 Role Development Seminar I (1)
- NURS 6212 Nursing Therapeutics I: Health Promotion, Disease Prevention, and Disease Management (2)
- NURS 6205 Research (4)
- NURS 6215 Health Assessment of Elderly Clients (2)
- NURS 6216 Laboratory: Health Assessment of Elderly Clients (2)
- NURS 6250 Role Development Seminar II (1)
- NURS 6312 Nursing Therapeutics II: Health Promotion, Disease Prevention, and Disease Management (4)
- NURS 6322 Advanced Pharmacology (3)

NURS 6332 Policy, Organization, and Financing of Elder Care (2)  
NURS 6350 Role Development Seminar III (1)  
NURS 6400 Clinical Residency (17)  
(May be taken a maximum of three times in order to accumulate the 17 required units.)  
NURS 6408 Supportive and Therapeutic Communication with the Elderly (2)  
NURS 6450 Role Development Seminar IV (1)  
NURS 6504 Legal and Ethical Issues in Gerontologic Nursing (2)  
NURS 6550 Role Development Seminar V (1)

#### Capstone Experience

NURS 6875 Comprehensive Exam (4)  
NURS 6899 Project (4-5)  
NURS 6909 Departmental Thesis (4-5)

#### Capstone Experience

Students select the topic of this work, subject to faculty approval. There are four broad substantive areas:

1. Physical health management
2. Psychosocial health management
3. Health care policy, organization, and/or financing
4. Advocacy for elders

The comprehensive exam is a scholarly paper addressing questions provided by faculty while the project and departmental thesis require original laboratory and/or field work. The project option involves innovation in a new or existing health care system or group which must be justified on the basis of the literature and community assessment. The project report must include at least short term evaluation of the project. The goal of the thesis option is knowledge discovery. Research questions and methods must be justified by a review of the literature. Data collection is limited to a small series of cases, interviews, or surveys.

Students are counseled in the selection of their topics and choice of options beginning early in the program. Thus, papers written and work completed throughout may be integrated into the capstone experience.

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The Department of Nursing and Health Sciences offers a 45-unit post-master's GNP completion program for nurses who hold their master's degree in nursing. Inquire in the department for more information.

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*The course prefix for the following courses is NURS.*

6110 Theoretical Foundations of Advanced Nursing Practice (3)

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GNP  
Completion  
Program

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Graduate  
Courses

Graduate-level survey of theories applied to nursing practice including: theories of aging, decision-making, change, adult development and learning, nursing models, and health belief models. (F)

- 6120 Normal and Pathophysiology Associated with Aging (4)  
Review of aging as a physiologic process and common pathophysiology seen in older people. Consideration of epidemiologic findings will be used to identify subgroups of elders at risk for disease. Prerequisite: upper division pathophysiology course such as BIOL 4160. (F)
- 6130 Psychosocial Experience of Aging (2)  
Social, cultural, and emotional experience and quality of life among ethnically diverse elderly. Topics include changes in mentation, motivation, learning, adaptation, social embeddedness, intergenerational relations, loss, sexuality, living arrangements, long-term care issues, caregiver roles, and role strain. (F)
- 6150 Role Development Seminar I (1)  
Nurse practitioner role development emphasizing role theory and adult socialization processes, legal and professional definitions of advanced practice nursing, standards of advanced practice nursing, memberships in professional organizations, and credentialing processes. Prerequisite: consent of instructor. (F)
- 6205 Research (4)  
Quantitative and qualitative research methods in nursing. Emphasis on studies of commonalities and diversities between and within groups of older adults. Topics include critique and dissemination of findings, identifying researchable problems, and research ethics with elders. Prerequisite: introductory statistics course such as STAT 1000. (W)
- 6212 Nursing Therapeutics I: Health Promotion, Disease Prevention, and Disease Management (2)  
Intervention with elderly including: health promotion and maintenance through education, counseling, anticipatory guidance, advocacy; disease prevention; management of common acute, chronic, and functional health problems; use of clinical pathways, consultation, referral; data management. Concurrent enrollment in NURS 6215, 6216 required. (W)
- 6215 Health Assessment of Elderly Clients (2)  
Assessment of physical, mental, emotional, and social health of the elderly. Use of interviewing, health history, physical examination, and diagnostic data to determine health beliefs, health practices, and health status of elders. Prerequisite: upper division physical assessment course such as NURS 3503. Concurrent enrollment in NURS 6216 required. (W)
- 6216 Laboratory: Health Assessment of Elderly Clients (2)

Supervised practice in interviewing, history-taking, physical exam to assess elders' health. Concurrent enrollment in NURS 6215 required. Six hrs. lab. (W)

- 6250 Role Development Seminar II (1)  
Definition and standards for advanced practice nursing with the elderly as they apply to research readings and practice in NURS 6215 and 6216. Survey of organizations that promote elder health, primary care of the elderly, and research. Prerequisites: NURS 6150 and consent of instructor. (W)
- 6312 Nursing Therapeutics II: Health Promotion, Disease Prevention, and Disease Management (4)  
Intervention with elderly including: health promotion and maintenance through education, counseling, anticipatory guidance, advocacy; disease prevention; management of common acute, chronic and functional health problems; use of clinical pathways, consultation, referral; data management. Prerequisites: NURS 6215, 6216. (Sp)
- 6322 Advanced Pharmacology (3)  
Use of pharmacologic agents in treatment of diseases seen in elderly clients. Additional topics include pharmacokinetics, issues in medication compliance, and consequences of polypharmacy. Prerequisites: NURS 6215, 6216. (Sp)
- 6332 Policy, Organization and Financing of Elder Care (2)  
A systems perspective on political, organizational and economic influences that affect older U.S. citizens. Focus on barriers and challenges that clients and their advocates face in the current health care environment. (Sp)
- 6350 Role Development Seminar III (1)  
Interdisciplinary relationships with emphasis on clinical privileges, prescriptive authority and reimbursement for services. The geriatric nurse practitioner role in various types of organizations. Prerequisites: NURS 6250 and consent of instructor. (Sp)
- 6400 Clinical Residency (2-8)  
Supervised clinical practice with primary health care provider for the elderly. May be taken a maximum of three times in order to accumulate the 17 units required for the degree. Prerequisites: NURS 6312, 6322. (F, W, Sp)
- 6401 Nursing Information Systems (4)  
Operation of information systems used by nurse administrators. Creation and management of databases, client flow systems, clinical planning tools. Use of health care information systems relating to finance, quality measurement, and outcome identification. Prerequisite: HCA 6230.
- 6402 Financing Nursing Care (4)  
Financing systems for nursing care, with focus on the operation and control of nursing budgets, reimbursement,

capitation, and multisource funding. Factors affecting the costs of nursing care. Prerequisite: HCA 6240.

- 6403 Leadership in Nursing (4)  
Individual and organizational methods to develop leadership and affect change in nursing care settings. Case studies and implementation of change projects within organizations. Prerequisites: HCA 6210, 6280.
- 6404 Organization of Innovative Nursing Care (4)  
Nursing care organizations, the use of health and nursing services research. The balance between cost and quality and its impact on nursing organizations. Strategies to study and impact organizational change. Prerequisite: HCA 6220.
- 6408 Supportive and Therapeutic Communication with the Elderly (2)  
Communication theory and research applied to elderly clients from diverse ethnic groups. Emphasis on psychosocial assessment, intervention, and evaluation. Topics include: interviewing and communication skills, counseling, and effects of psychologic changes of aging on health problems. Prerequisite: NURS 6130. (F)
- 6450 Role Development Seminar IV (1)  
Study of nurse practitioner outcomes, autonomy, organizational change, political activity, and advocacy for elders. Prerequisites: NURS 6350 and consent of instructor. (F)
- 6504 Legal and Ethical Issues in Gerontologic Nursing (2)  
Legal and ethical implications of advanced nursing practice with the elderly. Topics include: informed consent; advocacy and self-determination; living wills, power of attorney, guardianships; elder abuse; restraint-free care; end-of-life issues; expert testimony by nurse practitioners. (W)
- 6550 Role Development Seminar V (1)  
Integration of the geriatric nurse practitioner role with the nursing profession, other health care stakeholders, and the larger community. Preparation of plans for transition to workplace as well as plans for lifelong learning and collegiality. Prerequisites: NURS 6450 and consent of instructor. (W)
- 6875 Comprehensive Exam (4)  
Examination submitted to the department, which provides questions and specifies format. Students may select the substantive area to be addressed subject to approval of faculty advisor. Prerequisite: Advancement to Candidacy. Maximum of 4 units per student. (Sp)
- 6899 Project (4-5)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral



defense may be required. Prerequisite: Advancement to Candidacy. Maximum of 5 units per student.

6909 Thesis (4-5)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisite: Advancement to Candidacy. Maximum of 5 units per student.



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## Education: Interdisciplinary

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### Department Information

Interdisciplinary Studies Cluster  
School of Education and Allied Studies  
Office: Arts and Education Bldg. 109  
Phone: (510) 885-7418

*Professors:* Emily Lowe Brizendine (ISC Coordinator)

*Associate Professors:* Nan P. Chico (Coordinator of Online Teaching and Learning Option), Bijan Gillani (Coordinator of Graduate Programs in Educational Technology Leadership)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### General Information

The Interdisciplinary Studies Cluster (School of Education and Allied Studies) program is built on the recognition that there are some issues that cross disciplines or professional areas within the School of Education. It develops cross-disciplinary courses and experiences for students at the same time it provides a base for those subjects, programs, and faculty not currently embraced by any one department. It promotes interdisciplinary collaboration among students and faculty in the School of Education, builds partnerships, and broadens program offerings for current and new students. By involving faculty from three or more departments in common endeavors, the Interdisciplinary Studies Cluster actively encourages cross-departmental renewal and innovation. The Cluster also offers the M.S. in Education (Option in Online Teaching and Option in Educational Technology Leadership), and the Certificate Program in Educational Technology Leadership.

### M.S. in Education

#### Option in Educational Technology Leadership

This Option consists of 45 units and provides the participants with additional technological knowledge and skills to create effective school district technology plans, to develop training programs for classroom teachers in the use of technology, to promote organizational change through technology, to manage technology resources and personnel in a school setting, and to apply their

technical skills and knowledge to identify and utilize technological resources appropriately for the needs of the schools, school districts, and similar educational organizations. All the option's required courses address these technology needs of schools.

#### I. Prerequisites

Students must demonstrate knowledge and application of authoring systems, such as Hypercard, Director, Authorware, ToolBook, or must have experience with Web-based instruction. Basic knowledge of digital technologies and HTML is required. These proficiencies may be demonstrated through the completion of EDUI 6099 (Multimedia/Hypermedia), or equivalent courses, or through other evidence such as projects created, or multimedia development. Advanced proficiency in one platform (e.g. Macintosh, Windows, UNIX) is required. Students will be accepted into the program based on an interview by a committee where they demonstrate their technology competence. Students are also required to maintain their level of competency in technology as long as they are graduate students in the program.

#### II. Curricular Requirements (45 units)

##### A. Core Courses (26-29 units)

EDUI 6110 Web as an Interactive Educational Tool (4)  
EDUI 6200 Developmental Theories and Educational  
Multimedia Design (4)  
EDUI 6300 Culture and the Evolution of Educational  
Technology (4)  
EDUI 6400 Educational Technology Planning for Innovation  
and Change (4)  
EDUI 6500 Research in Educational Technology (4)  
EDUI 6600 Educational Interface Design (4)  
EDUI 6899 Project (2-5) or EDUI 6909 Departmental Thesis  
(2-5)

##### B. Electives (16-19 units minimum)

EDUI 6120 (4), 6130 (4), 6140 (4), 6150 (4), 6210 (4), 6315  
(2); EDLD 6300 (4), 6410 (4); MM 6101 (4), 6102 (4), 6310  
(4), 6410 (4), 6805 (1); PSYC 4200 (4), 4210 (4), 4220 (4),  
4320 (4), 4345 (4); PUAD 6765 (4), 6811 (4), 6812 (4);  
STAT 3900 (4); T ED 6098 (4), 6300 (4)

Since students come to the program with varying technology backgrounds and interests, they may choose graduate-level courses from other departments with advisor approval.

### Option in Online Teaching and Learning

#### I. Prerequisites

To be admitted to the Online Teaching and Learning Option in the M.S. in Education, students meet normal Cal State Hayward requirements for admission to a graduate program in Education. The program, however, is offered through the Extended and Continuing Education Division. Since students are admitted as special session students, they will receive residence credit. Students from schools where English is not the primary language of instruction are required to achieve a TOEFL score of at least 213 (550 on the former grading scale)

for admission to the program.

II. Curricular Requirements (45.5 units)

Students work with designated program advisors. Communication with advisors is by e-mail, telephone, and videoconference as necessary. Student orientation to the program is by means of the program website.

Students complete 45.5 units of approved coursework. All 45.5 units must be completed within a five-year period with a 3.0 GPA or better. Students who are qualified for admission to the program will be placed in the "Conditionally Classified Graduate" category. Upon completion of the University Writing Skills requirement, they will be placed in the "Classified Graduate" category. Since students will not be on campus, the Writing Skills Test will be administered by a designated institution in the student's home area. If students do not pass the WST, they may take a course or courses to improve their skills and pass the writing skills essay. Students complete either EDUI 6899 Project (2-5) or EDUI 6910 University Thesis (2-5) as the capstone experience.

A. *Required Courses (36.5 units)*

Students must complete EDUI 6701, 6702, 6703, and 6704 before they may take any other courses.

EDUI 6701 Introduction to Online Teaching and Learning (4.5)

EDUI 6702 Teaching Models for Online Instruction (4.5)

EDUI 6703 Technology Tools for Online Instruction (4.5)

EDUI 6704 Designing Curriculum for Online Instruction (4.5)

EDUI 6705 Educational Planning and Development for Online Programs (4.5)

EDUI 6706 Research in Online Teaching and Learning (4.5)

EDUI 6707 History and Culture of Online Learning Communities (4.5)

EDUI 6899 Project (5) or EDUI 6910 University Thesis (5)

B. *Electives (9 units)*

1. Theoretical: Choose one of the following (4.5 units):

EDUI 6772 Content Development for Online Learning (4.5)

EDUI 6773 Supervising and Evaluating Online Teaching (4.5)

EDUI 6774 Current Issues in Online Learning (4.5)

2. Methodological: Choose one of the following (4.5 units):

EDUI 6780 Building the Online Environment (4.5)

EDUI 6781 Creating Digital Media for Online Instruction (4.5)

EDUI 6782 Designing and Implementing User Interfaces for Online Instruction (4.5)

EDUI 6783 Providing Interactivity in the Online Environment (4.5)

## Program

This program is designed for educators and training and development specialists who serve in creative, leadership roles in educational technology. The arenas include school districts, county education offices, community colleges, and governmental community agencies.

### I. Prerequisites

Students must demonstrate knowledge and application of authoring systems, such as Hypercard, Director, Authorware, ToolBook, or must have experience with Web-based instruction. Basic knowledge of digital technologies and HTML is required. These proficiencies may be demonstrated through the completion of EDUI 6099 (Multimedia/Hypermedia), or equivalent courses, or through other evidence such as projects created, or multimedia development. Advanced proficiency in one platform (e.g., Macintosh, Windows, UNIX) is required. Students will be accepted into the program based on an interview by a committee where they demonstrate their technology competence. Students are also required to maintain their level of competency in technology as long as they are graduate students in the program.

### II. Curricular Requirements

#### A. Core Courses (12 units)

EDUI 6200 Developmental Theories and Educational Multimedia Design (4)

EDUI 6300 Culture and the Evolution of Educational Technology (4)

EDUI 6400 Educational Technology Planning for Innovation and Change (4)

#### B. Electives (4 units minimum)

EDUI 6120 (4), 6130 (4), 6140 (4), 6150 (4), 6210 (4), 6315 (2); EDLD 6300 (4), 6410 (4); MM 6101 (4), 6102 (4), 6310 (4), 6410 (4), 6805 (1); PSYC 4200 (4), 4210 (4), 4220 (4), 4320 (4), 4345 (4); PUAD 6765 (4), 6811 (4), 6812 (4); STAT 3900 (4); T ED 6098 (4), 6300 (4)

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## Courses

*The course prefix for the following courses is EDUI.*

### Post-baccalaureate Courses

#### 5007 The Compleat Internet (3)

Exploration of all facets of the Internet through a broad variety of on-line activities. Hands-on discovery of myriad resources, everything from E-mail to creating pages on the World Wide Web. Focus will be tailored to students' individual discipline.

#### 5090 Computer Applications for Educational Settings (4)

Understanding of computers beyond word processing. Using computers as an adaptive, interactive, and exploratory tool and as an introduction to understanding different applications in educational settings. Word

processing, database, spread sheet, multimedia, and internet applications.

5900 Independent Study (1-4)

## Graduate Courses

- 6098 Designing Effective Multimedia Instruction (4)  
Effective design and development of multimedia material to promote optional interactivity, performance, and motivation. Evaluation of educational multimedia products, design and development of original software, and examination of research on electronic learning. Cross-listed with MM 6098. Prerequisite: T ED 5099 or equivalent.
- 6099 Introduction to Instructional Multimedia (4)  
The foundations, history and applications of multimedia. Terms, concepts, and effectiveness of multimedia and its implementation in the classroom. Production and evaluation of multimedia-based projects. Integration of multimedia using scanners, videodisks, and CD-ROMs. Prerequisites: T ED 5099, EDUI 5090 or demonstrated equivalent. Cross-listed with MM 6099.
- 6110 Web as an Interactive Educational Tool (4)  
Design of instructional delivery via the Internet based on a study of the range of Internet-student/interactions, application of appropriate learning strategies, the potential of recent developments in the design/development of instruction, advanced topics in multimedia design. Prerequisite: EDUI 5007 or consent of instructor.
- 6115 Web as a Collaborative Educational Tool (4)  
Rationale for the use of, and the social and contextual theories for, the design of instructional delivery via the Web. Enables educators to design and create collaborative environment for teaching and learning. Social and cognitive theories provide the theoretical foundations. Current Web technology provides the tool for such a design. Prerequisite: EDUI 5007 or consent of instructor.
- 6120 Distance Learning Technologies and Applications (4)  
Rationale for the use of and critical analysis of various types of distance learning technologies. Current transmission options for distance learning. Instructional strategies for teaching using distance technologies. Prerequisite: consent of instructor.
- 6130 Supervising and Evaluating Teaching with Technology (4)  
Analysis of the nature of effective integration of technology in the classroom within the context of theory of supervisory functions. Examination of techniques, including clinical supervision for promoting and supporting teacher growth and development in the use of technology in instruction. Prerequisite: EDUI 6200 or EDUI 6210 or departmental approval.

- 6140 Professional Development with Educational Technologies (4)  
How adults learn in the professional setting; maximizing human resources through quality support for training and development; how technology skills are acquired by the professional; creating and maintaining effective staff development programs in technology. Prerequisite: consent of instructor.
- 6150 Current Issues in Educational Technology (4)  
Current topics related to the assimilation of technology and planning in education. Prerequisite: completion of at least 12 units of the Educational Technology program.
- 6200 Developmental Theories and Educational Multimedia Design (4)  
Identification of developmental theories in social and cognitive psychology, focusing on the characteristics of development, the nature of learning, the social influence on development and learning, and the foundation provided by these theories for the design of instructional multimedia programs. Three hrs. lect., 2 hrs. lab.
- 6210 Principles of Instructional Design (4)  
Instructional design theories and models in technology; application of design principles in the evaluation and creation of instructional materials including text; teacher-mediated instruction in multimedia. Cross-listed with MM 6210. Prerequisite: graduate standing or consent of instructor.
- 6300 Culture and the Evolution of Educational Technology (4)  
Cultural contexts in which educational technologies are situated and the consequent impact on growth of such technologies. Application of postmodern, feminist and multicultural perspectives to examine technology within educational cultures. Prerequisite: Graduate standing or consent of instructor.
- 6315 Current Technologies in Education (2)  
Current educational technologies and their use in the classroom. Repeatable for credit with approval of instructor (or department). Prerequisite: EDUI 5007 or consent of instructor.
- 6331 Collaborative Leadership I (4)  
Collaborative leadership skills and understandings in reflective practice, communication, facilitating change, and sharing leadership. Designed for graduate students and/or working professionals with at least three years experience (e.g. teachers, administrators, counselors, psychologists). Cross-listed with EDLD, EPSY, KPE, T ED 6331.
- 6400 Educational Technology Planning for Innovation and Change (4)  
History of creative innovation and its effects on educational culture and thought. Critical examination of current innovative technologies for instruction at all levels, pre-school through professional. Strategies for instructional

technology planning. Prerequisite: EDUI 6210 or consent of instructor.

- 6450 Management of Educational Technology (4)  
Organizational and managerial issues, problems, decision-making, and solutions for successful implementation of technology initiatives including distributed learning, distance learning, computer-aided education, and multimedia projects. Focus on technological solutions to educational problems and on planning, strategy formulation, and implementation of technology projects, addressing infrastructure decisions, system design and development, budgeting, resource management, project team dynamics, and evaluation. Three hrs. lect., 2 hrs. act.
- 6500 Research in Educational Technology (4)  
Fundamental concepts in qualitative and quantitative research designs and program evaluation in Educational Technology. Statistical tools and procedures for data analysis and interpretation. Preparation of research proposal for project or thesis. Prerequisite: EDUI 6400 or consent of instructor.
- 6600 Educational Interface Design (4)  
Current developments in cognitive science related to instructional technology. Human brain organization, the influence of environment upon memory and problem solving, how these issues can provide a foundation for progressive educational technology leaders. Prerequisite: consent of instructor. Three hrs. lect., 2 hrs. lab.
- 6701 Introduction to Online Teaching and Learning (4.5)  
Design and delivery of online coursework with consideration of principles of teaching and learning, the virtual classroom, synchronous vs. asynchronous teaching and learning, copyright and fair use, accessibility, appropriate learning strategies in onground and online classes, potential for interactivity, and contrast between the principles and practices of onground and online teaching and learning.
- 6702 Teaching Models for Online Instruction (4.5)  
Teaching models and their relationship to curriculum development, to student learning, to assessment, and to learning psychology. Special attention to the application of models of teaching to online instruction, different learning styles, various teaching and learning situations, needs of learners with accessibility issues, and limitations of current technologies. Prerequisite: EDUI 6701.
- 6703 Technology Tools for Online Instruction (4.5)  
Design and construction of online environments for teaching and learning. Attention to platform, browser, system differences and limitations as well as to synchronous, asynchronous, and web-based delivery systems. Differences among online delivery providers, emphasis on maximum accessibility. Prerequisites: EDUI 6701, 6702.



- 6704 Designing Curriculum for Online Instruction (4.5)  
Incorporating onground and online teaching strategies and concepts into the design of an online course, including objectives, assignments, assessment, collaboration, participation, and course materials. Models of teaching and learning outcomes in onground and online courses. Practice in linking appropriate teaching models and designated learning outcomes with attention to differing learning styles. Prerequisites: EDUI 6701, 6702, 6703.
- 6705 Educational Planning and Development for Online Programs (4.5)  
History of innovation in education and its effect on educational culture and thought. Organizational and managerial issues, problems, decision-making and solutions for successful implementation of online programs. Solutions to educational problems common to onground and online teaching environments as well as consideration of educational problems unique to online education such as intensive faculty development and support. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6706 Research in Online Teaching and Learning (4.5)  
Research methods in education, both quantitative and qualitative, with attention to sources, collection, and uses of data. Critical analysis of research on online teaching and learning. Preparation of a research project to include references, rationale, and outline. Offered collaboratively with library staff. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6707 History and Culture of Online Learning Communities (4.5)  
The development of the cyberclassroom of today from both traditional distance learning correspondence courses and early networked virtual realities with attention to the history and culture of education. Evolution of onground and online teaching and learning roles, development of institutional responsibilities, and growth of degree, certificate, and enrichment programs. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6741 Family, School, Community Collaborations (4)  
Provides school administrators, teachers, psychologists, and counselors with a knowledge base for promoting family-community-school partnerships which will increase student academic success among ethnically, linguistically, culturally, and economically diverse populations. Participants examine ecological theoretical perspectives, engage in systemic analyses of real-world family-school-community relationships, and explore characteristics of effective family-school partnership programs.
- 6755 Cultural Diversity in the Workplace (4)  
Theory and practice for working with diverse populations in organizations and school settings. Communication across cultures, developing programs and practices, and valuing diversity in organizations. (Y)
- 6772 Content Development for Online Learning (4.5)

Creating course materials specific to various learning environments: corporate, academic, military, industrial, enrichment, online and onground. Differences between training and education with emphasis on relevant teaching and learning strategies for each modality. Completion of online teaching components suitable to at least two different environments. Prerequisites: EDUI 6701, 6702, 6703, and 6704.

- 6773** Supervising and Evaluating Online Teaching (4.5)  
Effective delivery of online materials within the context of educational theories of supervisory functions. Adaptation of techniques, including clinical supervision, for promoting and supporting teacher growth and development in the online environment. Online mentoring of new online teachers. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6774** Current Issues in Online Learning (4.5)  
Controversies, problems, and promises of online teaching and learning, including examination of the role of gender, class, race in online teaching and learning, the potential impact of corporate influences on traditional educational paradigms, and the future of both online and onground education. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6780** Building the Online Environment (4.5)  
Designing and implementing an online teaching site, including assignments, interactivity, contact protocols, syllabus, course materials, and research and development resources for student use. Presentation of materials in various formats including PDF, Shockwave, Flash, and HTML. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6781** Creating Digital Media for Online Instruction (4.5)  
Making multimedia materials available in the online classroom with texts, images, sounds, videos, animations. Needs of students with accessibility challenges. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6782** Designing and Implementing User Interfaces for Online Instruction (4.5)  
Using principles of user interface, audience analysis, discourse communities, and educational psychology to design online educational sites which reflect the needs of teachers, learners, and the global community. The effectiveness of colors, images, animations, and interactivity to facilitate communication with online students. Accessibility issues will be stressed. Prerequisites: EDUI 6701, 6702, 6703, and 6704.
- 6783** Providing Interactivity in the Online Environment (4.5)  
Using latest and most sophisticated web resources to create learning environments that maximize interactivity, collaboration, document sharing, assessment, and access to multimedia materials. Prerequisites: EDUI 6701, 6702,

6703, and 6704.

**6800** Issues in Research (4)

An interdisciplinary analysis of current issues in educational research. Emphasis on the critical analysis and evaluation of research.

**6899** Project (2-5)

Development of an original product (teaching project, implementation plan, program evaluation proposal) which is identified in the research course and summarized in a written abstract. Both the project and the abstract are submitted to the program faculty which specify their formats. Supervision by a faculty committee, at least one of whom must be a Cal State Hayward faculty member. Prerequisites: EDUI 6500 or 6705 and Advancement to Candidacy. Maximum of five units per student.

**6900** Independent Study (1-4)

**6909** Departmental Thesis (2-5 )

Development and writing of a research paper (on a topic identified in EDUI 6500) submitted to Interdisciplinary Studies program faculty which specifies its format. Supervision by an Interdisciplinary Studies committee, at least one of whom must be a Cal State Hayward faculty member. Required presentation of thesis to program faculty and colleagues. Prerequisites: EDUI 6500 and Advancement to Candidacy. Maximum of five units per student.

**6910** University Thesis (4-5)

Developmental writing of a formal research paper on online teaching and learning for submission to the university in a specified format. Supervised by an EDUI committee, at least one of whom must be a CSUH faculty member. Defense normally required. Prerequisites: EDUI 6701, 6702, 6703, and 6704, and graduate standing.



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## Department Information

## Public Administration

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Department of Public Administration  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4124  
Phone: (510) 885-3282

*Professor Emeritus:* Richard W. Vrmeer

*Professors:* Carl J. Bellone, Jong S. Jun (Associate Chair), Mary M. Timney, Dvora Yanow (Chair)

*Associate Professors:* George F. Goerl, Jombo ("Jay") Umeh (Internship Coordinator)

*Assistant Professors:* Ann L. Abbott, Linda Dennard, Jennifer Eagan

*Lecturers:* Hillare Bell, Donald Blubaugh, Harold Campbell, Carol Edlund, Michael Garvey, Mary Ann Huckabay, Alton Jelks, Will L. Johnson, Thomas Lewcock, Stephen Morgan, Mark Nickerson, Edward Schilling, Emily Wagner, Laura Wonnacott

*Graduate Coordinator:* Jong S. Jun

• Institute for Governmental Research and Training: Jong S. Jun (Director)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## Master of Public Administration

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### Program Description

The Department of Public Administration at Cal State Hayward offers a program of coursework leading to a Master of Public Administration (M.P.A.) degree. Public Administration is a rich and challenging multi-disciplinary field drawing from sociology, anthropology, philosophy, psychology, economics, and urban and organizational studies. The master's degree program provides students with a grounding in major philosophical and social science thinking about the nature of organizations; it helps students to build the intellectual and practical tools they will need to become effective organizational leaders in the public and non-profit sectors. The M.P.A. program is designed to increase the

personal and professional effectiveness of people working in public, voluntary, and private organizations. The purpose of the program is to prepare individuals for leadership positions in various organizations with a sense of commitment to social purpose, the public interest, and effective public problem-solving.

The program proceeds on several assumptions: (1) many pressing problems of society must be dealt with through public agencies, and these agencies must be staffed by well-prepared public administrators; (2) public agencies should be more oriented to the public interest and be more client-centered than is generally the case at present; (3) public agencies should be humanistically oriented, encouraging personal contribution, growth, and improvements in the quality of working life; (4) public agencies should nurture and support a critical awareness on the part of public administrators, leading to an ability to challenge and change administrative practice; and (5) public administrators need to find creative and innovative solutions to the problems of providing quality public services in times of resource scarcity.

The department strives to expand the meaning of public administration to include the theory and practice of administration in non-profit and community organizations. Overall, emphasis is placed upon developing student sensitivities to a wide variety of human, social, and organizational realities in order to assist public organizations in formulating and obtaining their goals and striving toward responsible social change. In sum, the faculty believes the challenge of the changing post-industrial era is best met by humanizing governments, by strengthening their capacities for intelligent policy analysis and effective action on behalf of the public interest, and by encouraging in public administrators a welcoming attitude toward learning, creativity and innovation.

### Career Opportunities

The M.P.A. program prepares students for careers in government organizations at the federal, state, and local levels as well as in community organizations and the non-profit sector. The program also offers an excellent preparation for doctoral level study for those seeking careers in university teaching and research. The curriculum offers students opportunities to specialize in public management, public policy development and implementation, health care administration, and human resource development and organizational change. Cal State Hayward M.P.A. alumni are well represented in positions of leadership throughout the Bay Area as well as in local, state, and federal agencies in the western states.

### Features

**Instructional Locations:** The department offers evening courses that meet from 6:30 p.m. to 10:00 p.m. at Cal State Hayward and the university's Contra Costa Campus in Concord. The entire degree with the Public Management Option or the Health Care Administration Option may be taken at the Contra Costa Campus. Contra Costa courses are taught by regular faculty and carry regular academic credit. Students may take courses at either of the two locations in whatever combinations desired in pursuit of the M.P.A. degree.

**Internships.** The Department of Public Administration sponsors a graduate internship program as an integral part of the master's program. The internship program provides students with an

opportunity to complement their academic studies with practical administrative experience in a city, county, state, federal, or non-profit agency. The internships vary from three to nine months and average 10 to 30 hours per week. Some pay a stipend, others are on a volunteer basis. An internship is not a job placement, but an opportunity for gaining experience.

## Scholarships

Graduate Equity Fellowship

Herman J. McKenzie Memorial Scholarship Fund

Helen Jacobsen Scholarship

Robert Odell Scholarship

Distance Learning Graduate Assistantship

## Admission

The M.P.A. degree program is open to students planning a career in public organizations who have a baccalaureate degree from an accredited institution and who have earned an overall grade point average of 3.0 (4.0 basis) in the last two years or 90 quarter/60 semester units of undergraduate work. The Graduate Record Exam is not required.

All applicants should: (1) submit a personal statement (2-3 pages) with their application stating their reasons for wanting to pursue the M.P.A. degree, describing their relevant work experience, and explaining their past academic performance; (2) submit two letters of recommendation (letters from prior instructors are preferred); and (3) resume. Successful experience in positions of administrative leadership will be considered in evaluating these applications.

Admission to the university and admission to the M.P.A. degree program are separate steps. It is suggested that application for admission to the university (Part A) be filed together with the form for entry into the degree program (Part B).

## Student Standing and Progress Toward the Degree

There are three categories of student status which reflect student progress toward the degree: "Conditionally Classified Graduate" student, "Classified Graduate" student, and Advancement to Candidacy.

1. Students achieve "Conditionally Classified Graduate" status when they have been admitted to the M.P.A. degree program, but have not yet completed the prerequisites for "Classified Graduate" status in the M.P.A. degree program.
2. Students achieve "Classified Graduate" status when they have satisfactorily completed the four prerequisites for the M.P.A. degree program or their equivalents, and satisfied the University Writing Skills requirement. (See "Prerequisites for "Classified Graduate" status.)
3. Students are Advanced to Candidacy when they have completed the core courses with a 3.0 or better GPA.

*Note:* Students who fail to maintain progress by falling below a 3.0 GPA in their graduate courses for two or more consecutive quarters will be academically disqualified from the university.

### Prerequisites for "Classified Graduate" Status

As prerequisites to "Classified Graduate" status, students must satisfactorily complete four courses: PUAD 4800 Public Administration and Society (with a grade of "B" or better), PUAD 4830 Organization Theory and Human Behavior (with a grade of "B" or better), PUAD 5000 Philosophy of Public Administration (with a grade of "B" or better), and STAT 1000, or its equivalent (with a grade of "C" or better), or request to have one or more of them waived based upon coursework taken outside of our Departments of Public Administration or Statistics. These prerequisite courses should be taken before attempting the core graduate courses. Since no specific undergraduate major is required for admission to the program, when additional deficiencies are apparent, a student may be required to complete preparatory work in the deficient areas before attempting graduate level study.

### Degree Requirements

The Master of Public Administration program requires completion of 48 quarter units, distributed among core courses; required and elective courses in an option area; and the graduate synthesis or the departmental or university thesis. Of these, at least 35 units must be completed in residence (transfer units are limited to 13 quarter units); at least 24 units must be in courses in the 6000 series. No course numbered 1000 to 2999 (or equivalent if taken elsewhere) may be used as part of the 48 unit graduate degree program.

No more than 8 units of Independent Study (PUAD 6900) may be counted toward the 48 units required for the degree. Thesis or Graduate Synthesis credit may not exceed 4 units.

A grade point average of 3.0 must be maintained in all 48 quarter units taken to satisfy the degree requirements. All graduate degree requirements must be completed within 5 years.

### Curricular Requirements

#### A. Required courses (20 units)

- PUAD 6801 Public Policy Formulation (4)
- PUAD 6811 Human Organizations and Social Realities (4)
- PUAD 6812 Changing Human Organizations (4)
- PUAD 6831 Research Methods in Public Administration I (4)
- PUAD 6832 Research Methods in Public Administration II (4)

*Note:* Prerequisite courses (STAT 1000; PUAD 4800, 4830, 5000) should be completed prior to core courses. Core courses should be completed prior to enrolling in option courses.

#### B. Option Area: 24 units in one of the following seven option areas:

##### 1. *Administration of the Metropolitan Region (24 units)*

Four of the following:

- PUAD 6864 Managing Public Organizations (4)
- PUAD 6865 Administration of the Metropolitan Region (4)
- PUAD 6866 Approaches to Urban and Regional Problem-Solving (4)



PUAD 6868 Land-Use Planning for Administrators (4)  
PUAD 6869 Topics in Public Management (4)

Electives: 8 units selected with the consent of advisor.  
These units may be taken outside of the department.

2. *Health Care Administration (24 units)*

Four of the following:

HCA 4200 Social Construction of Health Care (4)  
HCA 6260 Health Care Policy Analysis (4)  
PUAD 6830 Information Management in Public  
Organizations (4)  
PUAD 6876 Financing Sustainable Health Care (4)  
PUAD 6878 Health Care in Social Transformation (4)

Electives: 8 units (selected with the consent of advisor).  
These units may be taken outside of the department.

3. *Organizational Change (24-28 units)*

PUAD 6762 Group Procedures and Facilitation (4)  
PUAD 6763 Advanced Group Process for Organizational  
Change (4)  
PUAD 6764 Intervention Strategies for Changing  
Organizations (4)  
PUAD 6765 Organizational Diagnosis and Assessment (4)

Electives: Choose alternative (A) or alternative (B)

*Alternative A: Management Focus*

Two of the following (8 units), selected with consent of  
advisor:

PUAD 6830 Information Management in Public  
Organizations (4)  
PUAD 6840 Seminar in Public Finance Administration (4)  
PUAD 6842 Governmental Budgeting (4)  
PUAD 6850 Human Resources Management in the  
Public Sector (4)  
PUAD 6851 Work and Organizations of the Future (4)  
PUAD 6854 Public Labor Relations (4)

*Alternative B: Counseling Focus in Educational Psychology*

(This alternative provides more concentrated work in the  
clinical and counseling areas). Three of the following (12  
units), selected with consent of advisor:

EPSY 6400 Family Psychotherapy (4)  
EPSY 6750 Foundations of Counseling (4)  
EPSY 6751 Counseling and Psychotherapy Theory (4)  
EPSY 6781 Healthy Personality (4)

4. *Public Financial Administration (24 units)*

Four of the following:

PUAD 6840 Seminar in Public Finance Administration (4)  
PUAD 6842 Governmental Budgeting (4)  
PUAD 6846 Governmental Accounting and Fiscal  
Management (4)  
PUAD 6847 Strategic Approaches to Public Finance (4)



PUAD 6869 Topics in Public Management (4)

Electives: 8 units selected with the consent of advisor.  
These units may be taken outside of the department.

5. *Public Human Resource Management (24 units)*

Four of the following:

PUAD 6850 Human Resource Management in the Public Sector (4)

PUAD 6851 Work and Organizations of the Future (4)

PUAD 6854 Seminar in Public Labor Relations (4)

PUAD 6765 Organization Diagnosis and Assessment (4)

PUAD 6869 Topics in Public Management (4)

Electives: 8 units selected with the consent of advisor.  
These units may be taken outside of the department.

6. *Public Policy Development (24 units)*

Four of the following:

PUAD 6802 Seminar in Public Policy Implementation (4)

PUAD 6803 Seminar in Interpretative Policy Analysis (4)

PUAD 6806 Policy Design for Sustainable Futures (4)

PUAD 6808 Seminar in Topics in Public Policy (4)

PUAD 6809 Public Program Evaluation (4)

PUAD 6842 Governmental Budgeting (4)

PUAD 6866 Approaches to Urban and Regional Problem-Solving (4)

Electives: 8 units (selected with the consent of advisor).  
These units may be taken outside of the department.

7. *Public Management (24 units)*

Four of the following:

PUAD 6815 Ethics and Administrative Responsibility (4)

PUAD 6830 Information Management in Public Organizations (4)

PUAD 6840 Seminar in Public Finance Administration (4)

PUAD 6842 Governmental Budgeting (4)

PUAD 6850 Human Resources Management in the Public Sector (4)

PUAD 6851 Work and Organizations of the Future (4)

PUAD 6864 Managing Public Organizations (4)

PUAD 6869 Topics in Public Management (4)

Electives: 8 units (selected with the consent of advisor).  
These units may be taken outside of the department.

*Note:* PUAD 6845 Local Government Financial Management and/or PUAD 6846 Governmental Accounting and Fiscal Management are recommended for public finance students.

C. *Capstone Experience (0-4 units)*  
*Choose (1) or (2)*

1. The Graduate Synthesis (PUAD 6901) (4 units) and

Comprehensive Examination, *or*

2. The Departmental Thesis (PUAD 6909) or University Thesis (PUAD 6910) (4 units).

*Note:* Students in the Counseling Focus (Alternative B) of option 4 (Organizational Change) are not required to take the Graduate Synthesis (PUAD 6901) but instead take an additional elective. Their comprehensive exam will be specially designed to cover the Educational Psychology electives.

### Incompletes

Students accumulating more than 8 units of work graded "I" may not register for courses applicable to the degree until the "I" grades are removed.

### Capstone Experience

Comprehensive Exam, Departmental Thesis, or University Thesis

Students have a choice of completing the program with a Departmental Thesis, University Thesis, or Comprehensive Examination. Students who wish to take the Comprehensive Examination must enroll in PUAD 6901, Graduate Synthesis (4 units) (except for those completing the "Counseling Focus" of option 4). Students completing PUAD 6901 are eligible to take the Comprehensive Exam, which is a proctored essay exam. Students who fail the Comprehensive Exam may retake PUAD 6901 and the Exam one time, or they may choose to enroll in PUAD 6909, Departmental Thesis or PUAD 6910 University Thesis; they may not do both.

Students who wish to take PUAD 6909, Departmental Thesis or PUAD 6910, University Thesis (each carries 4 units of graduate credit) should be aware of the procedural differences between a departmental and university thesis. The university thesis requires a two faculty member committee and submission of the thesis to the university for final approval and binding. Two bound copies are required (one for the department and one for the university library). The university thesis deadline dates are listed in the catalog each year. The University Thesis Committee meets as called by the student or the faculty. Students completing the departmental thesis may either sign up individually with a faculty advisor or meet in a scheduled graduate course. A departmental thesis is directed by one faculty member. Two copies of the departmental thesis are required for the department.

Grades of "SP" (Satisfactory Progress) may be given for a thesis that is not completed at the end of the quarter. The "SP" grade must be removed within five years or it will become an "F."

### Granting the Degree

Upon satisfaction of all requirements for the degree, the department will recommend that the candidate be granted the Degree of Master of Public Administration. Students must file for graduation by the second week of the quarter prior to the quarter in which they expect to graduate.

## Post- baccalaureate Courses

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## Graduate Courses

*The course prefix for the following courses is PUAD.*

- 5000** Philosophy of Public Administration (4)  
Critical analysis of emerging domestic and global ideas and issues shaping and being shaped by the public sector. Theoretical perspectives on understanding values, ethics, citizenship, public good, and search for democratic administration. Prerequisites: PUAD 4800, 4830.
- 5900** Independent Study (1-4)

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*The course prefix for the following courses is PUAD. They are restricted to "Conditionally Classified" and "Classified Graduate" students.*

- 6762** Group Procedures and Facilitation (4)  
Theories of group dynamics; group processes underlying individual, small group, and planned or indirect organizational change. Interpersonal skills in group facilitation. Lectures, lab. Prerequisite: EPSY 6750 or PUAD 6812, or consent of instructor. Not open to students with credit for EPSY 6762. (F)
- 6763** Advanced Group Process for Organizational Change (4)  
Development of team building skills for organizational change, exploration of interpersonal communication, processes of goal setting, conflict resolution, application of knowledge and skills to public organizational development. Prerequisite: PUAD 6762. Not open to students with credit for EPSY 6763. (W)
- 6764** Intervention Strategies for Changing Organizations (4)  
Facilitator's role in organizational change processes. Relating diagnosis to intervention strategies in planned and indirect organization change; intervention models and case problems. Prerequisite: PUAD 6763. Not open to students with credit for EPSY 6764. (Sp)
- 6765** Organization Diagnosis and Assessment (4)  
Theory and methods of organization diagnosis and assessment; nondirective/directive interview techniques; development of assessment instruments; assessing change capacities; phenomenological and existential analysis of lived time and space; preparation of diagnostic analysis in development of intervention strategies. Prerequisite: PUAD 6812. (Y)
- 6801** Public Policy Formulation (4)  
Critical analysis of public policy-making processes; interrelationships among policy formulation, implementation, evaluation, and revision; alternative models of the policy process. Prerequisite: PUAD 4800.
- 6802** Seminar in Public Policy Implementation (4)

Developing strategies and tactics for identifying and solving implementation problems. Implementation as a design, evaluative, and learning process. Analysis of implementation case studies. Prerequisites: PUAD 4800 and 6801. (A)

- 6803 Seminar in Interpretive Policy Analysis (4)  
Analytic approaches developed in response to hermeneutical, phenomenological, and other developments in the philosophy of science and social science; narrative policy analysis, policy design and framing, analysis of local knowledge. Prerequisites: PUAD 4800 and PUAD 6801. (Y)
- 6806 Policy Design for Sustainable Futures (4)  
Foundations for futures studies. The future as paradox, learning, democratic process, and interpretation of reality. Forecasting, making policy recommendations, and exploring alternative actions for sustainable futures. Interpreting global transformations and creating the future. Prerequisite: PUAD 6801.
- 6808 Seminar in Topics in Public Policy (4)  
Different substantive areas of public policy, e.g., immigration policy; race-ethnic policies; science and technology policy, environmental policy; welfare, housing, family, and other social policies; comparative public policy. May be repeated once for credit when a different policy area is treated. Prerequisites: PUAD 4800 and PUAD 6801.(Y).
- 6809 Seminar in Public Program Evaluation (4)  
Assessment of policy impact and effectiveness; analysis of program objectives; methods of evaluation; developing action-oriented evaluation processes; administration of evaluation systems. Prerequisite: PUAD 6801. (Y)
- 6811 Human Organizations and Social Realities (4)  
Post-modernist approaches to the understanding of organizational realities, including phenomenological, critical, feminist, and other interpretive approaches; subjective, intersubjective, contextual, historical influences; organizational socialization and personality growth, personal and organizational value development and human effectiveness. Prerequisites: PUAD 4800, 4830 and STAT 1000. (A)
- 6812 Changing Human Organizations (4)  
Application of interpretive, critical, and postmodern theories to changing organizations; use of meaning-centered, experientially grounded theories for understanding organizational cultures; personal praxis in changing organizations. Prerequisite: PUAD 6811. (A)
- 6815 Ethics and Administrative Responsibility (4)  
Ethical dimensions of the public service; value dilemmas, administrative ethics and accountability, responsibility in making public choices, whistle-blowing, the public interest; equality and equity in democracy. Prerequisites: PUAD 6801 and 6811. (Y)

- 6828 Quantitative Analysis in the Public Sector (4)  
Uses and methods of quantitative and computer data analysis in the public sector; emphasis on the application of quantitative data to organizational improvement and policy research; examination of the logic and principles underlying quantitative methods and techniques.  
Prerequisites: PUAD 4800, 4830, and STAT 1000 (or equivalent). (Y)
- 6830 Information Management in Public Organizations (4)  
Critical examination of the significance of information management concepts, tools, and technologies for public organizations; their implications for policy formulation, analysis, evaluation, organizational change, budgeting, decision making, knowledge management, and client services. Prerequisites: PUAD 4800, 4830, and STAT 1000 (or equivalent). (Y)
- 6831 Research Methods in Public Administration I (4)  
Theory and methods of interpretive research in the public sector. Emphasis on meaning-centered and inductive modes of data-gathering and analysis, including interviews, participant observation, ethnographic methods and the development of grounded theory. Issues in case study presentation and field research narratives.  
Prerequisites: PUAD 4800, 4830, 5000.
- 6832 Research Methods in Public Administration II (4)  
Positivist research methods; uses of quantitative and computer analysis; application of quantitative approaches to organizational improvement, policy research, and decision making; implementation of research design; examination of the logic underlying application of quantitative methods and statistical techniques.  
Prerequisites: PUAD 4800, 4830, and 5000. (Y)
- 6840 Seminar in Public Finance Administration (4)  
Budgetary processes in public policy formation and administrative control; strategic principles of fiscal policy in attaining public goals; public revenues, sources, incident, and effect of principal taxes; intergovernmental aspects of revenue problems; grants in aid. Prerequisite: PUAD 6801. (Y)
- 6842 Governmental Budgeting (4)  
Governmental budgeting as political and social process; administrative control at federal, state, local levels; central budget agencies and budget offices in operating agencies, budgets as planning, policymaking and management instruments; executive-legislative relationships.  
Prerequisite: PUAD 6801. (Y)
- 6846 Governmental Accounting and Fiscal Management (4)  
Understanding basic accounting procedures, basic governmental accounting and fiscal reporting concepts; fund accounting; integrated roles of accounting, budgeting, financial reporting and fiscal management. Prerequisite:

PUAD 6801. (Y)

- 6847 Strategic Approaches in Public Finance and Budgeting (4)  
Strategies and tactics for developing innovative approaches for financing public goods and service. Critical evaluation of public sector efforts to acquire financial and budgetary resources. Public sector managers as entrepreneurs. Prerequisite: PUAD 6801. (Y)
- 6850 Human Resource Management in the Public Sector (4)  
Development of public service concepts and institutions; assessment of public personnel methods and organizations; interaction with other management functions, and with the executive and legislative processes; influence of social and political values upon public service concepts. Prerequisite: PUAD 6811. (Y)
- 6851 Work and Organizations of the Future (4)  
Critical assessment of the nature of work and traditional human resource practices in public organizations. Empowering and involving employees. Diversity, trust, and mutualism. Relationships among information technologies, the organization, employees, and citizens. Creating the organization of the future. Prerequisite: PUAD 6811.
- 6854 Seminar in Public Labor Relations (4)  
History and present legal status of public labor relations; changing concepts and their implications for existing institutions; processes and values in public personnel systems; dispute resolution; cooperative labor/management committees and other current issues. Prerequisites: PUAD 4830 and 6801.
- 6864 Managing Public Organizations (4)  
The responsibilities of the public sector manager; differences between private and public sector management; short versus long-term management in the public sector. Critical examination of public managers as strategic leaders. Prerequisite: PUAD 6801. (Y)
- 6865 Administration of the Metropolitan Region (4)  
Description and evaluation of urban, suburban and regional institutional arrangements for providing and delivering public goods and services. Origins and description of institutional arrangements and critical evaluation of prospects for improving the effectiveness of metropolitan government and governance. Prerequisite: PUAD 6801.
- 6866 Approaches to Urban and Regional Problem-Solving (4)  
Urban and regional environments as a source of public problems, including such issues as employment, education, transportation, and citizen participation. Comparative study of efforts to improve the quality of urban and regional life. Prerequisite: PUAD 6801. (Y)
- 6868 Land-Use Planning for Administrators (4)

Historical overview of land-use planning in the U.S.; general and specific plans; infrastructure development and cost projections; land-use planning models; California planning law; planning processes: preliminary, tentative and final maps; zoning; political pluralism and the politics of planning. Prerequisite: PUAD 6801. (Y)

- 6869 Topics in Public Management (4)  
Specialized investigations of public management issues and problems selected by instructor. Repeatable once if the course content is different. Prerequisite: PUAD 6801. (Y)
- 6873 Community Health Policy and Program Development (4)  
The creation and implementation of community health care policy; qualitative and quantitative approaches to policy research and design; political and social implications of policy research, promotion and implementation. Prerequisite: HCA 6260.
- 6876 Financing Sustainable Health Care (4)  
Issues and practice in innovative and emerging approaches to health care finance, in particular those that focus on sustainable health care and sustainable community wellness practice. Prerequisite: HCA 6240.
- 6878 Transforming Health Care (4)  
Emerging career plans in health care administration. The implications of decentralized health care and integrated health systems for health care workers. The future of health care delivery systems and the wider impact of these changes on the social order. Prerequisite: HCA 6210.
- 6879 Administration of Integrated Health Care (4)  
Health care administration issues and practices associated with coordinating care among complementary and conventional health care providers in a changing market. Emphasis on understanding and facilitating dynamics among different health paradigms as they converge to provide integrated care for the individual patient. Prerequisite: HCA 6210.
- 6880 Selected Problems in Public Administration (4)  
An investigation of a specific problem area defined by the instructor that is of current interest to the field of public administration. Repeatable if the content is different. Prerequisite: PUAD 6801. (Y)
- 6893 Internship in Public Administration (1-4)  
Academically challenging field placements in half-time or full-time positions with governmental agencies under the supervision of university faculty member. Examination of the relationship of theory to practice in the provisions of public service. CR/NC grading only. Prerequisites: PUAD 4800, PUAD 4830, and the consent of the Internship Coordinator. (A)
- 6897 Community Health Administration Practicum (4)  
Practical experiences through field work with community



agencies, emphasis on improving a student's ability to activate community resources and support sustainable wellness communities. Prerequisites: HCA 4200, and either PUAD 4830 or MGMT 3614.

- 6898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the Master of Public Administration degree. CR/NC grading only. Prerequisites: at least a 3.0 GPA; the approval of the Internship Coordinator. (A)
- 6900** Independent Study (1-4)
- 6901** Graduate Synthesis (4)  
A synthesis of public administration theories and concepts through a critique of major readings in the field. Prerequisite for Comprehensive Examination (except for Counseling Focus students in the Organizational Change Option). Prerequisites: Advancement to Candidacy, completion of all core courses, option area requirements and electives, and consent of instructor. (A)
- 6909** Departmental Thesis (1-4)  
Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a departmental faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and consent of thesis advisor. Maximum of 4 units per student. (A)
- 6910** University Thesis (1-4)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and consent of Thesis Committee. Maximum of 4 units per student. (See also "University Thesis Writing Guide" available in WA 859.) (A)



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### Department Information

Department of Educational Leadership  
School of Education and Allied Studies  
Office: Art and Education Bldg. 242  
Phone: (510) 885-4145

*Professor Emeritus:* Linda G. Lambert

*Professors:* Emily Lowe Brizendine

*Associate Professors:* José A. López, Charla W. Rolland,  
Margaret Szabo

*Lecturers:* Carol Boyd, Grace H. Hoagland, Linda Starnes, Jane  
Stern, Robert Vieth

*Please consult the 2001-2002 online catalog for any changes that  
may occur.*

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### M.S. in Educational Leadership

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#### Program Description

The mission of the Department of Educational Leadership is to prepare and influence bold, socially responsible leaders who will change the world of schooling.

The department offers graduate study leading to the Master of Science degree in Educational Leadership as well as programs approved by the California Commission on Teacher Credentialing leading to the Preliminary Administrative Services Credential (Tier I), Professional Administrative Services Credential (Tier II), and Internship Credential in Administrative Services (Education Code 44225 et al.). Students seeking the degree and/or any of the Administrative Services Credentials must meet the general university requirements as well as the departmental requirements listed below. Additional advising and information are available through the department. Entry to all programs is currently limited to Fall quarter only.

#### Career Opportunities

Completion of the credential and masters programs enables graduates to obtain an administrative credential that allows them to assume administrative positions at all levels of the K-12 public

educational system. Various positions include those at school sites administration (e.g., principal, vice principal, dean of students), and district level administration (curriculum coordinator, staff development coordinator, special programs coordinator, personnel director, assistant superintendent, superintendent, etc.). In addition, graduates also obtain many positions at the county and state level offices.

## Faculty

The department has four full-time professors with earned doctorates who have had extensive experience in administrative positions at various levels in the public schools before joining the faculty. Their previous positions include principal, vice-principal, district curriculum coordinator, staff development coordinator, county training center director, personnel director, assistant superintendent and superintendent. The faculty draws its strength from their diversity of experiences, professional and research interests, expertise, gender, cultural, racial and ethnic backgrounds. They are actively engaged with schools in the Bay Area, serving as consultants (nationally and internationally) and coaches in many facets of schooling. They are recognized as leaders in numerous regional, statewide, and national networks and professional organizations. The faculty is complemented by a select group of lecturers who are respected practicing administrators in Bay Area school districts and county education offices.

## Special Features

*Cohort Groups:* In the Fall quarter, students are typically admitted into class groups, called cohorts, whose members take at least their first three courses and fieldwork together as a group during Fall-Winter-Spring. Thereafter, the additional required courses are taken on an individual basis. The three-quarter cohort time frame permits examination of issues as recurring themes. All students are now in cohorts, including the Tier I, Tier II, Internship, and master's degree candidates.

*School District Collaboration:* Two of the cohort programs are unique in involving school districts in identifying educational administration candidates: the Leadership Academy and the Diversity in Leadership Program (DLP). Students in the DLP cohort require nomination by their districts for admission. Leadership Academy member districts nominate half the Academy program participants.

*The Internship Program:* The department offers two ways to acquire an Internship Administrative Services Credential: the Diversity in Leadership Program (DLP) and the Individual Internship Option. These programs allow candidates to serve in an administrative capacity while completing credential requirements and are open only to students who are recommended by their districts and who hold either a full or a part-time administrative position. Students in the Individual Internship Option can participate in any cohort. Students in the Diversity in Leadership Program must be given 15 days of released time to attend day time classes. The common bond of DLP participants is the commitment to improving achievement of minority students and to creating an inclusive learning environment that values and reflects the diversity of American society.

## Admission

A candidate must be admitted to the university, consistent with requirements and procedures explained in this catalog. The department, however, must indicate it is willing to accept the student before the Enrollment Services Office will accept the student for admission to the university. Interested candidates should call the department office in early January before the Fall entrance quarter to obtain information on the departmental application deadline and interview schedule. Additional requirements for admission to the M.S. in Educational Leadership and/or the Administrative Services Credential include:

- A bachelor's degree.
- A valid basic teaching credential or services credential (Pupil Personnel Services, Adult Education, Librarianship, Health Services School Nurse, or Clinical Rehabilitative Services). The Preliminary Administrative Services Credential is required for entry to the Professional Administrative Services Credential program.
- A minimum of three years full-time teaching or service experience, as documented on a current resume and district verification.
- 3.0 GPA or equivalent on all post-baccalaureate work.
- Letters of recommendation as required (contact department).
- A one-page statement of professional goals.
- Successful passage of CBEST.
- Successful completion of the department's intake assessment process.
- Current status as a school administrator (for Professional and Internship credentials).
- For "Classified Graduate" status and Advancement to Candidacy, the M.S. student must have successfully met the University's Writing Skills requirement.
- For the M.S. degree, a bachelor's degree from an approved institution and the other admission requirements of the university. See the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.

## M.S. Degree Requirements

1. A minimum of 45 quarter units of approved work, at least 32 of which must be in residence, and all completed within a five-year period.
2. A 3.0 GPA or better in all 45 quarter units offered as satisfying the requirements of the degree program.
3. Satisfactory completion of the University Writing Skills requirement (required for "Classified Graduate" standing).

4. Satisfactory completion of EDLD 6908 Graduate Synthesis in Educational Leadership which includes a comprehensive examination.

### Curricular Requirements (45 units)

The established pattern of required and approved courses is designed to meet both the preliminary credential and degree requirements. Students already holding credentials from other institutions take the degree and/or program requirements listed below and any additional courses required by department advisor to meet current credential mandates.

#### *A. Complete the following courses (31-34 units)*

EDLD 6000 Introduction to Educational Leadership (4)  
EDLD 6020 Research in Education (4)  
EDLD 6300 The Administration of Curriculum Development (4)  
EDLD 6400 Instructional Leadership (4)  
EDLD 6410 Supervision and Staff Development (4)  
EDLD 6550 School Site Leadership and Organization Behavior (4)  
EDLD 6600 School Law and Finance (4)  
EDLD 6908 Graduate Synthesis in Educational Leadership (4) and comprehensive examination or EDLD 6899 Project (2-5) or EDLD 6909 Departmental Thesis (2-5), or EDLD 6910 University Thesis (3-6)

#### *B. Electives selected from the following through consultation with an advisor (11-14 units)*

EDLD 6710 Seminar in Professional Ethics (4), EDLD 6720 Using Research to Solve School Problems (4), 6730 School Administrators' Application of Computer Technology (4), 6820 Improving Curriculum Instruction (4), 6825 Promoting Staff Growth (4), 6830 Planning and Evaluating Instructional Programs (4), 6835 Organizational Development in Education (3), 6845 Studies in Contemporary Educational Policy (2)

### Preliminary Administrative Services

#### Credential (Tier I) (36 units)

EDLD 6000 Introduction to Educational Leadership (4)  
EDLD 6300 The Administration of Curriculum Development (4)  
EDLD 6400 Instructional Leadership (4)  
EDLD 6410 Supervision and Staff Development (4)  
EDLD 6550 School Site Leadership and Organizational Behavior (4)  
EDLD 6600 School Law and Finance (4)  
EDLD 6801, 6802, 6803 Fieldwork I, II, III (12)

### Professional Administrative Services

#### Credential (Tier II) (24 units)

*A preliminary credential is required as a prerequisite.*

EDLD 6817 Assessment, Mentoring and Support Practicum (3)  
EDLD 6818 Assessment, Mentoring and Support Practicum (3)  
EDLD 6819 Assessment, Mentoring and Support Practicum (3)  
EDLD 6851 Professional Seminar I (2)  
EDLD 6852 Professional Seminar II (2)  
EDLD 6853 Professional Seminar III (2)

## Graduate Courses

EDLD 6860 Developing an Inquiring Community (3)  
EDLD 6865 Focus on Learning (3)  
EDLD 6870 Professional and Organizational Development (3)

Twelve additional units (120 hours) may be taken through professional organizations.

### Internship Credential in Administrative Services (45 units)

EDLD 6000 Introduction to Educational Leadership (4)  
EDLD 6300 The Administration of Curriculum Development (4)  
EDLD 6400 Instructional Leadership (4)  
EDLD 6410 Supervision and Staff Development (4)  
EDLD 6550 School Site Leadership and Organizational Behavior (4)  
EDLD 6660 School Law and Finance (4)  
EDLD 6804, 6805, 6806 Internship Fieldwork I, II, III (18)  
EDLD 6814, 6815, 6816 Internship Seminar I, II, III (3)

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*The course prefix for the following courses is EDLD.*

- 6000** Introduction to Educational Leadership (4)  
Introductory seminar that includes legal, fiscal and administrative basis for school organization; leadership theories; the governance and relationship of local school districts with county, state, federal agencies and other political entities. Prerequisite: graduate standing and one year of teaching experience. (F)
- 6020** Research in Education (4)  
Seminar in methods and procedures of research tools in education; sources and uses of data. Critical analysis of published research; preparation of a research project to include references, rationale, and outline. Prerequisite: Advancement to Candidacy or consent of instructor. (Y)
- 6099** Introduction to Instructional Multimedia (4)  
(See EDUI 6099 for course description.)
- 6300** The Administration of Curriculum Development (4)  
The history, theoretical background and elements of curriculum development; strategies for effecting curriculum change; implementation procedures for mandated and special programs (including state mainstreaming requirement); use of research and program evaluation. Prerequisite: graduate standing and one year of teaching experience. (Y)
- 6331** Collaborative Leadership I (4)  
(See EDUI 6331 for course description.)
- 6400** Instructional Leadership (4)  
Critical analysis of the nature of effective instruction for all students. Learning theories, teaching/learning styles, classroom management, assessing pupil progress, helping teachers meet individual and group needs, basic classroom observation techniques for instructional

improvement, and laws affecting instruction. (Y)

- 6410 Supervision and Staff Development (4)  
Theory of supervisory functions. Survey of techniques that provide for staff development with emphasis on clinical supervision. Systematic planning and procedures in design and delivery of inservice training programs. Prerequisite: EDLD 6000 or department approval. (Y)
- 6550 School Site Leadership and Organizational Behavior (4)  
Basic operational tools and procedures for prospective principals. Situational analysis of administrative problems via application of behavioral science theories and concepts. Prerequisites: graduate standing and one year teaching experience. (Y)
- 6600 School Law and Finance (4)  
Legal and fiscal aspects of school operation for beginning administrators. Overview of forces which shape legislative provisions; case law and funding patterns at local, state and national levels. District policy and practices related to law and finance. (Y)
- 6710 Seminar in Professional Ethics (4)  
Morals and ethics in educational leadership. Underlying assumptions of educational decision-making and nature of choices, responsibilities and relationships which people in various leadership roles must confront, reflect on, and act upon. (Y)
- 6720 Solving School Problems through the Application of Research (4)  
Identifying and interpreting research, including action research, on specific school problems. Application of findings to solution of these problems. Influence of research, including action research, on educational practices. Prerequisite: graduate standing.
- 6730 School Administrators' Application of Computer Technology (3)  
Identification of school management issues which can be addressed through computer technology/software packages. Use of software packages for school administrative functions such as scheduling, budgeting, and attendance. Problem-solving practica. Prerequisite: basic computer skills.
- 6801, 6802, 6803 Fieldwork I, II, III (4, 4, 4)  
Supervised experiences in selected areas of administration/supervision, generally in a school setting, but other community agencies may be used. Regular reports and conference required. CR/NC grading only. Open only to matriculants in Educational Leadership. Prerequisite: department approval. (A)
- 6804, 6805, 6806 Internship Fieldwork (6 each)  
Sequential supervised experiences in most areas of administration/supervision for candidates serving as part-time or full-time administrators on an Internship

Credential. Regular reports and conferences required.  
Open only to candidates in the Internship Program.  
CR/NC grading only. Prerequisite: departmental approval.  
(F, W, Sp)

- 6814, Internship Seminar (1 each)  
6815, Intensive studies designed to help integrate each  
6816 candidate's sequential internship fieldwork experiences  
with coursework and deal with issues common to initial  
administrative positions. Open only to candidates in the  
Internship Program. CR/NC grading only. Prerequisite:  
departmental approval. (F, W, Sp)
- 6817, Assessment, Mentoring, and Support Practicum  
6818, (3 units each)  
6819 A one-year, advanced professional practicum sequence.  
Individual candidate assessment and planning for  
professional development. Design of individual  
professional growth and support plan with school district  
and university mentors, on-site visits and observations,  
and monthly colloquia. CR/NC grading only. Prerequisites:  
Preliminary Administrative Credential, administrative  
position, and consent of advisor. (F, W, Sp)
- 6851, Professional Seminar I, II, III (2 each)  
6852, A three-quarter series of seminars. Individual mentoring  
6853 and professional support, critical inquiry into the five  
Advanced Leadership Seminar themes; formative and  
summative assessment. Prerequisites: EDLD 6817, 6818,  
6819; administrative position; Preliminary Administrative  
Credential, and consent of advisor.
- 6860 Developing an Inquiring Community (3)  
The first course in a three-quarter integrated series.  
Focus on developing community and inquiry methods  
such as action research. Based on five major themes:  
organizational and cultural environment; dynamics of  
strategic issues management; ethical and reflective  
leadership; analysis and development of public policy;  
management of information systems and human and fiscal  
resources. Prerequisites: EDLD 6817, 6818, 6819;  
administrative position; Preliminary Administrative  
Credential; consent of advisor.
- 6865 Focus on Learning (3)  
The second course in a three-quarter integrated series.  
Focus on student, adult, and organizational learning.  
Based on five major themes: organizational and cultural  
environment; dynamics of strategic issues management;  
ethical and reflective leadership; analysis and  
development of public policy; management of information  
systems and human and fiscal resources. Prerequisites:  
EDLD 6817, 6818, 6819, 6860; administrative position;  
Preliminary Administrative Credential and consent of  
advisor.
- 6870 Professional and Organizational Development  
(3)  
The third course in a three-quarter integrated series.  
Focus on the professional development of staff and



parents and the development of communication and information systems in the school. Based on five major themes: organizational and cultural environment; dynamics of strategic issues management; ethical and reflective leadership; analysis and development of public policy; management of information systems and human and fiscal resources. Prerequisites: EDLD 6817, 6818, 6819, 6860, 6865; administrative position; Preliminary Administrative Credential and consent of advisor.

- 6899** Project (2-5)  
Development of an original product which is summarized in a written abstract. Both the project and abstract are submitted to department, which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State, Hayward faculty member. Prerequisite: EDLD 6020. Maximum of five units per student. (A)
- 6900** Independent Study (1-4)
- 6908** Graduate Synthesis in Educational Leadership (4)  
Students synthesize their degree program experiences in coursework, fieldwork and research into a coherent framework for their own leadership role and plan their future professional development. Includes comprehensive exam. (Y)
- 6909** Departmental Thesis (2-5)  
Development and writing of a research paper for the submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense required. Prerequisite: graduate standing. Maximum of 5 units per student. (A)
- 6910** University Thesis (1-6)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in Warren Hall 859.) (A)



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## Sociology

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### Department Information

Department of Sociology and Social Services  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3095  
Phone: (510) 885-3173

*Professor Emeritus:* Basil J. Sherlock

*Professors:* Asoke K. Basu, Diane R. Beeson (Chair), Benjamin P. Bowser, Benjamin G. Carmichael, Robert G. Dunn, Juan L. Gonzales Jr., Terry Jones, Sonjia P. Redmond, Karl L. Schonborn, Young I. Song, Willem W. Van Groenou

*Associate Professors:* Nan P. Chico, Efren N. Padilla

*Assistant Professors:* Rebecca A. Van Voorhis

*Graduate Advisor:* Asoke K. Basu

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.A. in Sociology

#### Program Description

The Department of Sociology and Social Services offers graduate study leading to the degree of Master of Arts in Sociology with a thesis, examination, or special project. The candidate is responsible for the fulfillment of the general requirements stated in this catalog as well as the specific requirements of the department stated below.

#### Admission ("Classified Standing")

The student should note that admission to the university as a post-baccalaureate student does not in itself constitute admission to the department's program. In general, the program is open to graduates of accredited institutions who have (1) completed coursework equivalent to that required in the lower and upper division core in Sociology at Cal State Hayward; and (2) achieved not less than a 3.0 grade point average in all graduate and undergraduate work; and (3) submitted to the department letters of reference from two former instructors who are familiar with the student's academic work. For "Classified Graduate" status, the

student must have fulfilled the University Writing Skills requirement.

In exceptional cases, a student who has earned less than a 3.0, but above a 2.5 grade point average, may be admitted to "Conditionally Classified Graduate" standing by submitting Graduate Record Examination scores (Aptitude Test: quantitative and verbal; and Advanced Test in field of the undergraduate major) at or above the 50 percentile.

### Maintenance of "Classified Graduate Standing"

To maintain "Classified Graduate" standing a grade point average of at least 3.0 must be achieved in all courses taken in the approved program, whether taken at Cal State Hayward or at some other accredited institution. If a candidate's grade point average falls below 3.0, the candidate shall be placed on probation at the end of that quarter. If while on probation the candidate fails to make progress toward raising his or her grade point average toward a 3.0, the candidate is subject to disqualification at the discretion of appropriate Cal State Hayward authorities. Disqualified students will not normally be considered for readmission to Cal State Hayward for at least one year after disqualification.

### Advancement to Candidacy

A student who holds "Classified Graduate" standing may be Advanced to Candidacy for the master's degree when the student has:

1. Filed an approved program of study with the department
2. Completed at least 12 quarter units of approved graduate-level work beyond the baccalaureate degree with a grade point average of 3.0 or better
3. Been recommended for Advancement to Candidacy by the department.

### Curricular Requirements (45 units)

Forty-five (45) quarter units of approved courses earned in graduate standing of which 32 quarter units must be completed in residence. With departmental approval, up to 12 quarter units of upper-division work required to remove undergraduate deficiencies can be counted toward the 45 quarter units required for the degree.

All Students must complete (A) and (B) and one of four options under (C).

#### A. Core Requirements (20 units)

- SOC 6111 Advanced Sociological Research Methods I (4)
- SOC 6112 Advanced Sociological Research Methods II (4)
- SOC 6311 Seminar in Sociological Theory I (4)
- SOC 6312 Seminar in Sociological Theory II (4)
- STAT 3010 Statistical Methods in the Social Sciences (4)

#### B. Topics Seminars in Sociology (12 units)

- SOC 6800 Topics Seminar (4) (May be taken three times for credit)

C. Students Must Choose One of the Four Capstone Experiences (13 units)

1. *University Thesis*

a. SOC 6910 University Thesis (9)

Before a student may register for SOC 6910, (s)he must be Advanced to Candidacy.

b. Electives chosen under advisement from upper division courses and graduate seminars in Sociology, Statistics, or closely related fields (4)

2. *Comprehensive Examination*

a. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, Foreign Languages and/or closely related fields (13)

b. Area Comprehensive Examination (in four areas)

(1) Theory

(2) Methods

(3) Substantive area (elected by candidate with departmental approval)

(4) Substantive area (elected by candidate with departmental approval)

Before a student may take the Comprehensive Examination, (s)he must be Advanced to Candidacy. Failure to pass the examination twice results in dismissal from the program.

3. *Project*

a. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, Foreign Languages, and/or closely related fields (8)

b. SOC 6899 Project (5)

Before a student may register for SOC 6899, (s)he must have the departmental advisor's approval and be Advanced to Candidacy.

4. *Departmental Thesis*

a. Electives chosen under advisement from upper-division courses and graduate seminars in Sociology, Statistics, Foreign Languages, and/or closely related fields (8).

b. SOC 6909 Departmental Thesis (5)

Before a student may register for SOC 6909, (s)he must have the departmental advisor's approval.

Upper Division Courses Acceptable for the Master's Degree

All sociology courses in the 3000-4000 series are acceptable choices in the master's program.

## Graduate Courses

*The course prefix for the following courses is SOC.*

- 6111** Advanced Sociological Research Methods I (4)  
Application of scientific methods to the analysis of social phenomena; methodological orientations in sociology; types of research procedure, nature of sociological variables and their statistical treatment. Two hrs. seminar; 4 hrs. lab. Prerequisites: "Classified Graduate" standing and consent of instructor. (Y)
- 6112** Advanced Sociological Research Methods II (4)  
Development of individual projects, illustrating study designs, applications of scientific method in the collection, analysis and presentation of data at advanced levels. Two hrs. seminar; 4 hrs. lab. Prerequisites: "Classified Graduate" standing; SOC 6111. (Y)
- 6311** Seminar in Sociological Theory I (4)  
Modern schools of sociological thought with a focus on functionalism, conflict theory, and symbolic interactionism. Examination of contemporary developments, with an emphasis on postmodern theories. Consideration of theory as a response to social, cultural, political and academic change. Prerequisites: "Classified Graduate" standing and consent of instructor. (Y)
- 6312** Seminar in Sociological Theory II (4)  
Contemporary thematic and conceptual issues in the study of class, gender, race and other categories of difference and inequality. Application of issues to development of students' interests and thesis topics. Major Prerequisites: "Classified Graduate" standing; SOC 6311. (Y)
- 6800** Topics Seminar (4)  
Presentation of selected topics beyond regular courses. Subject will vary from time to time. May be taken three times for unit credit with change in course content. Prerequisites: "Classified Graduate" standing and consent of instructor. (Y)
- 6898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the Sociology major. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)
- 6899** Project (5)  
Development of an original product (i.e., video documentary) which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 5 units per student.
- 6900** Independent Study (1-4)

**6909** Departmental Thesis (1-5)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 5 units per student.

**6910** University Thesis (1-9)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 9 units per student. (See also, "University Thesis Writing Guide," available in WA 859.)



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## Educational Psychology

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### Department Information

Department of Educational Psychology  
School of Education and Allied Studies  
Office: Art and Education Bldg. 369  
Phone: (510) 885-3011

*Professors Emeriti:* David H. Frey, John A. Guthrie, Alvin H. Jones, Jr.

*Professors:* Theodore G. Alper, Jacki L. Anderson, Steven E. Crapo, Mary P. diSibio, Ann Halvorsen, Frederick E. Heslet, Phyllis G. Kaplan, Donald P. McKillop (Chair), Harry M. Overline, Beatrice O. Pressley, Dan Romero, Douglas G. Sprague, Derald W. Sue, Arthurlene Towner

*Associate Professor:* Greg Jennings

*Assistant Professors:* Bonnie S. Ho, Steve Williams

*Graduate Coordinators:*

#### *M.S. Special Education*

Phyllis Kaplan (Mild/Moderate), Jacki L. Anderson  
(Moderate/Severe)

#### *M.S. Counseling*

Individual, Marital, Family, and Community Counseling: Steve E. Crapo

Clinical Child/School Psychology: Mary P. diSibio

Marriage, Family Therapy, and Professional Consultation: Fred Heslet

Family, School, and Community Counseling: Dan Romero

Marriage, Family, and Child Counseling at Contra Costa: Don McKillop

## Program Description

Please consult the 2001-2002 online catalog for any changes that may occur.

The Educational Psychology Department is primarily a graduate department offering master's degrees and credential programs. Graduate courses offered toward master's degrees and/or credential programs are restricted to students admitted to these programs. However, the undergraduate and some 5000-level courses are open to undergraduate students. Potential applicants interested in the master's programs are encouraged to take courses in psychology, sociology, human development, and/or anthropology.

The Department of Educational Psychology offers a number of programs leading to the M.S. in Counseling, the M.S. in Special Education, and/or related credentials. These programs train psychological specialists who desire to work as school counselors, school psychologists, special education professionals, community college counselors, and career specialists. Other programs prepare individuals for work as counselors, psychotherapists, or special education professionals in non-school settings where assistance with problems related to career, family, marriage, or personal adjustment is provided.

### Contra Costa Campus

The department offers at the Contra Costa Campus (located in Concord) an M.S. degree program in Counseling with an Option in Marriage, Family, and Child Counseling. A departmental brochure describing both Hayward and Contra Costa programs may be requested by telephone at (510) 885-3011, or in writing. Current information on the Contra Costa programs may also be obtained by calling (925) 602-6700.

### Program Offerings

#### Undergraduate

##### *Liberal Studies Option in Special Education*

(See the Liberal Studies chapter in the undergraduate section of this catalog.)

#### Graduate

##### *Master of Science in Counseling*

Option in Clinical Child Psychology

Option in Marriage, Family, and Child Counseling

##### *Master of Science in Special Education*

Option in Mild-Moderate Disabilities

Option in Moderate-Severe Disabilities

#### Credentials

##### Pupil Personnel Services

- School Psychology Specialization
- School Counseling Specialization

##### Special Education

- Education Specialist: Mild-Moderate
- Education Specialist: Moderate-Severe

## Other Programs

A department-approved Certificate in Chemical Dependency Studies (available in Extended and Continuing Education).

Resource Specialist Certificate of Competence (until 2001)

## Admission

Students are admitted once a year, in the Fall quarter, except those applying for the Level I Special Education credential programs, who have teaching credentials and who may be admitted conditionally each quarter. The level I TED/SPED joint program begins Summer quarter and students must apply for admission through the Teacher Education department during the preceding Winter quarter. See the graduate Teacher Education chapter in this catalog for details.

Only 13 non-residence units taken in undergraduate, "Unclassified Post-baccalaureate," "Classified Post-baccalaureate," and/or extension status can be applied to a degree program. (Transfer units are included in the 13 non-residence units which are permitted.)

Interested individuals should contact the department office to obtain the appropriate admission packet which contains descriptive materials and necessary forms. These packets are available after October 15 and the department will accept applications beginning November 1. All admissions materials, such as recommendation letters, must be in by April 15. Test scores may be submitted after April 15. Call the Admissions Office for their admission deadlines for university applications. Applications received after this date run the risk of not being accepted by the university or the department. Notification of any action taken by this department will be mailed on, or before, June 15. Please note that students are admitted by the university, not the department. The department recommends admission to the university, but only the university may admit students. Only the university admission document can validate and verify admission.

## Procedures

1. Apply to the Cal State Hayward Admissions Office. This department cannot process your request for entry until notification that your application and fee have been received at the Cal State Hayward Admissions Office.
2. Fill out the "Departmental Request for Entry" form.
3. Recommendation forms should be completed by persons who know of your academic and/or professional abilities. Ask them to fill out the form and send it to you in a sealed envelope. At least one should be from a faculty member who is acquainted with your academic ability and promise. The clinical child psychology program requires five recommendations; the other divisions require three.
4. Complete a personal statement in which you describe your professional goals, the extent of commitment to these goals, and your assessment of your strengths and weaknesses relative to achieving these goals. Most applicants find that an adequate length is two to four pages.



5. Submit a photocopy of all your transcripts to the department office, in addition to the official copies you send to the Cal State Hayward Admissions Office.
6. Department applications must be submitted as a complete packet except for GRE or MAT test scores.
7. Send or have sent to the department office, scores from either the aptitude section of the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT). These tests are administered by the Assessment and Testing Office at Cal State Hayward and the Educational Testing Service.
8. Personal or group interviews with faculty are required for local applicants. Arrangements for these are described in the department admission packet.
9. Special Education students may submit applications directly to the Education Psychology department for admission to the Level I Specialist Credential programs if they have already completed a Multiple or Single Subject (general education) credential. If not, Level I Specialist applicants for admission to the Level I Preliminary Credential program in the areas of mild-moderate or moderate-severe disabilities should submit applications directly to the Teacher Education department (AE 242, ext. 3027) for the "TED/SPED" Option.

Applicants for admission to the Professional Level II Credential programs or the master's degree program in the areas of mild-moderate and/or moderate-severe disabilities may apply directly for admission to the Special Education Option through the Department of Educational Psychology. Applicants for admission to Level II credential programs must hold a valid Level I credential from an accredited program. Complete applications must be submitted in person to a Special Education faculty member at the time of the interview.

10. Degree candidates must take the Writing Skills Test during the first quarter of attendance after admission to the department if they have not previously satisfied the requirement (see the Graduate and Post-baccalaureate Studies chapter in this catalog). Satisfaction of this requirement is a prerequisite for "Classified Graduate" status. Documentation of the completion and passing of the WST must be sent by the applicant to the Educational Psychology office. This information is not automatically forwarded to individual departments.
11. Students applying for a program leading to a credential from the Commission for Teacher Credentialing must take the California Basic Education Skills Test (CBEST) before commencement of the quarter in which they are to be admitted. As the testing is for diagnostic purposes, only a record of completion is required. Consult the Office of Assessment and Testing for times and dates of the testing.
12. Credential candidates must apply through the Cal State Hayward Credentials Office for a "Certificate of Clearance" (which includes a current TB test) if field work in public

schools is anticipated (unless they possess a valid California Teacher's Credential).

Applicants may contact the department's Graduate Records Secretary for clarification of their requirements, or for an update on the state of their application or their progress in their degree or credential programs: (510) 885-3011.

### Advising

Students who are accepted into the department will normally be admitted in "Conditionally Classified Graduate" status until satisfaction of all prerequisites and the University Writing Skills requirement is documented for the Educational Psychology office, at which time a change to "Classified Graduate" status will be requested by the department. The student is assigned an official advisor from the faculty of the department and must consult his or her advisor prior to registration for each quarter. The student should maintain close contact at all times with the advisor for advice and information.

### Advancement to Candidacy

Formal Advancement to Candidacy for the master's degree requires prior completion of the following steps:

1. Successful completion in "Classified Graduate" status of three or more courses at the 6000 level (minimum of 12 units) within the Educational Psychology Department.
2. Successful completion of all required departmental examinations and prerequisites.
3. Maintenance of a 3.0 or better GPA in all departmental coursework and overall coursework.
4. Acceptance by the department of a proposed formal program of study.
5. Recommendation by two faculty members who have reviewed the student's record and affirmed that the student has met academic and professional conduct standards.

*Note:* A similar process is followed for Special Education Credential students to be moved from special to full status admission.

### Cause for Discontinuance

Students may be discontinued from the program at any time "for cause." This includes poor academic or fieldwork performance. "For cause" also includes behavior which is destructive to students or faculty, and/or interferes with the educational environment, and/or represents a threat to potential clients. It also includes student behaviors which are inconsistent with the legal, ethical, and/or personal responsibilities of professional counselors and teachers.

### Degree Requirements

In order to earn a master's degree, students must fulfill all of the following requirements:

1. Satisfy the University Writing Skills requirement.

2. Hold Advanced to Candidacy standing.
3. Complete 72 units (Counseling) or 45-47 units (Special Education) of approved graduate work, of which:
  - a. all must have been earned within the five years just preceding completion of the requirements for the degree.
  - b. not fewer than 32-34 units (for 45-47-unit degrees) or 59 units (for 72-unit degrees) must have been completed in residence.
  - c. not fewer than 23-24 units (for 45-47-unit degrees) or 36 units (for 72-unit degrees) must have been in courses in the 6000 series.
  - d. not more than 9 units may have been for a University Thesis or 5 for a project or a Departmental Thesis.
  - e. not more than 13 units may be transfer, extension (including Open University), and/or taken in "Unclassified" or "Classified Post-baccalaureate" status.
  - f. not more than 9 units may be a combination of fieldwork and thesis/project when taken as individual supervision.
  - g. not more than 15 units with a "CR" grade may be used for a 45-unit degree; not more than 24 units with a "CR" grade may be used for a 72-unit degree in Counseling.
4. Complete a satisfactory program of study as determined by the department with any substitutions approved by the Dean of the School of Education and Allied Studies.
5. Obtain at least a 3.0 grade point average in
  - a. all post-baccalaureate units undertaken
  - b. all post-baccalaureate units undertaken at Cal State Hayward
  - c. all units offered as satisfying the requirements of the degree program
6. Successfully complete an acceptable thesis, project or comprehensive examination as determined and approved by the department.

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## M.S. in Counseling

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There are two options and several emphases within the M.S. degree in Counseling. These are designed to ensure the most thorough preparation for the profession and its subspecialties, as well as to provide the student a broad experience with points of view and philosophy in both theory and practice. The faculty is committed to the intellectual and social-emotional growth of the student as well as his or her professional preparation.

For administrative purposes, faculty and students are organized

into five programs, all of which lead to the M.S. in Counseling. Potential applicants are invited to seek appointments with faculty representatives of the five programs to discuss their interests and philosophical orientations.

### Licenses Related to Counseling Programs

The department does not issue licenses but does offer courses which are designed to meet the educational requirements of two State of California licenses. All licenses require additional experience beyond degrees, as well as written and oral exams administered by the appropriate board of the State of California.

#### M.F.C.C.

The M.S. Counseling degree has an option designed to meet the requirements of Sections 4980.37, 4980.40 and subdivisions (a) and (d) of Section 4980.41, Article 1 (Regulation); Chapter 13, Marriage, Family and Child Counselors of the Business and Professions Code (State of California). Students are advised to acquire and read the laws governing MFCC licensure from the Board of Behavioral Science Examiners in Sacramento.

See your program advisor in the Educational Psychology department for the procedures required for application for this license. State documents must be requested by the applicant from the Board of Behavioral Science Examiners, 400 R Street, Sacramento, CA 95814-6240.

Grades: If a candidate for the university recommendation for MFCC licensure has more than one "C" grade among the courses listed on the Board of Behavioral Sciences approval form, that form cannot be approved by the Designee of the Chief Academic Officer of Cal State Hayward.

Field Work Credit: Field work or internship courses represent the student's efforts and growth in the interpersonal skills basic to marriage, family, and child counseling. A student who receives a grade of "NC" (no credit) for one quarter is on probation regarding continuation in the MFCC approval track. A second grade of "NC" will disqualify the student for continuation in the MFCC option and ultimate university recommendation for the license. Further, candidates may be disqualified from this program for actions judged by the faculty to reflect unethical, unprofessional, or incompetent behavior or interpersonal skills.

#### Educational Psychology License

The Educational Psychology license is issued by the Board of Behavioral Sciences. A credential in School Psychology and three years of related experience are currently required.

### Core Requirements for M.S. in Counseling (72 units)

The M.S. degree in Counseling requires 72 units organized according to university requirements (see the Graduate and Post-baccalaureate Studies chapter in this catalog). Core requirements are established to ensure that each degree candidate obtains adequate breadth in subject matter, field experiences, and research.

#### I. Prerequisites (15 units minimum)

A baccalaureate degree with a major in psychology or in child

or human development plus a statistics course. For applicants with baccalaureates in other majors, the following courses are required and will provide adequate background for a counseling graduate program:

1. An introductory course in descriptive statistics (3 units)
2. A course in abnormal or pathological behavior (3 units)
3. A course in learning (3 units)
4. A course in developmental psychology or human or child development (3 units)
5. A course in personality theory or development (3 units)

II. Core Requirements (36-45 units)

A. *Competency Area Requirements (27 units)*

Students are required to demonstrate competency in the seven areas listed below. With the Dean's approval, students may substitute alternative related courses.

1. Basic theoretical and research knowledge of systems of counseling and psychotherapy (4 units)

EPSY 6750 Foundations of Counseling (4) or EPSY 6753 Psychodynamic Psychotherapy (4)

2. Knowledge of psychological, biological, and social development over the lifespan and related psychotherapeutic interventions (4 units)

EPSY 6302 Individual Development (4)

3. Knowledge of group counseling and psychotherapy, consultation, systems analysis and change agents in organizations (4 units)

EPSY 6762 Group Procedures and Facilitation (4)

4. Knowledge of theory and procedures for collecting and evaluating clinical assessment data (4 units)

EPSY 6701 Appraisal Procedures: Standardized (4) or  
EPSY 6720 Theory and Assessment of Cognition (4)

5. Cultural perspectives in counseling: acquiring understanding of, and sensitivity to, individuals from diverse backgrounds and the interpersonal skills to work with them. Included are social class, ethnic, racial, sexual, and lifestyle differences (4 units)

EPSY 6752 Cross Cultural Counseling (4)

6. Ability to conduct and interpret research (4 units)

EPSY 6023 Research in Applied Behavioral Sciences (4)

7. Laws and ethical principles as they apply to the practice

of professional counseling (3 units)

EPSY 6785 Law and Ethics in Counseling (3)

*B. Fieldwork Requirement (9 units)*

A minimum of three quarters of fieldwork is required in the application of counseling procedures and assessment techniques in fieldwork settings.


EPSY 6670 Field Work Group Supervision I (3)


EPSY 6671 Field Work Group Supervision II (3)


EPSY 6672 Field Work Group Supervision III (3)

*C. Capstone Experience (0-9 units)*

Students must successfully complete either a University Thesis, a Departmental Thesis, a Project, or a Comprehensive Examination, and should select option (1), (2), (3), or (4).

1. EPSY 6899  Project (2-5) or EPSY 6021 Thesis-Project Seminar (3)

2. EPSY 6909  Departmental Thesis (2-5) or EPSY 6021 Thesis-Project Seminar (3)

3. EPSY 6910  University Thesis (1-9) or EPSY 6021 Thesis-Project Seminar (3)

4. Comprehensive Examination (0)

The Comprehensive Examination consists of a written review and synthesis of the degree competencies developed by the student followed by an oral examination over these competencies.

*III. Option/Area of Emphasis (16-24 units)*

A student may choose to complete an option and/or an area of emphasis. Options can be recognized on diplomas and transcripts, emphases will not.

*A. Options (19-24 units)*

1. Marriage, Family, and Child Counseling (20-24 units)

EPSY 6025 Psychopathology of Childhood (4) or EPSY 6026 Psychopathology in Adulthood (4)

EPSY 6027 Chemical Dependence Theory (4) or EPSY 6029 Seminar in Chemical Dependency (2)

EPSY 6400 Family Psychotherapy (4)

EPSY 6403 Psychotherapy with Children (4)

EPSY 6405 Sex Counseling (4) or EPSY 6406 Seminar in Human Sexuality (2)

EPSY 6500 Cognitive Behavior Therapy (4) or EPSY 6751 Counseling and Psychotherapy Theory (4)

2. Clinical Child Psychology (19 units)

EPSY 6403 Psychotherapy with Children (4)

EPSY 6500 Cognitive Behavior Therapy (4)

EPSY 6669 Seminar in Mental Health Consultation (3)

EPSY 6911 Developmental Assessment Practicum (4)

EPSY 6912 Personality Assessment (4)

*B. Areas of Emphasis (16-24 units)*

1. Career and Adult Development (16 units)

EPSY 6710 Career and Life Style Development Theory (4)

EPSY 6711 Career-Life Planning (4)

EPSY 6722 Vocational Appraisal and Placement (4)

EPSY 6751 Counseling and Psychotherapy Theory (4)

2. Organization Behavior and Counseling (16 units)

EPSY 6751 Counseling and Psychotherapy Theory (4)  
or MGMT 6630 Seminar in Organization Theory (4)

EPSY 6022 Program Evaluation (3)

EPSY 6669 Seminar in Mental Health Consultation (3)

EPSY 6764 Intervention Strategies for Systems and  
Organizational Change (4)

EPSY 6783 Seminar: Contemporary Issues (2)

3. Wellness Counseling (17 units)

EPSY 6669 Seminar in Mental Health Consultation (3)

EPSY 6751 Counseling and Psychotherapy Theory (4)

EPSY 6781 Healthy Personality (4)

EPSY 6783 Seminar: Contemporary Issues (2)

PSYC 3420 Stress and Coping (4)

4. Higher Education Counseling (16 units)

EPSY 5610 Micro Counseling I (2)

EPSY 5620 Micro Counseling II (2)

EPSY 6711 Career-Life Planning (4)

EPSY 6760 Counseling in Higher Education (4)

EPSY 6761 History and Philosophy of Higher Education  
Student Services (4)

5. Cross-cultural Counseling (16 units)

EPSY 6751 Counseling and Psychotherapy Theory (4)

EPSY 6754 Cross-Cultural Consultation (4)

EPSY 6764 Intervention Strategies for Systems and  
Organizational Change (4)

*Choice of one course from the following (4 units):*

ANTH 3740 Cross-Cultural Studies in Child Rearing  
(4); E S 3170 Mental Health in the African American  
Community (4); SOC 3520 Sociology of Minority  
Groups (4)

6. Chemical Dependency (16 units)

EPSY 5610 Micro Counseling I (2)

EPSY 5620 Micro Counseling II (2)

EPSY 6027 Chemical Dependency Theory (4)

EPSY 6028 Chemical Dependency Treatment (4)

A course in Psychopharmacology (e.g., PSYC 4360)



## 7. Child/Adolescent Psychotherapy (22-23 units)

EPSY 5021 Introduction to Educating ALL students in Diverse Classrooms (4)  
EPSY 6025 Psychopathology of Childhood (4)  
EPSY 6400 Family Psychotherapy (4)  
EPSY 6403 Psychotherapy for Children (4)  
EPSY 6500 Cognitive Behavior Therapy (4)  
EPSY 6783 Seminar: Contemporary Issues (2-3)

### C. Electives (3-20 units)

These electives are in addition to the option or emphasis selected above. Courses listed above as alternatives under emphases may be used as electives if not otherwise chosen.

#### *Other courses recommended as electives:*

ANTH 3740 Cross-Cultural Studies in Child-Rearing (4), 3745 Cross-Cultural Studies in Human Sexuality (4); DANC 3210 Movement Analysis and Awareness (3); EPSY 5610 Micro Counseling I (2), 5620 Micro Counseling II (2), 6028 Chemical Dependence Treatment (4), 6029 Seminar in Chemical Dependency (2), 6126 Special Education Law and Program Design Content (4), 6131 Assessments: Students with Mild to Moderate Disabilities (5), 6301 Pediatric Psychology (4), 6402 Relationship Counseling (4), 6406 Seminar in Human Sexuality (2), 6610 Graduate Seminar I (2), 6620 Graduate Seminar II (2), 6630 Graduate Seminar III (2), 6660 Fieldwork I (2-4), 6661 Fieldwork II (2-4), 6662 Fieldwork III (2-4)

EPSY 6746 Neuropsychology of Learning Disabilities (4), 6770 Internship (2-6), 6786 Child Abuse Assessment, Reporting and Treatment (1), 6810 Advanced Graduate Seminar I (2), 6820 Advanced Graduate Seminar II (2), 6830 Advanced Graduate Seminar III (2), 6860 Advanced Fieldwork I (2-4), 6861 Advanced Fieldwork II (2-4), 6870 Advanced Field Work Group Supervision I (3), 6871 Advanced Field Work Group Supervision II (3), 6872 Advanced Field Work Group Supervision III (3), 6880 Advanced Internship (2-12), 6894 Supervision Fieldwork I (2), 6895 Supervision Fieldwork II (2), 6896 Supervision Fieldwork III (2)

E S 3105 Afro-American Identity (4), 3170 Mental Health in the Afro-American Community (4), 3310 Native American World View (4), 4290 Latino Politics and Public Policy (4); HDEV 3800 Human Development and Interaction (4), 4004 Current Issues in Aging (4), 4325 Lesbian and Gay Lifespan Development (4), 4350 Intimate Relationships Throughout the Life Span (4), 4400 Adolescence (4)

PSYC 3420 Stress and Coping (4), 3520 Interpersonal Processes (4), 3540 Groups and Organizations (4), 4300 Motivation (4), 4320 Physiological Psychology (4), 4360 Psychopharmacology (4); SOC 3410 Sociology of the Family (4), 3411 Sociology of Sex Roles (4), SOC 3520 Sociology of Minority Groups (4), 3750 Alcohol and Drug



Abuse (4); SPCH 4830 Intercultural Communication (4)  
SPPA 6060 Advanced Study of Language Disorders in  
Children (4)

Public Administration courses may be used as electives by  
students completing the combined program with Public  
Administration.

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## Programs of Study

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### Clinical Child/School Psychology

*Clinical Child Psychology Option*  
*Marriage, Family, and Child Counseling Option*  
*School Psychology Credential*

*Faculty:* Theodore G. Alper, Mary diSibio (Coordinator), Greg  
Jennings

Coursework offered by these faculty is designed to provide the student with the academic and clinical background for the profession of clinical child psychology, a relatively young profession representing the convergence of two historically separate areas of concern within psychology-viz., the clinical and the developmental approaches to understanding children and adults. In keeping with these separate yet related concerns, the courses have developed around two major professional commitments: (1) a commitment to fostering and enhancing the development of better coping skills and more adaptive behaviors in children, youths, and families whose social, emotional, or intellectual needs are exceptional, and (2) a commitment to enhancing and safeguarding the adaptive development of all children and youths as individuals, as members of families, and as participants in the society as a whole. Coursework emphasizes the development of proficiencies in psychotherapy and counseling, in psychodiagnostic techniques, and in mental health consultation.

The Clinical Child/School Psychology program provides the only course of study in the department leading to the School Psychologist credential in the department. This program also offers the academic and fieldwork requirements for the Marriage, Family and Child Counseling License and the Educational Psychology License.

The candidate for a credential must demonstrate an increasing ability to establish constructive interpersonal relationships with persons of differing ages, cultures, and experiential backgrounds (including children who may have endured severe physical or emotional trauma) in a manner that promotes confidence, mental health, social adjustment, and learning. The candidate must demonstrate increasing ability to establish satisfactory working relationships with parents, teachers, school personnel, and other community members involved in a particular case. The candidate must also demonstrate increasing ability to apply professional methods and techniques at proficiency levels significantly higher than those generally required in academic coursework.

To ensure that candidates have opportunity to develop the skills necessary for credential eligibility, specific credential competencies have been integrated into all courses required for a credential. In order to demonstrate at least minimal competencies

in the required skills, therefore, the credential candidate must earn a grade of "B" or higher in each of these courses. In the event that a candidate does not achieve the criterion of "B" work in a required course, (s)he must consult immediately with the faculty, to determine a plan that will provide opportunity for remediation. Any candidate who receives a grade of "C" or lower in a required course will be classified automatically as probationary in the credential program; a second grade of "C" or lower will be considered sufficient basis for disqualification from the credential program and the related Master of Counseling degree program.

Fieldwork and practical experiences, as evaluated by faculty and field supervisors, must also reflect a candidate's ability to meet the competencies specified in the program documents. Professional and interpersonal skills are the primary determinants of success in these settings. Any candidate who receives a grade of "NC" (No Credit) in a required fieldwork or internship course will be classified automatically as probationary in both the credential program and the Master of Counseling degree program. A meeting with the Coordinator of the School Psychology program will be required before additional registration in fieldwork or internship courses will be considered valid for credit toward a credential. A second grade of "NC" will be considered sufficient basis for disqualification from the credential program and the Master of Counseling degree program.

## Individual, Marital, Family, and Child Counseling

*Marriage, Family, and Child Counseling Option  
Child/Adolescent Psychotherapy Emphasis*

*Faculty:* Steven E. Crapo (Coordinator), Donald P. McKillop, Douglas G. Sprague

The faculty supervising this program are committed to training psychotherapists and mental health specialists for a variety of settings, such as private practice, social service agencies, schools, universities, hospitals, businesses, and industry.

Students admitted to this program of study will focus on the M.S. in Counseling with the option in Marriage, Family, and Child Counseling. Although students may pursue additional emphases, the main focus of this program is on training psychotherapists who eventually plan to obtain a California license to practice Marriage, Family, and Child Counseling. The program provides a course of study leading toward completion of the academic requirements and the 150 hours clinical experience required for application for the MFCC license.

Graduates have been hired to work with clients in a wide range of agencies and businesses. Some are counselors in junior colleges and college counseling centers. Others are drug and alcohol abuse counselors in hospitals, family therapists-on-site in schools, advocates for the mentally ill, child therapists in therapeutic nursery schools, assessment counselors, information and referral clinicians in employee assistance programs, individual and family therapists for police departments, organizational development specialists, and human resource professionals in business and industry.

A number of graduates have pursued doctoral-level work in clinical and counseling psychology or education after completing their master's degree in this program. Over the years, students have been accepted to programs in many universities, including the University of Missouri, the University of California at Berkeley, Michigan State University, Stanford University, California School of Professional Psychology, the Wright Institute, the University of Florida, the University of Texas, and the University of Wisconsin.

Students are trained for clinical work with individuals who are struggling with normal life problems, as well as individuals with more extensive psychopathology. Coursework covering various theories of individual, child, couple and family therapy prepares students well for advanced post-graduate internship work in clinical specializations of their choice. Students, as part of their clinical skills development, are also trained to lead counseling groups of children or adults.

Students take both evening and day classes. The program, however, cannot be completed entirely through evening classes. All classes are offered at the Hayward campus.

The Individual, Marital, Family, and Child Counseling Program is designed to encourage growth and development of the students enrolled. Expansion of students' awareness and perspectives is emphasized. The faculty are licensed as Marriage, Family, and Child Counselors or as Psychologists. They are involved in clinical practices and are committed to preparing psychotherapists and consultants.

## Marriage, Family Therapy, and Professional Consultation

*Option in Marriage, Family, and Child Counseling  
Emphasis in Organizational Behavior and Counseling*

*Faculty:* Frederick E. Heslet (Coordinator), Alvin H. Jones, Jr., Beatrice O. Pressley, Derald W. Sue

The Marriage, Family Therapy, and Professional Consultation program recognizes that the therapeutic and demographic landscape of the United States is changing rapidly. Managed health care has added greater complexity to the delivery of mental health services, and the population of the United States has become increasingly diverse. Practitioners must be aware of the effect of governmental regulations, social policy, and ethical/legal issues on their work. Likewise, the increasing diversification of the United States' population, as well as expanding global communication make it impossible for helping professionals not to encounter clients who differ from them in terms of race, culture, ethnicity, gender. MFTCP is devoted not only to aiding students in the acquisition of clinical skills, but is also dedicated to training future professionals to fulfill the roles of agents, advocates, psychoeducational specialists, facilitators of indigenous helping systems, etc. The program is committed to producing competent psychotherapists, mental health specialists, and organizational consultants for a variety of settings: private practice, social service agencies, schools, colleges and universities, community entities, governmental agencies, and business and industry.

Although students can pursue any of the emphases, the main focus of this program is training people who eventually plan to obtain their Marriage, Family, and Child Counseling License and/or desire specialized training in organizational consultation and change.

The defining and distinguishing features of the program are not only inherent in the training, but clearly articulated. We strongly believe that clinical counselors and professional consultants must (1) be culturally competent in working with a diverse population, (2) understand how helping is related to larger systemic forces, (3) stress the importance of prevention and healthy developmental strategies, and (4) be able to expand the traditional definition of helping roles. Our select faculty has specific expertise in psychopathology and psychotherapy, multicultural counseling/therapy, feminist therapy, and organizational consultation and development.

Graduates have been hired to work with clients in a wide range of mental health settings, businesses, colleges, college counseling centers, and schools. They are drug and alcohol abuse counselors in hospitals, family therapists-on-site in schools, advocates for the mentally ill, child therapists in therapeutic nursery schools, assessment counselors, information and referral clinicians in employee assistance programs, individual and family therapists for police departments, and organizational development specialists in businesses such as IBM and Wells Fargo Bank.

A number of graduates have pursued doctoral-level work in counseling and guidance, counseling psychology, clinical psychology, school psychology, or in education fields after completing their master's degree in this program. Over the years students have been accepted to programs in many universities including the University of California at Berkeley, the University of Cincinnati, the University of Missouri, Indiana University, the University of Wisconsin at Madison, Michigan State University, California School of Professional Psychology, the Wright Institute, the University of Florida, the University of Texas, and Temple University.

Students are trained to do clinical/consulting work with individuals, couples, families, groups, and organizations. Clinical problems, for example, may range from normal everyday stresses in living to the more severe psychopathologies. The combination of coursework covering various theories of individual, child and family therapy prepares students well for advanced post-graduate internship work in clinical or professional specializations of their choice. Students, as part of their clinical skills development, are also trained to lead counseling groups of children or adults.

The Marriage, Family Therapy, and Professional Consultation program is designed to encourage growth and development of students on an individual/personal level as well as on a professional level. Students have the opportunity to be exposed to a diverse faculty. They take courses and are supervised by male and female faculty, by faculty of color, and by professors from diverse backgrounds who have different theoretical perspectives. Most of the faculty are licensed as Marriage, Family, and Child Counselors or as Psychologists. They are involved in clinical and consulting practices and are committed to preparing therapists and

consultants.

## Family, School, and Community Counseling

*Faculty:* David H. Frey, John A. Guthrie, Harry M. Overline, Dan Romero (Coordinator)

This program, begun in 1992-93, is a field-based program presently situated in Union City, San Lorenzo, and Berkeley. Twenty-four students will be admitted to the program that will begin the late summer session or fall quarter. All students spend at least two days a week in fieldwork and attend two courses and a seminar each week. Courses and seminars meet in space provided by the field sites. One seminar each year is arranged and conducted by field site supervisors and agency personnel. Faculty supervisors meet their supervision groups at the field sites on a weekly basis. Thesis/project seminars also meet at field sites and students are encouraged, but not required, to pursue topics related to their fieldwork activities.

The curriculum and fieldwork emphasize developmental and preventative models of counseling, with a complementary emphasis on treatment. Curriculum and field experiences include interventions with individuals, relationships and groups, families, organizations and communities. All students admitted to the program pursue the M.S. in Counseling degree. In addition, the program is designed so students can complete the educational requirements for the Marriage, Family, and Child Counseling License and all requirements for the School Counseling Credential within eight consecutive quarters.

The program provides field placements and common coursework scheduled two days/evenings per week. Twenty-four students comprise a learning community in which they complete their program as an intact group within two years. (The days of the week when classes are scheduled remain the same over the two years, which allows students to anticipate their program time commitments and schedule their other activities accordingly.

The program structure necessitates a rather intense, personalized, and site-involved induction process for admission. Applicants are encouraged to apply for admission to the department and the program as early as possible.

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## Credentials In Counseling

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### Pupil Personnel Credential: School Counseling Specialization (76-87 units)

This program is offered by the Family, School, and Community Counseling faculty.

The Pupil Personnel Credential is required of counselors in the public schools, pre-school through twelfth grade. To obtain approval from our department, a student must complete the M.S. in Counseling degree, or equivalent, and cover the following competencies legislated by the State of California:

1. Student based methods for facilitating human development.

2. Institution-oriented methods for facilitating the student's human development.
3. Remedial development techniques.
4. Laws relating to children.
5. Assessment techniques.
6. Cross-cultural awareness.
7. Career development.
8. Research and current development.

Through an agreement with the State, the department has divided these competencies into 55 sub-competencies which can be met by experience, coursework, and field work. The field experience must be in both the elementary and secondary school levels and in a multicultural setting. Candidates for the credential document competency through a system of reviews with advisors and the preparation of a competency portfolio. Details on the competency requirements and procedures for completing the process are on reference in the department office.

Since the credential is based on competencies rather than courses, the length of programs will vary. For a student without experience and coursework, it will typically necessitate a two-year full-time commitment. Part-time students are also admitted.

Since the competency approach to a credential program means an individual can meet the requirements in a number of ways, the following credential requirements represent a maximum coursework approach.

The M.S. in Counseling (or an acceptable equivalent) is required.

I. Prerequisites (15 units)

The prerequisites are the same as for the M.S. in Counseling. (Prerequisites are not included in the 76-87 units required for the Pupil Personnel Credential.) Coursework as follows:

- Learning (3)
- Statistics (3)
- Personality (3)
- Abnormal psychology (3)
- Human, child, or adolescent development (3)

II. Course Requirements (60 units)

- EPSY 6023 Research in Applied Behavioral Sciences (4)
- EPSY 6121 Counseling Exceptional Children (4)
- EPSY 6302 Individual Development (4)
- EPSY 6400 Family Therapy (4)
- EPSY 6403 Child Therapy (4)
- EPSY 6669 Mental Health Consultation (3)
- EPSY 6700 Advanced Educational Psychology (4)
- EPSY 6701 Appraisal Procedure: Standardized (4)
- EPSY 6711 Career-Life Planning (4)
- EPSY 6750 Foundations of Counseling (4)
- EPSY 6751 Psychotherapy Theory (4)

EPSY 6752 Cross-Cultural Counseling (4)  
EPSY 6762 Group Theory and Procedure (4)  
EPSY 6764 Systems Organizational Change (4)  
EPSY 6765 Psychological & Counseling Services (2)  
EPSY 6785 Law and Ethics in Counseling (3)

III. Fieldwork (15-18 units)

EPSY 6670 Fieldwork Group Supervision I (3)  
EPSY 6671 Fieldwork Group Supervision II (3)  
EPSY 6672 Fieldwork Group Supervision III (3)

*Select 6 to 9 units from (A), (B), or (C)*

A. EPSY 6860, 6861, 6862 Advanced Fieldwork I, II, III (2-4)

B. EPSY 6870, 6871, 6872 Advanced Fieldwork Group Supervision I, II, III (3)

C. EPSY 6880 Advanced Internship (2-12)

IV. Capstone Experience (0-9 units)

*Choose (A) or (B) or (C)*

A. EPSY 6021 Thesis/Project Seminar (3) or  
EPSY 6899 Project (2-5)

B. EPSY 6909 Departmental Thesis (2-5) or  
EPSY 6910 University Thesis (1-9)

C. Comprehensive Examination (0)

The Comprehensive Examination consists of a written review of the degree and credential competencies developed by the student, followed by an oral examination over these competencies.

### Pupil Personnel Credential: School Psychology Internship and School Psychology Specialization

This combined credential program is offered by the Clinical Child/School Psychology faculty.

The school psychologist is a clinical child psychologist who functions within the school organization. The school psychologist provides consultation and services for enhancement of the cognitive, social and emotional development of children and adolescents within the school environment; provides programs for the development of the staff; has responsibility for the prevention, assessment, and remediation of the behavioral and learning difficulties of children; and often becomes the primary resource for the emotionally troubled children and their parents. The school psychologist serves the schools as the expert in behavioral measurement, program evaluation, and research.

### School Psychology Internship (99 units)

This program prepares students to undertake a full-time (1200-hour) Internship in School Psychology, as required by the National Association of School Psychologists and, as of July, 1996, by the Commission on Teacher Credentialing of the State of California. (Note that the Internship Credential would serve to qualify a student for internship status, and thus would have to be earned



prior to the actual internship year itself.)

Prerequisites are not included in the 99 units required for the School Psychology Internship Program. Prerequisite units are minimum values; all Cal State Hayward courses have more units.

*I. Prerequisites (18 units)*

- An Introduction to Statistics (e.g., STAT 1000) (3)
- Abnormal Psychology (e.g., PSYC 4410) (3)
- Developmental Psychology (e.g., PSYC 4420) (3)
- Learning Theory (e.g., PSYC 4210) (3)
- Personality Theory (e.g., PSYC 4610) (3)
- Psychological Tests and Measurements (e.g., PSYC 3200) (3)

*II. Required Courses (81 units)*

- EPSY 5610 Microcounseling (2)
- EPSY 6022 Program Evaluation (3)
- EPSY 6023 Research in Applied Behavioral Sciences (4)
- EPSY 6025 Psychopathology of Childhood (4)
- EPSY 6301 Pediatric Psychology (4)
- EPSY 6302 Individual Development (4)
- EPSY 6400 Family Psychotherapy (4)
- EPSY 6403 Psychotherapy with Children (4)
- EPSY 6500 Cognitive Behavior Therapy (4)
- EPSY 6610 Graduate Seminar I (2)
- EPSY 6620 Graduate Seminar II (2)
- EPSY 6630 Graduate Seminar III (2)
- EPSY 6669 Mental Health Consultation (3)
- EPSY 6720 Cognitive Theory and Assessment (4)
- EPSY 6746 Neuropsychology of Learning Disabilities (4)
- EPSY 6752 Cross-Cultural Counseling (4)
- EPSY 6753 Psychodynamic Psychotherapy (4)
- EPSY 6762 Group Procedures and Facilitation (4)
- EPSY 6765 Psychological and Counseling Services (2)
- EPSY 6785 Law and Ethics of Counseling (3)
- EPSY 6810 Advanced Graduate Seminar I (2)
- EPSY 6820 Advanced Graduate Seminar II (2)
- EPSY 6830 Advanced Graduate Seminar III (2)
- EPSY 6911 Developmental Assessment (4)
- EPSY 6912 Personality Assessment (4)

*III. Required Fieldwork (18 units)*

- EPSY 6670 Fieldwork Group Supervision I (3)
- EPSY 6671 Fieldwork Group Supervision II (3)
- EPSY 6672 Fieldwork Group Supervision III (3)
- EPSY 6870 Advanced Fieldwork Group Supervision I (3)
- EPSY 6871 Advanced Fieldwork Group Supervision II (3)
- EPSY 6872 Advanced Fieldwork Group Supervision III (3)

School Psychology Specialization (140-144 units)

This program includes the 99 units required for the School Psychology Internship specialization described in the previous section (81 units of required courses; 18 units of required fieldwork). In addition students must complete the following:

*Required Fieldwork (36 units)*

- EPSY 6880 Advanced Internship (take three times-12 units each)

*Required Thesis (5-9 units)*



## M.S. in Special Education

EPSY 6021 Thesis/Project Seminar (Take three times-3 units each) *or*

Complete five to nine units from the following:

EPSY 6909 Departmental Thesis (2-5) or EPSY 6910 University Theses (1-9)

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*Faculty:* Jacki L. Anderson (Coordinator, Moderate-Severe Disabilities), Ann T. Halvorsen, Phyllis G. Kaplan (Coordinator, Mild-Moderate Disabilities), Steven L. Williams

The Special Education program prepares its students for careers in direct teaching and for leadership roles in Special Education. Programs are offered which lead to the Master of Science degree and/or to the Education Specialist: Mild-Moderate and Moderate-Severe Credentials. The Preliminary Level I Credential is obtained in conjunction with the Multiple Subject Credential through the Department of Teacher Education. Applicants for a Professional Level II Credential are admitted through the Department of Educational Psychology.

The emphasis is on providing students with a wide range of practical methods for enhancing the lives of individuals with exceptional needs. To this end, coursework is taught by successful practitioners in the field. Also, the programs provide extensive supervised fieldwork in settings that are appropriate to each student's professional goals.

The M.S. in Special Education may be obtained (a) in conjunction with Level I and II credentials, or (b) through a combination of Level I, II, and research coursework listed below. Candidates who want to pursue only the master's degree without Specialist teaching credentials will follow the program outlines below. These candidates may obtain an M.S. degree in either Mild-Moderate or Moderate-Severe Disabilities. The master's degree requirements include both preliminary Level I coursework and fieldwork, as well as Level II advanced study.

Applicants will apply for admission to the Department of Educational Psychology: Special Education Option, and will follow the departmental as well as the university application procedures.

The number of units required for the degree is 45-47 units (32-34 units in residence).

- I. Prerequisite Course (4 units)  
EPSY 5021 Introduction to Education of ALL students in Diverse Classrooms 4)
- II. Options  
*Choose one option.*
  - A. Mild-Moderate Option (33-34 units in Mild-Moderate core)
    1. Level I (20-21 units)  
EPSY 5121 Counseling, Communication, and Collaboration (4)  
EPSY 6127 Instructional and Behavioral Support: Mild-

Moderate Disabilities (4)  
EPSY 6128 Instructional and Behavioral Support  
Fieldwork (4) or EPSY 6870 Advanced Fieldwork Group  
Supervision (3)  
EPSY 6131 Assessments: Students with Mild to  
Moderate Disabilities (5)  
EPSY 6133 Curriculum: Students with Mild to Moderate  
Disabilities (4)

2. Level II (13 units)

EPSY 6129 Advanced Study in Collaborative Service  
Delivery, Education and Transition (4)  
EPSY 6134 Advanced Instructional and Behavioral  
Supports: Mild-Moderate (5)  
EPSY 6206 Advanced Studies in the Education of  
Students with Mild to Moderate Disabilities: Emerging  
Research and Practice (2)  
EPSY 6830 Advanced Graduate Seminar III (2)

B. Moderate-Severe Option (33-34 units in Moderate-Severe  
core)

1. Level I (20-21 units)

EPSY 5121 Counseling, Communication, and  
Collaboration (4)  
EPSY 6137 Instructional and Behavioral Support:  
Moderate-Severe Disabilities (4)  
EPSY 6140 Curriculum: Students with Moderate-Severe  
Disabilities (4)  
EPSY 6142 Assessment: Students with Moderate-  
Severe Disabilities (5)  
EPSY 6860 Advanced Fieldwork (2-4) or EPSY 6870  
Advanced Fieldwork Group Supervision (3)

2. Level II (13 units)

EPSY 6129 Advanced Study in Collaborative Service  
Delivery, Education and Transition (4)  
EPSY 6141 Advanced Instructional and Behavioral  
Supports: Moderate-Severe (5)  
EPSY 6207 Advanced Studies in the Education of  
Students with Moderate to Severe Disabilities: Emerging  
Research and Practice (2)  
EPSY 6830 Advanced Graduate Seminar III (2)

Mild-Moderate and Moderate-Severe Options  
Elective (3 units)

*Choose one of the following:*

EPSY 6124 Advanced Study in Augmentative  
Communication and Assistive Technology (3)  
EPSY 6130 Advanced Studies in Service Learning and  
Positive School Climate (3)  
EPSY 6143 Advanced Studies in Individual and School-  
wide Positive Behavior Supports (3)  
EPSY 6145 Advanced Studies in Adolescent Learning and  
Secondary Curriculum (3)

III. Additional Master's Degree Requirements (9-10  
units)

EPSY 6023 Research in Applied Behavioral Sciences (4)

*Select five or six units from the following:*

EPSY 6021 Thesis/Project Seminar (3) or EPSY 6899 Project (2-5) or EPSY 6909 Departmental Thesis (2-5) or EPSY 6910 University Thesis (1-9)

Education Specialist Credential: Mild-Moderate and Moderate-Severe Disabilities (Level I) (42 units)

*Required Courses*

EPSY 5121 Counseling, Communication, and Collaboration (4)

EPSY 5125 Educational Practices: Mild-Moderate Disabilities (4) or EPSY 5136 Educational Practices: Moderate-Severe Disabilities (4)

EPSY 6126 Special Education Law and Program Design Content (4)

EPSY 6127 Instruction and Behavioral Support: Mild-Moderate Disabilities (4) or EPSY 6137 Instructional and Behavioral Support: Moderate-Severe Disabilities (4)

EPSY 6128 Instructional and Behavioral Support Fieldwork (4), SPED students only or EPSY 6860 Advanced Fieldwork I (4), SPED students only

EPSY 6131 Assessments: Students with Mild to Moderate Disabilities (5) or EPSY 6142 Assessment: Students with Moderate-Severe Disabilities (5)

EPSY 6133 Curriculum: Students with Mild-Moderate Disabilities (4) or EPSY 6140 Curriculum: Students with Moderate-Severe Disabilities (4)

EPSY 6870 Advanced Field Work Group Supervision I (3)

EPSY 6800 Student Teaching (Mild-Moderate) (8) or EPSY 6801 Student Teaching (Moderate-Severe) (8)

EPSY 6810 or 6820 Advanced Graduate Seminar I or II (2)

Concurrent Education Specialist: Mild-Moderate and Moderate-Severe (Level I) and Multiple Subject Credential Program (72 units; 80 units for TED students only)

If you are in the Concurrent Education Specialist and Multiple Subject Credential program (TED/SPED), complete the following courses in addition to the 42 units listed above for the Level I Mild-Moderate and Moderate-Severe Disabilities Education Specialist Credential.

*Required Courses (30-41 units)*

T ED 5350 Curriculum and Instruction: Mathematics in the Elementary School (3)

T ED 5352 Curriculum and Instruction: Reading in the Elementary School - A (4)

T ED 5353 Teaching Models (3)

T ED 5354 Student Teaching I (4), TED and SPED  
T ED 5356 Curriculum and Instruction: Reading in the  
Elementary School - B (2)  
T ED 5357 Curriculum and Instruction: Teaching Science in  
Elementary School (3)  
(T ED 5359 Student Teaching II (6), TED students only)  
T ED 5360 Curriculum and Instruction: Language Arts in the  
Elementary School (3)  
(T ED 5361 Student Teaching III (6), TED students only)  
T ED 5365 Curriculum and Instruction: Social Studies in the  
Elementary School (2)  
T ED 5366 English as a Second Language (ESL) and Bilingual  
Methods (2)  
T ED 5500 Developing Programs for Special students in  
Regular Classrooms (4) or EPSY 5021 Introduction to Educating  
ALL Students in Diverse Classrooms (4)

Professional Education Specialist Credential: Mild-  
Moderate and Moderate-Severe Disabilities (Level II)  
(26 units)

*Prerequisite*

CSUH Level I Credential Program or equivalent

*Required Coursework*

EPSY 6129 Advanced Study in Collaborative Service Delivery,  
Education and Transition (4)

EPSY 6134 Advanced Instructional and Behavioral Supports:  
Mild-Moderate (5) or EPSY 6141 Advanced Instructional and  
Behavioral Supports: Moderate-Severe(5)

EPSY 6206 Advanced Studies in the Education of Students with  
Mild to Moderate Disabilities: Emerging Research and Practice  
(2) or EPSY 6207 Advanced Studies in the Education of  
Students with Moderate to Severe Disabilities: Emerging  
Research and Practice (2)

EPSY 6630 Graduate Seminar III (2)

EPSY 6810 Advanced Graduate Seminar I (M/S) (2) or EPSY  
6820 Advanced Graduate Seminar II (M/M) (2)

EPSY 6830 Advanced Graduate Seminar III (2)

EPSY 6871 Advanced Fieldwork Group Supervision II (M/M) (3)  
or EPSY 6872 Advanced Fieldwork Group Supervision III (M/S)  
(3)

*Electives*

Select 6 units from the following:

EPSY 6124 Advanced Studies in Augmentative Communication  
and Assistive Technology (3)

EPSY 6130 Advanced Studies in Service Learning and Positive  
School Climates (3)

EPSY 6143 Advanced Studies in Individual and School-wide  
Positive Behavior Supports (3)

EPSY 6145 Advanced Studies in Adolescent Learning and

## Post-Baccalaureate Courses

### Secondary Curriculum (3)

*The course prefix for the following courses is EPSY.*

- 5010** Computers in Education (3)  
Introduction to the use of computers in education and related fields. History, design, theory, and nomenclature of computers. Lab experience using microcomputers. Use and evaluation of commercial software for education and associated professional activities. Prerequisites: graduate standing or consent of instructor.
- 5021** Introduction to Educating ALL Students in Diverse Classrooms (4)  
Basic concepts, issues and best practices in special/general education, and the development of curriculum and instructional strategies to address diverse student needs (including disabilities) in general education settings.
- 5121** Counseling, Communication, and Collaboration (4)  
Development of collaborative consultation, communication, teaming and problem-solving skills necessary for the coordinated delivery of educational services for students with disabilities.
- 5125** Educational Practices: Mild-Moderate Disabilities (4)  
Methods, materials, media and technology that enhance the learning process of students with mild-moderate disabilities. Teaching such students from diverse cultural, linguistic, and ethnic backgrounds in special and general education settings.
- 5136** Educational Practices: Moderate-Severe Disabilities (4)  
Inclusive educational practices for students with moderate-severe disabilities and the philosophical, theoretical and technological foundation required for implementation of curriculum and methodology, and the basis for curriculum design.
- 5500** Developing Programs for Special Students in Regular Classrooms (4)  
(See T ED 5500 for course description.)
- 5610** Micro Counseling I (2)  
Development and practice of the basic skills of counseling, especially the skills of listening. Use of brief videotaped counseling sessions ("microcounseling"). Students will role-play to observe, analyze, and evaluate techniques of counseling.
- 5620** Micro Counseling II (2)  
Development of the counselor's ability to influence others. Use of brief videotaped counseling sessions ("microcounseling"). Students will role-play to observe,

## Graduate Courses

analyze, and evaluate techniques of counseling.  
Prerequisite: EPSY 5610.

- 5767 Film in Counseling Psychology (2)  
Selected modern film presentations. Issues include wellness and illness, social and existential issues which transcend common diagnostic formulations as explored by film and masters of therapeutic interventions.
- 5900 Independent Study (1-4)

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*The course prefix for the following courses is EPSY.*

- 6021 Thesis-Project Seminar (3)  
(See description of EPSY 6899, 6909, 6910 for definitions of project, departmental thesis, university thesis.) Group supervision approach to completion of project or thesis. Prerequisites: "Classified Graduate" student, permission of instructor. May be repeated for credit. (A)
- 6022 Program Evaluation (3)  
Theory and procedures for designing and conducting formative and summative evaluations of educational and human service programs. Prerequisite: EPSY 6023, or TED 6020, or SAS 6020, or consent of instructor. (Y)
- 6023 Research in Applied Behavioral Sciences (4)  
Survey of research philosophy and methods for conducting studies in settings employing counselors, educators, and psychologists. Prerequisite: EPSY 6701 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)
- 6024 Design of Educational Research (4)  
Theory and procedures of experimental design as applied to problems of education. Prerequisite: EPSY 6023. Three hrs. seminar, 2 hrs. act. (Y)
- 6025 Psychopathology of Childhood (4)  
Seminar in developmental psychopathology; advanced case study, differential diagnosis, assessment procedures, treatment and placements. Prerequisites: EPSY 6720 and EPSY 6912. (Y)
- 6026 Psychopathology in Adulthood (4)  
Theoretical and clinical approaches to conceptualization, differential diagnosis, and assessment of psychopathology through adulthood. Application of theories of psychopathology to counseling and psychotherapy. Prerequisite: consent of instructor. (Y)
- 6027 Chemical Dependence Theory (4)  
Theory and research relating to chemical dependence as a variable in counseling. Focus on concepts of dependence, the disease model, identification, assessment, and family dynamics. Covers addiction to alcohol and other mood altering chemicals. (Y)

- 6028 Chemical Dependence Treatment (4)  
Treatment of chemical dependence in counseling. Focus on therapeutic intervention, treatment modalities, and recovery issues as they relate to the chemically dependent client and family members. Prerequisite: EPSY 6027, or consent of instructor. (Y)
- 6029 Seminar in Chemical Dependency (2)  
Survey of concepts of alcoholism and other chemical substance dependency. Assessment and treatment modalities applied to addictive disorders. (Y)
- 6099 Introduction to Instructional Multimedia (4)  
(See EDUI 6099 for course description.)
- 6124 Advanced Studies in Augmentative Communication and Assistive Technology (3)  
Provides candidates with skills pertinent to assessment and design of individualized augmentative/alternative communication, to assistive technology, legislation and policy relevant to the area, and to strategies for accessing and integrating technology into instruction.
- 6126 Special Education Law and Program Design Content (4)  
Laws and regulations that affect the lives of individuals with disabilities and their families. These laws and regulations relate to program design, program evaluation, family involvement, and the overall IEP process.
- 6127 Instruction and Behavioral Support: Mild-Moderate Disabilities (4)  
Specific instructional and curriculum strategies. Positive behavioral support interventions that enhance the teaching/learning process for mild-moderate and at-risk students from diverse cultural, linguistic and/or ethnic backgrounds.
- 6128 Instructional and Behavioral Support Fieldwork (4)  
Fieldwork reinforcing the skills, abilities, and strategies introduced specifically in EPSY 6127. Co-requisite: concurrent enrollment in EPSY 6127.
- 6129 Advanced Study in Collaborative Service Delivery, Education, and Transition (4)  
Facilitates Level II candidates' advanced skill development in leadership, cross-cultural communication, professional development collaboration and networking across transdisciplinary teams with educators and community agencies. Teamwork throughout critical transition periods, interagency service coordination, school reform models, effective transition within diverse restructured and inclusive schools. Prerequisites: EPSY 5021, 5121, 6126.
- 6130 Advanced Studies in Service Learning and Positive School Climate (3)  
Designed for Level II candidates to enhance their teaching/learning skills and abilities as they relate to



individual, group, and school-wide climates. Community involvement and service education explored in order to understand the connection between compassionate education and positive, productive, student, schools, family, community outcomes. Inclusion and collaboration with students, their families, schools, and communities.

- 6131 Assessments: Students with Mild to Moderate Disabilities (5)  
Responsible assessment practices which take into account the diverse backgrounds and needs of children. "Assessment" includes not just testing, but a broad spectrum of activities used to diagnose a student's needs. Review of current assessment procedures and advocacy for responsible assessment practices for all students.
- 6132 Advanced Psycho-Educational Diagnosis Fieldwork (3)  
Development of diagnostic skills in differentially diagnosing and developing educational programs for exceptional individuals. Prerequisite: EPSY 6127. Concurrent enrollment in EPSY 6131. Six hrs. field placement. (Y)
- 6133 Curriculum: Students with Mild-Moderate Disabilities (4)  
Reinforce and enhance already existing skills, abilities and knowledge of instructional procedures, technology, positive behavioral approaches and curriculum development employed with mild-moderate and at-risk students from diverse cultural, linguistic, and/or ethnic backgrounds.
- 6134 Advanced Instructional and Behavioral Supports: Mild-Moderate (5)  
Provides candidates with advanced strategies in behavioral, social, environmental, and instructional areas to facilitate students' inclusion in home, school, and community. Prerequisite: Level I Mild/Moderate Credential.
- 6137 Instructional and Behavioral Support: Moderate-Severe Disabilities (4)  
Techniques for developing and implementing effective instruction for students with moderate to severe disabilities. A variety of assessment, classroom management and positive behavioral support strategies which provide the basis for instruction to meet the individual needs of a diverse population of learners. Co-requisite: concurrent enrollment in EPSY 6860. Prerequisite: EPSY 5136.
- 6139 Legal Rights of the Handicapped (3)  
Examine legal rights of handicapped and normal individuals as they exist and are developing under Federal, State and Local law. Prerequisite: EPSY 5021. (Y)
- 6140 Curriculum: Students with Moderate-Severe Disabilities (4)  
Curriculum and instruction for basic skill development



across motor, communication, social behavior, and academic areas. Infusion of skills within functional activities.

- 6141 Advanced Instructional and Behavioral Supports: Moderate-Severe (5)  
Provides candidates with advanced strategies in behavioral, social, environmental and instructional areas to facilitate students' inclusion in home, school, and community. Prerequisite: Level I Moderate/Severe Credential.
- 6142 Assessment: Students with Moderate-Severe Disabilities (5)  
Issues, purposes, and methods relevant to the assessment of students with moderate to severe disabilities for educational programming, including appropriate selection and interpretation of a variety of assessment approaches. Follow-up on intervention strategies in EPSY 6137 with more sophisticated behavioral and instructional techniques. Prerequisite: EPSY 6137.
- 6143 Advanced Studies in Individual and School-wide Positive Behavior Supports (3)  
Advanced information in positive behavioral supports and school-wide systems for positive respectful discipline and student support. Candidates take on supervised leadership roles in school settings.
- 6144 Inclusive Education: School and Community (4)  
Strategies for including students with severe disabilities in integrated school and community settings. Emphasis on functional programming and interactions and friendships with non-disabled peers, with practical applications in local schools. Prerequisites: EPSY 5021, 5136. (W)
- 6145 Advanced Studies in Adolescent Learning and Secondary Curriculum (3)  
Provides Level II candidates with specialized competencies and experiences beyond the basic program focusing on the adolescent/adult with mild-moderate-severe disabilities. Includes instruction, transition, social supports, and secondary curricula with school to work and career emphasis.
- 6200 Grief Counseling (2)  
The unique problems and situations of people facing loss, grief, and bereavement. Emotional reactions to death and loss. Counseling strategies based on stress reduction and the development of positive resolutions.
- 6201 Marketing Psychological Services (2)  
The process of planning, implementing, and marketing psychological skills in a business or private practice. Topics include defining deliverables, customers, selling cycles, pricing, and market strategy.
- 6202 Parents and Professional Relations (2)  
Knowledge and skills needed for effective interaction with

parents of students with special needs. Familiarity with the legal basis, current research and practices related to parent involvement in special education.

- 6203 Inclusive Education Seminar (2)  
Advanced knowledge and hands-on skills for teachers delivering instruction within inclusive general education classrooms and school communities. Field experiences focusing on specific issues in inclusive education.
- 6204 Assertiveness Training (2)  
Students are trained in the use of individual and group counseling techniques to help passive and aggressive individuals express themselves in a responsible, assertive manner.
- 6206 Advanced Studies in the Education of Students with Mild to Moderate Disabilities: Emerging Research and Practice (2)  
Candidates acquire skills in the analysis and synthesis of pedagogical and research foundations, as well as in policy and legislation which inform best practice in education of students with mild-moderate disabilities. Prerequisites: a valid Level I Education Specialist Credential in Mild-Moderate Disabilities, including EPSY 5021, 5121, and 6126, or demonstrated equivalent coursework, a valid Induction Plan; and EPSY 6129, 6134, 6630, 6830, 6871. Co-requisite: EPSY 6820.
- 6207 Advanced Studies in the Education of Students with Moderate to Severe Disabilities: Emerging Research and Practice (2)  
Candidates acquire skills in the analysis and synthesis of pedagogical and research foundations, as well as in policy and legislation which inform best practice in education of students with moderate-severe disabilities. Prerequisites: a valid Level I Education Specialist Credential in Moderate-Severe Disabilities, including EPSY 5021, 5121, and 6126, or demonstrated equivalent coursework; a valid Induction Plan; and EPSY 6129, 6141, 6630, 6830, 6872. Co-requisite: EPSY 6810.
- 6301 Pediatric Psychology (4)  
Clinical issues in the growth and maturation of cognition, psychomotor performance, and ego development; anomalies of development and integration and related problems of social-emotional adjustment. Emphasis on the period of infancy and childhood. Prerequisite: consent of instructor. (W)
- 6302 Individual Development (4)  
Theory and research covering individual growth over the life span. Emphasis on the interaction of biological and social factors and their psychological consequences, especially as to definition of normal crises and related levels of therapeutic intervention. (Y)
- 6331 Collaborative Leadership I (4)  
(See EDUI 6331 for course description.)

- 6400 Family Psychotherapy (4)  
Discussion and activities in psychotherapeutic techniques. Theory and research dealing with family interaction and communication. Diagnostic and intervention methods for dysfunctional family systems. Three hrs. seminar, 2 hrs. act. (Y)
- 6402 Relationship Counseling (4)  
Discussion of theory pertaining to the psychology of relationships, such as friendship, dating, and marriage. Investigation and activities pertaining to methods of evaluating and intervening in problems of dyadic relationships, communication, and social adjustment. Prerequisite: EPSY 6750 or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)
- 6403 Psychotherapy for Children (4)  
Introduction to the theories, research and techniques of psychotherapeutic assessment and treatment of children. Activities include class involvement in psychotherapy methods. Three hrs. lect., 2 hrs. act. (Y)
- 6405 Sex Counseling (4)  
Investigation of human sexuality, sexual identity, and sexual problems with emphasis on counseling methods appropriate to promoting positive sexual functioning. Activities include films and class involvement in counseling methods. Prerequisite: EPSY 6750, or instructor's permission. Three hrs. seminar, 2 hrs. act. (Y)
- 6406 Seminar in Human Sexuality (2)  
Physiological, psychological, social and cultural variables as they affect sexual identity, sexual behavior and sexual disorders. Clinical treatment of sexual problems. Prerequisites: EPSY 6750; instructor's permission.
- 6500 Cognitive Behavior Therapy (4)  
Principles and practice of cognitive and behavior therapies, including meta models and transformational linguistics of communication theories. Emphasis on possibilities for integrated therapeutic approach. (F)
- 6501 Behavior Modification of the Learning Process (3)  
Seminar on prescriptions for individuals and groups; precise task analysis and concept programming, self-pacing, contingency management, and continuous evaluation. Prerequisite: EPSY 6500. (Y)
- 6600 Clinic Rounds (1)  
Regularly scheduled seminar with Director of Community Counseling Center. Discussion of procedures, good practices, assignment of cases, and Center ethics, rules, responsibilities. Required of all graduate students assigned as trainees to the Center. CR/NC grading only. May be repeated for up to 8 units.
- 6610, Graduate Seminar I, II, III (2, 2, 2)  
6620, Introductory considerations of application of theory and  
6630 current research to professional settings; problems in use

of professional techniques and methods. Prerequisite: concurrent registration in fieldwork. (Y)

6660, Fieldwork I, II, III (2-4)

6661, Individual supervision of assigned fieldwork. Prerequisite:  
6662 departmental approval. CR/NC grading only (A).

6669 Seminar in Mental Health Consultation (3)  
Theory and techniques of mental health consultation. Consideration of institutional and group factors as they affect and condition the adjustment problems of individuals. Techniques and strategies available to psychologists for affecting changes in the mental health climate of schools. Prerequisite: EPSY 6861. (Y)

6670, Field Work Group Supervision I, II, III (3, 3, 3)

6671, Group supervision of assigned field work. Prerequisite:  
6672 approval of instructor. CR/NC grading only. (A)

6700 Advanced Education Psychology (4)

Systematic analysis of general principles of motivation and learning as applied to educational processes. Prerequisite: upper division learning course. (Y)

6701 Appraisal Procedures: Standardized (4)

Seminar in measurement theory applied to the development and evaluation of standardized tests used in counseling. Activity includes administration and supervision of above instruments. A miscellaneous course fee will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Prerequisites: STAT 1000 or 1100, or equivalent. Three hrs. seminar, 2 hrs. act. (Y)

6702 Appraisal Procedures: Non-Standardized (4)

Theory and research on scales, questionnaires, and other non-standardized tests for assessing and predicting behavior. Activity to include administration, scoring, and interpretation. Prerequisite: STAT 1000 or 1100, or equivalent). Three hrs. seminar, 2 hrs. act. (Y)

6710 Career and Life Style Development Theory (4)

Examination of theories of vocational and a vocational choice and development with emphasis on the cultural, psychological and sociological antecedents and consequences. Prerequisite: "Classified Graduate" status in department. (Y)

6711 Career-Life Planning (4)

Career-Life planning counseling techniques; information sources; development of career libraries and centers, employability development techniques; activities involving observation and participation in career counseling and information. Prerequisite: EPSY 6750. Three hrs. seminar, 2 hrs. act. (Y)

6720 Theory and Assessment of Cognition (4)

Concepts of intelligence and their use in mental testing. Major types of individually administered intelligence tests, their uses and interpretation. A miscellaneous course fee

will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Prerequisite: EPSY 6701 or equivalent. (Y)

- 6722 Vocational Appraisal and Placement (4)  
Clinical instruction in the psychological processes of relating data gained from specialized testing to the counseling of individuals for effective performance in the labor market. A miscellaneous course fee will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Prerequisite: EPSY 6701. Two hrs. seminar, 6 hrs. lab. (Alt. Y)
- 6746 Neuropsychology of Learning Disabilities (4)  
Diagnosis and rehabilitation of learning disabilities emphasizing a neuropsychological approach. A miscellaneous course fee will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Prerequisite: course work in cognition and development assessment or consent of instructor. Three hrs. seminar, 3 hrs. lab. (Sp)
- 6750 Foundations of Counseling (4)  
The principles and concepts of counseling, including communication dynamics, intervention techniques, and development of a personal theory of counseling. Prerequisite: "Classified Graduate" status in department or consent of instructor. Three hrs. lect., 2 hrs. act. (Y)
- 6751 Counseling and Psychotherapy Theory (4)  
Examination of current theories of counseling and psychotherapy; development of individual counseling approach. Prerequisite: EPSY 6750. Three hrs. lect., 2 hrs. act. (Y)
- 6752 Cross Cultural Counseling (4)  
Focus on cross-cultural counseling and psychotherapy, cultural values and personality formation; value orientation inherent in counseling and psychotherapy; psychological effects of cultural racism; effects of sex roles and life styles within different cultures. Three hrs. lect. plus one three-day workshop. (A)
- 6753 Psychodynamic Psychotherapy (4)  
Clinical application of psychodynamic theories and procedures. Emphasis on contemporary developments in ego theory, object-relation theory, and psycho-social development. (F)
- 6754 Cross-Cultural Consultation (4)  
Consultation with schools, agencies, institutions concerning emotional issues in mixed cultural/ethnic situations. Clinical application of current theories, research in counseling and psychotherapy. Reading, examination of case materials. Prerequisite: EPSY 6752 or consent of instructor. (Y)
- 6756 Brief Psychotherapy: Dynamic and Strategic (2)  
Principles, concepts, and techniques of brief psychotherapy with emphasis on cognitive-behavioral and

strategic approaches. (Y)

- 6758 Practicum in Counseling (3)  
Introductory learning experience to prepare graduate students for professional counseling in clinical settings. Students will receive information, practice, counseling skills and develop a professional perspective. Repeatable for one additional quarter for credit. (A)
- 6760 Counseling and Administration in Higher Education (4)  
Theory and practice of counseling in higher education. Organization and administration of counseling services in higher education. Current and future trends impacting counseling in higher education.
- 6761 History and Philosophy of Higher Education Student Services (4)  
The history and philosophy of student services in higher education.
- 6762 Group Procedures and Facilitation (4)  
Theories, principles of group dynamics and processes facilitating individual, small group, and organizational change. Interpersonal skills in group process. Clinical analysis of actual group experiences. Prerequisite: EPSY 6750 or PUAD 6812 or instructor's consent. Not open to students with credit for PUAD 6762. (Y)
- 6764 Intervention Strategies for Systems and Organizational Change (4)  
Facilitator's role in organizational, systems change: schools, agencies, industry. Diagnosis, intervention strategies for planned or indirect organizational, systems change. Actual experience with intervention models, case problems. Prerequisite: EPSY 6750 or consent of instructor. Not open to students with credit for PUAD 6764. Three hrs. seminar, 2 hrs. act. (Y)
- 6765 Psychological and Counseling Services in Schools and Higher Education (2)  
The administration and organization of psychological and counseling services in the schools and higher education: concepts, responsibilities, and functions of the psychologist, counselor and student support services. Different sections will focus on K-12 or higher education. May be repeated for credit. Prerequisite: consent of instructor. (Y)
- 6770 Internship (2-6)  
Individually supervised experience in a professional setting utilizing the full range of competencies in the student's concentration. Prerequisite: departmental approval. CR/NC grading only. May be repeated for two additional quarters. (A)
- 6781 Healthy Personality (4)  
Application of the theories and research in the area of psychological health and human effectiveness to the practice of counseling. Prerequisite: PSYC 4610 or

instructor's permission. (A)

- 6783 Seminar: Contemporary Issues (2-3)  
Seminar in theoretical, research, and counseling approaches concerning special issues and populations, such as delinquents, drug users, aged, the poor. May be taken up to three times for credit with different content. Prerequisites: "Classified Graduate" status in department and instructor's permission. Offered as two- or three-hour seminar. (Y)
- 6785 Law and Ethics in Counseling (3)  
Professional ethics and statutory, regulatory and decisional laws currently applicable to the practice of counseling and psychotherapy. Confidentiality, mandated reporting laws, family and child laws as they affect clinical practice. The relationship between a counselor's personal values and his or her professional behavior and ethics. (Y)
- 6786 Child Abuse Assessment (1)  
Legal and clinical aspects of child abuse as an issue in counseling and psychotherapy practice. Child abuse reporting laws and procedures, the psychological and family system variables important in assessment, and both individual and family treatment strategies. CR/NC grading only. (Y)
- 6787 Gerontology Counseling (4)  
Counseling issues in treating the elderly; transitions, family processes, and significant life events; assessment of psychopathology and planning for treatment of elders, both individually and within a family structure. (Y)
- 6788 Domestic Abuse Counseling (1)  
Detection, assessment, and diagnosis of spousal or partner abuse. Clinical issues regarding emotional abuse and violence in domestic relationships. Interventions for the treatment of couples in abusive relationships.
- 6800 Student Teaching (Mild-Moderate) (8)  
Student teaching under the supervision of a master credentialed teacher and a member of the college faculty. Open only to students who have been admitted to the credential program. Concurrent enrollment in the student teaching seminar, EPSY 6810, is required. (Sp)
- 6801 Student Teaching (Moderate-Severe) (8)  
Student teaching under the supervision of a master credentialed teacher and a member of the college faculty. Open only to students who have been admitted to the credential program. Concurrent enrollment in the student teaching seminar, EPSY 6810, is required. (Sp)
- 6810, 6820, 6830 Advanced Graduate Seminar I, II, III (2, 2, 2)  
Relationship of theory and current research to professional practice; consideration of ethical and legal principles, socio-cultural issues, and research techniques in professional settings. (Y)



- 6860, Advanced Fieldwork I, II, III (2-4 each)  
6861, Individual supervision of assigned field work. Prerequisite:  
6862 one year of approved supervised field work in the area of concentration and Department approval. CR/NC grading only. (A)
- 6870, Advanced Field Work Group Supervision I, II, III  
6871, (3, 3, 3)  
6872 Group supervision of assigned field work. Prerequisite: one year of approved supervised field work in the area of concentration and approval of instructor. CR/NC grading only. (A)
- 6880 Advanced Internship (2-12)  
Individually supervised experience in a professional setting utilizing the full range of competencies in the student's concentration. Prerequisite: one year of approved supervised field work or internship in the area of concentration and Department approval. May be repeated two additional quarters for a maximum of 36 units. CR/NC grading only.
- 6894, Supervision Fieldwork I, II, III (2, 2, 2)  
6895, Completion, under college faculty direction, of actual  
6896 problems involving supervisory duties. Prerequisites: department approval, advance application, or EPSY 6670. (Y)
- 6897 Supervision Internship (2-6)  
On-the-job completion of field duties normally carried by directors or supervisors of pupil personnel services. Prerequisites: EPSY 6670, department approval, advance application. Concurrent registration in EPSY 6894, 6895, or 6896. (A)
- 6898 Cooperative Education (1-4)  
Supervised work experience in which students complete academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. CR/NC grading only. (A)
- 6899 Project (2-5)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 5 units per student.
- 6900 Independent Study (1-4)
- 6909 Departmental Thesis (2-5)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally is required. Prerequisite: graduate standing. Maximum of 5 units per student.



- 6910 University Thesis (1-9)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisite: graduate standing. Maximum of 9 units per student. (See also, "University Thesis Writing Guide," available in WA 859.)
- 6911 Developmental Assessment Practicum (4)  
Clinical practice under supervision with individually administered tests. A miscellaneous course fee will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Prerequisite: EPSY 6720. Twelve hrs. lab. (Y)
- 6912 Personality Assessment (4)  
Study of instruments and procedures commonly employed in clinical study of emotional and social adjustments. A miscellaneous course fee will be charged for materials. Please consult the quarterly Class Schedule for the current fee. Prerequisite: EPSY 6720. Three hrs. seminar, 3 hrs. lab. (Y)
- 6955 Integrated Work for Students with Severe Disabilities (4)  
Instruction in integrated community-based work training leading to integrated employment for persons with severe disabilities. Current issues related to vocational assessment, transition, and supported employment. Required of SH students receiving grant funds.

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## Footnotes

- <sup>1</sup>Students completing a Project or a Departmental Thesis and registering for 6899 or 6909, even if combined with EPSY 6021, are limited to a total of 5 units. EPSY 6021 can be repeated for a total of 6 units; however, only five of these six units may be applied to the M.S. degree for students doing a Project or Departmental Thesis.
- <sup>2</sup>Students completing a University Thesis may enroll in EPSY 6021 for up to 9 units.
- <sup>3</sup>Credential only



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## Department Information

## Graduate Special Majors

# Special Majors and Certificates

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Curriculum and Academic Programs  
Office: Warren Hall 859  
Phone: (510) 885-3716, Fax: (510) 885-4777

*Professors:* Carl J. Bellone (Dean of Graduate Programs), Leigh W. Mintz (Associate Vice President, Curriculum and Academic Programs)

*Coordinator:* Rosanne Moore

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## Program Description

The University offers the Special Major program for both the M.A. and M.S. degrees. There is not a clear distinction between the two degrees so normally the decision about the assignment of a Special Major reflects the type of degree offered by the departments involved. A Special Major must be a coherent program of 45-52 units organized around a broad academic theme. The title should be short (three to five words) and should describe the central academic theme of the program and not the student's career objective unless the two coincide. A graduate Special Major must be fully approved before the student has fewer than 32-39 quarter units to complete for the degree so the residence requirement can be met. (A maximum of 13 non-resident units is allowed.)

A department with a regular master's degree program (the sponsoring department) must certify that the prospective Special Major student would be eligible for admission to its program as a "Conditionally Classified" or "Classified Graduate" student. (However, the student who obtains an approved Special Major is not admitted to the regular graduate program, but to the Special Major program under the Office of Curriculum and Academic Programs.)

A graduate Special Major must consist of 45-52 quarter units of which at least half must be in graduate (6000-level) courses and at least 32-39 must be in residence in the program at Cal State

Hayward. No more than 9 units may be in supervisory courses such as Independent Study, Project, Department or University Thesis, Field Work, Co-op Ed, and/or Internship. Graduate level courses in at least two different departments must be involved in the program. No course enrollment used in the Special Major can be older than five years at the intended time of graduation. A 3.00 grade point average is required for completion of the graduate Special Major. If a student has not satisfied the University Writing Skills requirement, admission is in "Conditionally Classified" status until the requirement is satisfied.

A student is Advanced to Candidacy if, after completion of half the program, a 3.0 GPA is attained by a "Classified Graduate." Failure to achieve Candidacy will void the Special Major contract. The student must comply with the standard master's degree requirements for all students listed in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog.

### Procedure

A student who contemplates developing a Special Major must have an overall undergraduate and postbaccalaureate grade point average of at least 2.70 ("B-," Adequate). Forethought and planning need to precede any formal action. An information packet is available from the Office of Curriculum and Academic Programs, WA 859, or by calling (510) 885-3716.

The prospective Special Major student must prepare a one-page prospectus of at least 200 words describing the theme or central academic focus of the proposed program (including the departments to be involved), the reasons why the objective cannot be fulfilled through a regular master's degree program, the academic and experiential background the student will bring to the program, the occupational goals of the student in relation to the proposal, the approximate time frame for completion of the degree, and other pertinent information. A sample prospectus for a hypothetical Special Major is included in the information packet. The student must also contact three faculty advisors in the involved departments, secure their support, and nominate them as his/her Special Major committee. (One of these faculty members should be designated as chair of the committee.)

The prospectus and the names of the sponsoring department chair and three faculty advisors (and their departments) must be submitted to the Office of Curriculum and Academic Programs before the student has fewer than 32-39 units to complete in the master's degree. (A maximum of 13 non-resident units is allowed.)

If the proposal appears academically sound and logistically feasible, the Dean of Graduate Programs (Graduate Dean hereafter) will forward copies of it to the proposed faculty committee members along with an explanation of the Special Major policies and procedures, copies of the student's transcripts, and a form for development and approval of the specific program of courses.

The three-person committee and the student must meet at a mutually acceptable time to design the program (i.e. to prepare the list of required and elective courses and to determine the

appropriate culminating experience). When this is done, the form is completed, signatures of approval are affixed, and it is returned to the Graduate Dean by the committee chair.

The Graduate Dean will review the proposal and, if it satisfies university requirements, will send a copy to the dean of each school in which the student will be taking courses. The Graduate Dean will also designate the school from which the student is to graduate. The school deans will have ten working days (two weeks) to enter any objections. If none is received, the Graduate Dean will act on the proposal. If an objection is received, the Graduate Dean will hold the proposal pending resolution by the school dean, committee, and the student.

When the proposal is approved, the student must have at least 32-39 quarter units to complete for the degree. (Units in the quarter in progress can only be counted if the Add/Drop deadline has not been passed.) When the proposed program has been approved by the Graduate Dean, a final copy will be typed in the Office of Curriculum and Academic Programs, the student and the Graduate Dean will sign it, and copies will be distributed. The student will receive a copy of his/her approved Special Major program at this time.

If any alterations of the approved program are necessary, the student calls the Special Major coordinator in the Office of Curriculum and Academic Programs to initiate a "Change in Special Major Requirements" form with the chair of his/her faculty advisory committee. A petition must be approved by the advisor (committee chair), the dean of the school from which the student will graduate, and the Graduate Dean. Upon completion of 23 units with a 3.00 GPA and satisfaction of the University Writing Skills Requirement, a "Classified Graduate" student should request the committee chair to submit a "Change in Graduate Status" form to the Registrar's Office.

The Special Major student files for graduation by filling out the "Degree Candidacy Form" in the Office of Curriculum and Academic Programs during the first two weeks of the quarter immediately preceding the final quarter before graduation. The graduation check for the Special Major is performed in the Graduation Evaluations section of the Registrar's Office upon receipt of the "Degree Candidacy Form."

A student who is writing a University Thesis should be aware of the thesis requirements and deadlines published in the Catalog and in the University Thesis Writing Guide (available in WA 859). The University Thesis must be submitted to the Thesis Office in Curriculum and Academic Programs no later than three weeks before the end of the last quarter. In addition to the mandatory university copy and any personal copies, the student must order at least one bound copy of the thesis for the chair of his/her committee.

required for all the courses comprising the Special Certificate program. The program must provide a logical and coherent pattern of preparation for a limited objective. The title of the proposed certificate should be brief (three to five words) and must carry no connotation of meeting a licensing requirement for professional practice.

### Procedure

The following procedure applies to Special Certificate programs consisting largely of postbaccalaureate and/or graduate courses.

The student develops a proposed program with the advice and approval of a faculty member knowledgeable in the field of study. A typed copy of the proposed program, with advisor and student approval, is forwarded by the advisor to the dean of the school in which the preponderance of courses will be taken. If the dean approves, s(he) signs and sends the proposal to the Graduate Dean via the Office of Curriculum and Academic Programs. The Graduate Dean sends a copy of the proposal to each of the other three school deans.

The deans have ten working days to enter an objection. If none is received and the Graduate Dean judges the proposal to be sound, the program will be approved. If any school dean objects, s(he) must file written objections with the Graduate Dean within the ten days. These will be considered by the Graduate Dean in deciding whether or not to approve the program.

The student is notified in writing by the Graduate Dean as to the final action on his/her proposal. A copy of an approved program is filed in the student's folder in the Registrar's Office. Upon completion of the Special Certificate program, the student applies to the Registrar's Office and pays the required fee to receive the certificate.



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## English

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### Department Information

Department of English  
School of Arts, Letters, and Social Sciences  
Office: Warren Hall UM79  
Phone: (510) 885-3151

*Professor Emerita:* Marcelline Krafchick

*Professors:* Eileen Barrett, Zelda Boyd, Charles DeBose (Chair),  
Jacob Fuchs, Kathleen Margaret Lant, Donald Markos, Sara  
McAulay, E. J. Murphy, Marilyn Silva

*Associate Professors:* Jacqueline Doyle, Stephen D. Gutierrez,  
Keiko Tanaka, Alison M. Warriner

*Assistant Professors:* Dennis M. Chester, Judith Lopez, Ke Zou

*Graduate Coordinators:* Jacqueline Doyle, Eileen Barrett

*TESOL Coordinator:* Keiko Tanaka

*Please consult the 2001-2002 online catalog for any changes that  
may occur.*

### M.A. in English

#### Program Description

The university offers the Master of Arts degree in English. Although there is no separate degree offered in Creative Writing, it is possible to satisfy the thesis option for the M.A. in English by work in fiction, verse, or drama. The student seeking a degree must observe the general university requirements stated elsewhere in this catalog as well as the specific departmental requirements stated here.

#### Admission

To apply for admission to the Master of Arts program in English, the student must fill out the proper forms (obtained from and returned to the Admissions Office). The Admissions Office will then send the application to the English Department where it will be accepted or rejected. Also see admission requirements for the TESOL Option.

To be admitted to the M.A. program in English, the student must: (1) hold the B.A. degree from an accredited college or university, with a major in English, and (2) have an undergraduate GPA in English courses of at least 3.0. If the student cannot comply with these requirements, (s)he may petition the department by letter for special consideration. A student not admitted to the program because of deficiencies is urged to enroll in the university as an "Unclassified Post-baccalaureate" student to overcome these deficiencies.

Upon admittance to the graduate program in English, the student should immediately arrange through the English Department Office to consult a graduate advisor on selecting courses and satisfying the department's M.A. Foreign Language Requirement (see "Foreign Language Requirement" on this page).

All students except those who are "Classified Graduate" students in English must have the written permission of an English graduate advisor to enroll in a graduate course in English.

### "Classified Graduate" Status and Advancement to Candidacy

The student is normally admitted to the program in English as a "Conditionally Classified Graduate" student. One condition to his or her being a "Classified Graduate" is that (s)he pass ENGL 6001 with a grade of "A" or "B". Another is that the student must satisfy the University Writing Skills requirement. There may be other conditions to his or her "Classified Graduate" status if (s)he has been admitted to the program with deficiencies; the student should consult with a graduate advisor to determine whether this is the case. After all conditions have been met, the student will be granted "Classified Graduate" status as a graduate student in English. To Advance to Candidacy for the M.A. in English, the student must satisfy the department's M.A. Foreign Language Requirement and complete 20 quarter-units of graduate coursework (including ENGL 6001) acceptable for the M.A. Also see admission requirements for the TESOL Option.

### Degree Requirements

The student must complete, with a grade point average of 3.0 or above, 45 quarter-units of credit approved by a graduate advisor. At least 28 of the 45 quarter-units must be in English courses numbered 6000-6999 other than 6900 (Independent Study) and 6910 (University Thesis). ENGL 6001 is a required course. The remaining quarter-units (up to 17) may be taken in any combination of English courses numbered 4000-4999, 6900, and 6910. Also see requirements for the TESOL Option.

The thesis is optional. The student may elect to take 9 of his or her quarter-units in ENGL 6910 to write an approved thesis or equivalent work in fiction, verse, or drama. The student who elects to write a thesis must comply with the thesis instructions of the Department of English as well as those in the University Thesis Writing Guide available in WA 859. For those who elect a thesis, one exit examination in a historical period of British or American Literature is also required. For those who do not elect a thesis, two exit examinations in historical periods of British or American Literature are required.

Foreign Language Requirement



## M.A. in English: TESOL option

The student must demonstrate a reading knowledge of a foreign language. Consult a departmental advisor for details.

### Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirements.

### Applying for Graduation

A student must apply formally to graduate with a master's degree, by submitting a "Candidate for Degree" card during the Add/Drop period for the quarter before the one in which (s)he expects to graduate. Also during the quarter before the one in which the student expects to graduate, (s)he must ask the department's Graduate Coordinator to send a "Major Check" sheet to the Graduate Evaluations Office.

### Admission

To be admitted to the M.A. in English with a Teaching English as a Second Language (TESOL) Option, students must hold a relevant baccalaureate degree (English, Linguistics, Speech Communication are obvious examples), with a 3.0 overall GPA, and have completed the following prerequisite courses (40 units) or their equivalents:

ENGL 3005 Study of Language (4)  
ENGL 3010 Modern English Grammar (4)

ENGL 3015 Introduction to Phonology (4) or SPPA 3855  
Introduction to Phonetics (4)

ENGL 3020 Advanced Expository Writing (4)  
ENGL 3040 History of the English Language (4)  
ENGL 4040 Introduction to American Dialects (4)  
SPCH 4830 Intercultural Communication (4)

ANTH 3800 Language and Culture (4) or HDEV 4520 Language  
Acquisition and the Symbolic Function (4)

Two courses in modern British or American literature

### Required Courses (45 units)

ENGL 6501 and 6502 Theory and Practice of Teaching ESL I  
and II (8)  
ENGL 6503 Second-Language Acquisition (4)  
ENGL 6504 Morphology and Lexical Semantics (4)  
ENGL 6506 Applied Linguistics (4)  
ENGL 6507 Testing and Evaluation for Teaching ESL (4)  
ENGL 6508 Supervised Tutoring/Teaching (8)  
ENGL 6509 Computer Assisted Language Learning and  
Teaching (4)  
ENGL 6750 Theory and Practice of Composition (4)  
ENGL 6909 Departmental Thesis (5)



## "Classified Graduate" Status and Advancement to Candidacy

Students are normally admitted to the master's program in English as "Conditionally Classified Graduate" students. Once the students have completed any outstanding prerequisite courses and have passed the Writing Skills Test, they may apply for "Classified Graduate" status. In order to Advance to Candidacy, students must have completed 24 units of graduate-level coursework with grades of "B" and higher.

## Applying for Graduation

Students must apply formally to graduate with a master's degree by submitting a "Candidate for Degree" card during the Add/Drop period for the quarter before the one in which they expect to graduate. They must ask the English Department's Graduate Coordinator to send a "Major Check" sheet to the Graduate Evaluations Office.

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*The course prefix for the following courses is ENGL.*

- 6001** Introduction to Graduate Studies (4)  
Introduction to the major research tools for the study of English; survey and evaluation of various methods in literary criticism. Required for M.A. in English. (Y)
- 6070** Graduate Workshop in Fiction (4)  
Writing of long and short fiction. Theory and analysis of the art of fiction. For the prospective professional writer.  
Prerequisite: graduate standing in English and ENGL 4070 or consent of instructor. Maximum total credit: 8 units. May be repeated once for credit with consent of instructor.
- 6080** Seminar in Critical Theory of Literature (4)  
Study of major contemporary critics and critical approaches to literature. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: graduate standing.
- 6085** Seminar in Feminist Criticism (4)  
Feminist criticism and its application to literary works. Literary works followed by feminist critical analyses of those works. Prerequisite: graduate standing in English.
- 6090** Electronic Literary Journal (4)  
Edit and produce literary journal published on World Wide Web. Selection, editing, revision of manuscripts, HTML code, page design. No prior Web experience necessary. Prerequisites: graduate standing in English and ENGL 4070 or consent of instructor.
- 6100** Seminar in Medieval Literature (4)  
Study of major works, authors, and literary topics of the medieval period; at least one work read in the original language. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4151 or consent of instructor. (Y)
- 6215** Seminar in Renaissance Literature (4)

Study of major works, authors, and literary topics of the Tudor and Stuart periods. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4220 or 4251 or 4252 or 4810, or consent of instructor. (Y).

**6350 Seminar in Restoration and 18th-Century British Literature (4)**

Study of major works, authors, and literary topics of the Restoration and the 18th century. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4325 or 4813 or 4831, or consent of instructor. (Y)

**6405 Seminar in 19th-Century British Literature (4)**

Study of major works, authors, and literary topics of the Romantic and Victorian periods. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4411 or 4412 or 4832, or consent of instructor. (Y)

**6501 Theory and Practice of Teaching ESL I (4)**

Focuses on current research as well as practical, innovative methods for teaching ESL to adult learners. Prerequisite: graduate standing.

**6502 Theory and Practice of Teaching ESL II (4)**

Focuses on current research as well as practical, innovative methods for teaching ESL to adult learners. Prerequisite: ENGL 6501.

**6503 Second-Language Acquisition (4)**

Psycholinguistic and sociolinguistic processes as well as affective factors involved in the acquisition of a second language, with emphasis on adult learners of English. Prerequisite: graduate standing.

**6504 Morphology and Lexical Semantics (4)**

Investigation of the structural composition of English words, with emphasis on processes of word formation and theories of meaning and meaning change. Analysis of errors made by ESL learners. Prerequisite: graduate standing.

**6506 Sociolinguistics (4)**

Relationship between language and society. Language variation associated with different geographic, ethnic, and socioeconomic groups and social situations. Implications for teaching English as a Second Language. Prerequisite: graduate standing.

**6507 Testing and Evaluation for Teaching ESL (4)**

Methods of assessing proficiency in speaking, understanding, reading, and writing a second language. Examines adequacy of traditional evaluation methods as well as procedures in test construction and evaluation. Prerequisite: graduate standing.

**6508 Supervised Tutoring/Teaching (4)**

Supervised work with students in ESL classes and tutorials. Prerequisites: ENGL 6501 and 6502.

- 6509 Computer Assisted Language Learning and Teaching (4)  
Methods of integrating the computer into teaching ESL to adult learners. Considers theoretical and practical issues. Prerequisites: graduate standing, ENGL 6501, 6502, and 6503.
- 6600 Seminar in American Literature to 1900 (4)  
Study of major works, authors, and literary topics before 1900. Maximum total credit: 8 units. Second credit by consent of instructor. Prerequisite: ENGL 4634 or 4635 or 4636 or 4860, or consent of instructor. (Y)
- 6650 Seminar in Women's Literature (4)  
Literary works written in English by women authors throughout the ages. May be repeated once for credit with consent of instructor. Prerequisite: graduate standing in English.
- 6660 Seminar in 20th Century British Literature (4)  
Study of major British works, authors, and literary topics of the 20th century. Prerequisite: ENGL 4816 or 4827 or 4833 or 4876 or consent of instructor. May be repeated for credit.
- 6665 Seminar in 20th Century American Literature (4)  
Study of major American works, authors, and literary topics of the 20th century. Prerequisite: ENGL 4637 or 4827 or 4870 or 4876 or consent of instructor.
- 6690 Seminar in African-American Literature (4)  
Major works, authors, and literary topics of the 19th and 20th centuries. May be repeated for credit with consent of instructor. Prerequisite: graduate standing in English and ENGL 4636 or 4637 or 4690 or 4860 or 4870 or consent of instructor.
- 6750 Theory and Practice of Composition (4)  
Focus on current research in theory and methods of teaching composition. Prerequisite: consent of instructor.
- 6760 Theory and Practice of Writing Across the Curriculum (4)  
Pedagogies incorporating writing throughout the disciplines; writing problems encountered by native and non-native English speakers; strategies for responding to student writing; technologies helpful for student writers; methods for working with students individually and in groups. Prerequisite: consent of instructor.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the English major. CR/NC grading only. Prerequisites: at least 3.0 GPA, departmental approval of activity. (A)
- 6900 Independent Study (1-4)

**6909** Departmental Thesis (1-5)

Development and writing of a research paper for submission to the department, which specifies its format. The written project, focusing on TESOL research, includes a survey of current literature and a bibliographical essay on an important issue in the field. Supervised by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense is normally required. Prerequisite: graduate standing. Maximum 5 units per student.

**6910** University Thesis (1-9)

Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and an approved thesis proposal. Maximum of 9 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)



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## Speech Communication

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### Department Information

Department of Speech Communication  
School of Arts, Letters, and Social Sciences  
Office: Robinson Hall 220  
Phone: (510) 885-3118

*Professors:* John C. Hammerback, Daniel S. Prentice (Chair),  
Anne L. Pym, Gale Young

*Associate Professor:* Sally K. Murphy

*Lecturers:* Deborah M. Alexander, Janet Johnson, Agha Saeed

*Graduate Coordinator:* Anne L. Pym

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.A. in Speech Communication

The Department of Speech Communication offers graduate study leading to the Master of Arts degree in Speech Communication. The candidate must observe the general requirements for the Master of Arts degree stated in the Graduate and Post-baccalaureate Studies chapter in this catalog as well as specific departmental requirements stated here and more fully in the Graduate Handbook issued by the department (copies available upon request). University requirements include the 32-unit residence requirement, the 5-year rule in currency of subject matter, the minimum number of units of 6000-level courses, a 3.00 GPA, and the University Writing Skills Requirement.

The candidate is also responsible for:

1. consulting an advisor, selecting a graduate committee, and planning a tentative program;
2. completing the prerequisites to the program and all program requirements.

### Program Description

Students who complete the Master of Arts degree in Speech Communication will gain understanding and expertise in public,

professional, and personal communication. By enabling them to critically analyze and improve spoken and written messages, the program prepares students to play valuable roles in business, industry, government, and education; to pursue doctoral study; and to communicate effectively in day-to-day life.

The study of Speech Communication includes theories and critical methods of rhetoric and communication, as well as critical analysis of messages as they occur within and across public, interpersonal, and organizational contexts, and across disciplines. The department focuses upon relating theory to practice in ways that recognize and explore the profound influences of culture on how we communicate. Cal State Hayward's Speech Communication program is widely and highly regarded for its excellence in preparing business, government, and teaching professionals and Ph.D. students.

### Career Opportunities

Students with a M.A. in Speech Communication are trained to speak, think, and write clearly and effectively. Because these are highly sought after skills, graduates are valuable employees in many jobs, including but not limited to teaching, consulting, human resources, personnel, communication training in organizations, management, banking, sales, government, and politics. The degree is also excellent preparation for Ph.D. and law degrees.

### Faculty: Areas of Specialization

The graduate faculty is comprised of seven full-time professors committed to teaching excellence and research. The faculty are well respected and are involved in professional organizations, in campus activities, and in community service.

John Hammerback, Ph.D. 1970, Indiana University; M.A. 1965, University of Oklahoma: modern rhetorical theory, rhetorical criticism, ethnic public address

Sally Murphy, Ph.D. 1986, University of Minnesota; M.A. 1975, University of New Mexico: conversation analysis, research methods, persuasion theory, communication theory, teaching speech communication

Daniel Prentice, Ph.D. 1972, University of California, Los Angeles; M.A. 1967, University of California, Los Angeles: communication theory, organizational communication, female/male communication, small group, nonverbal communication

Anne Pym, Ph.D. 1987, Pennsylvania State University; M.A. 1971, University of Washington: critical/postmodern theories of discourse, rhetorical criticism, modern rhetorical theory, public address, classical rhetoric, ethics of communication, rhetoric of popular culture

Agha Saeed, (lecturer) Ph.D. 1994, University of California, Berkeley; M.A. 1988, University of California, Berkeley: political communication, ethnic public address, Eastern/Middle Eastern/African rhetorical traditions, discourse analytic theories and cross-cultural communication.

Gale Young, Ph.D. 1978, University of California, Los Angeles;

M.A. 1970, University of California, Los Angeles: intercultural communication, interpersonal communication, communication theory

## Areas of Emphasis

Students in the department take regularly offered seminars and upper division courses in rhetorical studies, intercultural communication, organizational communication, and interpersonal communication. In addition, students may choose among special topics seminars, upper division courses, and independent study. Advisors work with students to create individual programs that meet their goals.

## Features

*Teaching Assistantships:* Qualified students may be granted opportunities to teach, to assist in forensics, or to assist a professor on a project. To be eligible for consideration in teaching SPCH 1000 and/or 1004, students must show satisfactory achievement in SPCH 6250 (Teaching Public Speaking and Interpersonal Communication) and have mentored with a faculty member in the course(s) they wish to teach. Interested students should consult with the Graduate Coordinator or the Department Chair.

*Forensics Program:* First year graduate students who have no experience in forensics may participate on the forensics team. Those who have participated in forensics may gain experience in directing forensics by assisting with the forensics team.

*Communication Laboratory:* In addition to classroom study of interpersonal, intercultural, organizational, and public communication, we sponsor a Communication Laboratory open to the campus community that provides communication-related support services. Upper division Speech Communication majors and graduate students serve as tutors who help students research, organize, outline and deliver oral presentations. Students are encouraged to volunteer in the Lab to gain valuable teaching experience and to serve other students.

*Annual Conference in Rhetorical Criticism:* The Department of Speech Communication hosts the Conference in Rhetorical Criticism in early May of each year. Students from across the nation submit scholarly papers to the Conference where they participate in group sessions to receive written, and oral critique of their work by faculty critics. Commended papers are read before the entire assembly and published in the annual Conference Journal.

*Work Study:* If you are interested in the work study program, consult with the Financial Aid Office in WA 545.

*Internships:* With the permission of your committee chair, students may earn up to four units of internship credit by working in the Communication Lab, by mentoring in SPCH 1000 or 1004, by assisting in the Forensics Program, by internship through Co-op Education, by internship in Organizational Communication, or by other work-related internships.

*Grad Forum:* Grad Forum is the department organization open to all graduate students. The Grad Form elects officers and meets

regularly to socialize, to discuss research, and to discuss concerns and problems. Each year, one graduate student is elected to serve as a student representative to the faculty meetings.

### Scholarships and Awards

- The Karl Robinson Scholarship is awarded to outstanding Speech Communication students and M.A. candidates who show potential for excellence in scholarly achievement.
- The Outstanding Graduate Student Award is given to students who demonstrate outstanding scholarship, leadership, and contribution to the program.
- The Outstanding Teaching Assistant Award is given to students who demonstrate outstanding performance in teaching.

### Admission

Application for admission includes two parts: (1) submit the university application form, with fee, to the Admissions Office, Warren Hall 200, Cal State Hayward, Hayward, CA 94542; (2) submit the department application form, a statement of purpose, three letters of recommendation, and a sample of scholarly writing to the Graduate Coordinator, Department of Speech Communication, Cal State Hayward, Hayward, CA 94542. Both university and department application forms are available at the Department of Speech Communication Office, Robinson 220. You may be admitted under one of the following:

#### "Classified Graduate" Standing

For admission with "Classified Graduate" standing to the M.A. program in Speech Communication, students must (1) submit an application to pursue a specific program of graduate study and be accepted by the department and the university; (2) have completed a baccalaureate major in Speech Communication from an accredited institution, or appropriate preparatory coursework approved by the faculty; (3) have maintained an overall grade point average of at least 2.50, and a 3.00 in all Speech Communication coursework; and (4) satisfied the University Writing Skills Requirement.

#### "Conditionally Classified Graduate" Standing

If a student's GPA is below expected levels in GPA, if a student's speech communication major did not include prerequisite courses, if a student's degree is in another field, or if the University Writing Skills Requirement has not been satisfied, it may be possible to be admitted with "Conditionally Classified Graduate" standing. In this case, students are admitted graduate students but have conditions to meet. Student status will remain conditional until the work is completed with a minimum 3.0 GPA and the Writing Skills Test has been passed. (See the following section, "Degree Requirements," for prerequisite courses.)

### Degree Requirements

The M.A. in Speech Communication requires completion of 45 units in an approved program of study, with a minimum GPA of 3.0. Of the 45 units, at least 23 must be in courses at the 6000 level. No more than 22 units at the 3000 and 4000 levels may count toward graduation.



For those who lack the appropriate preparatory coursework, SPCH 1000 or SPCH 4350, and SPCH 1004 may be required. In addition, the following four-unit courses are required as prerequisites and should be taken at their first offering if not previously completed: SPCH 3411 or 4411; SPCH 3510; SPCH 4810; SPCH 4201; and SPCH 4600. Undergraduate courses which may be applied to the M.A. degree are listed below.

At least 32 units must be completed in residence. A total of eight quarter units of Independent Study may be applied to the M.A.

#### Writing Skills Requirement

All students must successfully pass the Writing Skills Test to become fully "Classified Graduate" students. Graduate students must take the CSU Writing Skills Test in their first quarter of their residency.

#### Attainment of "Classified Graduate" Standing

To attain "Classified Graduate" standing, a student must have completed all prerequisites with a "B" average and passed the Writing Skills Test. Notify the graduate advisor immediately upon completion, and request that s(he) complete the necessary paper work.

#### Advancement to Candidacy

To be Advanced to Candidacy for the M.A. degree in Speech Communication, the student must:

1. be a "Classified Graduate" student in good standing;
2. complete 12 quarter units beyond the prerequisites with at least a 3.0 GPA;
3. chose a graduate committee;
4. submit a study plan for completion of the degree program to the committee chair;
5. satisfactorily defend the thesis proposal or project proposal, if one of these capstones is selected;
6. show evidence of progress and ability to complete the program.

#### Capstone Experiences

The M.A. degree may be completed in one of the following ways, with approval of the advisor: Thesis, Project, or Comprehensive Examination.

1. Thesis (5-9 units) Upon approval of his/her graduate committee, a student may elect the thesis program; s(he) will carry out research on a specific topic in the field and will report, review, and file the results; s(he) will be examined on the thesis (see 3, below); the thesis will carry nine units of credit if a University Thesis and five units if a Departmental Thesis.
2. Project (5 units) Upon approval of his/her graduate committee, a student may elect the Project option (5 units); enrollment commits the student to a production of a piece of work which is to follow prescribed forms; a permanent record is to be filed in the departmental office.

3. Comprehensive Examination: A student may elect a program made up entirely of a minimum of 45 hours of approved coursework. A comprehensive examination must be passed.

#### Examinations

1. Students electing the Thesis option will sit for oral examination of the thesis proposal and a defense of the thesis at its completion.
2. Students electing the Project option (5 units) will substitute the oral examination of their project for two hours of written examination.
3. Satisfactory achievement on comprehensive written and oral examinations will be required of students electing the coursework and project options. For the comprehensive examinations, the student will be tested on (a) Rhetorical Theory/Methods/Analysis, (b) Communication Theory/Methods/Analysis, and (c) Area of Emphasis, and, if elected by the student, a cognate field such as history, English, sociology, public administration, etc.

Students must be prepared to be examined on all coursework taken during their graduate study, including all required courses and any coursework in progress during the quarter of examination. *Rhetorical Theory/Methods/Analysis* includes history of rhetoric, rhetorical theory, critical theories of rhetoric, rhetorical criticism, public address, argumentation, etc. *Communication Theory/Methods/Analysis* includes interpersonal communication, organizational communication, intercultural communication, research methods, etc. The *Area of Emphasis* is to be decided in conjunction with graduate committee.

#### Curricular Requirements

- I. Required Courses (16 units)
  - SPCH 4550 Communication Criticism (4)
  - SPCH 4600 Modern Rhetorical Theory (4)
  - SPCH 6000 Introduction to Graduate Study (4)
  - SPCH 6400 Seminar in Rhetorical Studies (4) (May be repeated for credit)

Note: SPCH 4870 Methods of Research in Speech Communication is strongly recommended.

- II. Elective Courses (29 units)

The following courses, or their approved transfer equivalents, are acceptable electives for the degree. Certain of these courses may be required by the student's committee.

##### *Upper Division Elective Courses:*

(Note that no more than 22 units of the degree program can be in undergraduate courses.)

SPCH 4201 Comparative Traditions of Rhetoric, 4210 Non-Western Rhetoric, 4230 Rhetoric of Social Movements, 4350 Advanced Public Speaking (with permission), 4411 Theories of Argumentation, 4452 American Public Address, 4600 Modern Rhetorical Theory, 4610 Rhetoric of Popular Culture,

4700 Topics in Speech Communication (topics may include: political communication, ethics of communication, persuasion theory, listening, feminist perspectives on communication, non-western theories of rhetoric, rhetoric and the media), 4810 Communication Theory, 4830 Intercultural Communication, 4840 Organizational Communication, 4842 Communication Training in Organizations, 4850 Female and Male Communication, 4855 Family Communication, 4858 Intimate Communication, 4860 Ethnic Public Address, 4870 Methods of Research, 4880 Communication and Conflict Resolution

*Elective Graduate Seminars:*

SPCH 6100 Seminar in Topics in Speech Communication (topics may include: argumentation theory, conversation analysis, freedom of speech, conflict resolution, rhetorical criticism, communication ethics, group process, public address), 6200 Internship in Speech Communication (1-4), 6250 Seminar in Teaching Public Speaking and Interpersonal Communication, 6300 Seminar in Critical Theories of Rhetoric (topics may include: postmodernity and rhetoric, ethics and postmodernity, ideology theory, discourse analysis), 6400 Seminar in Rhetorical Studies (topics may include: persona in rhetoric, argumentation, postmodern discourse theory, issues in rhetorical criticism), 6500 Seminar in American Public Address, 6600 Seminar in Organizational Communication, 6800 Seminar in Interpersonal Communication, 6810 Seminar in Intercultural Communication

*Other Elective Courses:*

SPCH 5183 Directing Forensics (2), 6898 Cooperative Education (1-4 units), 6899 Project (5 units), 6900 Independent Study (1-4 units), 6909 Departmental Thesis (1-5 units), 6910 University Thesis (1-9 units)

III. Capstone Experience

If a comprehensive examination is not selected as the capstone experience, a thesis or project must be completed.

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## Courses

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*The course prefix for the following courses is SPCH.*

At times the subject matter in a course changes significantly and may be taken more than once for credit, with permission of the instructor and the student's advisor. This is indicated in the description of the course.

### Post-Baccalaureate

**5183** Directing Forensics (2)

Practical experience in organizing and managing a speech and debate program. Prerequisites: SPCH 4183 or consent of instructor. Repeatable once for credit. May be applied to the M.A. degree with approval.

**5900** Independent Study (1-4)

May be applied to the M.A. degree with approval.

## Graduate

The following graduate seminars, except SPCH 6000 and SPCH 6400, are offered on a rotating basis. Therefore, some 6000-level courses may not appear in a given academic year.

- 6000** Introduction to Graduate Study (4)  
A study of research and bibliographic methodology, library materials, and methods of scholarly reporting in speech, speech-language pathology and audiology. Bibliographic research and a scholarly research paper required.  
Prerequisites: Graduate standing and consent of instructor. (F)
- 6100** Topics in Speech Communication (4)  
Presentation of selected topics in speech communication beyond regular course offerings. Subjects will vary and will be specified at time of offering. May be repeated for credit with change in course content. Prerequisite: consent of instructor. (Y)
- 6200** Internship in Speech Communication (1-4)  
Supervised experience in a variety of communication activities inside and outside the University. Repeatable up to four units total in the M.A., up to six units total (combined with units from Co-Op Ed.) in the B.A. CR/NC grading only. Prerequisite: department approval. (A)
- 6250** Teaching Speech Communication (4)  
The theories of learning and motivations to learn. Development of strategies to communicate course content to encourage learning for the diversity of students in the communication classroom.
- 6300** Critical Theories of Rhetoric (4)  
Study of how we construct knowledge, language, culture and self through communication; how those constructions open and close possibilities for communication; and the relationship between communication and what it means to be human. Includes postmodern, classical and modern conceptions of rhetoric. May be repeated once for credit. (Y)
- 6400** Seminar in Rhetorical Studies (4)  
Selected topics from the philosophy and theory of rhetoric and public address, with original investigations by the student in areas of particular interest; special attention to the literature relating to selected topics. May be repeated once for credit. (Sp)
- 6500** Seminar in American Public Address (4)  
Advanced historical and critical studies, with emphasis on original research of selected topics and with special attention to the uses of theories of history and primary research materials. May be repeated once for credit. (Y)
- 6600** Seminar in Organizational Communication (4)  
Oral communication in organizational settings including the design, implementation and management of communication systems. Research and theories of organizational communication. May be repeated once for

credit. Prerequisite: consent of instructor. (Y)

- 6800** Seminar in Interpersonal Communication (4)  
Critical examination of research, theory, and methods in interpersonal communication; analysis of verbal and nonverbal message forms affecting the nature of human interaction. Prerequisites: SPCH 1004 and 4820 or 4810; or consent of instructor. May be repeated once for credit. (Y)
- 6810** Seminar in Intercultural Communication (4)  
The theory, research and practice of intercultural communication examined in light of the relevant social, political, and historical contexts. Emphasis on particular domestic U.S. or international cultures may vary. Prerequisite: SPCH 4830 or consent of instructor. May be repeated once for credit.
- 6898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 8 units. A maximum of 4 units will be accepted toward the M.A. in Speech Communication. CR/NR grading only. Prerequisites: minimum 3.0 GPA, departmental approval of activity. (A)
- 6899** Project (5)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 5 units per student. (A)
- 6900** Independent Study (1-4)
- 6909** Departmental Thesis (1-5)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 5 units per student.
- 6910** University Thesis (1-9)  
Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 9 units per student. (See also "University Thesis Writing Guide" available in WA 859.)



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## Geography

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### Department Information

Department of Geography and Environmental Studies  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 3021  
Phone: (510) 885-3193, 885-3193, FAX: (510) 885-2353

*Professor:* Herbert M. Eder

*Associate Professors:* David J. Larson (Chair), Scott Stine

*Assistant Professors:* Karina Garbesi, Michael Lee, Gang Li, David Woo

*Graduate Coordinator:* David Woo

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.A. in Geography

#### Program Description

Graduate study is offered leading to the degree of Master of Arts in Geography, with a choice of ten specialties: biogeography, cartography, cultural geography, economic geography, regional planning, historical geography, history and philosophy of geography, physical geography, regional geography, and urban geography. The seminars focus on intensive, directed readings interspersed with discussions of the content, principles, methods, and techniques of the selected topic or theme. The intent is to develop a subject to its research frontiers emphasizing an awareness of problems and their significance for the discipline. Seminars are accompanied or followed by directed research yielding oral and written reports. Their purpose is to expand beyond the recognition of problems to the guided investigation of a topic or theme. The seminars are supplemented by independent study and ultimately by research culminating in a University Thesis or a Departmental Thesis or a Project that allows and motivates the student to advance further in a chosen specialty. The candidate is responsible for the fulfillment of the specific requirements of the department stated below.

In addition to departmental requirements, every student must also

satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on the currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

## Admission

### "Conditionally Classified Graduate" Status

Admission to this university in some category of post-baccalaureate status is the prerequisite for entry into the graduate program. Graduate courses in Geography are open to students who have completed the prerequisites and/or obtained the consent of the instructor. Credit may be given for equivalent courses taken at other accredited institutions; undergraduate deficiencies may be corrected while the student is in "Conditionally Classified Graduate" status.

A student must complete the following requirements to be admitted to the program with "Conditionally Classified Graduate" status:

1. File the CSU "Graduate and Post-baccalaureate Application," which is available from the Admissions Office. The student should also submit two copies each of transcripts from all universities or colleges attended and a departmental application (available from the department office) as a declaration of intent to pursue the M.A. degree program in Geography.
2. Have a 2.5 or higher GPA in all undergraduate work; and have a 3.0 or higher GPA in all upper division and graduate work in Geography prior to request for entry into the program.

*Note:* If a student has earned less than a 2.5 grade point average in all undergraduate work, or if (s)he has less than a 3.0 grade point average in upper division and graduate courses in Geography, (s)he must continue coursework in "Unclassified Post-baccalaureate" status until (s)he has removed the deficiencies and demonstrated his/her ability to meet the requirements of the graduate program.

3. The Graduate Record Examination (GRE) Aptitude Test is not required, but students are strongly encouraged to take this test and submit their scores to the Geography Department prior to application for admission to the M.A. degree program in Geography.

### "Classified Graduate" Status

A student must complete the following requirements to be admitted to the program with "Classified Graduate" status:

1. Complete the following undergraduate courses or their equivalents, or demonstrate a competency by examination in:

GEOG 3120 Climatic Change (4) or GEOL 3110 Principles of Geomorphology (4) or GEOG 3115 Physical Landscape Analysis (4)



GEOG 3410 Air-Photo Interpretation (4)  
GEOG 3420 Field Instruments and Observation (4)  
GEOG 3600 Cartographic Principles (4)  
GEOG 4800 Growth of Geographic Thought (4)

*Note:* Up to 10 units of undergraduate courses may be taken as electives applicable toward the 45 units for the M.A. degree.

2. File an intended program of study with the departmental Graduate Advisor;
3. Complete the upper division course prerequisites for the seminars in the intended program of studies;
4. Complete at least 12 quarter units considered applicable by the department toward the M.A. degree requirements, including at least 3 quarter units of graduate-level (6000 series) work in residence at this university;
5. Be recommended for "Classified Graduate" status by the department; and
6. Fulfill the University Writing Skills requirement.

### Maintenance of "Classified Graduate" Status

To maintain "Classified Graduate" status a student must maintain a 3.0 or higher GPA must be attained on all work taken in the approved program of study, whether at Cal State Hayward or at any other college or university. Only courses with grades of "C" and higher are acceptable for courses applicable to degree requirements in Geography.

If a candidate's GPA drops below 3.0, the department will notify the Graduate Dean to place the student in "Conditionally Classified Graduate" status and the university will place the student on Academic Probation until (s)he has remedied his or her deficiencies and has been recommended by the department for return to "Classified Graduate" status. Failure by a student to return to "Classified Graduate" status in two additional quarters of study (or following completion of 15 additional quarter units) shall result in his or her being academically disqualified from the departmental program.

### Advancement to Candidacy

Admission to "Classified Graduate" status does not imply that a student will be Advanced to Candidacy for the M.A. degree. A student with "Classified Graduate" status will be Advanced to Candidacy for the M.A. degree when (s)he has satisfied the following requirements:

1. Demonstrated proficiency in either a modern foreign language, or in statistical methods as they apply to geography, or in mathematics.
  - a. Languages which are acceptable without special arrangements are Chinese, French, German, Japanese, Russian, Spanish, and Swedish. Any other modern foreign language may be substituted, provided the thesis advisor, the student, and the graduate advisor agree that the

language is an integral part of the projected program of study for the M.A. degree.

"Proficiency" in a foreign language means the completion (with a grade point average of 2.5 or better) of two years of college-level instruction in the language or demonstrating, by written examination, a reading competency at this level.

- b. Statistical methods may be used to satisfy this requirement provided the thesis advisor, the student, and the graduate advisor agree that such methods form an integral part of the projected program of study for the M.A. degree.

"Proficiency" in statistical methods is defined as satisfactory completion of the equivalent of:

STAT 1000 Elements of Probability and Statistics and STAT 3010 Statistical Methods in the Social Sciences, plus one 4000-level statistics course (STAT 4601 recommended). The student will also be required to demonstrate by examination the ability to solve a geographic problem using the computer.

- c. Mathematics may be used to satisfy this requirement provided the thesis advisor, the student, and the graduate advisor agree.

"Proficiency" in mathematics is defined as satisfactory completion of the equivalent of Trigonometry and Analytic Geometry (MATH 1300); Calculus I, II, III (MATH 1304, 1305, 2304); and either Linear Algebra (MATH 2101) or one other upper division mathematics course, except MATH 4021, 4022, 4023.

- 2. Declared an intention to complete either a thesis or a project
- 3. Been recommended for Advancement to Candidacy by the department.

## Degree Requirements

To be eligible for the M.A. degree in Geography a student must:

- 1. have been Advanced to Candidacy;
- 2. have completed 45 quarter units of graduate work of which:
  - a. all must have been earned within the five years just preceding the completion of the requirements for the degree;
  - b. not fewer than 32 units must have been completed in residence;
  - c. not fewer than 23 units must have been in geography courses in the 6000 series, including the thesis or project:
  - d. not more than 6 units may have been for a University Thesis (GEOG 6910) nor more than 4 for a project (GEOG 6899); and
  - e. not more than 13 units may have been for extension and/or

transfer course credit, as approved by the department;

3. have completed a satisfactory program of study as approved by the department, to include:
  - a. GEOG 6010 Seminar on Research Theory and Philosophy of Geography (4)
  - b. four graduate seminars in geography (12)
  - c. elective courses (graduate or upper division) in geography taken as a graduate student (12-15)
  - d. elective courses (graduate or upper division) outside of geography in one or more closely related fields (8-13)  

(Note: A student with a baccalaureate degree in a closely related field may take these elective courses in geography.)
  - e. a University Thesis or Departmental Thesis or Project (4-6)
4. have obtained a grade point average of 3.0 or higher in
  - a. all post-baccalaureate units undertaken;
  - b. all 45 units offered as satisfying the requirements of the M.A. degree program;
5. have been recommended for the M.A. degree in Geography by the department.
6. have satisfied the University Writing Skills requirement.

### Upper Division Courses Acceptable for the Master's Degree

All upper division Geography courses are acceptable for the M.A. degree program.

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## Graduate Courses

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*The course prefix for the following courses is GEOG.*

- 6010** Seminar on Research Theory and Philosophy of Geography (4)  
A search for common theory and philosophy in modern geography. Focus on proposal development with the intent of giving graduate students a framework for their thesis or project research development. Prerequisite: GEOG 4800. (F)
- 6100** Seminar in Physical Geography (3)  
Selected topics and directed research in physical geography based upon intensive readings, group discussion, and oral and written reports. Prerequisite: two upper division courses in physical geography (3100-4100 series), or equivalent, or consent of instructor.
- 6300** Seminar in Cultural Geography (3)  
Selected topics and directed research in cultural geography based upon intensive readings, group

discussion, and oral and written reports. Prerequisite: two upper-division courses in cultural geography, or equivalent, or consent of instructor.

- 6400 Seminar in Historical Geography (3)  
Selected topics and directed research in historical geography based upon intensive readings, group discussion, and oral and written reports. Prerequisite: GEOG 3300 or GEOG 3360 or two upper division courses in history or consent of instructor.
- 6500 Seminar in Regional Geography (3)  
Selected regions of the world based upon directed research, group discussion, and oral and written reports. Prerequisites: two regional courses in geography or consent of instructor.
- 6700 Seminar in Man's Role in Changing the Face of the Earth (3)  
Study of selected topics in Human/Environmental relationships and their effects upon landscape change and environmental problems. Prerequisites: one of ENVT 4100, GEOG 3000, 3300, 4320, 4350, or consent of instructor.
- 6750 Seminar in Environmental Planning (3)  
Selected topics and processes used in environmental planning based upon application of environmental knowledge and skills in problem solving. Prerequisite: ENVT 4100 or consent of instructor.
- 6800 Seminar in Urban and Regional Planning and Development (3)  
Selected topics and directed research in urban and regional planning and development based upon intensive readings, group discussion, and oral and written reports. Prerequisites: GEOG 3340, or equivalent, or consent of instructor.
- 6850 Geographic Internship (4-6)  
Individual students are assigned to public, private, or volunteer agencies and are supervised jointly by agency personnel and the course instructor. Students exchange experiences in group session and are subject to review by instructor. Prerequisite: "Classified Graduate" status. (F, W, Sp)
- 6899 Project (2)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate status. Maximum of 4 units per student. (A)
- 6900 Independent Study (1-4)
- 6909 Departmental Thesis (1-5)  
Development and writing of a research paper for submission to the department which specifies its format.

Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate status. Maximum of 5 units per student. (A)

6910 University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate status. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)



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## Department Information

# Speech Pathology And Audiology

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Department of Communicative Sciences and Disorders  
School of Arts, Letters, and Social Sciences  
Office: Music and Business Bldg. 1099  
Phone: (510) 885-3233

*Professor Emeritus:* Robert A. Veder

*Professors:* Jan A. Avent (Chair), Norma S. Rees, William S. Rosenthal

*Assistant Professor:* Laura Epstein

*Adjunct Faculty:* Bonnie Cabasino, Susan Carlson, Audra Elliott, Bonnie Groth

*Lecturers:* Marilyn Buzolich, Harold Clumeck, Valarie Fitzgibbons, Sue Keblusek, Ellen King, Starr Lieber, Carol Murphy, Shelley Simrin, Sandra Sulprizio

*Graduate Coordinator:* William S. Rosenthal

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## M.S. in Speech Pathology & Audiology

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### Program Description

The Master of Science degree in Speech Pathology and Audiology is offered in the Department of Communicative Sciences and Disorders. The objective of this program is the professional preparation of each student, academically and clinically, for state licensure, clinical certification by the American Speech-Language-Hearing Association, and the credential as a public school Speech, Language and Hearing Specialist.

Speech-Language Pathology and Audiology are the professions which help adults and children overcome disabilities of speech, language and hearing.

This program, one of the newest in the State, has developed a reputation for rigorous and balanced professional training. The Master's degree program is accredited by the American Speech-

Language-Hearing Association.

## Career Opportunities

Students who complete the Master of Science degree in Speech Pathology and Audiology are eligible for ASHA certification, California state licensure, and in most cases the Clinical Rehabilitative Services Credential in Language, Speech and Hearing or Audiology. Speech-language Pathologists work in a variety of settings which include hospitals, schools, rehabilitation centers, community speech and hearing clinics, public schools, and private practice.

## Faculty

The Communicative Sciences and Disorders faculty is comprised of five full-time professors and two clinical coordinators. Each of these professional faculty and staff has clinical and/or research interests which encompass the full range of communicative disorders. Regular guest lecturers supplement the academic offerings. Clinical supervision is provided by faculty, professional staff, and by part-time supervisors who are active in the community.

## Features

The Speech Pathology and Audiology Program operates the Center for Communicative Disorders, an on-campus facility which provides clinical services to speech, language, and hearing impaired individuals from Bay Area communities. Students who are enrolled in the Speech Pathology and Audiology Master's Program do much of their initial observations and clinical training in this facility. The program also maintains a fully equipped speech and hearing science laboratory for students who wish to pursue research interests.

## Internships

Clinical internships are considered part of the professional training of all graduate students. The department places students in settings which meet each student's interests and training requirements. Students may apply for internships in more than two dozen hospitals, rehabilitation facilities, and clinics in the Bay Area. More than twenty-two school districts provide additional internship settings.

## Scholarships

- The most usual form of financial aid is in the form of guaranteed student loans. However, other types of financial aid are available. The university supports the following programs:

- State University Grant
- Federal Perkins Loan
- Federal Stafford Loan (including unsubsidized)
- Federal Work-Study
- Federal Supplemental Loans for Students
- Cal State Hayward Scholarships

- The Department of Communicative Sciences and Disorders recommends the award of certain forms of financial aid within the University. They include the following:

- Graduate Equity Fellowship*, up to \$4000 for certain under-represented minorities or handicapped, for full-time graduate

study.

*Betsy Lindeman Rosenthal Memorial Fund*, non-interest loans, \$500 - \$1500 for graduate students in Communicative Sciences and Disorders.

- The department maintains a current file of scholarship and grant sources from within the University, CSU system and professional associations (ASHA, CSHA, NSSLHA, ASHA Foundation, and NBASLH/BACA).
- Occasionally, funds are available for Research and Teaching Assistantships, and Student Assistantships (clerical).

## Admission

### "Classified Graduate" Standing

For admission with "Classified Graduate" standing to the program leading to the Master of Science degree in Speech Pathology and Audiology the student must:

1. make application to pursue a specific program of study and be accepted by the department and the university;
2. possess a baccalaureate degree from an accredited college or university with a major in Speech Pathology and Audiology or the equivalent coursework in Speech Pathology and Audiology with another degree. Preparatory coursework completed at other institutions must correspond in scope and content with required and elective courses offered on this campus;
3. possess an overall grade point average of 3.0 or better covering the last 90 quarter units of course work;
4. present evidence of having satisfactorily completed a minimum of 60 clock hours of supervised clinical practica in speech, language, and hearing;
5. submit a statement of purpose which, when reviewed by the faculty as a whole, is considered to demonstrate the level of content, clarity, and style necessary to participate in graduate education at Cal State Hayward;
6. submit three letters of recommendation from appropriate persons who can and do attest to the candidate's high potential for graduate study;
7. fulfill the University Writing Skills requirement.

### "Conditionally Classified Graduate" Standing

A student who holds a baccalaureate degree from an accredited institution, but who does not meet other requirements named in (2), (3), and (4) in the previous section may, on recommendation of the graduate faculty in Speech Pathology and Audiology, be admitted with "Conditionally Classified" standing. The status remains conditional until the student has demonstrated capability in preparatory requirements, has received recommendation to "Classified" standing by the Speech Pathology and Audiology Graduate Faculty Committee, and has passed the Writing Skills



Test.

## Advancement to Candidacy

To be Advanced to Candidacy for the M.S. degree in Speech Pathology and Audiology, the student must:

1. be a "Classified Graduate" student in good standing;
2. complete at least 12 units in graduate work in Speech Pathology and Audiology with a GPA of at least 3.0;
3. complete a minimum of 2 units of SPPA 6056 and/or SPPA 6156 with a grade of "B" or better;
4. file with his or her advisor an approved study plan for completion of the degree program;
5. defend satisfactorily his or her thesis proposal, if a thesis capstone is selected; and
6. show evidence of progress and ability to complete the program.

## Degree Requirements

The Speech Pathology and Audiology Program in the Department of Communicative Sciences and Disorders offers graduate study leading to the Master of Science Degree in Speech Pathology and Audiology. The candidate must observe the specific requirements stated in this chapter and more fully in the M.S. brochure issued by the program. (Copies available upon request.) In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These requirements include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

Because it is the objective of this program to prepare each student academically and clinically for any or all of clinical certification by the American Speech-Language-Hearing Association, state credential as a speech, language and hearing specialist, and state licensure, each student's program must be individually planned to reflect prior undergraduate, graduate and professional experience. Consequently, it is imperative that each student consult a departmental advisor within the first quarter of residence to plan to plan a tentative program.

The program leading to the M.S. degree in Speech Pathology and Audiology requires completion of at least 45 quarter units of credit with grades of "A" or "B" from the courses listed below. The work must be completed within five calendar years after admission to the program. At least 32 units must be completed in residence.

- I. Required Courses (33 units)
  - SPPA 6000 Research Methods in Communicative Sciences and Disorders (4)
  - SPPA 6010 Advanced Speech and Hearing Science (4)
  - SPPA 6020 Advanced Vocal Rehabilitation (4)

SPPA 6030 Clinical Organization and Management (4)  
SPPA 6040 Advanced Seminar in Speech, Language, and Hearing Disorders (4)  
SPPA 6050 Neuropathologies in Speech and Language (4)  
SPPA 6060 Advanced Study of Language Disorders in Children (4)  
SPPA 6110 Advanced Audiology (4) or SPPA 6120 Amplification and Aural Rehabilitation (4)  
SPPA 6156 Graduate Practicum in Audiologic Assessment (1)

II. Elective Courses (12 units)

*Select 12 units from the following:*

SPPA 6052 Clinical Methods and Procedures in Communicative Disorders (2); 6040 Advanced Seminar in Speech, Language, and Hearing Disorders (4); 6056 Graduate Practicum in Speech-Language and Audiology (1-5); 6066 Clinical Internship (2-6) or 6910 University Thesis (2-8); 6110 Advanced Audiology (4) or 6120 Amplification and Aural Rehabilitation (4) (whichever was not taken as a required course); 6156 Graduate Practicum in Audiologic Assessment (1-5 units), 6220 Dysphagia (2), 6221 Principles of Accent Reduction (2), 6222 The Speech Pathologist and Cultural Diversity (2), 6223 Early Language Assessment and Intervention (2), 6224 Issues in Ethics (2), 6225 Dementia (2), 6226 Traumatic Brain Injury (2), 6900 Independent Study (1-5); EPSY 5021 The Exceptional Individual (4), or 5121 Counseling Exceptional Children (4)

In order to meet certification, licensure and credential requirements, and specific student interests, other electives may be chosen from related areas of Biological Sciences, Psychology, Statistics, Human Development, Speech Communication, Health Sciences, and Anthropology. These electives must be approved by a graduate faculty advisor.

Examinations

1. Satisfactory achievement on a comprehensive written examination is required for completion of the program. For this comprehensive examination, the student will select one primary management area, either Speech-Language Pathology or Audiology. The student will take a six-hour examination in this area of emphasis plus a two-hour examination in the other management area. The student need not have taken all courses listed below. However, material covered in these courses may be included in the examinations.
2. Satisfactory achievement on an oral examination will be required following the student's comprehensive written examination and covering all course work and clinical practice. A second oral examination will be required as a defense of thesis for those choosing the thesis capstone.

Capstone Experiences

The student may elect one of three programs after consultation with his or her advisor:

1. Forty-five units of approved coursework including Clinical Internship.

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## Clinical- Rehabilitative Services Credential

2. Forty-five units of approved coursework including University Thesis.
3. Forty-five units of approved coursework without either Internship or University Thesis. Option number (3) should be considered only by students who have previously completed extensive paid professional clinical work in Speech-Language Pathology and/or Audiology.

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### Language Speech and Hearing/Audiology

The Speech Pathology and Audiology faculty in the Department of Communicative Sciences and Disorders have developed a program of graduate study designed to fulfill the requirements for the *Clinical-Rehabilitative Services Credential in Language, Speech and Hearing/Audiology*. This credential is required for employment in the public schools.

Individuals wishing to obtain this credential must meet all requirements of the Master of Science degree in Speech Pathology and Audiology, including an internship in the public schools (SPPA 6066 for 6 units), and a 4-unit, advisor-approved course in Educational Psychology (EPSY 5021 or 5121).

Because students enter Cal State Hayward with differing academic and clinical backgrounds, it is imperative that each student consult a department advisor in the planning of a course of study within the first quarter of enrollment.

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## Graduate Courses

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*The course prefix for the following courses is SPPA.*

- 6000** Research Methods in Communicative Sciences and Disorders (4)  
Applied research methods in the field of communicative disorders, including literature search techniques, research designs, statistical tests, and scholarly report preparation. Required individual research project and written assignment. Prerequisites: graduate standing and consent of graduate advisor. (F)
- 6010** Advanced Speech and Hearing Science (4)  
Selected topics in acoustic and physiological phonetics, speech perception and psychoacoustics with laboratory application in the analysis of normal and disordered speech and voice patterns. Prerequisites: graduate standing and/or SPPA 3854, 3855, or consent of instructor. (F)
- 6020** Advanced Vocal Rehabilitation (4)  
Assessment procedures for differentiating various organic and non-organic laryngeal dysfunctions in adults and children with emphasis on the selection and application of appropriate treatment methods. Prerequisites: graduate standing; SPPA 4853 and/or consent of instructor. (W)
- 6030** Clinical Organization and Management (4)

Principles and procedures underlying patient selection, appropriate placement, family counseling, and utilization of allied professions in the treatment of adults and children in clinic and school settings. Organizing, administering and supervising speech, language and hearing programs in accordance with pertinent State and Federal regulations. Prerequisites: graduate standing and consent of instructor. (Sp)

- 6040 Advanced Seminar in Speech, Language and Hearing Disorders (4)  
Selected topics in speech, language and hearing beyond regular course offerings. Topics vary to include recent developments in areas such as autism, bilingualism, child language disorders, deafness, fluency, evaluation and management of hearing loss. May be repeated for credit with change in course content. Prerequisites: graduate standing and consent of instructor. (Y)
- 6050 Neuropathologies in Speech and Language (4)  
Seminar in the evaluation and treatment of dysarthrias and other speech, language, and voice problems associated with neuropathologies in children and adults, e.g. cerebral palsy, myasthenia and dystrophies. Prerequisites: graduate standing; SPPA 3853, 4853 and/or consent of instructor. (Sp)
- 6052 Clinical Methods and Procedures in Communicative Disorders (2)  
Basic principles of client treatment and management, including structuring the therapy session, designing therapy hierarchies, data collection, working with families, reinforcement, and documentation. CR/NC grading only. Prerequisite: prior or concurrent enrollment in SPPA 6056. (Y)
- 6054 Fluency Rounds (1)  
Review, discussion, and planning of fluency cases currently being evaluated and treated at the CSUH Speech, Language, and Hearing Clinic. CR/NC grading only. May be repeated once for credit. Co-requisite: SPPA 6056.
- 6056 Graduate Practicum in Speech-Language and Audiology (1-5)  
Development, implementation and evaluation of individualized therapy plans administered in both individual and group settings. Report writing and oral case presentations. Thirty (30) hours of patient contact per unit of credit. May be repeated for credit. Prerequisites: graduate standing; SPPA 4856 and/or consent of instructor. (A)
- 6060 Advanced Study of Language Disorders in Children (4)  
Evaluation and treatment procedures applicable to clinic and classroom settings. Emphasis on the evaluation of semantic and pragmatic functions and the establishment of functional language. Prerequisites: graduate standing; SPPA 4865 and/or consent of instructor. (F)

- 6064 Advanced Seminar in Fluency Disorders (4)  
In-depth study of techniques for the diagnosis, management, and modification of fluency disorders, including stuttering and cluttering. Intended for individuals seeking fluency specialization. Prerequisite: SPPA 4864, 30 hours of supervised practicum in fluency disorders, or consent of instructor.
- 6066 Clinical Internship (2-6)  
Field placement in supervised and approved settings such as public schools, hospitals, and community speech-language and hearing clinics. May be repeated for credit. Prerequisites: graduate standing and consent of graduate advisor. (Y)
- 6110 Advanced Audiology (4)  
The theory and procedures for evaluating auditory development and function in young children and adults. Including, but not limited to, speech audiometry, immittance audiometry, and visual reinforcement audiometry. The application of test data to aural rehabilitation. Prerequisites: graduate standing; SPPA 3859, 4861, 4855 or consent of instructor. (Y)
- 6120 Amplification and Aural Rehabilitation (4)  
Hearing aids and their application in the aural rehabilitation process. The history of hearing aids, current standards, regulations, and electro-acoustic real ear measures and clinical procedures for the selection and evaluation of hearing aids and ear molds. Prerequisite: graduate standing and/or consent of instructor. (Y)
- 6156 Graduate Practicum in Audiologic Assessment (1-5)  
Supervised clinical diagnosis of hearing disorders including history taking, test administration, data analysis, patient counseling, oral and written case presentation. Thirty (30) hours of patient contact per unit of credit. May be repeated for credit. Prerequisites: graduate standing and consent of graduate advisor. (A)
- 6220 Dysphagia (2)  
Principles of the diagnosis and treatment of swallowing disorders including the anatomy/physiology of normal swallowing, the radiographic modified barium swallow, and management/treatment techniques. Prerequisites: graduate standing, SPPA 3854, 4853, and/or consent of instructor. CR/NC grading only.
- 6221 Principles of Accent Reduction (2)  
Basic principles used to improve the pronunciation of non-native speakers of English. Topics include speaker attitudes and expectations, dialect diversity, phoneme contrasts, American English stress and intonation patterns, and syllable and word reduction. Open to SPPA graduate students and Speech Pathologist professionals. Prerequisites: SPPA 3855, 4863; or consent of instructor. CR/NC grading only.

- 6222 The Speech Pathologist and Cultural Diversity (2)  
Lecture materials and experimental activities targeted to the speech-language pathologist and audiologist. Focus on the effects of cultural/linguistic differences on the treatment of communicative disorders. CR/NC grading only.
- 6223 Early Language Assessment and Intervention (2)  
Provides information and develops skills for working with the birth to 3 population at risk for speech and language delays and/or disorders including: children of substance abuse pregnancies, premature birth, chromosomal disorders, developmental delay, and pervasive developmental disorders. Topics include characteristics of these populations, appropriate assessment procedures, family-centered services, and transdisciplinary approaches. Limited to SPPA majors. CR/NC grading only.
- 6224 Issues in Ethics (2)  
The American Speech-Language-Hearing Association's (ASHA) Code of Ethics with specific discussion on conflict of interest, the effect of managed care, and insurance reimbursement. Prerequisite: SPPA major, minor or consent of instructor. CR/NC grading only.
- 6225 Dementia (2)  
Causes and management of dementia. Special consideration of speech-language clinical issues. Prerequisite: consent of instructor. CR/NC grading only.
- 6226 Traumatic Brain Injury (2)  
Seminar in the evaluation and treatment of cognitive-linguistic deficits following traumatic brain injury. Prerequisite: consent of instructor. CR/NC grading only.
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off campus paid or volunteer activities. May be repeated for up to 4 units. Not applicable to the M.S. in Speech Pathology. CR/NC grading only. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)
- 6900 Independent Study (1-5)
- 6910 University Thesis (2-8)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 8 units per student. (See also, "University Thesis Writing Guide" available in WA 859.)



HOME



HELP



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## Department Information

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## M.S. in Geology

## Geology

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- ▶ [Graduate Courses](#)

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Department of Geological Sciences  
School of Science  
Office: North Science 329  
Phone: (510) 885-3486

*Professor Emeritus:* Elwood R. Brooks

*Professors:* Sue E. Hirschfeld, Leigh W. Mintz, Detlef A. Warnke

*Associate Professor:* Nancy E. Fegan (Chair)

*Assistant Professor:* Jeffery C. Seitz

*Graduate Coordinator:* Sue E. Hirschfeld

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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### Faculty: Research Interests

Elwood R. Brooks, Ph.D., 1964, University of Wisconsin; petrology, field geology, volcanology, optical mineralogy.

Nancy E. Fegan, Ph.D., 1993, Michigan State University; groundwater and surface water chemistry, watershed hydrology, water-rock interaction.

Sue E. Hirschfeld, Ph.D., 1971, University of California, Berkeley; paleontology, stratigraphy, earthquake hazards.

Leigh W. Mintz, Ph.D., 1966, University of California, Berkeley; invertebrate paleontology, historical geology (on administrative assignment).

Jeffery C. Seitz, Ph.D., 1994, Virginia Polytechnic Institute and State University; geochemistry, petrology, geologic fluids, laser Raman spectroscopy

Detlef A. Warnke, Ph.D., 1965, University of Southern California; oceanography, marine geology, geomorphology.



## Program Description

The Department of Geological Sciences offers graduate study leading to the Master of Science degree in Geology. This program is designed to prepare students for: (1) employment as geologists in government (city, county, regional, state, and federal) and private enterprise (engineering and geotechnical firms, mining and oil companies, etc.); (2) research at the doctoral level in various aspects of geology, geochemistry, geophysics, and oceanography, depending on their undergraduate background; and (3) the Community College Instructor Credential (the master's degree requirement). We also provide continuing education for professional geologists, engineers, planners, etc.

To serve graduate students who are employed during the day, all graduate courses in the Department of Geological Sciences are offered in the evenings and on weekends. In addition to regular catalog courses, recent graduate seminars and advanced topics courses have dealt with such subjects as computer applications in geology, rock mechanics, geothermal exploration, mineral resource evaluation, isotope geochemistry, marine geology, sedimentary models, tectonics and sedimentation. Students registered at Cal State Hayward may enrich their graduate programs by enrolling in courses through cross-registration at the University of California, Berkeley. Additional facilities and part-time employment may be secured through Co-op programs, the Lawrence Berkeley and Livermore National Laboratories, and the U.S. Geological Survey in Menlo Park.

Candidates for this degree must be prepared to engage in significant individual research. Lately, student research in this department has included such topics as contaminant hydrogeology, areal geology and slope stability, engineering geology, glacial geology, marine and geothermal geochemistry, mineral deposits, volcanic petrology, neotectonics, and fluvial and marine sedimentology. It is very important that prospective candidates determine whether their research interests coincide with those of the faculty members before applying. Interested persons are invited to contact the department directly for more details on the program and the availability of financial assistance. Qualifications and advancement in the graduate program are decided by the department Graduate Coordinator with the concurrence of the department faculty.

## Environmental Geology Option

Students who complete a combination of appropriate courses in the Department of Geological Sciences and other departments and who complete an environmentally related thesis, will be allowed to receive the M.S. degree with the Environmental Geology Option. A list of appropriate courses may be obtained from the department office.

## Admission

With the qualifications listed under "Conditionally Classified Graduate" status below, the M.S. degree program is open to any student in possession of a baccalaureate degree in Geology with coursework equivalent at least to the core requirements for the B.S. degree in Geology at Cal State Hayward. Students who do not meet those requirements will be considered on an individual basis and accepted only after approval by a majority of regular faculty members.



Applicants must have a GPA of at least 2.5 in all undergraduate work and at least 2.75 in all geology courses. Any undergraduate geology course with a "D" grade will have to be repeated. Students transferring from another graduate program must have a GPA of at least 3.0 in all graduate geology courses. (No more than 13 units may be transferred.)

Applications must be accompanied by two letters of recommendation from faculty members or work supervisors.

#### Conditionally Classified Graduate Status

Students who are otherwise qualified but have course deficiencies and/or have not satisfied the University Writing Skills requirement, will be accepted as "Conditionally Classified Graduate" students. Course deficiencies may be removed by enrolling on a "CR/NC" basis. (Students who wish to develop their writing skills should enroll in English 3000 or 3001.)

#### Classified Graduate Status

Students who fulfill all the requirements for admission to the program will be accorded "Classified Graduate" status once they have satisfied the University Writing Skills requirement. All deficiencies have to be removed, and the University Writing Skills requirement satisfied no later than the completion of 20 units of coursework applicable to the degree or the student will be disqualified.

#### Selection of Thesis or Academic Advisor

Once "Classified Graduate" status has been attained, each student will be assigned a thesis advisor by the department chair after consultation with the student and the graduate coordinator. The faculty member chosen also will act as academic advisor.

#### Advancement to Candidacy

In order to be Advanced to Candidacy, the student must have:

1. been accorded "Classified Graduate" status
2. been assigned a thesis advisor; and
3. submitted to the department an acceptable Thesis Prospectus describing the research to be attempted (guidelines for preparation of the Prospectus may be obtained from the department office). The research topic must be approved in advance by the thesis advisor.

#### Degree Requirements

1. Advancement to Candidacy
2. Satisfaction of university requirements described in the Graduate and Post-Baccalaureate Studies chapter at the beginning of the graduate section of this catalog. These include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement
3. Completion of the study plan outlined below:

Two Graduate Seminars (GEOL 6811) (2,2)  
University Thesis (GEOL 6910) (9)  
Geology Graduate Courses (20)  
Upper division/graduate electives in Geology and related fields  
(12)

4. Completion and defense of the University Thesis.

## Curricular Requirements

### A. Graduate Geology Course Requirements

All students are required to take two graduate seminars (GEOL 6811), each 2 units. In addition, any combination of graduate geology courses and additional seminars except GEOL 6420 (Internship), GEOL 6900 (Independent Study), and GEOL 6910 (University Thesis) must be taken for a total of 20 units.

### B. Elective Course Requirement

Twelve units must be completed in courses selected from a list of approved upper division and graduate courses in Geology and related disciplines which is available from the department office; at least 4 units must be in Geology courses.

### C. Basic University Requirements

These include the 32-unit residence requirement, the five-year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 GPA, and the University Writing Skills requirement.

*Students cannot receive credit toward the master's degree for:*

- Courses taken to remove deficiencies
- Independent Study, GEOL 6900, in excess of 4 units
- Internship, GEOL 6420, in excess of 4 units
- University Thesis, GEOL 6910, in excess of 9 units
- Cooperative Education (GEOL 3898)

## University Thesis

Requirements: Students must submit to the Thesis Committee, and defend orally, an acceptable University Thesis. The University Thesis is a formal paper reporting the results of original research. This research normally involves field and/or laboratory investigation. The thesis is submitted to the university in the bound format specified in the "University Thesis Writing Guide." A minimum of two copies of the thesis must be submitted to the Thesis Office (WA 859); one copy will be filed in the Department Office. The Thesis Committee comprises the faculty thesis advisor plus either (1) two other faculty members from the Department of Geological Sciences or other appropriate Cal State Hayward faculty, or (2) one other faculty member from the department and one or more qualified individuals from outside the university.

*Units Required:* GEOL 6910, University Thesis, for a total of 9 units; students may not register for more than 50% of the total units prior to starting the writing of their thesis.

## Other Requirements

Students filing for graduation are expected to know the procedures described in this catalog. (See "How to Apply for Graduation" in the Baccalaureate Degree Requirements chapter.)

## Graduate Courses

### Marine Science Courses

*The course prefix for the following courses is MSC. See the graduate Marine Science chapter for course descriptions.*

- 6202 Marine Instrumental Analysis (6)
- 6204 Sampling and Experimental Design (6)
- 6242 Plate Tectonics (4.5)
- 6244 Paleooceanography (6)
- 6245 Deep Sea Sedimentation (6)
- 6251 Marine Geochemistry (6)
- 6261 Ocean Circulation and Mixing (6)
- 6262 Satellite Oceanography (6)
- 6263 Application of Computers to Oceanography (6)
- 6274 Advanced Topics in Oceanography (1.5-6)
- 6286 Graduate Seminar in Marine Geology (3)
- 6287 Graduate Seminar in Oceanography (3)

### Geology Courses

*The course prefix for the following courses is GEOL.*

- 6320 Groundwater (4)  
Groundwater resource evaluation methods. Mathematical development of multi-dimensional flow equations. Introduction to computer models and numerical simulation to predict aquifer yields. Inorganic and organic groundwater contamination. Contamination transport processes. Three hrs. lect., 3 hrs. lab. and/or field trips. (Sp)
- 6321 Aqueous Geochemistry (4)  
Chemistry of surface and ground water. Carbonate system and pH, ion exchange, mineral equilibria, salinity, redox reactions, trace elements, isotopes. Thermodynamics and equilibrium in natural waters. Hydrochemical cycling of elements. Cross-listed with CHEM 6321. Prerequisite: GEOL 4110 or upper division Chemistry, or permission of instructor. Three hrs. lect., 3 hrs. lab. (Alt. F)
- 6322 Water/Rock Interactions (4)  
Near-surface interactions between rocks, water, and soils. Clay mineralogy, x-ray diffraction and SEM analysis. Weathering rates, development of soil profiles, kinetic constraints and chemical equilibrium in low temperature water/rock systems. Prerequisite: GEOL 4110 or permission of instructor. Three hrs. lect., 3 hrs. lab., field trip(s). (Alt. F)
- 6405 Geotectonic Development of California (4)  
Advanced treatment of petrology, stratigraphy, and structure of California; interpretation of the state's geologic history in terms of plate and accretion tectonics. Prerequisites: GEOL 3701, -2; 3730; and 3810, or permission of instructor. Two hrs. lect., 6 hrs. lab/field; several weekend (overnight) and Saturday field trips required. (Alt. Sp)

- 6411 Engineering Geology (4)  
Application of geology in location and planning of engineering works. Study of case histories. Use of geophysical techniques to solve engineering geologic problems. Prerequisite: Graduate standing or consent of instructor. Three hrs. lect., 3 hrs. lab. and/or field trips. (Y)
- 6412 Advanced Igneous and Metamorphic Petrology (4)  
Chemical characteristics of igneous rocks and magmatic evolution. Petrography of igneous and metamorphic rock suites using the polarizing microscope, emphasizing thorough description of mineralogy and textures. Prerequisite: GEOL 3611 or equivalent. Two hrs. lect., 6 hrs. lab. (Alt. Y)
- 6415 Advanced Sedimentary Petrology (4)  
Advanced study of terrigenous-clastic and chemical sedimentary rock petrogenesis, including depositional environments and facies models, diagenesis, and basic analysis techniques. Prerequisites: GEOL 3611 and 3702 or equivalent courses. Three hrs. lect., 3 hrs. lab. Field trip(s). (Alt. Sp)
- 6420 Internship (1-4)  
Professional experience for at least one quarter with a public or private organization involved in geologic studies, summarized in a written report. Credit/No Credit grading only. Prerequisites: "Classified Graduate" status and advisor's approval. No more than 4 units can be applied toward the master's degree. (A)
- 6510 Mineral Resource Evaluation (4)  
The geologist's role in organizing exploration, in supervising mining production and ore processing, appraising mineral deposits, and estimating reserves. Principles of mining economics. Prerequisite: graduate standing in geology or instructor's approval. Three hrs. lect., 3 hrs. lab. (Alt. W)
- 6620 Advanced Topics in Geology (4)  
Selected advanced topics in geology. May be repeated with consent of instructor. Prerequisite: graduate standing or consent of instructor. Four hrs. lect. (Y)
- 6621 Advanced Topics in Geology with Laboratory (4)  
Selected advanced topics in geology. May be repeated with consent of instructor. Prerequisite: graduate standing or consent of instructor. Three hrs. lect., 3 hrs. lab. (Y)
- 6811 Graduate Seminar (2)  
Investigation of a selected geologic topic. May be repeated for credit with consent of instructor. Prerequisite: graduate standing or consent of instructor. Two hrs. seminar. (Y)
- 6900 Independent Study (1-4)  
CR/NC grading only. No more than 4 units may be applied toward the master's degree. (A)

6910 University Thesis (1-9)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least two of whom must be Cal State Hayward faculty members. Oral defense required. CR/NC grading only. Prerequisites: "Classified Graduate" status and advisor's approval. Maximum of 9 units per student. (See also "University Thesis Writing Guide," available in WA 859.) (A)



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## Statistics

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### Department Information

Department of Statistics  
School of Science  
Office: North Science 229  
Phone: (510) 885-3435

*Professors:* Dean H. Fearn, Elliott Nebenzahl, Julia A. Norton (Chair), Michael L. Orkin, Bruce E. Trumbo

*Assistant Professor:* Eric A. Suess

*Graduate Coordinator:* Bruce E. Trumbo

*Please consult the 2001-2002 online catalog for any changes that may occur.*

### M.S. in Statistics

#### Program Description

The Department of Statistics offers graduate study leading to the degree Master of Science in Statistics. The program is flexible in order to serve the needs of students with varying backgrounds in Statistics and Mathematics and with different career objectives. All students, however, are expected to master a wide variety of applied statistical and probabilistic techniques and the theoretical foundations on which these techniques rest. They are expected to be familiar with recent developments and to be able to use the statistical literature to learn new techniques and theories throughout their professional careers. In addition to the general requirements stated elsewhere in this catalog, a student must satisfy the departmental requirements stated in the following paragraphs.

#### Admission Requirements

1. A baccalaureate degree.
2. Differential and Integral Calculus, including multiple integration and infinite series.
3. Departmental approval.
4. For "Classified Graduate" status, fulfillment of the University

## Writing Skills Requirement.

In addition to the above minimal requirements for admission, if students have some of the following background they will be at an advantage both as to selection for the program and optimal progress toward the degree if admitted:

- Basic statistics and probability at the level of STAT 3401, 3502 (or beyond)
- Additional mathematics at the level of MATH 2101, 3300 (or beyond)
- Knowledge of a computer programming language
- Experience in a setting where studies or experiments are conducted for the collection of data.

## Advancement to Candidacy Requirements

1. Completion of at least 15 quarter units of approved work beyond the baccalaureate, with an average of "B" (3.0) or higher.
2. Departmental approval. (May be contingent on a written or oral qualifying examination.)

## Degree Requirements

Successful completion of the following unit, grade, and course requirements.

### A. Unit and Grade Requirements

The M.S. program consists of at least 45 quarter units of approved upper division and graduate work. Of these, at least 25 units must be approved graduate (6000 level) courses. All work applied toward the 45 units must be at an average grade of "B" (3.0) or higher, and no more than 5 of the units applied toward the 25-unit graduate-level requirement may be at a grade below "B."

### B. Course Requirements (45 units)

Elective courses in sections (2) and (4) below must be approved in writing in advance by an advisor.

#### 1. Required Upper Division Courses (20 units)

MATH 3300 Analysis I (4)  
STAT 3402 Introduction to Probability Theory II (4)  
STAT 3503 Statistical Inference II (4)  
STAT 4401 Introduction to Stochastic Processes (4)  
STAT 4601 Regression and Experimental Design (4)

Students entering the program with acceptable credit for any of these courses (or equivalents) will select additional courses from section (2) or (4) below.

#### 2. Upper Division Elective Courses (0-20 units)

Additional upper division courses to complete unit requirements may be selected from among the following:

3510 Sampling Procedures for Surveys (4)

4612 Statistical Inference in Practice (4)  
4860-99 Undergraduate Seminar (2-4 each)  
4910 Advanced Statistical Software Design (4)  
4950 Advanced Statistical Packages for Data Analysis (4)

Courses from other departments designated as acceptable by the graduate advisor.

3. *Required Graduate-level Courses (12 units)*

STAT 6401 Advanced Probability (4)  
STAT 6501, 6502 Mathematical Statistics I & II (4 each)

4. *Graduate-level Elective Courses (13 units minimum)*

Additional graduate-level courses for a total of at least 25 units at the 6000 level and 45 units overall are required.

The graduate advisor may approve for inclusion in a student's program any 6000-level Statistics course or any course outside the department. A maximum of one course from outside the department may be counted in the 25-unit requirement.

### Comprehensive Examination

Successful completion of a departmental examination is required. This examination will cover the contents of the courses in the candidate's approved program. In addition the examination will cover fundamentals of statistical theory, methodology and computation according to general guidelines specified in advance. This written examination will generally be given only in the Fall and Spring quarters.

In each quarter of offering, the department chair will appoint three or more members of the graduate faculty to administer the examination. Each student will generally take the comprehensive examination in the quarter s(he) intends to graduate or in the preceding quarter, after consulting with the graduate advisor. The examination committee is the final departmental authority in deciding eligibility to take the examination.

### Other Degree Requirements

In addition to departmental requirements, every student must also satisfy the university requirements for graduation which are described in the Graduate and Post-baccalaureate Studies chapter in the graduate section of this catalog. These include the 32-unit residence requirement, the five year rule on currency of subject matter, the minimum number of units of 6000-level courses, the 3.00 grade point average, and the University Writing Skills requirement.

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## Certificate Programs

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### Applied Statistics

For a description of the Certificate in Applied Statistics program, see the undergraduate Statistics chapter.

### Mathematical Statistics

The Certificate in Mathematical Statistics is designed to enhance a student's understanding of theoretical statistics and probability in



## Graduate Courses

preparation for employment in the engineering, information science, and technology sectors. The certificate also prepares students for further graduate study.

The minimum required GPA for the awarding of the certificate is 3.0. Consult an advisor in the Department of Statistics for clarification and interpretation of requirements. The certificate consists of 16 graduate-level units, plus any necessary prerequisites. All required courses are cross-listed with Mathematics.

### Prerequisites

STAT 6401 requires MATH 3300 and STAT 4401

STAT 6501 requires MATH 3300 and STAT 3402

STAT 6510 requires MATH 2101 and STAT 3503

### A. Core Courses (12 units)

STAT 6401 Advanced Probability I (4)

STAT 6501 Mathematical Statistics I (4)

STAT 6502 Mathematical Statistics II (4)

### B. Electives (4 units)

Choose at least one course from the following: (*Advisor approval required*)

STAT 6402 Advanced Probability II (4)

STAT 6510 Analysis of Variance (4)

STAT 6860-69 Selected Topics in Probability and Statistics (4)

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*The course prefix for the following courses is STAT.*

- 6401,** Advanced Probability I, II (4 units each)
- 6402** Advanced treatment of probability theory and its applications. May include: conditioning, generating/characteristic functions, modes of convergence, limit theorems, renewal theory, Markov processes, combinatorial techniques, measure and integration. Cross-listed with MATH 6401, 6402. Prerequisites: MATH 3300 and either STAT 3402 or 4401. (Y)
- 6501,** Mathematical Statistics I, II (4 units each)
- 6502** Theory of point and interval estimation and hypothesis testing, from the Neyman-Pearson point of view. May include decision theory, non-parametric inference, sequential analysis, multivariate analysis, robustness, Bayesian methods, computer intensive methods. Cross-listed with MATH 6501, 6502. Prerequisites: MATH 3300, STAT 3402. (6501-F; 6502-W)
- 6510** Analysis of Variance (4)  
The theory and application of the general linear model, the analysis of variance and covariance, application of generalized inverses and decomposition theorems from linear algebra. Cross-listed with MATH 6510. Prerequisites: MATH 2101, STAT 3503. (Y)
- 6515** Advanced Multivariate Analysis (4)

Advanced, computer intensive applications of multivariate analysis. Applications of linear algebra. Topics may include ANOVA, canonical correlation, discriminant functions, factor/cluster/spatial analysis. Emphasis on actual data, report writing. Prerequisites: STAT 3503, 4950; MATH 2101. (Alt F)

- 6601 Advanced Statistical Computing (4)  
Implementation of computationally advanced statistical methods. Topics may include bootstrap, EM algorithm, Bayesian methods, Markov Chain, Monte Carlo, neural networks, recent methodological advances. Prerequisites: senior or graduate standing, an upper division STAT course, MATH 2304. (Alt Y)
- 6860-69 Selected Topics in Graduate Probability and Statistics (2-4 units each)  
Probability and/or Statistics extending beyond regular courses. Variable content to be specified at time of offering. May be repeated for credit. Prerequisites: graduate standing and consent of instructor. (Y)
- 6870-79 Seminar in Probability and Statistics (2-4 units each)  
An intensive study of a selected topic in probability and/or statistics from current literature emphasizing student participation. May be repeated for credit. Prerequisites: graduate standing and consent of instructor. (Y)
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the M.S. degree in Statistics. Prerequisites: at least 3.0 GPA and departmental approval of activity.
- 6900 Independent Study (1-4)



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## Department Information

# Health Care Administration

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Department of Nursing and Health Sciences  
School of Science  
Office: North Science 143  
Phone: (510) 885-3481

Department of Public Administration  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4124  
Phone: (510) 885-3282

*Professors:* Brenda J. Bailey (Nursing), Bette Felton (Nursing),  
Lynn C. Paringer (Economics), Pamela K. Parlocha (Nursing),

*Assistant Professors:* Ann L. Abbott (Public Administration), Linda  
F. Dennard (Public Administration), Chris M. Wood (Nursing)

*Graduate Coordinator:* Ann L. Abbott

*Please consult the 2001-2002 online catalog for any changes that  
may occur.*

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## M.S. in Health Care Administration

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### Program Description

The Department of Public Administration, in cooperation with the Department of Nursing and Health Sciences in the School of Science and the School of Business and Economics, offers an interdisciplinary Master of Science in Health Care Administration degree. This degree is primarily designed for health care professionals who are currently in leadership/management positions and for health care professionals who aspire to leadership/management positions in either non-profit, for profit, or voluntary health care organizations. It is secondarily designed for students who are not currently in the health care field, but who desire a career in health care administration.

The objectives of the Master of Science in Health Care Administration are to prepare future health care administrators; enable current and future health care administrators to be more humanistic, effective, and change oriented; meet the need of health care organizations for well-trained and innovative

administrators; and help health care organizations successfully meet the challenges of a rapidly changing environment.

This program is different from other health care administration master's degree programs because most of them emphasize the managed health care model. While this is the dominant model currently, our program takes a more comprehensive look at the role of health care in society, including a critical look at the managed care model, the need for client-centered models, alternative medical models, wellness, and the development of healthy organizations and communities.

Students take required courses in leadership and change in health care organizations, health care financing and budgeting, health care policy, research, information technology in health care, and legal and ethical issues in health care.

They also take additional courses in one of the following three option areas: Nursing Administration, Management and Change in Health Care, or Administration of Healthy Communities.

Students in the M.S. in Health Care Administration program acquire the analytical skills needed to explore new models of health care delivery and organizational design. They also develop the leadership skills needed to discover and implement creative solutions to problems in the current health care system.

### Career Opportunities

The nation's growing and aging population needs effective health care services from a variety of providers and community organizations. The M.S. in Health Care Administration prepares students for careers in health care administration in public organizations such as county health care agencies, hospitals (both public and private), health provider organizations such as HMO's, community health care organizations such as non-profit health care community-based organizations, and alternative community health care organizations. Health care professionals in nursing, radiology, physical therapy, and other medical services can advance their knowledge of health care policy-making, administration, and leadership with the M.S. in Health Care Administration.

### Special Features

The M.S. in Health Care Administration is designed for working adults, and courses generally meet one night per week. The interdisciplinary design of the program enables students to take courses from faculty in public administration, nursing, health science, economics, management, and finance. Pre-service students and students in the Administration of Health Communities Option have the opportunity to gain practical experience through internships or community practicums.

### Admission

The M.S. in Health Care Administration degree is open to students planning a career or advancing a career in the health care field who have a baccalaureate degree from an accredited institution, and who have earned an overall grade point average of 3.0 (on a 4.0 scale) in the last two years, or 90 quarter (60 semester) units of undergraduate work. Students with a GPA below 3.0 may be admitted based upon an evaluation of their

student profile, including work experience, resume, letters of recommendation, and personal statement. The Graduate Record Exam is not required.

Students in the Nursing Administration Option must be Registered Nurses with a current valid California license, or be eligible for a California license.

In addition to the University Graduate and Postbaccalaureate Application, all applicants should (1) submit a personal statement (2-3 pages) with their application stating their reasons for wanting to pursue the M.S. in Health Care Administration degree and describing their relevant work experience and their past academic performance; (2) submit two letters of recommendation (letters from prior instructors are preferred); and (3) submit a resume. Successful experience in positions of administrative leadership are considered in evaluating applications.

Admission to the university and admission to the M.S. in Health Care Administration degree program are separate steps. It is suggested that the application for admission to the university (Part A) be filed together with the form for entry into the degree program (Part B).

## Student Standing and Progress toward the Degree

There are three categories of student status, which reflect student progress toward the degree: "Conditionally Classified Graduate" student, "Classified Graduate" student, and Advancement to Candidacy.

1. Students achieve "Conditionally Classified Graduate" status when they have been admitted to the M.S. in Health Care Administration degree program, but have not yet completed the prerequisites for the "Classified Graduate" status in the M.S. in Health Care Administration degree program.
2. Students achieve "Classified Graduate" status when they have satisfactorily completed the three prerequisites for the M.S. in Health Care Administration degree program or their equivalents, and satisfied the University Writing Skills requirement. (See "Prerequisites for "Classified Graduate" status below.)
3. Students are Advanced to Candidacy when they have completed the core courses with a 3.0 or better GPA.

*Note:* Students who fail to maintain progress by falling below a 3.0 GPA in their graduate courses for two or more consecutive quarters will be academically disqualified by the university.

## Prerequisites for "Classified Graduate" Status

As prerequisites to "Classified Graduate" status, students must satisfy the University Writing Skills Requirement and satisfactorily complete three courses: (1) PUAD 4830 Organization Theory and Human Behavior (with a grade of "B" or better) or MGMT 3614 Organizational Behavior (with a grade of "B" or better); (2) HCA 4200 Social Construction of Health Care (with a grade of "B" or better); and (3) STAT 1000 Elements of Probability and Statistics,

or its equivalent (with a grade of "C" or better), or request to have one or more of them waived based upon coursework taken outside the Departments of Public Administration, Management and Finance, or Statistics. These prerequisite courses should be taken before attempting the core graduate courses. Since no specific undergraduate major is required for admission to the program, when additional deficiencies are apparent, a student may be required to complete preparatory work in the deficient areas before attempting graduate-level study.

## Degree Requirements

The M.S. in Health Care Administration program requires completion of 48 quarter units consisting of required core courses, option area courses, and the capstone experience which may be a comprehensive exam, a project, or a departmental or university thesis. Of the 48 units, at least 35 units must be completed in residence (transfer units are limited to 13 quarter units), and at least 25 units must be in courses in the 6000 series. No course numbered 1000 to 2999 (or the equivalent, if taken elsewhere) may be used as part of the 48-unit graduate degree program.

No more than 8 units of Independent Study (HCA 6900) may be counted toward the 48 units required for the degree. Thesis, Project, or Graduate Synthesis (HCA 6901) credit may not exceed 4 units.

A grade point average of 3.0 must be maintained in all 48 quarter units taken to satisfy the degree requirements. All graduate degree requirements must be completed within five years. *Note:* Students accumulating more than 8 units of work graded "I" may not register for courses applicable to the degree until the "I" grades are removed.

Curricular requirements (48 units)

### *I. Required Courses (24 units)*

HCA 6210 Leadership and Change in Health Care Organizations (4)  
HCA 6230 Information Technology in Health Care (4)  
HCA 6240 Health Care Financing and Budgeting (4)  
HCA 6260 Health Care Policy Analysis (4)  
HCA 6280 Legal and Ethical Issues in Health Care (4)  
NURS 6205 Research (4)

*Note:* Prerequisite courses (PUAD 4830 or MGMT 3614, HCA 4200, and STAT 1000) must be completed before taking the required courses.

### *II. Options (20 units)*

Choose one of the following three options:

#### A. Nursing Administration (20 units)

NURS 6401 Nursing Information Systems (4)  
NURS 6402 Financing Nursing Care (4)  
NURS 6403 Leadership in Nursing (4)  
NURS 6404 Organization of Innovative Nursing Care (4)

*Electives*

Select four units from the Nursing and Health Sciences, Public Administration, or Business Administration departments, or from other departments with consent of advisor.

B. Management and Change in Health Care (20 units)

PUAD 6878 Transforming Health Care (4)

Either NURS 6402 Financing Nursing Care (4) or PUAD 6876 Financing Sustainable Health Care (4)

*Select three of the following courses:*

HCA 6220 Development of Healthy Organizations and Communities (4)

MGMT 6612 Seminar in Strategic Human Resources Management (4)

MGMT 6618 Human Resources Training and Development (4)

MGMT 6680 Seminar in Labor-Management Relations Administration (4)

MKTG 6005 Managing Marketing: Theory and Practice (4)

PUAD 6850 Human Resource Management in the Public Sector (4)

PUAD 6851 Work and Organizations of the Future (4)

C. Administration of Healthy Communities (20 units)

PUAD 6897 Community Health Administration Practicum (4)

*Select two of the following:*

HCA 6220 Development of Healthy Organizations and Communities (4)

PUAD 6873 Community Health Policy and Program Development (4)

PUAD 6876 Financing Sustainable Health Care (4)

PUAD 6879 Administration of Integrated Health Care (4)

PUAD Non-Profit Management Certificate Courses in Extended Ed (4)

*Electives*

Select two courses (8 units) from the Nursing and Health Sciences, Public Administration, or Business Administration departments, or from other departments with consent of advisor.

III. Capstone Experience (4 units)

Choose (A), (B), or (C):

A. HCA 6909 Department Thesis (4) or HCA 6910 University Thesis (4)

B. HCA 6899 Project (4)

C. HCA 6901 Health Care Synthesis (4) and Comprehensive Exam

Capstone Experience

Students have a choice of completing the program with a Departmental Thesis, University Thesis, Project, or



Comprehensive Exam. Students who wish to take the Comprehensive Examination must enroll in HCA 6901 Graduate Synthesis (4 units). Students completing HCA 6901 are eligible to take the Comprehensive Exam, which is a proctored essay exam. Students who fail the Comprehensive Exam may retake HCA 6901 and the exam one more time, or they may choose to enroll in HCA 6909 Departmental Thesis, or HCA 6910 University Thesis, or HCA 6899 Project, They may not do all three.

Students who wish to take HCA 6909 Departmental Thesis (4 units) or HCA 6910 University Thesis (4 units) should be aware of the procedural differences between a departmental and university thesis. The university thesis requires a two faculty member committee and submission of the thesis to the university for final approval and binding. Two bound copies are required (one for the department and one for the university library). The university thesis deadline dates are listed in the catalog each year. The University Thesis Committee meets when called by the student or the faculty. Students completing the departmental thesis may either sign up individually with a faculty advisor or meet in a scheduled graduate course. A departmental thesis is directed by one faculty member. Two copies of the departmental thesis are required for the department.

Students who wish to complete a project should enroll in HCA 6899 Project (4 units). A project has a strong practical action-oriented component accompanied by a written document. A project is directed by one faculty member. Two copies of the written component of the project are required for the department.

Grades of "SP" (Satisfactory Progress) may be given for a thesis that is not completed at the end of the quarter. The "SP" grade must be removed within five years or it will become an "F."

#### Granting the Degree

Upon satisfaction of all requirements for the degree, the department will recommend that the candidate be granted the Master of Science Degree in Health Care Administration. Students must file for graduation by the second week of the quarter prior to the quarter in which they expect to graduate.

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*The course prefix for the following courses is HCA.*

- 6210** Leadership and Change in Health Care Organizations (4)  
Issues and practices of health care administrators that impact leadership style. Emphasis on developing capacities for leading health organizations in a changing environment, in particular strategic planning, human resources management, facilitation, negotiation and collaboration skills, as well as those needed for innovation and creative management practice. Prerequisites: HCA 4200, and either PUAD 4830 or MGMT 3614.
- 6220** Development of Healthy Organizations and Communities (4)  
Creation and maintenance of healthy organizations and healthy communities. Development of administrative



practice to sustain well communities within the organization and without. Administering programs to sustain and promote well-being in the community and activate community resources. Prerequisites: HCA 4200, and either PUAD 4830 or MGMT 3614.

- 6230** Information Technology in Health Care (4)  
The impact of information systems on the design and delivery of health care; different information technologies; use of information systems in policy making and quality assurance and improvement; relationship of information technology to organizational design. Prerequisites: HCA 4200; PUAD 4830 or MGMT 3614; STAT 1000.
- 6240** Health Care Financing and Budgeting (4)  
Functioning of health care markets; impact of economic incentives on health care decision-making; U.S. health care financing; impact of uninsured; role of nonprofit organizations; impact of managed care model; forecasting expenditures; role of technology, prices, utilization rates, and demographics. Prerequisites: HCA 4200; PUAD 4830 or MGMT 3614; STAT 1000.
- 6260** Health Care Policy Analysis (4)  
The health care policy process; impact of health care on broader social policy; influence of political and economic forces on health policies; impact of emerging models of health care such as community-based programs. Critical analysis of market-based models. Prerequisites: HCA 4200; PUAD 4830 or MGMT 3614; STAT 1000.
- 6280** Legal and Ethical Issues in Health Care (4)  
Contemporary legal issues in health care administration. Overview of recent health legislation and regulations. Personal and organizational liability; ethical issues in health care administration. Impact of the market model on health care delivery. Prerequisites: HCA 4200, and either PUAD 4830 or MGMT 3614.
- 6898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. A maximum of 4 units will be accepted toward the M.S. in Health Care Administration degree. CR/NC grading only. Prerequisites: at least a 3.0 GPA; the approval of the Health Care Administration Graduate Coordinator.
- 6899** Project (4)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department, which specifies their formats. Supervision by a departmental faculty member. Oral defense may be required. Prerequisites: Advancement to Candidacy, approval of project supervisor.
- 6900** Independent Study (1-4)
- 6901** Graduate Synthesis (4)  
Synthesis of health care administration theories, concepts,

and issues through a critique of major readings in the field. Theory and practice in health care administration. Use of personal and professional knowledge to advance individual and organizational change. Required for Comprehensive Exam. Prerequisites: Advancement to Candidacy, approval of project supervisor.

**6909** Department Thesis (4)

Development and writing of a research paper for submission to the department, which specifies its format. Supervision by a departmental faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and consent of thesis advisor.

**6910** University Thesis (4)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisites: Advancement to Candidacy and consent of Thesis Committee. (See also "University Thesis Writing Guide" available in WA 859.)



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## Department Information

## General Information

## Teacher Education

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Department of Teacher Education  
School of Education and Allied Studies  
Office: Art and Education Bldg. 242  
Phone: (510) 885-3027, FAX: (510) 885-4632

*Professor Emeritus:* Herminio C. Rios

*Professors:* Antonio Andrade, Ellsworth A. Berget, Margaret C. Desmond, Phillip E. Duren (Chair), Jean L. Easterly, Carmen L. Garcia, Victoria C. Mui, James L. Shanker, David R. Stronck, James Zarrillo

*Associate Professors:* Joan D. Davenport (Associate Chair), JoAnn Aiello Hatchman, Valerie Helgren-Lempesis, Alvin E. Howe, Dana Martin-Newman, Leticia Ramirez-Lopez

*Assistant Professors:* Sharon Y. Tettegah, Craig Wilson

*Graduate Coordinator:* Margaret C. Desmond

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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The Department of Teacher Education offers post-baccalaureate and graduate programs to prepare teachers who are committed to improving school practices for California's diverse student populations and who can model such practices in their own classrooms.

### Career Opportunities

The demand is rapidly increasing for teachers at all grade levels and in all subject matter areas. An expanding diverse student population, combined with the need to replace retiring teachers over the next several years, indicates a consistent job market. The current public interest in raising salaries and improving the teaching environment also creates more attractive career possibilities.

## Faculty

The Department of Teacher Education faculty is comprised of professors committed to preparing teachers and other educational professionals to be effective in California's diverse schools. The faculty have recognized expertise and are active in the professional discipline of Teacher Education. They are supplemented by a select group of lecturers drawn from respected universities and public schools in the Bay Area.

## Programs Offered

The Department of Teacher Education offers Multiple and Single Subject Teaching Credential Programs, a Master of Science Degree in Education, a Reading Specialist Credential Program, a Children's Literature Certificate Program, and a Cross-cultural, Language and Academic Development Certificate Program (CLAD).

*Note:* The Multiple and Single Subject Programs, the Reading Specialist Program, and the CLAD Certificate Program are accredited by the Commission on Teacher Credentialing (CTC) and the National Council for the Accreditation of Teacher Education (NCATE).

## Option Areas

The Department of Teacher Education offers a Master of Science in Education with two Options: Curriculum, including seven patterns, and Reading Instruction.

## Special Features

### Credential Program Teams

All credential candidates become part of designated teams, each consisting of approximately 35 members. The team stays together for the full credential program, providing support and identity.

### Field-Centered Credential Program Placements

Much of the program is conducted in public school settings. Student teaching/paid teaching occurs for three quarters, thereby integrating credential classes with real-life teaching experiences. Student teachers will be assigned to teaching experiences with children/young adults of racial, ethnic, or cultural backgrounds different from themselves.

### Selection of Public Schools for Credential Programs

Selection of public schools for student teaching placement is based on the willingness of the schools' personnel to become part of a team and on evidence of their commitment to educational improvement.

### Clear Credential Classes

State required Clear Credential classes for the California Professional Clear Credential are offered quarterly, at both the Hayward and Contra Costa campuses, during late afternoons or early evenings. The three clear credential classes are: (1) T ED 5002 Teaching Health Education; (2) T ED 5099 Classroom Computer Technologies (4); and T ED 5500 Developing Programs for Special Students in Regular Classrooms (4). These classes are open to regular Cal State Hayward matriculated students and Open University students. Cardiac Pulmonary Resuscitation (CPR), is an additional state requirements for the Professional Clear Credential and can be taken at Cal State Hayward (KPE

1650), the Red Cross, or most hospitals.

Scheduling and Location of Master of Science, Specialist Credential, and Certificate Offerings  
Courses leading to the Master of Science in Education, Reading Specialist Credential, and Certificate Programs are offered on the Hayward and Contra Costa campuses. A student may combine courses at the two locations. Most graduate classes are offered in the late afternoon and evening, except in Summer quarter when both day and evening classes are scheduled.

#### The Walter J. McHugh Reading Center

The Walter J. McHugh Reading Center contains major reading series used in the schools of California and a wide selection of professional texts, journals, and materials in the field of reading, language arts, and social studies. The Environmental Education Resource Collection, a unique collection which holds and circulates environmental education instructional materials and references, is also housed in The McHugh Reading Center. The Cal State Hayward main library houses the Ruth K. Carlson Juvenile Literature Collection, one of the finest and largest of its kind.

#### The School of Education Credentials Student Service Center

The School of Education Credentials Student Service Center (CSSC) is provided as a service to all students and faculty involved in the credential programs. The CSSC provides the evaluations of coursework upon which the faculty make decisions as to the admission of an applicant to a program, as well as the recommendation for a credential upon a candidate's completion of a program. The CSSC also serves candidates filing new applications for the Preliminary Credential with CLAD emphasis when all work has been completed at Cal State Hayward. If an individual wishes to enter the Partial Credential program, there is a \$55.00 service charge to evaluate eligibility for current California credentials.

### Scholarships

There are scholarships available for entering credential candidates, current credential candidates, and graduate students. Current offerings include such scholarships as the Laura Settle CRTA Scholarship, Virginia Ann Schlieper Multiple Subject Scholarship, John Hancock Mathematics Scholarship, Associated Students Scholarships, Helen Jacobsen Scholarship, Alpha Delta Kappa and Delta Kappa Gamma Scholarships, and the Ruth Carlson Student Teaching Scholarship. Applications are available through the Department of Teacher Education Office beginning in March and are collected during the Spring quarter. Awarded recipients are notified in June.

Other scholarships include the CSU African American Scholarship Program (Lori Knight, WA LM 57, 510-885-3982), the Cooperative Education Community Service Scholarship Program (pre-candidates: Marlene Scherer Stern, WA 509, 510-885-3621), the Graduate Equity Fellowship Program Award (Carl Bellone, WA 771, 510-885-2295), and the National Hispanic Scholarship Awards (Albert Camacho, WA LM 59, 510-885-3982).

For information concerning the CSU International Programs, other

study abroad programs, and student exchanges contact John Manion, WA 859, 510-885-3366.

There are loans available to current credential and graduate students. Current offerings include the Faculty and Friends Student-Teacher Loan and the APLE student loans available for those candidates who have current student loans with no defaults (Financial Aid Office, WA 545, 510-885-3616).

## Admission

Before applying for admission, all applicants should seek current application information from the Department of Teacher Education Office and/or make an appointment with the Graduate Coordinator.

*Note:* Department application deadlines differ from those listed by the university. Please contact the department for appropriate program application periods.

### I. Multiple or Single Subject Credential Programs

Multiple Subject applicants (except for the undergraduate blended program; see the Liberal Studies chapter) must file with the Department of Teacher Education:

1. a completed University "Graduate and Post-baccalaureate Application"
2. a graduate application fee
3. a statement of residency if new to Cal State Hayward
4. two official copies of each transcript (and one additional copy or photocopy for the Department of Teacher Education)
5. a Department Application Form for the Multiple Subject Credential Program
6. verification of all prerequisites (see the Liberal Studies chapter in the undergraduate section of this catalog for the Multiple Subject Matter Preparation program.)

Single Subject applicants must file with the Department of Teacher Education:

1. a completed University "Graduate and Post-baccalaureate Application"
2. a graduate application fee
3. a statement of residency if new to Cal State Hayward
4. two official copies of each transcript (and one additional copy or photocopy for the Department of Teacher Education)
5. a Department Application Form for the Single Subject Credential Program
6. verification of all prerequisites (see the English, Kinesiology, Mathematics, Science, and Social Science chapters in the

undergraduate section of this catalog for the Single Subject Matter Preparation programs which have been approved to date.)

#### *Prerequisites*

Each candidate must complete the following prerequisites before entering the Multiple Subject and Single Subject Teaching Credential Programs:

- Multiple Subject Preparation Program such as the Liberal Studies, Credential Track, or pass the MSAT (Multiple Subject only); or a Single Subject Matter Preparation Program in your subject area or pass the Praxis and SSAT in your subject area (Single Subject only).
- U.S. Constitution course or exam
- MATH 4021-Number Systems course (Multiple Subject only) or its equivalent elsewhere.
- CBEST-California Basic Educational Skills Test, passing score
- Appropriate GPA. The required GPA varies depending upon the undergraduate major and where the degree was earned.
- Three letters of recommendation verifying successful experiences in school/school-like settings. Prior experience is required. T ED 1500, Introductory Field Experience, or 3001, Exploring Education, may be taken as part of this requirement.
- Letter of reference from a permanent faculty member at the university in which you have taken your education courses (Individualized program only).

#### *Selection Process*

All candidates will be interviewed in the Art and Education Building. When you are called for an interview, you will be given the date, time and room number. Be prepared to discuss your status regarding prerequisites, employment history (paid and volunteer), and experience and interest in working with children/young adults. For the Individualized Credential Program, bring all transcripts. Applicants should be aware that a criminal record may preclude the issuance of a credential. Contact the Department of Teacher Education Chair if this is a concern.

Selection of applicants for credential programs is made by the faculty who use their professional judgment in applying the criteria listed in this catalog. The aim is to select those candidates who show promise of becoming the best possible teachers of children and youth.

Denial of admission may be for one or more of the following reasons: failure of applicant to fulfill the prerequisites, an incomplete or late application, the faculty finds one (or more) of the admissions criteria is not met at a satisfactory level, the faculty finds the applicant to be less likely to succeed as a teacher than other applicants, the applicant has been convicted of a crime which will bar granting of a credential, and/or insufficient places in a program because of the allocation of university resources or surpluses of candidates in particular subject matter

areas.

*Applicants accepted into a credential program must immediately:*

- file State Forms 41-CIC (Application for Character and Identification Clearance) and BID-7 (2-82) (two fingerprint cards), and submit a TB clearance dated within the past calendar year. A nonrefundable partial fee (money order or certified check made payable to Commission on Teacher Credentialing) must accompany Form 41-4. Upon completion of the program, applicants must pay the remaining credential application fee. (Contact the Credentials Office, AE 250, 510/885-2272.)

*or*

- file a copy of a previous/current California credential and a TB clearance dated within one calendar year of application.

## II. Master of Science, Reading Specialist Credential, and Certificates

All Master of Science, Reading Specialist Credential, and Certificate Program applicants must file with the university Admissions Office:

1. a completed University "Graduate and Post-baccalaureate Application"
2. a graduate application fee
3. a statement of residency if new to Cal State Hayward
4. one official copy of all transcripts from all accredited institutions attended
5. a Department Application Form
6. a Personal Data Summary Form

Upon admission, the student is assigned an advisor. With the advisor, the student completes and files an approved program.

### *Prerequisites*

All applicants must: (1) hold a baccalaureate degree from an accredited institution, (2) have earned an undergraduate GPA of 2.5 or better in the last two years or 90 quarter/60 semester units and a GPA of 3.0 or better (on a 4.0 scale) in all applicable post-baccalaureate work, (3) hold a valid basic California teaching credential, except those students applying for the Early Childhood Education and/or Environmental Education patterns in the M.S. Education Option in Curriculum, (4) have verified three years of successful teaching experience, as defined by the department.

## Program Requirements

Each student is responsible for meeting university and department requirements and following procedures applicable to the program enrolled. Each student is responsible for:

1. pertinent information in the University Catalog;
2. relevant information in department bulletins, forms and handouts;



3. meetings with the advisor.

Credential requirements specified in this catalog are subject to changes made by the State of California. Contact the Department of Teacher Education for current regulations.

## Multiple Subject Credential Program

There are currently seven program variants within the Multiple Subject Credential Program:

- Multiple Subject Credential Program with Cross-cultural, Language, and Academic Development (CLAD) Emphasis
- Multiple Subject Credential Program with Bilingual (Spanish-English) Cross-cultural, Language, and Academic Development (BCLAD) Emphasis
- Individualized Multiple Subject Credential Program
- Partial Multiple Subject Credential Program
- Multiple Subject Internship Credential
- Concurrent Multiple Subject and Education Specialist Credentials
- Blended Multiple Subject Credential/Liberal Studies Major

### I. Types of Multiple Subject Credential Programs

#### A. *The Multiple Subject Credential Program with Cross-cultural, Language, and Academic Development (CLAD) Emphasis*

This is a four-quarter team program. Usually four teams begin in the Summer quarter, two on the Hayward campus and two on the Contra Costa campus. One team begins in the Winter quarter on the Hayward campus. Some teams have classes during the day and late afternoon; others in the evening. Student teaching is either three quarters in two different grade levels, K-3 and 4-8, including one quarter in a multicultural setting, or in a paid position and one other quarter of student teaching. The CLAD Emphasis requires the following additional requirements beyond the "basic" Multiple Subject credential: (1) 9 quarter units (or 6 semester units) of a foreign language; (2) T ED 5038 Multicultural Education, 4 units; and (3) T ED 5370 Second Language Acquisition, 3 units.

#### B. *The Bilingual/Cross-cultural Emphasis in Spanish Multiple Subject Credential Program (BCLAD) Emphasis*

The BCLAD Credential Program is a four-quarter team program - Summer, Fall, Winter, and Spring. It adheres to all the requirements of the Multiple Subject Credential Program. All candidates must speak and write fluently in

both Spanish and English and take entry and exit examinations. In addition, T ED 5038, 5367, 5370, and 5371 (13 units) are required. Classes are taken on the Hayward campus with an evening Multiple Subject team, along with classes specifically required for the BCLAD emphasis. Candidates may student teach or have a contracted, paid, full or part-time (.5), K-8 teaching position.

*C. The Individualized Multiple Subject Credential Program*

This program is offered to approved candidates who have taken some credential courses in the past (Cal State Hayward and elsewhere), but need to finish all the requirements for a California Professional Clear Credential. Individualized Multiple Subject candidates can enter any quarter. Classes are taken with a Multiple Subject team. Candidates may student teach or have a contracted, paid, full or part-time, K-8 teaching position. If CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

*D. The Partial Multiple Subject Credential Program*

This program is offered to approved candidates who hold an out-of-state credential and a California Preliminary Credential, and who must complete course work for a California Professional Clear Credential. Candidates' previous work is evaluated by the Credentials Office and requirements for the Professional Clear Credential are identified. Candidates can enter any quarter. Classes are taken with a Multiple Subject team. Candidates do not have to apply to the University, but can take courses through Open University. If CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

*E. Multiple Subject Internship Credential*

Selected candidates are paid interns in districts.

*F. Concurrent Multiple Subject and Education Specialist Credentials (Mild-Moderate and Moderate-Severe, Level I)*

*G. Blended Multiple Subject Credential/Liberal Studies Major*

See Liberal Studies chapter.

II. Curricular Requirements (52 units)

The Multiple Subject Credential candidates in variants A-E above take the following courses on either the Hayward or Contra Costa campus:

T ED 5350 Curriculum and Instruction: Mathematics in the Elementary School (3)

T ED 5351 Psychological Foundations of Education (3)

T ED 5352 Curriculum and Instruction: Reading in the Elementary School-A (4)

T ED 5353 Teaching Models (3)

T ED 5354 Student Teaching I (4)  
T ED 5355 Sociological Foundations of Education (2)  
T ED 5356 Curriculum and Instruction: Reading in the Elementary School-B (2)  
T ED 5357 Curriculum and Instruction: Teaching Science in Elementary School (3)  
T ED 5359 Student Teaching II (6)  
T ED 5360 Curriculum and Instruction: Language Arts in the Elementary School (3)  
T ED 5361 Student Teaching III (13)  
T ED 5364 Classroom Management-Postgraduate Program (2)  
T ED 5365 Curriculum & Instruction: Social Studies in the Elementary School (2)  
T ED 5366 English as a Second Language (ESL) and Bilingual Methods (2)

- *Additional requirements for CLAD (16 units)*  
9 quarter units of foreign language  
T ED 5038 Multicultural Education (4)  
T ED 5370 Second Language Acquisition (3)
- *Additional requirements for BCLAD (13 units minimum)*  
Exit-level proficiency in Spanish at FSI-3  
T ED 5038 Multicultural Education (4)  
T ED 5367 Bilingual Methods (3)  
T ED 5370 Second Language Acquisition (3)  
T ED 5371 Classroom Implications of the Culture of the Latino Child (3)
- *State requirements*  
The State requires that all Multiple Subject candidates: (1) have two different grade level placements, K-3 and 4-8, (2) teach in a multicultural setting for one quarter, (3) if employed in a private school, be placed in a public school for one quarter, and (4) if employed in a special education classroom, be placed in a "normal" classroom for two quarters. It may be necessary for some students to fulfill these requirements during the Summer quarter.

### III. Curricular Requirements for Concurrent Education Specialist/Multiple Subject Credentials (80 units for TED students)

If you are in the Concurrent Education Specialist: Mild-Moderate and Moderate-Severe (Level I) and Multiple Subject Credential Program complete the following courses:

EPSY 5121 Counseling, Communication, and Collaboration (4)

EPSY 5125 Educational Practices: Mild-Moderate Disabilities (4) or EPSY 5136 Educational Practices: Moderate-Severe Disabilities (4)

EPSY 6126 Special Education Law and Program Design Content (4)

EPSY 6127 Instruction and Behavioral Support: Mild-Moderate Disabilities (4) or EPSY 6137 Instructional and Behavioral Support: Moderate-Severe Disabilities (4)

EPSY 6128 Instructional and Behavioral Support Fieldwork (4), SPED students only *or* EPSY 6860 Advanced Fieldwork I (4), SPED students only

EPSY 6131 Assessments: Students with Mild to Moderate Disabilities (5) *or* EPSY 6142 Assessment: Students with Moderate-Severe Disabilities (5)

EPSY 6133 Curriculum: Students with Mild-Moderate Disabilities (4) *or* EPSY 6140 Curriculum: Students with Moderate-Severe Disabilities (4)

EPSY 6870 Advanced Field Work Group Supervision I (3)

EPSY 6800 Student Teaching (Mild-Moderate) (8) *or* EPSY 6801 Student Teaching (Moderate-Severe) (8)

EPSY 6810 *or* 6820 Advanced Graduate Seminar I *or* II (2)

T ED 5350 Curriculum and Instruction: Mathematics in the Elementary School (3)

T ED 5352 Curriculum and Instruction: Reading in the Elementary School - A (4)

T ED 5353 Teaching Models (3)

T ED 5354 Student Teaching I (4), TED and SPED

T ED 5356 Curriculum and Instruction: Reading in the Elementary School - B (2)

T ED 5357 Curriculum and Instruction: Teaching Science in Elementary School (3)

T ED 5359 Student Teaching II (6), TED students only

T ED 5360 Curriculum and Instruction: Language Arts in the Elementary School (3)

T ED 5361 Student Teaching III (6), TED students only

T ED 5365 Curriculum and Instruction: Social Studies in the Elementary School (2)

T ED 5366 English as a Second Language (ESL) and Bilingual Methods (2)

T ED 5500 Developing Programs for Special students in Regular Classrooms (4) *or* EPSY 5021 Introduction to Educating ALL Students in Diverse Classrooms (4)

#### IV. Curricular Requirements for Blended Liberal Studies Major/Multiple Subject Credential

(See Liberal Studies chapter in the undergraduate section of this catalog.)

#### Single Subject Credential Program

There are currently four program variants within the Single Subject Credential Program:

- Single Subject Credential Program with Cross-cultural, Language, and Academic Development (CLAD) Emphasis
- Individualized Single Subject Credential Program
- Partial Single Subject Credential Program

- School Districts/Cal State Hayward Partnerships Single Subject Credential Programs

## I. Types of Single Subject Credential Programs

### A. *The Single Subject Credential Program with Cross-Cultural, Language, and Academic Development (CLAD) Emphasis*

This emphasis is a four-quarter team program - Summer, Fall, Winter, and Spring. Usually, two teams begin in the Summer quarter, one on the Hayward campus and one on the Contra Costa campus. Classes are during the late afternoon and evening. Although Cal State Hayward Summer quarter classes start in late June, classes for the Single Subject Credential Program start at the end of July, thereby giving candidates time to either complete any outstanding prerequisites or take courses for the California Professional Clear Credential and/or CLAD certification scheduled in the first five weeks of the Summer quarter. The CLAD Emphasis requires the following additional requirements beyond the "basic" Single Subject credential: (1) nine quarter units (or six semester units) of a foreign language; (2) T ED 5038 Multicultural Education, 4 units; and (3) T ED 5370 Second Language Acquisition, 3 units.

Single Subject Credential candidates either student teach or have contracted, paid, full or part-time (.5) teaching positions, in their subject areas, in K-12 schools. All Single Subject candidates must teach: (1) two different grade levels, K-8, or 9-12 in their subject areas; (2) one quarter in a multicultural setting; and (3) if employed in a private school, one quarter in a public school. Because contracted, paid Single Subject candidates cannot leave their teaching positions to teach in a different grade level, multicultural setting, or public school, student teaching is also available during the first half of the Summer quarter.

### B. *The Individualized Single Subject Credential Program*

This program is offered to approved candidates who have taken some credential courses in the past (Cal State Hayward and elsewhere), but need to finish all the requirements for a California Professional Clear Credential. Candidates can enter any quarter. Classes are taken with the Single Subject team. Candidates may student teach or have contracted, paid, full or part-time (.5), K-12 teaching positions in their subject areas. If a CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

### C. *The Partial Single Subject Credential Program*

This program is offered to approved candidates who hold an out-of-state credential and a California Preliminary Credential, and who must complete course work for a California Professional Clear Credential. Candidates' previous work is evaluated by the Credentials Office and requirements for the Professional Clear Credential are identified. Candidates can enter any quarter. Classes are

taken with the Single Subject team. Candidates do not have to apply to the university, but can take courses through the Open University option. If CLAD certification is desired, candidates must complete the CLAD courses (7 quarter units plus 9 quarter units of a foreign language).

*D. Single Subject Internship Credential*

Selected candidates are paid interns in districts.

II. Curricular Requirements (39-70 units)

Single Subject Credential applicants take the following courses on either the Hayward or Contra Costa campus:

A. Traditional Pathway (39-63 units; 46-70 units CLAD)

Prerequisite for CLAD: Six quarter units of foreign language or other California Commission on Teacher Credentialing (CCTC) approved equivalent.

*Required Courses (27 units; 34 units CLAD)*

T ED 5038 Multicultural Education (4) (required for CLAD emphasis)

T ED 5301 Psychological Foundations in Middle and Secondary School Education (4)

T ED 5303 Classroom Management in the Secondary School (2)

T ED 5305 Social/Cultural Influences (3)

T ED 5318 Professional Responsibilities (2)

T ED 5320 Content Literacy (3)

T ED 5326 ESL Methods in the Secondary School: Language and Literacy (2)

T ED 5329 Single Subject Field Experience (2)

T ED 5370 Second Language Acquisition (3) (required for CLAD emphasis)

T ED 5390 Instructional Methods for the Single Subject Classroom I (3)

T ED 5391 Instructional Methods for the Single Subject Classroom II (2)

T ED 5392 Instructional Methods for the Single Subject Classroom III (2)

T ED 5393 Instructional Methods for the Single Subject Classroom IV (2)

*Required Field Experience (12-36 units)*

T ED 5381 Field Experience in the Single Subject Classroom A (4-12)

T ED 5382 Field Experience in the Single Subject Classroom B (4-12)

T ED 5383 Field Experience in the Single Subject Classroom C (4-12)

B. Alternative Pathway (45-69 units)

Prerequisite for CLAD: Six quarter units of foreign language or other California Commission on Teacher Credentialing (CTC) approved equivalent

*Required Courses (33 units)*

T ED 5306 Teaching and Learning in the Single Subject Classroom I (10)

T ED 5307 Teaching and Learning in the Single Subject Classroom II (5)  
T ED 5308 Teaching and Learning in the Single Subject Classroom III (5)  
T ED 5309 Teaching and Learning in the Single Subject Classroom IV (4)  
T ED 5390 Instructional Methods for the Single Subject Classroom I (3)  
T ED 5391 Instructional Methods for the Single Subject Classroom II (2)  
T ED 5392 Instructional Methods for the Single Subject Classroom III (2)  
T ED 5393 Instructional Methods for the Single Subject Classroom IV (2)

*Required Field Experience (12-36 units)*

T ED 5381 Field Experience in the Single Subject Classroom A (4-12)  
T ED 5382 Field Experience in the Single Subject Classroom B (4-12)  
T ED 5383 Field Experience in the Single Subject Classroom C (4-12)

- *State Requirements*

The State requires that all Single Subject candidates: (1) have two different grade level placements, K-8 and 9-12, in their subject areas; (2) teach in a multicultural setting for one quarter; (3) if employed in a private school, be placed in a public school for one quarter; and (4) if employed in a special education setting, be placed in a "normal" setting for two quarters. It may be necessary for some students to fulfill these requirements during the Summer quarter.

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## Admission

Upon admission to the university, a student with a baccalaureate degree usually is in "Unclassified Post-baccalaureate" standing. An "Unclassified Post-baccalaureate" student may enroll in those courses for which the prerequisites have been met. The department will not count courses taken to remove deficiencies toward degree requirements. No more than 13 units taken in "Unclassified Postbaccalaureate" status can be applied toward a master's degree. This includes approved credit-bearing extension courses, transfer courses, and residence courses taken before admission to the master's degree program. Lower division, non-credit Extension, and Credit/No Credit (Pass/Fail) courses are not applicable to the degree except courses offered only for Credit/No Credit (Pass/Fail). Filing for a substitution for this last item is up to the student.

A student with minor deficiencies in the requirements below may be admitted to a program as a "Conditionally Classified Graduate" student.

*To be awarded "Classified Graduate" standing, a student must:*

1. have a GPA of 3.0 or better in all upper division work in the major and in all post-baccalaureate work;



2. hold a valid teaching credential and/or show evidence of successful classroom teaching experience as determined by the department. (May be waived for a student in the early childhood education or environmental education patterns within the Curriculum Option);
3. have met the University Writing Skills requirement.

### Advancement to Candidacy

*To be Advanced to Candidacy for the degree, a student must:*

1. have met the University Writing Skills requirement;
2. be a "Classified Graduate" student in good standing;
3. Have completed at least 35 quarter units considered by the Department to be applicable toward the degree requirements with a GPA of 3.0 or better;
4. have an approved program of study for the degree (on a Major Check Form) signed by the advisor;
5. have completed or be currently enrolled in T ED 6020, Research in Education;
6. have been approved for Advancement to Candidacy by the department on recommendation of faculty teaching in the student's area of study. This is initiated by filing the form, Petition to Establish Thesis/Project Committee, with a thesis or project abstract attached, or by obtaining permission to register for the Graduate Synthesis course.

### GPA Requirement

*A student must maintain a GPA of 3.0 or higher in all courses taken in the approved program signed by the advisor, whether the courses are taken at Cal State Hayward or elsewhere. A student whose GPA falls below 3.0 will be placed on probationary status, will be subject to disqualification from the program, and may be recommended for dismissal from the university. (The department also requires that the use of the "CR/NC" grade option in any course applied to a master's and/or certificate program must be approved in advance by the Graduate Coordinator.)*

### Degree Requirements (45 units)

*To receive the M.S. degree in Education, a student must have:*

1. been Advanced to Candidacy;
2. completed 45 quarter units of approved graduate work, subject to the following conditions:
  - a. all units must have been earned within the past five (5) years immediately preceding completion of the requirements for the degree;
  - b. no fewer than thirty-two (32) quarter units may have been completed in residence (i.e., after admission to the program, as a regularly matriculated student) in the graduate program at Cal State Hayward;



- c. no fewer than three (3) nor more than six (6) quarter units may have been assigned to a University Thesis nor more than five (5) to a Department Thesis or Project, nor fewer than four (4) in the Graduate Synthesis course;
  - d. no more than thirteen (13) quarter units of approved courses may be transferred from another institution, taken through approved extension courses (including Open University), or taken as an "Unclassified Post-baccalaureate" student;
  - e. at least twenty-two and one-half (22.5) quarter units must have been in courses in the 6000 series or equivalent graduate level;
3. satisfied the University Writing Skills requirement;
  4. earned at least a 3.0 GPA in all post-baccalaureate work and in all graduate work at Cal State Hayward and in all units satisfying the requirements of the degree program;
  5. completed a University Thesis acceptable to the university, or a Department Thesis or Project acceptable to the department faculty, or completed the Graduate Synthesis course which includes passing a Comprehensive Examination;
  6. met, within five (5) years of admission to the program, the specific requirements of that program.

## Graduation

A student must apply to graduate and request a degree check during the first two (2) weeks of the quarter prior to the quarter in which completion of the program is expected. This is done in the department office.

## M.S. in Education, Option in Curriculum (45 units)

The Curriculum Option is designed to provide advanced special preparation or competencies for teachers and other educational professionals at all grade levels. The Curriculum Option is based on a core of four courses, including a thesis, project or graduate synthesis (comprehensive examination) course, with the remainder of the program containing specific required courses and electives. A candidate may choose one of the five specialized patterns offered in the Curriculum Option:

### I. Curriculum Option Specialized Patterns

- *Children's literature and reading* - a program designed to complement the literature-based reading program sponsored by the California State Department of Education and based upon skills and knowledge related to the California Reading Initiative, English/Language Arts Framework, Recommended Readings in Literature, Model Curriculum Standards, and the Handbook for Planning an Effective Literature Program. A California teaching credential is required.
- *Environmental education* - a program designed for teachers and other education professionals who wish to infuse environmental concepts into their curriculum or for

specializing their teaching assignments.

- *Mathematics education* - a program designed for teachers who are interested in improving or updating their skills in mathematics instruction, as well as those who may wish to assume leadership roles in their districts. A California teaching credential is required.
- *Science/health education* - a program designed for teachers to develop and strengthen skills and understanding in the teaching of science and/or health and to integrate science/health across the curriculum. A California teaching credential is required.
- *Individualized program* - a program designed for teachers and other education professionals who, in consultation with the Graduate Coordinator, wish to develop an individualized program of electives appropriate to their professional goal(s).

## II. Curricular Requirements

The Curriculum Option for the M.S. degree in Education requires completion of:

- a core of foundation courses,
- approved elective courses, which may be from a pattern or combination of two patterns.

### A. Required Courses (15-18 units)

T ED 6020 Research in Education (4)

T ED 6300 Foundations of Curriculum Development (4)

T ED 6700 Advanced Educational Psychology (4)

Select one (1) of the following courses (3-6 units):

T ED 6899 Project (3-5)

T ED 6901 Graduate Synthesis (4)

T ED 6909 Departmental Thesis (3-5)

T ED 6910 University Thesis (3-6)

### B. Elective Courses (27-30 units)

Select one of the following seven patterns with the approval of an advisor:

#### 1. Children's literature and reading

Literature courses (12-18 units):

ENGL 4720 Mythology (4)

ENGL 4740 History of Children's Literature (4)

T ED 5240 Children's Literature in Elementary Education (3)

T ED 5241 Literature for Adolescents (3)

T ED 5242 Teaching Multicultural Literature to Children (4)

T ED 6245 Literature for the Young Child (4)

T ED 6246 Critical Analysis of Children's Literature (3)

Reading courses (10-11 units):

T ED 6230 Reading and Language Arts Instruction in the Elementary School (4)

T ED 6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)  
T ED 6232 Correction of Reading Difficulties in Elementary Schools (3)  
T ED 6240 Reading and Study in Secondary Schools (3)

Other electives selected with an advisor (0-8 units)

## 2. *Environmental education*

Complete the following courses (12-20 units)

T ED 5413 Environmental Education in the Curriculum (4)  
T ED 5414 Field Trips and Community Resources for Environmental Education (4)  
T ED 6414 Organization of Resident Outdoor Education (4)  
T ED 6416 Development of Environmental Education (4)  
T ED 6417 Field Study in Environmental Education (4)

Other electives selected with advisor (7-18)

## 3. *Mathematics education*

Complete the following courses (17-20 units):

T ED 6010 Seminar in Teaching and Learning Mathematics (4)  
T ED 6021 Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)  
T ED 6030 Seminar in Teaching Problem Solving and Critical Thinking in Mathematics (4)  
T ED 6040 Advanced Curriculum and Instruction in Mathematics (4)  
T ED 6900 Independent Study (1-4)

Select additional mathematics courses with advisor (7-13 units)

Other electives selected with advisor (0-6 units)

## 4. *Science/health education*

Complete the following courses (7-10 units)

T ED 6050 Research in Science and Health Education (4)  
T ED 6440 Curriculum in Science and Health Education (3) (T ED 6440 may be repeated once for credit.)

Select additional science courses with advisor (8-20 units)

Other electives selected with the advisor (0-15 units)

## 5. *Individualized program*

A student may, in consultation with the Graduate Coordinator, develop an individualized program of electives appropriate to the student's professional goal(s). The student must meet all other requirements and standards for the Curriculum Option.

## M.S. in Education, Option in Reading Instruction (45 units)

The Reading Instruction Option is tailored to upgrade the teaching of reading at all grade levels and is open to teachers of regular classrooms, special education classrooms, special reading classes, basic adult education classes, and community college reading instructors. The Reading Instruction Option is based on a core of four courses, including a thesis, project, or graduate synthesis (comprehensive examination) course, with the remainder of the program containing specific required courses and electives. The Reading Instruction Option may be earned in conjunction with the Reading Specialist Credential by combining courses from the Reading Instruction Option and the Reading Specialist Credential (52-58 total quarter units).

The Option in Reading Instruction is tailored to upgrade the teaching of reading/language arts at all grade levels and is open to teachers in regular classrooms, reading specialists, special education teachers, adult basic education teachers, and community college instructors.

Prior to completion of the program, a student must present evidence of two years of successful teaching experience, as defined by the department. Check with the advisor.

### Required Courses

#### *Complete the following core courses (30 units)*

- T ED 6020 Research in Education (4)
- T ED 6230 Reading/Language Arts in the Elementary School (4)
- T ED 6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)
- T ED 6232 Correction of Reading Difficulties in Elementary Schools (3)
- T ED 6233 Laboratory Practice in Correction of Reading Difficulties (6)
- T ED 6234 Clinical Seminar in Reading (3)
- T ED 6240 Reading and Study in Secondary Schools (3)
- T ED 6250 Seminar in Reading Research (3)

#### *Select one course in Children's Literature (3-4 units)*

- T ED 5240 Children's Literature in Elementary Education (3)
- T ED 5241 Literature for Adolescents (3)
- T ED 5242 Teaching Multicultural Literature to Children (4)
- T ED 6245 Literature for the Young Child (4)

#### *Select one of the following courses (1-6 units):*

- T ED 6899 Project (2-5)
- T ED 6901 Graduate Synthesis (4)
- T ED 6909 Departmental Thesis (2-5)
- T ED 6910 University Thesis (1-6)

#### *Electives selected with advisor (5-11)*

## Reading Specialist Credential Program (45 units)

The Reading Specialist Credential is a competency-based program providing special training for teachers to become K-6, 7-

12, or K-12 reading specialists or coordinators. A Reading Specialist Credential may be earned separately or in conjunction with a Master of Science in Education with the option in Reading Instruction. A California teaching credential is required.

The aim of the Reading Specialist Credential program is to develop the knowledge and skills of the classroom teacher, reading specialist, special education teacher, adult basic education teacher, and community college instructor.

The Reading Specialist Credential program is a competency-based program. Both entry and exit evaluations are made of each student's demonstration of the competencies. A student, after conferring with the advisor, is informed in writing of the specific objectives s/he must meet in order to be recommended for the Reading Specialist Credential.

#### I. Required Courses (31 units)

*Complete the following courses (22 units):*

- T ED 6230 Reading and Language Arts Instruction in the Elementary School (3)
- T ED 6231 Diagnosis of Reading Problems: Emphasis Elementary School (4)
- T ED 6232 Correction of Reading Difficulties in Elementary Schools (3)
- T ED 6234 Clinical Seminar in Reading (3)
- T ED 6240 Reading in the Content Areas (3)
- T ED 6253 Teaching Reading Comprehension (3)
- T ED 6254 Issues in Reading Education (3)

*Supervised professional field work (9 units):*

(Student must apply for all fieldwork during the quarter prior to taking the course.)

- T ED 6233 Laboratory Practice in Correction Reading Difficulties (6)
- T ED 6251 Field Experience in Reading Instruction (3)

#### II. Electives (6-7 units)

*Select one (1) course in Children's Literature from the following courses (3-4 units):*

- T ED 5240 Children's Literature in Elementary Education (3)
- T ED 5241 Literature for Adolescents (3)
- T ED 5242 Teaching Multicultural Literature to Children (4)
- T ED 6245 Literature for the Young Child (4)

*Select one course from the following (3 units):*

- T ED 6210 Nature and Theory of the Reading Process (3)
- T ED 6220 Ethnic and Linguistic Factors in Reading (3)

#### Reading Specialist Credential and M.S., Option in Reading Instruction (53-58 units)

When the Reading Specialist Credential program and the Option in Reading Instruction for the Master of Science Degree in Education are taken concurrently, the following additional courses must be completed (8-13 units):

## Certificate Programs

*Complete the following courses (7 units)*

T ED 6020 Research in Education (4)

T ED 6250 Seminar in Reading Research (3)

*Select one of the following courses (1-6 units)*

T ED 6909 Departmental Thesis (2-5)

T ED 6910 University Thesis (1-6)

T ED 6899 Project (2-5)

T ED 6901 Graduate Synthesis (4)

### Children's Literature (17-18 units)

The Certificate Program in Children's Literature is designed to assist teachers in developing their knowledge and skills in children's literature. This program addresses the initiative of the English/Language Arts Framework, published in 1987, by the California State Department of Education and features "a literature-based program that encourages reading and exposes all students, including those whose primary language is not English, to significant literary works."

#### I. Required Courses (14 units)

*Complete the following courses*

ENGL 4740 History of Children's Literature (4)

T ED 5240 Children's Literature in Elementary Education (3)

T ED 5242 Teaching Multicultural Literature to Children (4)

T ED 6246 Critical Analysis of Children's Literature (3)

#### II. Elective (3-4 units)

*Select one from the following courses*

ENGL 4720 Mythology (4)

T ED 5241 Literature for Adolescents (3)

T ED 6245 Literature for the Young Child (4)

### Cross-cultural, Language, and Academic Development (18-19 units)

This certificate program is a sequence of courses designed to expand the teaching skills of a trained, credentialed teacher in the English instruction of non-English or limited-English speaking students. The certificate is not a teaching credential; it supplements the teaching credential by adding the CLAD emphasis. Advisement regarding foreign language requirement and course equivalencies is provided by the Graduate Coordinator.

The CLAD certificate will help a teacher develop first and second language acquisition, methods and techniques for teaching a second-language and content areas through ESL strategies, appropriate materials for second language learners, ESL lesson plans to be implemented in classroom settings, and hands-on teaching ideas and materials.

*Prerequisites:* Foreign Language (minimum of nine college-level quarter units in a single language)

#### I. Required Courses (15 units)

Complete the following courses :

T ED 5038 Multicultural Education (4)

T ED 5610 Methods of Teaching English as a Second Language (4)

T ED 5612 Teaching Strategies I: SDAIE and Practicum (4)

T Ed 5370 Second Language Acquisition (3)

## II. Elective (3-4 units)

Select one course with consent of the advisor:

ENGL 3005 Study of Language (4), 3010 Modern English

Grammar (4), 3015 Introduction to Phonology (4), 3040

Linguistic History of the English Language (4), 4060 Topics in the Study of the English Language (4); T ED 5613 ESL

Teaching Strategies II: Reading, Writing and Testing (3),

6220 Ethnic and Linguistic Factors in Reading Instruction (3)

## Grading Practices and Disqualification

### Special Grading Practices

The university has two post-baccalaureate grading patterns: "A," "B," "C," "D," "F" (including + and - except for "A+" and "D-"); and CR/NC (Credit/No credit). In the Department of Teacher Education the CR/NC boundary is based on the graduate standards: a "CR" grade indicates work at the "B-" or higher level and an "NC" indicates work at the "C+" or lower level. Under University policy, a graduate student is graded on the "A-F" system, excepting field supervision courses in the professional preparation programs which are only graded as CR/NC.

### Disqualification

If a credential candidate earns a grade of "D" or "F" in a required credential course, the course must be repeated (within the department) and a "C-" grade or higher must be earned. A candidate who failed to maintain a cumulative GPA of 3.0 in any quarter will be notified that (s)he will be disqualified effective at the end of the subsequent quarter if the cumulative GPA then is not above 3.0.

A student who fails to demonstrate a high level of performance in the skills of writing, speaking, and language use is subject to re-evaluation and possible disqualification.

The behavior of teacher candidates is expected to be ethical and professional, both on campus and in the public schools. Unethical or unprofessional behavior constitutes grounds for disqualification.

### Academic Dishonesty

The university, like all communities, functions best when its members treat each other with honesty, fairness, respect and trust. Deception for individual gain is an offense against the members of the entire community. It is the student teacher's responsibility to be informed of university regulations by reading the section on academic dishonesty, "How does Cal State Hayward define and handle academic dishonesty" in the Grading and Academic Standards chapter. Awarding a failing grade in the event of academic dishonesty is at the discretion of the faculty member.

The Department of Teacher Education adheres to all university



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## Courses

rules regarding academic dishonesty and feels a particular responsibility to require the utmost professional accountability and academic honesty from students in our teaching programs. Academic dishonesty matters within the Department of Teacher Education will be brought up to the Student Affairs Committee in the presence of the department chair, the professor involved, and the student's team leader. Decisions regarding a specific course of action will be collectively decided.

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*The course prefix for the following courses is T ED.*

For remedial and undergraduate course descriptions, see Teacher Education in the undergraduate section of this catalog.

### Post-baccalaureate

- 5002** Teaching Health Education (2)  
Covers State of California requirements in content and methods of health education for grades K-12. (A)
- 5021** Child Growth and Development (3)  
Growth and development of the child: prenatal through childhood with special attention to the intellectual, social, and personality development in childhood. Influence of the home and school environment. (Y)
- 5038** Multicultural Education (4)  
Nature of culture, manifestations of culture, cultural contact, cultural diversity in the United States and California. Learning about culturally-diverse students. General principles of culturally-responsive pedagogy.
- 5099** Classroom Computer Technologies (4)  
The production, evaluation and utilization of technologies (especially emerging technologies) in education settings. Basics of various computer-based applications: word processing, desktop publishing, spreadsheets, databases, graphics, and telecommunications. Applications for these tools across disciplines. Commercially-available educational software examined for classroom effectiveness. Laser technologies (videodisk/CD-ROM) demonstrated. Prerequisites: California preliminary credential, clear or out-of-state credential, or admission to a credential program; proficiency in basic computer operations and word processing; and consent of instructor. (A)
- 5180** Play and Learning in the Education of the Young Child (4)  
Play in the learning process of young children in Early Childhood Education. Emphasis on research evidence regarding play and development. Observation of young children. Creative approaches to managing play development. (Y)
- 5240** Children's Literature in Elementary Education (3)  
A survey of children's literature including classics, picture books, myths, folktales, legends, biography, poetry,



historical fiction and novels. Emphasis is placed on criteria for selection of good literature and teaching techniques.  
Prerequisite: consent of instructor. (Y)

**5241** Literature for Adolescents (3)  
Examination of the values to be found in folktales, classical myths and legends, as well as the body of contemporary writing, especially created to satisfy interests and needs of adolescents. (Y)

**5242** Teaching Multicultural Literature to Children (4)  
Analysis and selection of books focuses on multicultural populations that present accurate and positive depictions. Emphasis on the integration and use of these books in the classroom.

### 5300 Series: Professional Education Program Element

The 5300 courses are elements in the professional preparation program for Multiple Subject and Single Subject Teaching Credentials. Admission into the professional preparation programs of the Department of Teacher Education is required for each course in the series. The elements are taken in a set sequence. The sequence may differ among the variant programs. Each element is based upon the achievement of a specified set of professional teaching competencies. The elements include regular coursework or field work, individual or group study, and the demonstration of the competencies. Student counseling and screening is involved in each element. See the Department of Teacher Education for further information and exceptions.

**5301** Psychological Foundations in Middle and Secondary School Education (4)  
Systematic analysis of teaching and learning using psychological theory and research. Emphasis on social and cognitive development, learning processes, motivation, evaluation, and appropriate teaching principles for working with students with varying cultural and linguistic backgrounds, ages, and motivation levels. (Y)

**5303** Classroom Management in the Secondary School (2)  
Management approaches emphasizing those promoting positive learning environments which meet the developmental needs of students from varying cultural, linguistic, racial, and economic backgrounds. Legal issues which impact upon classroom management. Restricted to students in the Single Subject Credential Program.

**5305** Social/Cultural Influences (3)  
The history of secondary education in the United States. The effect of culture, ethnicity, gender, challenging condition, religious affiliation, and social class on the history of teaching and learning in secondary school classrooms.

**5306** Teaching and Learning in the Single Subject Classroom I (10)  
Introduction to theory and practice for teaching in single

subject classrooms. Focus on environment, development, assessment, professionalism, diversity, technology, and literacy. Prerequisite: admission to Single Subject Credential Program.

**5307** Teaching and Learning in the Single Subject Classroom II (5)  
Introduction to theory and practice for teaching in single subject classrooms. Focus on environment, development, assessment, professionalism, diversity, technology, and literacy. Application in beginning weeks of a teaching assignment. Prerequisite: T ED 5306.

**5308** Teaching and Learning in the Single Subject Classroom III (5)  
Theory and practice for teaching in single subject classrooms. Focus on environment, development, assessment, professionalism, diversity, technology, and literacy. Emphasis on individual differences among students. Prerequisites: T ED 5306, 5307.

**5309** Teaching and Learning in the Single Subject Classroom IV (4)  
Synthesis of theory and practice for teaching in single subject classrooms. Focus on environment, development, assessment, professionalism, diversity, technology, and literacy. Emphasis on individual differences among students. Prerequisites: T ED 5306, 5307, 5308.

**5310** Principles of Education (3)  
Methods of providing for individual learning differences and for integrating content in learning activities at different grade levels. Ways of organizing classroom for instruction. (Y)

**5316** Planning, Development, and Evaluation of Instruction (3)  
Planning for instruction in secondary schools. Selection of materials and teaching techniques with attention to use of subject matter. Designing daily and long range teaching plans. (F)

**5317** Single Subject Specialty Methods (3)  
Specific methods for teaching art, English, foreign languages, mathematics, music, physical education, science, and social studies in secondary school classrooms. Restricted to students in the Single Subject credential program. Prerequisite: T ED 5316.

**5318** Professional Responsibilities (2)  
Capstone course to promote independent thinking, professional integrity a vision for school learning, and commitment to working collaboratively with colleagues to improve school practices. Preservice teachers synthesize the relationship between course content in the credential program and its application in the student teaching experience.

**5320** Content Literacy (3)  
Development of specific methods and materials for

improving reading, writing, speaking, and listening skills for all students in the content classroom.

- 5326 ESL Methods in the Secondary School: Language and Literacy (2)  
Relationship among bilingual education, English language development (ELD), English as a Second Language (ESL) through content, and Specially-Designed Academic Instruction in English (SDAIE) in the secondary school. Federal and state laws regarding the education of language minority students.
- 5329 Single Subject Field Experience (2)  
Field experience to include the observation and limited participation in the opening of schools in secondary classrooms. Restricted to candidates in the Single Subject Credential Program. CR/NC grading only.
- 5330 Student Teaching A (4)  
Initial Single Subject student teaching experience. Student teacher assumes responsibilities consistent with department policies. CR/NC grading only.
- 5331 Student Teaching B (6)  
Continuation of initial Single Subject student teaching experience; beginning of second student teaching experience. Student teacher assumes responsibilities consistent with department policies. CR/NC grading only. Prerequisite: T ED 5330.
- 5332 Student Teaching C (13)  
Concluding Single Subject student teaching experience. Student teacher assumes responsibilities consistent with department policies. Prerequisite: T ED 5331. CR/NC grading only.
- 5347 Student Teaching A in Blended Program (4)  
First quarter of a supervised student teaching in an elementary school classroom for four mornings and one afternoon a week. CR/NC grading only. Prerequisites: admission to blended Multiple Subject Credential/Liberal Studies program, senior standing.
- 5348 Student Teaching B in Blended Program (6)  
Second quarter of supervised student teaching in an elementary school classroom for four mornings and three afternoons a week. Minimum of one week solo teaching. CR/NC grading only. Prerequisite: T ED 5347.
- 5349 Student Teaching C in Blended Program (9)  
Third quarter of supervised student teaching in an elementary school classroom for five mornings and two afternoons a week. Minimum of two-weeks of all-day, solo teaching. CR/NC grading only. Prerequisite: T ED 5348.
- 5350 Curriculum and Instruction: Mathematics in the Elementary School (3)  
Theory, content and methods of teaching mathematics in the elementary classroom. Emphasis on the number systems, operations, problem solving, assessment,

computer assisted instruction, resource materials, Specially-Designed Academic Instruction in English (SDAIE), and Complex Instruction. Concurrent enrollment in student teaching required. Prerequisite: MATH 4021 and admission to credential program. (Y)

- 5351 Psychological Foundations of Education (3)  
Systematic analysis of psychological viewpoints, stages of growth and development, learning processes, and evaluation. Emphasis upon developing a consistent teaching theory based upon psychology, age-level characteristics, race, ethnicity, and social-class differences. Prerequisite: admission to credential program. (Y)
- 5352 Curriculum and Instruction: Reading in the Elementary School-A (4)  
Development of a balanced, comprehensive program in reading, writing, and related language instruction. Emphasis on research, home/community literacy, concepts about print, phonemic awareness, phonics, other word identification strategies, vocabulary, comprehension, literature, English language learners. Prerequisite: admission to credential program.
- 5353 Teaching Models (3)  
Models for teaching lessons which meet the developmental needs of students from varying cultural, linguistic, racial, and socioeconomic backgrounds. Planning, conducting, and evaluating instruction using each model. Adjusting model to individual learning modes and cognitive levels. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)
- 5354 Student Teaching I (4)  
Introductory student teaching. Individual, small group, and total class lessons. Professional responsibilities of teachers. AV, handwriting performance tests. CR/NC grading only.
- 5355 Sociological Foundations of Education (2)  
The history of elementary education in the United States. The effect of culture, ethnicity, gender, challenging condition, religious affiliation, and social class on the history of teaching and learning in elementary school classrooms.
- 5356 Curriculum and Instruction: Reading in the Elementary School-B (2)  
Development of a balanced, comprehensive program in reading, writing, and related language instruction. Emphasis on comprehension of expository texts, diagnostic strategies that guide teaching and assessment, English language learners. Prerequisite: admission to credential program.
- 5357 Curriculum and Instruction: Teaching Science in Elementary School (3)  
Models, methods, and materials of teaching science in elementary schools. Planning, implementing, and

evaluating instruction. Focus on Specially-Designed Academic Instruction in English (SDAIE). Development of cognitive skills, scientific attitudes, and hands-on activities. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)

- 5359 Student Teaching II (6)  
Responsibility for individual, small group, and total class lessons in all subjects. Minimum of one consecutive week of solo teaching. Prerequisite: T ED 5354. CR/NC grading only.
- 5360 Curriculum and Instruction: Language Arts in the Elementary School (3)  
Development of a balanced, comprehensive program in reading, writing, and related language instruction. Emphasis on structure of English, listening, oral language, spelling, English usage, writing, relationships among the language arts, curricular integration, English language learners. Prerequisite: admission to credential program.
- 5361 Student Teaching III (13)  
Full-time student teaching. Students are expected to teach all subjects. Minimum of two consecutive weeks solo teaching. Prerequisite: T ED 5359. CR/NC grading only. (Y)
- 5364 Classroom Management in the Elementary School (2)  
Models for managing school classrooms which meet the developmental needs of students from varying cultural, linguistic, racial, and socioeconomic backgrounds. Concurrent enrollment in student teaching or concurrent teaching experience required. (Y)
- 5365 Curriculum and Instruction: Social Studies in the Elementary School (2)  
Theory and methods of teaching social studies in elementary schools. Emphases on utilization of the state framework, community resources, and integration of the social studies with global education and multicultural content. Prerequisite: admission to the credential program. (Y)
- 5366 English as a Second Language (ESL) and Bilingual Methods (2)  
Bilingual education, English language development (ELD), content-based English as a Second Language (ESL), and Specially-Designed Academic Instruction in English (SDAIE). Federal and state laws regarding education of language minority students. Concurrent enrollment in student teaching required. Prerequisite: admission to credential program. (Y)
- 5367 Bilingual Methods (3)  
Theory, content, materials of dual-language acquisition and development. Strategies for primary language instruction in various areas to provide equal access to the core curriculum.

- 5370 Second Language Acquisition (3)  
Systems of language, including phonology, morphology, syntax and semantics; theories and factors in children's first and second language acquisition and development. Psychological, sociocultural, and pedagogical factors which impact on first and second language acquisition in classrooms.
- 5371 Classroom Implications of the Culture of the Latino Child (3)  
Focus on major historical experiences of various Latino groups in the United States (pre-Columbian period, the Conquest, colonial period, years of independence, contemporary U.S. life) and their implications for the classroom teacher. Emphasis on cultural commonalities, demographics, immigration, educational patterns, and general relationships among Latinos and the majority culture which influence teaching and learning. Taught in Spanish. Prerequisite: permission of department.
- 5381 Field Experience in the Single Subject Classroom A (4-12)  
First supervised placement as an intern or student teacher in a single subject classroom. CR/NC grading only. Prerequisite: admission to Single Subject Credential Program.
- 5382 Field Experience in the Single Subject Classroom B (4-12)  
Second supervised placement as an intern or student teacher in a single subject classroom. CR/NC grading only. Prerequisite: T ED 5381.
- 5383 Field Experience in the Single Subject Classroom C (4-12)  
Third supervised placement as an intern or student teacher in a single subject classroom. CR/NC grading only. Prerequisite: T ED 5381, 5382.
- 5390 Instructional Methods for the Single Subject Classroom I (3)  
Introduction to theory and practice of instructional methodology in a single subject classroom. Separate sections for art, English, foreign languages, mathematics, music, physical education, science, and social studies. Prerequisite: admission to Single Subject Credential Program.
- 5391 Instructional Methods for the Single Subject Classroom II (2)  
Theory and practice of instructional methodology in a single subject classroom. Application in the beginning weeks of a teaching assignment. Separate sections for art, English, foreign languages, mathematics, music, physical education, science, and social studies. Prerequisite: T ED 5390.
- 5392 Instructional Methods for the Single Subject Classroom III (2)  
Theory and practice of instructional methodology in a

single subject classroom. Emphasis on individual differences among students. Separate sections for art, English, foreign languages, mathematics, music, physical education, science, and social studies. Prerequisites: T ED 5390, 5391.

**5393** Instructional Methods for the Single Subject Classroom IV (2)

Synthesis of theory and practice of instructional methodology in a single subject classroom. Separate sections for art, English, foreign languages, mathematics, music, physical education, science, and social studies. Prerequisites: T ED 5390, 5391, 5392.

## Other Post-baccalaureate Courses

**5413** Environmental Education in the Curriculum (4)

Integration of environmental concepts into total school curriculum. Methods for outdoor teaching; development of individual and group projects using school grounds, nature areas, and parks as laboratories. Review of available curricula: pre-school, secondary, and adult education. (F)

**5414** Field Trips and Community Resources for Environmental Education (4)

Organization of environmental educational field trips; identification and application of teaching resources available from agencies, organizations, and industry. May be repeated once for credit. (F)

**5500** Developing Programs for Special Students in Regular Classrooms (4)

Developing individual education programs for students in the regular classroom with special needs. Inservice course designed to meet the knowledge and skill requirements of the State for special education training for classroom teachers. Prerequisites: California preliminary credential or permission of instructor. Field experience with handicapped students required. Cross-listed with EPSY 5500. Three hrs. lect./disc., 2 hrs. act. (A)

**5610** Methods and Materials for Teaching English as a Second Language and Bilingual Education (4)

Strategies for teaching language development to limited-English Speaking students. Review and evaluation of available ESL and bilingual materials reflecting current ESL and bilingual methodologies. ESL and bilingual program models and current research. Review theories of first and second language acquisition. Designed for teachers of LEP students. Prerequisite: consent of instructor. (Y)

**5612** Teaching Strategies I: Specially Designed Academic Instruction in English (SDAIE) and Practicum (4)

Teaching strategies for developing English language proficiency and providing access to core curriculum at grade level in English. Student development of cognitive academic language proficiency in preparation for mainstream curriculum. (Y)



**5613** ESL Teaching Strategies II: Reading, Writing and Testing in the ESL Classroom (4)  
Teaching strategies for guiding limited-English proficient students to English literacy using various language experience approaches and guided composition. Testing and assess LEP student skills in listening, speaking, reading, and writing. (Y)

**5900** Independent Study (1-4)

## Graduate

**6010** Seminar in Teaching and Learning Mathematics (4)  
Research and analysis of selected topics pertinent to Mathematics in the elementary school. Reports on current research, contemporary and experimental programs, and new materials. May be repeated for credit. Cross listed with MATH 6010. Prerequisite: consent of instructor. (Y)

**6015** Using Research to Improve Learning (4)  
Analysis of research findings which focus on issues, problems and interests, related to learning. Development of recommendations for improved learning in specified classes, schools, and/or districts. (Y)

**6020** Research in Education (4)  
Seminar in methods and procedures of research tools in education; sources and uses of data. Critical analysis of published research; preparation of a research project to include references, rationale, and outline. T ED 5100 and course in statistics recommended. (A)

**6021** Seminar in Diagnosis and Treatment of Learning Difficulties in Mathematics (4)  
Causes and effects of mathematics learning disabilities. Methods and instruments useful in diagnosis and treatment. Evaluation of materials for the correction of mathematical learning problems. Cross listed with MATH 6021. Prerequisite: consent of instructor. (Y)

**6030** Seminar on Problem Solving and Critical Thinking in Mathematics (4)  
Psychological and pedagogical aspects of problem solving and critical thinking in mathematics. Curriculum and teaching models with emphasis on classroom instruction. (Y)

**6040** Advanced Curriculum and Instruction in Mathematics (4)  
Historical and philosophical study of curriculum trends, modern curricular developments including use of newer instructional media, individualization of instruction, school computer usage, and evaluation techniques. Cross-listed with MATH 6040. (Y)

**6050** Research in Science and Health Education (4)  
Review of recent research concerning science and health



education in grades K-14. Thinking of leading science and health educators regarding purposes and programs needed in the near future. Planning for change processes in schools. Prerequisite: consent of instructor. (Y)

- 6124 Advanced Study in Multicultural Education (4)  
Analysis of research on educational policies and practices regarding the development of ethnic identity; compensatory and cross-cultural education. Application to implementation of school programs. Prerequisites: T ED 5038 or consent of instructor.
- 6125 Foundations of Early Childhood Curriculum (4)  
Meeting the special curricular needs of young children, including the social, fine arts and basic skills. (Y)
- 6160 Language and Cognitive Development in Early Childhood Education (4)  
Current research on the development of language and cognition in young children; the relationships of environmental and biological forces; and implications for curriculum planning. Prerequisites: T ED 6700 and 5021. (Y)
- 6169 Home, School and Community Relationships (4)  
Teacher roles in dealing with classroom aides, community agencies, and parents. (Y)
- 6186 Research Seminar in Early Childhood Education (3)  
Systematic study of a topic of research in early childhood education. Topics announced in advance. Seminar may be repeated for credit if different topics are studied. Prerequisites: T ED 5021, 6700. (Y)
- 6210 The Nature and Theory of the Reading Process (3)  
Sociological, psychological, physiological, and educational factors in reading process. Role of sensory organs and brain. Stages of growth in instruction. Cognitive development. Personality theories and learning. Prerequisites: graduate standing. (Y)
- 6220 Ethnic and Linguistic Factors in Reading Instruction (3)  
Cultural differences, language habit patterns. Reading instruction criteria for linguistically different learners. Ethnic, socioeconomic, linguistic variables related to reaching achievement. Understanding structure of English language. Prerequisite: graduate standing. (Y)
- 6230 Reading and Language Arts Instruction in the Elementary School (4)  
Strategies and materials for teaching reading and language arts in the elementary school; the integration of skills and skill instruction; and effective organization patterns. Prerequisites: teaching experience, a pre-service reading methods course, or permission of instructor. (Y)
- 6231 Diagnosis of Reading Problems: Emphasis

Elementary School (4)

Administration, interpretation and application of individual and group tests for analysis of reading difficulties. Discussion and assessment of psychological and physical factors associated with reading disability. A portion of the course will deal with tests and analysis secondary school reading problems. Prerequisites: T ED 6230 and consent of instructor. (Y)

6232 Correction of Reading Difficulties in Elementary Schools (3)

Group, individual techniques, case studies, sample lessons, demonstrations of remedial methods. Construction, use, evaluation of materials for correction of reading difficulties. Prerequisites: T ED 6231 and consent of instructor. (Y)

6233 Laboratory Practice in Correction of Reading Difficulties (6)

Remedial instruction for children with reading difficulties. Daily practice tutoring children in clinical situation. Experience in individual tutoring, group remedial activities, parent interviews, case study, clinic reports. Elementary and Secondary sections. Prerequisites: T ED 6232 or T ED 6242 and consent of instructor. (Tent. Su)

6234 Clinical Seminar in Reading (3)

Relationship of applicable theory to reading disabilities. Intervention modes and assessment of practices. Individual problems and clinical reports. Prerequisites: T ED 6232 or 6242; consent of instructor. Concurrent enrollment in T ED 6233 required. (Tent. Su)

6240 Reading and Study in Secondary Schools (3)

Techniques, plans, materials, programs to improve reading and study skills of junior and senior high school students in all subject areas. Prerequisite: teaching experience. (Y)

6245 Literature for the Young Child (4)

Focuses upon literature of many genre for the teaching of children from three to eight years. Includes picture books, classics, personified machine heroes, realistic books and others. Includes enrichment ideas which teachers can use for young children. Prerequisite: T ED 5240. (Y)

6246 Critical Analysis of Children's Literature (3)

Critical analysis of literature intended for children. Study of various literary forms. Extensive readings on children's literature. Prerequisite: 14 units in children's literature. May be repeated for credit. (Y)

6250 Seminar in Reading Research (3)

Comprehensive review and evaluation of research and literature in the reading field; investigation of research topic; selection of problem, literature survey, interpretation and summaries of findings. Must be taken before T ED 6020. (Y)

6251 Field Experience in Reading Instruction (3)

Planned experiences in reading instruction at the school

site. Individualized program. Supervision by university and school district personnel. Prerequisites: T ED 6233 and departmental approval. (F, W, Sp)

- 6253 Teaching Reading Comprehension (3)  
The definition of reading comprehension, recent research, and basic assumptions about the comprehension process. "How to" strategies to enable students to understand what they read. The creation and development of classroom materials for classroom use. (Y)
- 6254 Selected Topics in Reading Education (3)  
Issues in reading education. Topics vary to reflect current interests in the field. May be repeated for credit. Prerequisite: T ED 6230 or T ED 6240. (Y)
- 6300 Foundations of Curriculum Development (4)  
Determinants of curricula in elementary and secondary schools. Effects of national goals, state legislation and community forces on curriculum development. Theories and patterns of curriculum organization. K-14 curriculum sequences. (F, W)
- 6331 Collaborative Leadership I (4)  
See EDUI 6331 for course description.
- 6414 Organization of Resident Outdoor Education (4)  
Problems and solutions for implementation, e.g., site, staff, health, finance, permission. Preparation, program, and classroom follow-up. A miscellaneous course fee will be charged. Consult the quarterly *Class Schedule* for the current fee. Prerequisite T ED 5413 or consent of instructor. (Y)
- 6416 Development of Environmental Education (4)  
History, needs, conceptual framework, trends and types of programs in the United States and the world. Review of literature and dissertations and masters' theses. Prerequisites: T ED 5413, or consent of instructor. (Y)
- 6417 Field Study in Environmental Education (4)  
Individual leadership experience in an environmental education program. Prerequisite: consent of instructor. (Y)
- 6440 Curriculum in Science and Health Education (3)  
Topics vary as students analyze various curricular programs and materials for the teaching of science and/or health in grades K-12. May be repeated once for credit. Topics differ in each offering of this course. Prerequisites: graduate standing.
- 6700 Advanced Educational Psychology (4)  
Systematic analysis of general principles of motivation and learning as applied to educational processes. Prerequisite: Upper division learning course. (W, Sp)
- 6898 Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 4 units. No

units may be counted toward credential programs. CR/NC grading only. Prerequisites: at least 3.0 GPA; departmental approval of activity. (A)

**6899** Project (2-5)

Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing. Maximum of 5 units per student. (A)

**6900** Independent Study (1-4)

**6901** Graduate Synthesis (4)

Alternative to thesis/project. Review of graduate program experiences, examination of recent issues in education, plans for current and future professional development and implementation of action research and assessment in the educational setting of the candidate. Includes comprehensive examination. Prerequisites: completion of all other M.S. degree coursework.

**6909** Departmental Thesis (2-5)

Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 5 units per student.

**6910** University Thesis (1-6)

Development and writing of a formal research paper for submission to the university in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. Maximum of 6 units per student. (See also, "University Thesis Writing Guide," available in WA 859.) (A)



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## Department Information

## History

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- ▶ [M.A. in History](#)
- ▶ [Graduate Courses](#)

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Department of History  
School of Arts, Letters, and Social Sciences  
Office: Meiklejohn Hall 4036  
Phone: (510) 885-3207

*Professors Emeriti:* Frank D. Gilliard, John E. Morby, Theodore Roszak

*Professors:* Dee E. Andrews, Jose A. Fernandez, Richard Garcia, Tom G. Hall, Gerald S. Henig, Richard J. Orsi, Henry F. Reichman (Chair)

*Associate Professor:* Sophia Lee

*Assistant Professor:* Pablo-Raul Arreola, Jr., Robert A. Phelps, Nancy M. Thompson, Jessica Weiss

*Graduate Coordinator:* Dee E. Andrews

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## M.A. in History

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### Program Description

The Master of Arts degree in History is designed to meet the varied needs and interests of students seeking an advanced degree in history. The program trains students in advanced skills in historical research, writing, and teaching. Four options permit students to plan their coursework to best suit their goals within the overall program requirements and the range of courses offered.

The program includes graduate course offerings in historical research and historiography, conference (seminar) courses, undergraduate or graduate elective units, and a culminating master's project. Elective units may be taken in other fields with the approval of the graduate coordinator. The master's project may be a university thesis, departmental thesis, examinations in major and minor fields, or a graduate project, depending on the option chosen.

Because the majority of students in the master's program are employed full-time during the day, graduate courses are offered in the evening, usually on a one-night-a-week basis, in Fall, Winter, and Spring quarters. This schedule allows students time to complete regular assignments, carry on research, and make regular progress toward the M.A. degree.

### Career Opportunities

The master's program is especially suited to individuals interested in enhancing their careers as secondary school teachers, in qualifying as community college faculty, or training as historical editors, archivists and Bay Area or California historians. It is also useful for individuals interested in retraining for careers in history or in preparing for doctoral programs in history.

### Faculty

Although most graduate students find it convenient to specialize in American and California history, the History Department faculty also includes specialists in European, Asian, and Latin American history. Qualified graduate students may usually carry out research and specialize in these areas as well. The full-time faculty are professional scholars, widely published in their respective fields and active in regional and national historical associations. The department has many years' experience in advising and training master's students in history.

### Option Areas

The master's program offers four options: Thesis, Examination, Teaching, and Public History. The Thesis, Examination, and Teaching options differ chiefly in their required M.A. projects. The Public History Option has a distinct set of course requirements designed for training in that specialty.

Students who intend to pursue further graduate work in History should select the Thesis option. Both the Thesis and Examination options are appropriate for those who do not plan to continue beyond the master's degree. The Teaching option is especially useful for individuals who currently teach or plan careers in teaching. The Public History option prepares students for non-academic work in history, such as Bay Area or California projects in the private or public sector or museum and archival work. It is generally expected that students in the Thesis and Public History options will pursue research at libraries and historical collections outside the university in completing their master's projects. Students in the Examination and Teaching options are more likely to complete their projects on campus.

### Special Features

Internships (non-remunerative) in research and editing are available in the department with the journal *California History*, with preference given to Public History students. Graduate students are also eligible for funding for travel and research through the Evelyn Whitman Rice Memorial Fund. Research opportunities in Bay Area and California history abound at the University of California, Berkeley; the Bancroft Library; the National Archives at San Bruno; and numerous private collections in the region. The university library provides excellent reference, microfilm and interlibrary loan services.

### Scholarships

Qualified history graduate students are eligible for graduate financial aid through the loan and fellowship programs administered by the Financial Aid Office. Small scholarships of \$100 to \$500, pending available funds, are awarded annually through the Evelyn Whitman Rice Memorial Fund to assist graduate students in completing their master's projects.

## Admission

Admission to the master's program generally requires a B.A. degree major in History, or the equivalent, and a minimum GPA of 3.0 ("B") in the last two years of undergraduate work and 3.25 ("B+") in history. A one-page statement of purpose and two letters of recommendation must accompany applications. Interested students with degrees in related disciplines, such as American Studies, Ethnic Studies, Political Science, Art or Theater History, and Literature, and suitable academic backgrounds in history are encouraged to apply.

In some cases, applicants may be advised to enroll in the university as an "Unclassified Postbaccalaureate" student to remedy any deficiencies or complete further coursework in history. Students without necessary background in research or writing may also be admitted to the program with a "Conditionally Classified Graduate" status with the requirement that they complete HIST 4030 and/or 4031 at a specified grade level before being admitted to "Classified Graduate" status. Students meeting all admissions requirements, and who have satisfied the University Writing Skills requirement, are eligible to be admitted with "Classified Graduate" status.

## Degree Requirements

The Master of Arts degree in History consists of 45 units. Each of the four options in the master's program requires a prescribed program of 45 units listed below. Reading proficiency in a foreign language is strongly encouraged, especially for those planning to pursue doctoral degrees or research careers.

### I. Thesis Option (45 units)

#### A. Required Courses (17 units)

- HIST 6010 Seminar in History (5)
- HIST 6030 Graduate Historiography (4)
- HIST 6910 University Thesis (8)

#### B. Conference Course (16 units)

Four courses, including repeats, from the following in at least two areas. One Conference Course must be in the general area of the thesis topic.

- HIST 6100 Conference Course in Ancient and Medieval History (4)
- HIST 6200 Conference Course in European History (4)
- HIST 6300 Conference Course in Asian History (4)
- HIST 6400 Conference Course in United States History (4)
- HIST 6500 Conference Course in Latin American History (4)

#### C. Electives (12 units)

Twelve (12) units of upper division or graduate courses in History.

D. *Complete an approved University Thesis* (See HIST 6910 above.)

II. Examination Option (45 units)

A. *Required Courses (13 units)*

HIST 6010 Seminar in History (5)

HIST 6030 Graduate Historiography (4)

Four units of HIST 6909 Departmental Thesis (1-4)

B. *Conference Courses (20 units)*

Five courses, including repeats, from the following in at least two areas:

HIST 6100 Conference Course in Ancient and Medieval History (4)

HIST 6200 Conference Course in European History (4)

HIST 6300 Conference Course in Asian History (4)

HIST 6400 Conference Course in United States History (4)

HIST 6500 Conference Course in Latin American History (4)

C. *Electives (12 units)*

Twelve (12) units of upper division or graduate courses in History.

D. *Comprehensive Examination*

Pass comprehensive written examinations in major and minor fields as prescribed by the department.

III. Teaching Option (45 units)

A. *Required Courses (17 units)*

HIST 6010 Seminar in History (5)

HIST 6030 Graduate Historiography (4)

HIST 6899 Project or HIST 6909 Departmental Thesis (4)

HIST 6900 Independent Study (4)

B. *Conference Courses (16 units)*

Four courses, including repeats, from the following in at least two areas:

HIST 6100 Conference Course in Ancient and Medieval History (4)

HIST 6200 Conference Course in European History (4)

HIST 6300 Conference Course in Asian History (4)

HIST 6400 Conference Course in United States History (4)

HIST 6500 Conference Course in Latin American History (4)

C. *Electives (12 units)*

Twelve (12) units of upper division or graduate courses in History.

D. *Curriculum Project*

Complete an approved curriculum Project. See HIST 6899, 6909 above.)



#### IV. Public History Option (45 units)

##### A. *Required Courses (25 units)*

- HIST 4032 Introduction to Public History (4)
- HIST 6010 Seminar in History (5)
- HIST 6030 Graduate Historiography (4)
- HIST 6400 Conference Course in United States History (4)
- HIST 6899 Project or HIST 6909 Departmental Thesis (3)
- HIST 6901 Internship in Public History (5)

##### B. *Conference Courses (12 units)*

Three courses, including repeats, from the following in at least two areas:

- HIST 6100 Conference Course in Ancient and Medieval History (4)
- HIST 6200 Conference Course in European History (4)
- HIST 6300 Conference Course in Asian History (4)
- HIST 6400 Conference Course in United States History (4)
- HIST 6500 Conference Course in Latin American History (4)

##### C. *Electives (8 units)*

Eight units of upper division or graduate courses in History.

*Recommended Skills Courses:* The department recommends that students select two or three courses from the following list, or others approved by their advisor, appropriate to their specific professional goals:

- ANTH 3240 Archeology of North America, 3710 Museum Curating, 4240 Data Analysis in Archeology; ART 3701 Gallery and Museum Exhibition and Design, 3702 Theories and Practices of Galleries and Museums; ART/MCOM 4620 History of Photography; PUAD 4800 The Study of Public Administration, 6828 Quantitative Analysis in the Public Sector

##### D. *Internship and Project*

Complete an approved Internship and Public History Project. (See HIST 6899, 6901, 6909 under required courses.)

#### Upper Division Courses Acceptable for the Master's Degree

All History courses in the 3000-4000 series except 3400, 4030, and 4031 are acceptable courses in a master's program.

#### Advancement to Candidacy

In addition students, must meet the requirements of Advancement to Candidacy confirming that a student is prepared to finish the degree and is recommended as a degree candidate. A Classified Graduate student in good standing is eligible to be advanced to candidacy for the master's degree after:

1. completing 12 quarter units applicable to the degree program
2. completing HIST 6010 and 6030
3. submitting a proposal for the Master's thesis, project, or two

## Graduate Courses

fields of examination to the Graduate Committee

4. obtaining the Graduate Coordinator's approval of the student's committee, comprised of at least two faculty members.

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*The course prefix for the following courses is HIST.*

- 6010** Seminar in History (5)  
Historical methodology including critical analysis and use of source materials, research and writing. Investigation of selected topics in political, economic, diplomatic, intellectual, and social history. Reports and discussion. Prerequisite: consent of instructor. (Y)
- 6030** Graduate Historiography (4)  
Intensive readings in the classics of historical writing and the philosophy of history. Written critical analyses, both in- and out-of-class, are required. Open only to postbaccalaureate students. Prerequisite: consent of instructor. (Y)
- 6100** Conference Course in Ancient and Medieval History (4)  
Readings and discussion in the significant historical literature of ancient and medieval Europe emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.
- 6200** Conference Course in European History (4)  
Readings and discussion in the significant historical literature of modern Europe emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.
- 6300** Conference Course in Asian History (4)  
Readings and discussion in the significant historical literature of Asia emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.
- 6400** Conference Course in United States History (4)  
Readings and discussion in the significant historical literature of the United States emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.
- 6500** Conference Course in Latin American History (4)  
Readings and discussion in the significant historical literature of Latin America emphasizing the chief areas of historical controversy and interpretation. Study of the major historians. May be repeated for additional credit with other professors. Prerequisite: consent of instructor.

- 6898** Cooperative Education (1-4)  
Supervised work experience in which student completes academic assignments integrated with off-campus paid or volunteer activities. May be repeated for up to 5 units. A maximum of 5 units will be accepted toward the History major. Prerequisites: at least a 3.0 GPA; departmental approval of activity. (A)
- 6899** Project (1-4)  
Development of an original product which is summarized in a written abstract. Both the project and the abstract are submitted to the department which specifies their formats. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense may be required. Prerequisite: graduate standing.
- 6900** Independent Study (1-4)
- 6901** Internship in Public History (1-5)  
Supervised field work in non-academic settings, such as museums, libraries, archives, private business and government agencies, or historical preservation programs. Prerequisite: consent of instructor. May be repeated, but maximum allowable credit is five units.
- 6902** Historical Editing (1-4)  
Theory and method of editing scholarly historical journals. Experience editing a State Historical Society quarterly under the supervision of its editor. May be repeated for credit. Prerequisite: consent of instructor.
- 6909** Departmental Thesis (1-4)  
Development and writing of a research paper for submission to the department which specifies its format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing.
- 6910** University Thesis (1-4)  
Development and writing of a formal research paper for submission to the University in the specified bound format. Supervision by a departmental committee, at least one of whom must be a Cal State Hayward faculty member. Oral defense normally required. Prerequisite: graduate standing. (The University Thesis Writing Guide is available in Warren Hall, room 859. )



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## Department Information

# Telecommunication Systems

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- ▶ [M.S. in Telecommunication Systems](#)

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### Department of Accounting and Computer Information Systems

*(Telecommunications Management Option)*

School of Business and Economics

Office: Music Business Building 2577

Phone: (510) 885-3970

E-mail: [bord@csuhayward.edu](mailto:bord@csuhayward.edu)

### Department of Mathematics and Computer Science

*(Computer Technologies of Telecommunications Option)*

School of Science

Office: North Science 335

Phone: (510) 885-3414

E-mail: [leann@csuhayward.edu](mailto:leann@csuhayward.edu)

[http://www.mcs.csuhayward.edu/tcs\\_ms.html](http://www.mcs.csuhayward.edu/tcs_ms.html)

*Professors:* Christopher L. Morgan (Mathematics and Computer Science), William R. Nico (Mathematics and Computer Science), Kenneth Pefkaros (Accounting and Computer Information Systems), Zinoviy D. Radovilsky (Management and Finance), Ytha Yu (Mathematics and Computer Science)

*Associate Professors:* Alexander Bordetsky (Accounting and Computer Information Systems), Tung-Shing Lam (Accounting and Computer Information Systems), Farzan Roohparvar (Mathematics and Computer Science)

*Assistant Professors:* Kevin A. Brown (Mathematics and Computer Science), Leann Christianson (Mathematics and Computer Science)

*Graduate Coordinators:* Alexander Bordetsky (Telecommunications Management Option) and Leann Christianson (Computer Technologies of Telecommunications Option)

*Please consult the 2001-2002 online catalog for any changes that may occur.*

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## Program Description

The Department of Accounting and Computer Information Systems (School of Business and Economics) and the Department of Mathematics and Computer Science (School of Science) offer graduate study leading to the degree Master of Science in Telecommunication Systems. This program is designed to give students current knowledge in telecommunications core technology and problem solving experience in designing and implementing telecommunication systems.

The area of telecommunications requires a variety of technical and business-related skills. On the technical side, it requires knowledge and experience with computer network protocols, routing algorithms, network congestion control, error handling, network management, data compression and encryption, switching algorithms, operating systems principles and practices, computer architecture, and software development. On the business side, knowledge and experience is required in the areas of systems analysis, systems design, organizational management, service operations management, management of technology innovation, regulatory issues, public policy, and standards. Telecommunications rests upon engineering principles and concepts that draw upon physics.

The program provides opportunities for students to gain a deeper understanding of the basis for telecommunications technology and its application to business communication infrastructures. It is designed to offer both a theoretical background and practical experience beyond that covered in typical undergraduate degree programs. A theoretical background to support hands-on learning is imperative as the telecommunications industry and its technologies are transitory and rapidly evolving. Students can expect to have a number of different job classifications during their working lives.

The program emphasizes a systems aspect of telecommunications technologies that enables graduates to acquire high-demand knowledge and skills. Examples of current key aspects include: telecommunications management, telecommunication systems and products, telecommunications productivity tools, telecommunications business/industry, technology/engineering core.

## Faculty

The faculty are drawn from both the Mathematics and Computer Science Department and the Department of Accounting and Computer Information Systems. They hold doctorates in a wide variety of areas, and have a strong commitment to high quality teaching. Faculty research interests include computer networking, Internet protocols, multimedia, satellite systems, collaborative systems, operating systems, distributed systems, computer graphics, software engineering, cryptography, and database systems.

## Faculty Teaching and Research Interests

Alexander Bordetsky, Ph.D. in Applied Mathematics and Computer Science (1982), USSR Academy of Science at

Chelyabinsk State Technical University. Interests: management of telecommunication systems including collaborative teleconferencing, Internet, satellite and high-speed networks.

Kevin A. Brown, Ph.D. in Computer Science (1997), University of South Carolina. Interests: mobile and wireless networking, multimedia systems, and satellite and telecommunications management.

Leann Christianson, Ph.D. in Computer Science (1997), University of South Carolina. Interests: data compression, multimedia applications, network quality of service, and telecommunications.

Tung-Shing Lam, Ph.D. in Computer Science (1993), Arizona State University. Interests: telecommunications industry, data networking, telecommunications architectures.

Christopher L. Morgan, Ph.D. in Mathematics (1969), Brandeis University. Interests: interactive remote management, telecommunications, multimedia, and software development.

William R. Nico, Ph.D. in Mathematics (1966), University of California, Berkeley. Interests: computer security, programming language design and implementation, theoretical computer science.

Kenneth Pefkaros, Ph.D. in Applied Mathematics (1972), University of Delaware. Interests: systems analysis, routing and data networking models, object-oriented analysis, databases, decision support systems, and operations research.

Zinovy D. Radovilsky, Ph.D. in Management Science (1984), Scientific Research Institute of Labor (Moscow). Interests: methods and models of operations research and operations management.

Farzan Roohparvar, Ph.D. in Electrical and Computer Engineering (1983), Iowa State University. Interests: VLSI design, computer architecture, distributed systems, operating systems design, microprocessor/memory chip design, digital design using Verilog HDL.

Ytha Yu, Ph.D. in Electrical Engineering (1970), University of California, Berkeley. Interests: database systems, web development, and computer networks.

## Facilities

Telecommunications students at Cal State Hayward have access to some of the most modern and powerful computer and networking equipment available. The campus provides a network backbone, including connection to the Internet, an IBM 9377, a network of Unix workstations (Mostly SUN SPARCstations and SGI Indys), and hundreds of microcomputers. All mainframes and microcomputers are accessible from terminals located throughout campus and by modem and Internet off campus. Several computer labs on campus offer terminal access and assistance with problems.

## Admission

To apply for admission to the M.S. program in Telecommunication

Systems, a student must submit the proper forms, fees and transcripts to the university's Graduate Admissions Office which initially reviews each application to determine eligibility. The graduate coordinators then review the application, making the decision whether to accept or reject the applicant. A student wishing to enter this program must have a baccalaureate degree.

#### Admission Requirements for the Degree

Prerequisites consist of a satisfactory score on the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT) and either coursework or completion of a specified undergraduate major before the student can obtain full classification in the program. Students do not receive credit toward the master's degree for prerequisites. Students must have a grade point average of 2.75 in all undergraduate work and a 3.00 grade point average in their major, if applicable, or the required substitute coursework listed below.

Coursework and undergraduate major prerequisites for each option are outlined below.

#### Admission Requirements for Options

##### *Computer Technologies of Telecommunications Option*

Completion of an undergraduate major in Computer Science or Computer Engineering or an undergraduate major in another area together with the following coursework or equivalent:

- CS 3240 Data Structures and Algorithms
- CS 3430 Computer Architecture
- CS 3590 Data Communications and Networking

##### *Telecommunications Management Option*

Completion of an undergraduate major in Business Administration, MIS, or CIS with a strong background in Computer Information Systems or Business Computer Telecommunications, or an undergraduate major in another area together with the following coursework or equivalent:

- CIS 3281 Systems Analysis and Design I or TC 4300 Telecommunications Analysis and Management
- TC 3250 Introduction to Telecommunications
- TC 4266 Network Software Architecture and Operating Systems

##### *Telecommunication Systems Engineering Option*

Completion of an undergraduate major in Electrical or Computer Engineering.

#### Writing Skills

Students must satisfy all university admission requirements including the University Writing Skills Requirement. Students who have passed the University Writing Skills Requirement as undergraduates at CSU Hayward or another CSU campus are considered to have satisfied this requirement.

#### Advancement to Candidacy

Advancement to Candidacy is a university requirement for graduation. It is also a requirement for admission to the capstone experience. Requirements for Advancement to Candidacy are:



1. Classified student in good standing
2. Completion of at least 16 quarter units toward the degree, including at least two core courses in the program, with a "B" or better average.
3. Formal program of study approved by an advisor.

A student who has not met all of the above requirements may be admitted to the program at the discretion of the department as a "Conditionally Classified Graduate" student, provided the student's record clearly demonstrates the capability of meeting all these requirements.

No more than 20 quarter units taken while in "Conditionally Classified Graduate" status may be applied toward the master's degree. A "Conditionally Classified Graduate" student who has no course deficiencies, a "B" or better average in at least 12 quarter units of post-baccalaureate study, and has satisfied the University Writing Skills requirement should petition the graduate coordinator for admission to the master's degree program with "Classified Graduate" status. A maximum of 13 units taken as an "Unclassified Post-baccalaureate" student may be applied to a master's degree.

## Degree Requirements

The M.S. in Telecommunication Systems consists of 45 units.

### I. Core (12 units)

All students take the following common core consisting of three classes that bring together the common principles, approaches, and working knowledge of a telecommunications professional.

CS 6585 Distributed and Client/Server Systems (4)  
TC 6101 Analysis and Design of Telecommunication Systems (4)  
TC 6205 Routing and Data Networking Models in Telecommunications (4)

### II. Options (16 units)

Each student must select one of the following three options.

Computer Technologies of Telecommunications  
This option focuses on telecommunication systems from a Computer Science/Computer Engineering perspective.

*Four courses (16 units) selected from the following:*

CS 6315 Object-oriented Software Development for Telecommunications (4)  
CS 6522 Advanced WWW Software Development (4)  
CS 6525 Network Security (4)  
CS 6560 Operating Systems Design (4)  
CS 6715 Data Compression (4)  
TC/CS 6815 Artificial Intelligence in Telecommunications (4)

Telecommunications Management

This option focuses on business-oriented aspects of telecommunications. Particular emphases are on analysis and



design and on managerial systems.

*Four courses (16 units) selected from the following:*

MGMT 6100 Quantitative Business Methods  
MGMT 6141 Service Operations Management (4)  
MGMT 6470 Management of Technology and Innovation (4)  
TC 6207 Telecommunications Management Systems (4)  
TC 6210 Collaborative Multimedia Networking and  
Telepresence (4)  
TC 6277 Telecommunications Industry and Service  
Management (4)  
TC 6284 Management of Satellite/Wireless Communications  
(4)

Telecommunications Systems Engineering  
This option focuses on the fundamental technologies and  
technological systems that are used in telecommunications.

*The following four courses (16 units):*

CS 6752 Digital Signal Processing (4)  
CS/TC 6844 Digital Image Processing (4)  
TC 6279 Seminar in Advanced Satellite Communications  
and Services (4)  
TC/CS 6458 Optical Fiber Technologies (4)

### III. Electives (13 units)

Students must select an additional 13 units of electives.  
Courses in any option may be selected. These additional  
electives need not be within the student's chosen option, and  
they may also include up to five units of independent study  
that is preparatory to the capstone experience.

### IV. Capstone Experience (4 units)

All students must complete a capstone experience. The  
capstone experience consists of a project, normally involving  
a team of students, and an individual formal document from  
each student. Projects must be approved by a designated  
faculty committee and sponsored by a faculty advisor. All  
students must complete the following course to receive credit  
for their capstone experience: TC 6909 or CS 6909.

### Other Degree Requirements

In addition to departmental requirements, every student must also  
satisfy the university requirements for graduation which are  
described in the Graduate and Post-baccalaureate Studies  
chapter at the beginning of the graduate section of this catalog.  
These requirements include the 32-unit residence requirement,  
the five-year rule on currency of subject matter, the minimum  
number of units of 6000-level courses, the 3.00 GPA, and the  
University Writing Skills Requirement.



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# THE CALIFORNIA STATE UNIVERSITY

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The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972, the system became The California State University and Colleges and, in 1982, The California State University. Today the campuses of the CSU include comprehensive and polytechnic universities and, since July 1995, the California Maritime Academy, a specialized campus.

The oldest campus, San José State University, was founded in 1857 and became the first institution of public higher education in California. The most recently opened campus (California State University, Monterey Bay) began admitting students in the Fall of 1995. A new site has been conveyed and a 23rd campus-- California State University, Channel Islands--is being formally established in Ventura County.

Responsibility for The California State University is vested in the Board of Trustees, whose members are appointed by the Governor. The Trustees appoint the Chancellor, who is the chief executive officer of the system, and the Presidents, who are the chief executive officers of the respective campuses.

The Trustees, the Chancellor, and the Presidents develop systemwide policy, with actual implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the Chancellor.

Academic excellence has been achieved by The California State University through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as a broad liberal education. All the campuses require a basic program of "General Education Requirements" for graduation, regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers more than 1,600 bachelor's and master's degree programs in 240 subject areas. Many of these programs are offered so that students can complete all upper-division and graduate requirements by part-time, late afternoon, and evening study, or by distance learning from home or work via computer or television. In addition, a variety of teaching and school service credential programs is available. A limited number of doctoral degrees is offered jointly with the University of California and with private institutions in California.

Enrollment in Fall 1998 totaled 350,254 students, who were taught by over 19,500 faculty. The system awards more than half of the bachelor's degrees and 30 percent of the master's degrees granted in California. Some 1.84 million persons have been graduated from CSU campuses since 1960.

### Office of the Chancellor

Dr. Charles B. Reed, *Chancellor, CSU System*

Dr. David S. Spence, *Executive Vice Chancellor and Chief Academic Officer*

Dr. Charles W. Lindahl, *Associate Vice Chancellor, Academic Affairs*

Ms. Jackie McClain, *Vice Chancellor, Human Resources*

Mr. Richard P. West, *Executive Vice Chancellor and Chief Business Officer*

Dr. Douglas X. Patiño, *Vice Chancellor, University Advancement*

Ms. Christine Helwick, *General Counsel*

Office of the Chancellor

The California State University

401 Golden Shore, Long Beach, California 90802-4210

(562) 951-4000

### Campuses - The California State University

#### *California State University, Bakersfield*

9001 Stockdale Highway, Bakersfield, CA 93311-1099

Dr. Tomás A. Arciniega, President

Phone: (661) 664-2011

#### *California State University, Channel Islands*

P.O. Box 2862, Camarillo, CA 93011-2862

Mr. J. Handel Evans, President

Phone: (805) 383-8400

#### *California State University, Chico*

400 West First Street, Chico, CA 95929-0150

Dr. Manuel A. Esteban, President

Phone: (530) 898-6116

#### *California State University, Dominguez Hills*

1000 East Victoria Street, Carson, CA 90747-0005

Dr. James E. Lyons, Sr., President

Phone: (310) 243-3300

#### *California State University, Fresno*

5241 North Maple Avenue, Fresno, CA 93740

Dr. John D. Welty, President

Phone: (559) 278-4240

#### *California State University, Fullerton*

800 North State College Blvd., Fullerton, CA 92834-9480

Dr. Milton A. Gordon, President

Phone: (714) 278-2011

#### *California State University, Hayward*

25800 Carlos Bee Boulevard, Hayward, CA 94542-3011  
Dr. Norma S. Rees, President  
Phone: (510) 885-3000

*Humboldt State University*  
Arcata, CA 95521-8299  
Dr. Alistair W. McCrone, President  
Phone: (707) 826-3011

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Phone: (909) 869-7659

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6000 J Street, Sacramento, CA 95819  
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Phone: (916) 278-6011

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5500 University Parkway, San Bernardino, CA 92407-2397  
Dr. Albert Karnig, President  
Phone: (909) 880-5000

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5500 Campanile Drive, San Diego, CA 92182  
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1600 Holloway Avenue, San Francisco, CA 94132  
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One Washington Square, San José, CA 95192-0001  
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San Luis Obispo, CA 93407  
Dr. Warren J. Baker, President  
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333 S. Twin Oaks Valley Rd., San Marcos, CA 92096-0001  
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1801 East Cotati Ave., Rohnert Park, CA 94928-3609  
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## University Administration

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An organizational chart representing the structure of CSUH Administration is available for viewing. You may retrieve the chart in [JPEG image format](#) (135k) or in [PDF image format](#) (18k). To view the Portable Document Format (PDF), you will need Adobe Acrobat, available at [Adobe's Web Site](#).

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### University Administration and Professional Staff

#### Office of the President

President, Norma S. Rees

Staff Assistant to the President: Anne Marie Peters

Executive Assistant to the President: \_\_\_\_\_

Assistant to the President, Diversity and Equal Opportunity  
(Interim): Charlotte Perry

Assistant to the President, Government and Community Affairs:  
Robert Brauer

#### University Advancement

Vice President, University Advancement: Dennis Eloe

Administrative Secretary/Office Manager: Dorothea Mathues

Director, Alumni Relations: Elizabeth Graw

Director, Public Affairs: Kim Huggett

Director, Major Gifts: Sharon Collins

Major Gifts Officer: \_\_\_\_\_

Major Gifts Officer: Dede Ranahan

#### CSUH Foundation Governing Board

Executive Director, CSUH Foundation, Inc. (Interim): Joyce  
Montgomery

Manager, Pioneer Bookstore: Norma Schmitz

#### Academic Senate

Chair, Academic Senate: \_\_\_\_\_

Administrative Assistant to the Senate Chair: Connie Sexauer

#### Academic Affairs

Provost and Vice President, Academic Affairs: Frank Martino

Administrative Analyst, Academic Affairs: Jane A. Traversa

Deputy Provost and Assistant for Faculty Affairs: Stanley J.  
Clark

Associate Vice President, Academic Resources and  
Administration: Armando Gonzales

Administrative Assistant to the Associate Vice President: Janet  
Lopus

Assistant Vice President, Enrollment Services (Interim): Carl  
Bellone

Director, Admissions: Maria DeAnda-Ramos

Associate Director, Admissions: Susan Lakis



Associate Director, Recruitment and Pre-Admission Advising:  
Sterling Sakai  
Assistant Director, Admissions and Recruitment: Lina Woo  
Registrar: Mary Hubins  
Graduation Evaluations Supervisor: Jeannette Monroe  
Registration Coordinator: \_\_\_\_\_  
Registration Records Supervisor: Evelyn Padua-Andrews  
Director, Financial Aid Services: Betty Harris  
Administrative Support Assistant: Theresa Shallenberger  
Counselor: Luanne Canestro  
Counselor: Marlene Cruikshank  
Counselor: Newin Orante  
Counselor: Anita Patino  
Counselor: Alfredo Perez  
Counselor: Wilma Tramble  
Scholarship Coordinator: Rhonda Johnson  
Systems Coordinator: Amy Huie  
Work Study Coordinator: Janet Giovannini-Hill  
Communications and Publications Supervisor: Jennifer Everett  
Director, Student Data Systems: \_\_\_\_\_

Associate Vice President, Curriculum and Academic Programs:  
Leigh W. Mintz

Publications Manager: Bonni Symington  
Graphics Specialist: Aaron R. Priven  
Coordinator, Academic Petitions: Rosanne Moore  
Director, Engineering Program: Joyendu Bhadury  
Director, Mission Possible: Doris Yates  
Director, PACE: James Nichols  
Administrative Support Assistant: Nancy Sadoyama  
Coordinator, Honors Program: Valerie Helgren-Lempesis  
Coordinator, General Education, and Co-Director, University  
Advisement Center: Sally Murphy  
Associate Director, University Advisement Center: Karen Kill  
Assistant Vice President, Instructional Services: Mack Lovett  
Director, Faculty/Student Mentoring Program (Interim): Terry  
Peppin

Associate Vice President, University Extended and Continuing  
Education: Herbert M. Graw

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Director, Center for International Education: Raymond P.  
Wallace  
Director, CableNet TV: Michael Orkin

Associate Vice President, Information Technology: John P.  
Charles

Director, Media and Technology Services: Roger Parker

Dean, Graduate Programs: Carl J. Bellone

Associate Dean (Interim): Nan Chico  
Director, Multimedia Program: James Petrillo  
Director, Online Teaching/Learning Program: Nan Chico

University Librarian: Myoung-ja Lee Kwon

Deputy Director and Coordinator, Instructional/Interpretive  
Services: Ilene Rockman  
Head, Access Services: Mark Marrow  
Head, Contra Costa Campus: Steve Philibosian  
Coordinator, Technical Services: Carol Castagnozzi

Director, Contra Costa Campus: Mark P. Nickerson  
Director, Faculty Development and The Faculty Center for  
Excellence in Teaching: \_\_\_\_\_  
Coordinator, Instructional Technology: Kathleen Margaret Lant  
Instructional Technology Consultant: Bernie Salvador  
Director, Assessment and Testing (Interim): Sandy Heisey  
Testing and Data Coordinator: Keith Sell  
Director, Research and Sponsored Programs: Joseph Zelan  
Associate Director: Vicky Ivy

#### School Deans and Department Chairs

Dean, School of Arts, Letters and Social Sciences: Michael E.  
Good

Administrative Assistant to the Dean: Rose Carrillo

Associate Deans: \_\_\_\_\_

Chair, Department of Anthropology: Lindy Li Mark

Chair, Department of Art (Interim): Michael Henninger

Chair, Department of Communicative Sciences and Disorders:  
Jan Avent

Chair, Department of Criminal Justice Administration: Benjamin  
Carmichael

Chair, Department of English: Charles DeBose

Chair, Department of Ethnic Studies: Michael Clark

Chair, Department of Geography and Environmental Studies:  
David Larson

Chair, Department of History: Henry Reichman

Chair, Department of Human Development: Rainer Bauer

Chair, Department of Mass Communication (Interim): John  
Hammerback

Chair, Department of Modern Languages and Literatures:  
Roland Heine

Chair, Department of Music: William G. Wohlmacher

Chair, Department of Philosophy: William J. Langan

Chair, Department of Political Science (Interim): David Baggins

Chair, Department of Public Administration: Dvora Yanow

Chair, Department of Sociology and Social Services: Diane  
Beeson

Chair, Department of Speech Communication: Daniel S. Prentice

Chair, Department of Theatre and Dance and Director, Arts  
Administration Program: Thomas C. Hird

Director, Humanities Program: Vincenzo Traversa

Director, International Studies Program: Norman A. Bowen

Director, Latin American Studies Program: Pablo Arreola

Director, Liberal Studies Program: Tom Hall

Director, Women's Studies Program: Patricia Guthrie

Dean, School of Business and Economics: Jay L. Tontz

Associate Dean (Interim): Richard Zock

Supervising Administrative Analyst: Cheryl Lavin-Martin

Chair, Department of Accounting and Computer Information  
Systems: Vernon T.S. Kam

Chair, Department of Economics: James C.W. Ahiakpor

Chair, Department of Management and Finance: Donald H. Wort

Chair, Department of Marketing and Entrepreneurship: Chong  
Lee

Dean, School of Education and Allied Studies: Arthurlene G.  
Towner

Administrative Assistant to the Dean: Matthew Evans

Associate Dean and Coordinator, Interdisciplinary Studies: Emily Lowe Brizendine

Assistant Dean: Jean Easterly

Chair, Department of Educational Leadership:

---

Chair, Department of Educational Psychology: Donald McKillop

Chair, Department of Kinesiology and Physical Education: Penny McCullagh

Chair, Department of Recreation and Community Services:  
Susan E. Sunderland

Chair, Department of Teacher Education: Phillip Duren

Dean, School of Science: Michael K. K. Leung

Administrative Assistant to the Dean: Virginia Palmer

Associate Dean: Linda Kinrade

Chair, Department of Biological Sciences: Stephen C. Benson

Chair, Department of Chemistry: Leroy Chauffe

Chair, Department of Geological Sciences: Nancy Fegan

Chair, Department of Mathematics and Computer Science:  
Edward Keller

Chair, Department of Nursing: Brenda Bailey

Chair, Department of Physics: Charlie Harper

Chair, Department of Psychology: Eleanor Levine

Chair, Department of Statistics: Julia Norton

Administration and Business Affairs

Vice President, Administration and Business Affairs: Richard S. Metz

Administrative Secretary: Kathy Burd

Administrative Assistant to the Vice President: Ron Kihara

Budget Officer: Kris Erway

Assistant Budget Officer: Joe Andrews

Assistant Vice President, Business and Financial

Services/Controller: Neal Hoss

Assistant Controller: John Abbey

Student Financial Services Officer: John Azevedo

Payroll Officer: Bonnie Guiomar

General Accountant/Financial Report Officer: Nyassa Love

Facilities Reservations Coordinator: Barbara Aro-Valle

Procurement, Support Services, and Risk Management Officer:  
Eric D. Thompson

Associate Vice President, Facilities Planning and Operations:

---

Coordinator, Capital Projects: Bruce Bagnoli

Director, Facilities Management: Ricardo Sanchez

Associate Director: Jordan Rich

Director, Environmental Health and Safety: Craig Ishida

Hazardous Materials Coordinator: Varon Smith

Safety and Industrial Hygiene Manager: Arlene Pugh

Coordinator, Design and Construction: Bob Maffei

Coordinator, Alternative Transportation: Elfrid Zalamea

Assistant Vice President, Institutional Research and Analysis:

Leone Nidiffer

Coordinator, Business Systems: Cheryl Washington

Assistant Vice President, Human Resources: James D. Buckley

Associate Director, Human Resources: Roger Zeedick

Student Affairs

Vice President, Student Affairs: Gladys De Necochea

Administrative Secretary: \_\_\_\_\_

Information Technology Consultant: Errick Lewis

Coordinator, Counseling and Psychological Services: Brian Reinhardt

Judicial Officer: \_\_\_\_\_

Project Specialist, Divisional Assessment: Robert Mahoney

Assistant Vice President, Divisional Resources and Student Retention Services (Interim): Janis Linfield

Director, Student Affairs Programs, Contra Costa: Harold Campbell

Director, Student Disability Resource Center: Mary Cheng

Disability Resource Counselor: Janice McKim

Support Services Coordinator/Counselor: Brook Oliver

Learning Disability Resource Counselor: Mary-Therese Schweickert-Stary

Deaf/HOH Services Coordinator/Counselor: Crystal Campbell

Learning Disability Resource Counselor: Russell Wong

Director, EXCEL (Trio Programs): Robert Mahoney

Academic Life Planning Counselor: Carol Garcia

Academic Life Planning/Learning Skills Counselor: Margaret Lewis

Academic Life Planning Counselor: Valerie Taniguchi

Director, Upward Bound Program: Wayne Kitchen

Assistant Director: Felita Clark

Tutorial Coordinator/Counselor: Maria Barajas

Executive Director, Student Development Services: Hal Gin

Director, Career Development Services: \_\_\_\_\_

Career Counselor: Joanne Daniels

Career Counselor: Ann Kihara

Career Counselor: Sharron O'Connor

Career Counselor: Phyllis Tang

Student Employment Center/Jobs Annex/Cooperative

Education: Bonnie Gilpin

Director, Housing and Residential Life: Regina Metoyer

Residential Life Coordinator: Stephan Franklin

Director, Student Life Programs: Sonja Daniels

Advisor: Stephen-James Flanagan

Advisor: \_\_\_\_\_

Executive Director, Student Academic Services and Co-Director, University Advisement Center: Henry Villanueva

Associate Director, University Advisement Center: Karen Kilk

Coordinator, Summer Bridge/Coordinator, EOP Admissions:

Enrique Mendoza

Director, Learning Resource Center: \_\_\_\_\_

Associate Director, Student Academic Services: \_\_\_\_\_

Coordinator, Academic Enhancement Services/Counselor:

Diana Balgas

Counselor: Sam Tran

Counselor: Diane Peterson

EOP Outreach Coordinator: Luis Molina

Director, Student Health Services: Cathleen Coulman

Director, Medical Services: Mark Khoo

Nursing Director: Barbara Dobbins

Chief, Public Safety: Antonio Alvarez  
Lieutenant: \_\_\_\_\_  
Administrative Services Officer: Bob Pitta  
Sergeant: Jon Amen  
Sergeant: Anthony Duenas  
Sergeant: Mario Lavagnino

Executive Director, University Union and Associated Students  
General Manager: Joyce Montgomery  
Associate Director, University Union (Interim): Jim Morris  
Building Operations Coordinator: Kathy Pero  
Manager, Food Service: Dominique Lindsey  
Director, Early Childhood Education Center: Janice Fonteno  
Coordinator, AS Programs and Recreational Activities: Evelyn  
Arnold

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## Directory Of Academic Personnel

- ▶ [Emeriti](#)
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### Emeriti

#### Professors

AGIN, RHODA L. (1973), *Professor of Communicative Sciences and Disorders*: B.A., 1968, Brooklyn College; M.A., 1971, Ph.D., 1975, University of Illinois. Emerita, 1999

ALLEN, DORIS L. (1966), *Librarian*: B.A., 1957, San Francisco State College; M.L.S., 1963, University of California, Berkeley. Emerita, 1987

AMEMIYA, FRANCES CAMPBELL (1964), *Professor of Mathematics*: A.B., 1935, A.M., 1936, University of California, Los Angeles; Ph.D., 1945, University of Michigan. Emerita, 1980

ANDERSON, THOMAS G. (1972), *Professor of Educational Psychology*: B.S., 1962, M.Ed., 1963, Pennsylvania State University; Ph.D., 1971, University of Pittsburgh. Emeritus, 1999

BAALMAN, ROBERT J. (1965), *Professor of Biological Science*: B.S., 1960, M.S., 1961, Fort Hays Kansas State College; Ph.D., 1965, University of Oklahoma. Emeritus, 2000

BABLADELIS, GEORGIA (1966), *Professor of Psychology*: B.A., 1953, University of Michigan; M.A., 1957, University of California, Berkeley; Ph.D., 1960, University of Colorado. Emerita, 1994

BAILEY, CLAYTON G. (1968), *Professor of Art*: B.S., 1960, M.S., 1961, University of Wisconsin. Emeritus, 1996

BAIRD, JOHN E. (1967), *Professor of Speech Communication*: B.A., 1947, M.A., 1948, College of the Pacific; Ph.D., 1959, Columbia University. Emeritus, 1987

BARMETTLER-EWING, DORLESA (1965), *Professor of Educational Psychology*: B.A., 1950, University of California, Berkeley; M.S., 1966, California State College, Hayward; Ph.D., 1970, University of California, Berkeley. Emerita, 1991

BARRETT, G. HAROLD (1963), *Professor of Speech Communication*: A.B., 1949, M.A., 1952, University of the Pacific; Ph.D., 1962, University of Oregon. Emeritus, 1992

BARRY, JEANNE G. (1965), *Associate Professor of Mathematics and Computer Science*: B.S., 1953, University of Illinois; M.S.,

1959, University of Pittsburgh. Emerita, 1994

BEAN, LOWELL J. (1966), *Professor of Anthropology*: B.A., M.A., 1961, Ph.D., 1970, University of California, Los Angeles. Emeritus, 1992

BELGUM, EVELYN H. (1965), *Professor of Teacher Education*: A.B., 1948, University of California, Berkeley; M.A., 1959, San Francisco State College; Ed.D., 1967, University of California, Berkeley. Emerita, 1986

BELTON, JOHN C. (1966), *Professor of Biological Science*: B.S., 1957, Lewis and Clark College; M.S., 1962, Ph.D., 1966, Oregon State University. Emeritus, 1988

BENSELER, ROLF W. (1968), *Associate Coordinator, Liberal Studies; Professor of Biological Science*: B.S., 1957, University of California, Berkeley; M.F., 1958, Yale University; Ph.D., 1968, University of California, Berkeley. Emeritus, 1995

BLACK, JAMES M. (1962), *Professor of Art*: B.S., 1951, M.S., 1952, University of Wisconsin; M.F.A., 1953, Cranbrook Academy of Fine Arts. Emeritus, 1987

BLACKBURN, ROBERT W. (1981), *Professor of Educational Leadership*: A.B., 1957, Oberlin College; A.M., 1964, University of Pennsylvania; Ph.D., 1984, The Union for Experimenting Colleges and Universities. Emeritus, 1996

BONNIN, ROBERT M. (1968), *Professor of Teacher Education*: A.B., 1952, San Diego State College; Ed.D., 1970, University of California, Berkeley. Emeritus, 1989

BOTNARESCUE, HELEN M. (1968), *Professor of Teacher Education*: B.A., 1949, Denison University; M.A., 1965, Ph.D., 1970, University of Alabama. Emerita, 1994

BOZAK, RICHARD E. (1964), *Professor of Chemistry*: B.S., 1956, University of Washington; Ph.D., 1959, University of California, Berkeley. Emeritus, 1998

BROCK, PHYLLIS J. (1963), *Professor of Kinesiology and Physical Education*: A.B., 1951, Chico State College; A.B., 1956, San Jose State College; M.A., 1963, Ed.D., 1968, University of California, Berkeley. Emerita, 1989

BROOKS, ELWOOD R. (1965), *Professor of Geological Sciences*: B.S., 1956, Michigan College of Mining and Technology; M.S., 1958, University of California, Berkeley; Ph.D., 1964, University of Wisconsin. Emeritus, 1997

BROWN, DONALD J. (1963), *Professor of Educational Psychology*: A.B., 1953, University of California at Los Angeles; M.A., 1955, Chico State College; Ph.D., 1960, Ohio State University. Emeritus, 1999

BROWN, GERALD W. (1965), *Professor of Teacher Education*: B.S., 1939, University of Nebraska; M.A., 1951, University of California, Berkeley; Ed.D., 1954, Stanford University. Emeritus, 1980



BROWN, PAULINE (1966), *Professor of Teacher Education*: A.B., 1941, A.M., 1959, Stanford University; Ed.D., 1966, Boston University. Emerita, 1984

BRYANT, JERRY H. (1963), *Professor of English*: B.A., 1951, M.A., 1955, Ph.D., 1959, University of California at Los Angeles. Emeritus, 1990

BULLOUGH, WILLIAM A. (1970), *Professor of History*: B.A., 1955, M.A., 1967, Ph.D., 1970, University of California, Santa Barbara. Emeritus, 1992

BURNETT, LEWIE W. (1962), *Dean, School of Education; Professor of School Administration and Supervision*: B.S., 1937, Central Washington State College; Ed.D., 1948, Stanford University. Emeritus, 1980

CAMBUS, JOHN (1963), *Professor of Speech Communication*: B.A., 1952, M.A., 1953, Ph.D., 1959, Wayne State University. Emeritus, 1992

CARTER, HARRY H. (1967), *Professor of Music*: B.M., 1955, University of Kentucky; M.M., 1956, University of Southern California; D.M.A., 1971, University of Illinois. Emeritus, 1994

CHAN, DAVID B. (1963), *Professor of History*: B.A., 1947, University of California, Berkeley; M.A., 1948, Columbia University; Ph.D., 1957, University of California, Berkeley. Emeritus, 1991

CHAPIN, NED (1987), *Professor of Computer Information Systems*: M.B.A., 1949, University of Chicago; Ph.D., 1959, Illinois Institute of Technology; CCP, CDE, CDP, CSP, CISA, PE (Calif.). Emeritus, 1992

CHARNOW, ALLEN K. (1967), *Professor of Mathematics*: A.B., 1956, M.A., 1958, Ph.D., 1965, University of California, Berkeley. Emeritus, 1995

CHU, DONALD A. (1968), *Professor of Kinesiology and Physical Education*: B.S., 1967, California State College, Hayward; R.P.T., 1968, Stanford University; M.S., 1969, California State College, Hayward; Ph.D., 1974, Stanford University. Emeritus, 1992

CLAY, EDWARD M. (1965), *Associate Professor of English*: B.A., 1954, M.A., 1958, University of Minnesota; Ph.D., 1965, University of Missouri. Emeritus, 1992

COGSWELL, HOWARD L. (1964), *Professor of Biological Science*: B.A., 1948, Whittier College; M.A., 1951, Ph.D., 1962, University of California, Berkeley. Emeritus, 1980

COHEN, ELEANOR D. (1968), *Professor of Music*: B.S., 1948, New York University; M.A., 1970, California State College, Hayward. Emerita, 1991

COLLINS, PAUL V. (1973), *Associate Professor of Teacher Education*: A.B., 1941, Livingstone College; M.S., 1960, Tennessee State University. Emeritus, 1983



CONNER, JACK E. (1962), *Professor of English*: B.A., 1939, B.S., 1942, Texas College of Arts and Industries; Ph.D., 1952, Stanford University. Emeritus, 1986

CORREA-ZOLI, YOLE (1971), *Professor of Italian*: A.B., 1965, San Francisco State College; Ph.D, Stanford University. Emerita, 1994

COSTY, JAMES O. (1964), *Professor of Theatre Arts*: B.A., 1945, Santa Barbara College; M.A., 1946, University of Washington; Ph.D., 1954, University of Denver. Emeritus, 1980

CUMMINS, LEJEUNE (1963), *Professor of History*: A.B., 1950, M.A., 1951, Ph.D., 1964, University of California, Berkeley. Emeritus, 1986

DANCE, MAURICE E. (1969), *Provost and Vice President, Academic Affairs; Professor of Economics*: B.A., 1947, University of Washington; M.A., 1949, Ph.D., 1953, University of Wisconsin. Emeritus, 1991

DAVIES, GORDON F. (1960), *Professor of Teacher Education*: B.Ed., 1948, University of Alberta; M.Ed., 1949, University of Oregon; Ed.D., 1960, Stanford University. Emeritus, 1983

DELLA-DORA, DELMO (1973), *Professor of Teacher Education*: B.S., 1947, University of Michigan; M.Ed., 1952, Ed.D., 1960, Wayne State University. Emeritus, 1992

DE VRIES, JOHN E. (1964), *Professor of Chemistry*: A.B., 1941, Hope College; Ph.D., 1944, University of Illinois. Emeritus, 1983

DIEN, DORA SHU-FANG (1971), *Professor of Human Development*: A.B., 1961, University of California, Berkeley; M.A., 1962, University of Hawaii; Ph.D., 1971, Columbia University. Emerita, 1998

DROGIN, RICHARD (1973), *Professor of Statistics*: A.B., 1966, Ph.D, 1970, University of California, Berkeley. Emeritus, 1996

DUGGER, MARGUERITE R. (1974), *Associate Professor of Educational Psychology*: B.S. 1938, Michigan State University; M.A., 1951, Ed.D., 1968, Wayne State University. Emerita, 1980

DUHNKE, HORST G. (1964), *Associate Professor of Political Science*: B.A., 1950, M.A., 1952, Ph.D., 1964, University of California, Berkeley. Emeritus, 1980

EDMISON, LYLE D. (1959), *Vice President, Student Services; Professor of Psychology*: A.B., 1950, M.A., 1951, Ph.D., 1955, University of Nebraska. Emeritus, 1991

EDWARDS, SCOTT E. (1966), *Professor of Political Science*: B.A., 1960, San Fernando Valley State College; Ph.D., 1964, Claremont Graduate School. Emeritus, 1994

ELDREDGE, DORA M. (1970), *Professor of Nursing*: B.S., 1950, University of Miami; A.M., 1953, Columbia University; Ph.D., 1964, University of Washington. Emerita, 1977

ELLIOTT, H. ROY (1962), *Assistant Professor of Business and Economics*: B.A., 1950, Harvard University; M.A., 1953, Ph.D., 1964, University of Chicago. Emeritus, 1987

ERICKSON, FLOYD R. (1959), *Director of the Library; University Librarian*: B.E., 1940, State Teachers College, Superior, Wisconsin; B.S.L.S., 1946, University of Minnesota; M.A., 1958, Long Beach State College. Emeritus, 1980

ERNST, KARL D. (1959), *Professor of Music*: B.M., 1932, M.M., 1936, University of Washington; Ed.D., 1955, University of Oregon. Emeritus, 1974

FISHER, LEON H. (1971), *Professor of Physics*: B.S., 1938, M.S., 1940, Ph.D., 1943, University of California, Berkeley. Emeritus, 1983

FLOYD, RICHARD L. (1966), *Professor of Psychology*: B.S., 1960, University of Michigan; Ph.D., 1964, University of Minnesota. Emeritus, 1998

FORTHMAN, ROBERT C. (1970), *Professor of Sociology*: B.A., 1948, San Diego State College; M.S.W., 1952, D.S.W., 1970, University of California, Berkeley. Emeritus, 1986

FOWLER, PETER A. (1968), *Professor of Mathematics and Computer Science*: A.B., 1959, M.S., 1963, Ph.D., 1968, Rutgers University. Emeritus, 1999

FRANZ, MARGARET-MARY (1971), *Professor of Sociology*: B.A., 1967, M.A., 1968, California State College, Los Angeles; Ph.D., 1971, University of Minnesota. Emerita, 1994

FRAZIER, JANE A. M. (1972), *Professor of Nursing*: B.S., 1957, M.A., 1958, Teachers College, Columbia University; Ed.D., 1972, University of California, Berkeley. Emerita, 1991

FREITAG, OTTO F. (1960), *Professor of Political Science*: B.A., 1939, M.A., 1940, University of Denver; Ph.D., 1942, State University of Iowa. Emeritus, 1979

FREY, DAVID H. (1969), *Professor of Educational Psychology*: B.S., 1961, M.Ed., 1963, Xavier University; Ph.D., 1968, Purdue University; M.P.H., 1977, University of California, Berkeley. Emeritus, 1998

FRIEDMAN, MARTIN B. (1969), *Professor of English*: B.A., 1955, Dartmouth College; Diplome d'Etudes, 1956, Sorbonne; Ph.D., 1962, Yale University. Emeritus, 1997

FRY, HILARY GLEN (1960), *Professor of Public Administration*: B.S., 1948, University of Illinois; M.A., 1951, Ph.D., 1958, University of Chicago. Emeritus, 1986

GALLER, MEYER (1966), *Associate Librarian*: B.S., 1939, Agricultural University, Warsaw, Poland; M.S., 1964, M.L.S., 1966, University of California, Berkeley. Emeritus, 1988

GARCIA-PANDAVENES, ELSA (1965), *Professor of Spanish*:

B.A., 1958, M.A., 1960, Ph.D., 1970, University of California, Berkeley. Emerita, 1997

GEISER, PETER (1963), *Professor of Sociology*: A.B., 1934, University of Pittsburgh; M.S.W., 1948, Ph.D., 1960, University of Southern California. Emeritus, 1974

GENSER, EDWARD E. (1971), *Professor of Chemistry*: B.S., 1957, University of Arizona; Ph.D., 1962, University of California, Berkeley. Emeritus, 1998

GILES, JOHN C. (1964), *Professor of Physics*: B.Sc., 1955, University of Sheffield, England; Ph.D., 1958, University of Exeter, England. Emeritus, 1997

GILLIARD, FRANK D. (1966), *Professor of History*: B.A., 1957, University of Florida; M.A., 1961, Ph.D., 1966, University of California, Berkeley. Emeritus, 1998

GLASOW, GLENN L. (1961), *Professor of Music*: B.A., 1947, M.A., 1948, Hamline University; D.M.A., 1967, University of Illinois. Emeritus, 1987

GLINES, ELSA F. (1962), *Librarian*: B.A., 1951, University of Minnesota; M.S., 1952, Columbia University. Emerita, 1991

GONZALEZ, NESTOR V. (1968), *Professor of English*: Rockefeller Foundation Fellow, Creative Writing Program 1948-50. Emeritus, 1983

GOODRICK, RICHARD E. (1969), *Professor of Mathematics and Computer Science*: B.S., 1962, University of Washington; M.S., 1964, Ph.D., 1966, University of Wisconsin. Emeritus, 1991

GOTCHER, J. WILLIAM (1968), *Professor of Business Administration*: B.I.E., 1954, M.S., 1959, Georgia Institute of Technology; Ph.D., 1972, University of California, Berkeley. Emeritus, 1998

GOVE, CHARLES ALLEN (1966), *Professor of Music*: B.M., 1952, M.M., 1953, University of Illinois. Emeritus, 1992

GRAEVEN, DAVID B. (1970), *Professor of Sociology*: B.A., 1965, Luther College; M.A., 1967, Ph.D., 1970, University of Iowa. Emeritus, 1994

GRIES, FRAUKE (1966), *Professor of German*: B.A., 1962, San Francisco State College; M.A., 1964, Ph.D., 1967, Stanford University. Emerita, 1987

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GROSS, PHYLLIS (1965), *Professor of Biological Science*: B.A., 1937, San Jose State College; M.A., 1939, Stanford University. Emerita, 1978

GUTHRIE, JOHN A. (1971), *Professor of Educational Psychology*: B.A., 1955, M.A., 1956, Notre Dame University; Ph.D., 1961,

Michigan State University. Emeritus, 1997

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HARTLEY, SHIRLEY F. (1968), *Professor of Sociology*: B.S., 1950, University of California, Berkeley; M.S., 1963, San Jose State College; Ph.D., 1969, University of California, Berkeley. Emerita, 1986

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HEUER, ANN E. (1968), *Professor of Biological Science*: B.S., 1952, M.S., 1954, Ph.D., 1962, Rutgers University. Emerita, 1989

HORGAN, JEREMIAH M. (1972), *Professor of Educational Psychology*: B.S., 1960, Boston University; M.Ed., 1963, Massachusetts State College, Boston; M.Ed., 1965, Ph.D., 1971, University of Pittsburgh. Emeritus, 1994

HUDSON, DARRIL (1968), *Professor of Political Science*: B.A., 1954, University of California, Berkeley; M.Sc., 1960, Ph.D., 1965, London School of Economics and Political Science, University of London. Emeritus, 1992

HUDSON, DON RICHARD (1965), *Professor of Kinesiology and Physical Education*: B.A., 1958, M.A., 1963, San Francisco State College; Ed.D., 1965, University of Utah. Emeritus, 1998

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JAMES, MARGARET A. (1968), *Professor of Teacher Education*: A.B., 1935, Grove City College; M.A., 1962, Ph.D., 1968, Michigan State University. Emerita, 1984

JAY, EDWARD J. (1964), *Professor of Anthropology*: B.A., 1952, Queens College; M.A., 1957, Ph.D., 1963, University of Chicago. Emeritus, 1992

JAY, RICHARD E. (1964), *Professor of Economics and Social Sciences*: A.B., 1946, M.A., 1947, Texas Christian University; Ph.D., 1953, University of California, Berkeley; J.D., 1963, Boalt Hall, University of California School of Law. Emeritus, 1980

JESSNER, PETER HANS (1964), *Professor of Mathematics*: A.B., 1949, Harvard College; M.S., 1951, University of New Mexico; Ph.D., 1962, University of North Carolina. Emeritus, 1984

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JONES, ALVIN H. (1972), *Professor of Educational Psychology*: B.S., 1960, Kent State University; M.A., 1967, Akron University; Ph.D., 1971, Arizona State University. Emeritus, 1998

JONES, WILLIAM E. (1963), *Professor of Teacher Education*: A.B., 1957, University of California, Santa Barbara; M.A., 1961, San Diego State College; Ed.D., 1964, University of California, Berkeley. Emeritus, 1985

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KOVACS, IVAN D. (1970), *Professor of Human Development*: B.A., 1953, College of Special Education, Budapest, Hungary; M.A., 1956, University of Budapest; M.A., 1960, Ph.D., 1967, University of Michigan. Emeritus, 1999

KRAFCHICK, MARCELLINE (1964), *Professor of English*: A.B., 1954, Beaver College; M.A., 1957, University of North Carolina; M.A., 1982, Ph.D., 1985, University of California, Davis. Emerita, 1997

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LAMBERT, LINDA G. (1987), *Professor of Educational Leadership*: A.B., 1966, Washburn University; Ed.D., 1983, University of San Francisco. Emerita, 1998

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LIVESAY, DANIEL B. (1966), *Professor of Music*: B.A., 1956, San Jose State College; M.A., 1970, California State University, Hayward. Emeritus, 1996

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LUBKIN, ILENE R. (1973), *Professor of Nursing*: R.N., 1949, University of Michigan; B.S., 1973, California State University, Hayward; M.S., 1975, University of California, San Francisco. Emerita, 1992

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MARK, LINDY LI (1971), *Chair, Department of Anthropology; Professor of Anthropology*: B.A., 1954, University of Washington; M.A., 1955, Northwestern University; Ph.D., 1972, University of California, Berkeley. Emerita, 1998.

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MAYERS, EUGENE D. (1963), *Professor of Philosophy*: A.B., 1936, Yale College; LL.B., 1940, Yale School of Law; Ph.D., 1956, Columbia University. Emeritus, 1992

McCOWIN, JANET D. (1968), *Professor of Teacher Education*: B.S., 1949, Utah State University; M.A., 1962, Claremont College; Ed.D., 1970, University of California, Berkeley. Emerita, 1992

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McMICHAEL, GEORGE (1972), *Professor of English*: B.A., 1950, M.A., 1955, Ph.D., 1959, Northwestern University. Emeritus, 1991

MECHANIC, ARNOLD (1961), *Professor of Psychology*: B.A., 1954, Queens College; M.A., 1955, Ohio State University; Ph.D., 1960, University of California, Berkeley. Emeritus, 1992

MECKE, VIOLA (1970), *Professor of Educational Psychology*: B.A., 1951, University of Akron; M.A., 1955, Ph.D., 1958, Western Reserve University. Emerita, 1992

MERRIFIELD, CHARLES WARREN (1960), *Professor of Political Science*: A.B., 1935, M.A., 1935, University of Chicago; Ph.D., 1952, Claremont Graduate School. Emeritus, 1979

MEUTER, ROBERT G. (1965), *Librarian*: B.A., 1956, Golden Gate College; B.A., 1960, M.A., 1965, San Jose State College. Emeritus, 1986

MILLER, ROBERT R. (1970), *Professor of History*: A.B., 1948, M.A., 1951, Ph.D., 1960, University of California, Berkeley. Emeritus, 1980

MITCHELL, BILL (1969), *Associate Professor of Business Administration*: B.M.E., 1962, Cornell University; M.S., 1963, Harvard University; Ph.D., 1970, University of California, Berkeley. Emeritus, 1989

MITCHELL, LESLIE H. (1967), *Professor of Educational Psychology*: B.A., 1951, M.A., 1957, Ph.D., 1965, University of California, Berkeley. Emeritus, 1998

MOISEYEV, ALEXIS N. (1968), *Professor of Geological Sciences*: Licence ès science, 1955, Docteur de l'Université de Paris, 1959, Sorbonne; Ph.D., 1966, Stanford University. Emeritus, 1997

MONTGOMERY, JOHN A. (1968), *Professor of Recreation and Community Education*: B.A., 1951, University of California, Berkeley; M.S., 1955, University of Illinois. Emeritus, 1991

MORBY, JOHN E. (1969), *Professor of History*: A.B., 1960, University of California, Berkeley; M.A., 1961, Harvard University; Ph.D., 1971, University of California, Berkeley. Emeritus, 1998

MOREHOUSE, WADE A., JR. (1982), *Professor of Accounting*: B.M.E., 1948, Rensselaer Polytechnic Institute; M.B.A., 1959, Ph.D., 1965, University of California, Berkeley; C.P.A., 1967, California. Emeritus, 1992

MOULTON, ROBERT W. (1968), *Professor of Psychology*: A.B., 1952, M.A., 1954, Ph.D., 1957, University of Michigan. Emeritus, 1985

MYERS, HAROLD W. (1965), *Professor of Art*: A.B., 1954, San Jose State College; M.F.A., 1959, Mills College. Emeritus, 1992

NANAO, KENJILO (1970), *Professor of Art*: M.F.A., 1970, San Francisco Art Institute. Emeritus, 1991

NEELY, ROBERT T. (1971), *Associate Professor of French*: A.B., 1955, M.A., 1957, Ph.D., 1965, University of Colorado. Emeritus, 1998.

NEFF, JEROME P. (1970), *Professor of Music*: B.M., 1951, Eastman School of Music; M.M., 1957, University of Michigan. Emeritus, 1986



NELSON, MARVIN D. (1967), *Professor of Music*: B.Mus., 1951, Lewis and Clark College; M.A., 1972, California State University, Hayward. Emeritus, 1988

NETICK, ALLAN (1968), *Professor of Psychology*: B.A., 1958, Reed College; M.A., 1963, University of California, Berkeley; Ph.D., 1968, University of New Mexico. Emeritus, 1998

NICHOLS, JAMES L. (1966), *Director of PACE; Professor of Political Science*: B.A., 1954, University of Denver; M.A., 1956, Syracuse University; Ph.D., 1968, Stanford University. Emeritus, 1998

NIMMO, HARRY A. (1971), *Professor of Anthropology*: B.A., 1958, University of Iowa; M.A., 1965, Ph.D., 1969, University of Hawaii. Emeritus, 1996

NOMIKOS, EUGENIA V. (1964), *Professor of History*: B.A., 1948, Hood College; M.A., 1950, Columbia University; Ph.D., 1962, Stanford University. Emerita, 1988

NYE, MARILYN L. (1968), *Professor of Teacher Education*: A.B., 1961, San Francisco State College; M.A., 1964, Ph.D., 1968, University of California, Berkeley. Emerita, 1992

OBERG, MARILYN A. (1969), *Librarian*: B.A., 1961, M.L.S., 1963, University of California, Berkeley; M.P.A., 1976, California State University, Hayward. Emerita, 1997

OLSEN, EDWARD G. (1966), *Professor of Education*: A.B., 1930, Pacific University; M.A., 1932, Columbia University; B.D., 1933, Union Theological Seminary; Ed.D., 1937, Teachers' College, Columbia University. Emeritus, 1973

OSSMAN, EDWARD T. (1972), *Professor of Business Administration*: B.S.C., 1956, Loyola University; M.B.A., 1963, DePaul University; C.P.A., 1963, Illinois; Ph.D., 1971, Illinois Institute of Technology

OZAKI, ROBERT SHIGEO (1960), *Professor of Economics*: B.A., 1956, Ohio Wesleyan; M.A., 1958, Ph.D., 1960, Harvard University. Emeritus, 1999

PACKER, ANNE G. (1974), *Professor of Nursing*: B.A., 1953, Baylor University; M.N., 1956, Yale University; Ed.D., 1985, University of San Francisco. Emerita, 1992

PAGENHART, THOMAS H. (1964), *Professor of Geography and Environmental Studies*: B.A., 1943, San Jose State College; Ph.D., 1969, University of California, Berkeley. Emeritus, 1991

PARK, HEEBOK (1967), *Professor of Statistics*: B.S., 1957, Seoul National University, Seoul, Korea; M.S., 1961, Ph.D., 1964, University of Chicago. Emeritus, 1996

PARNELL, DENNIS R. (1965), *Professor of Biological Science*: B.A., 1961, Whittier College; M.A., 1963, Ph.D., 1965, University of California, Los Angeles. Emeritus, 1990

PARTRIDGE, SCOTT H. (1970), *Professor of Business Administration*: B.S., 1954, Brigham Young University; M.B.A., 1966, University of Oregon; D.B.A., 1970, Harvard University. Emeritus, 1994

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PEDRICK, GEORGE B. (1970), *Professor of Mathematics and Computer Science*: B.S., 1949, M.S., 1953, Oklahoma State University; Ph.D., 1957, University of Kansas. Emeritus, 1991

PERAZZO, GEORGE J. (1973), *Professor of Educational Leadership*: B.A., 1950, M.A., 1952, San Jose State College; Ed.D., 1972, Brigham Young University. Emeritus, 1991

PERRIZO, JAMES D. (1970), *Professor of Art*: A.B., 1967, M.A., 1969, M.F.A., 1974, University of California, Berkeley. Emeritus, 1998

PETERSON, DONALD L. (1966), *Professor of Chemistry*: B.S., 1952, University of Nevada; Ph.D., 1956, University of Washington. Emeritus, 1995

PETERSON, DOUGLAS L. (1960), *Professor of English*: B.A., 1949; M.A., 1950; Ph.D., 1957, Stanford University. Emeritus, 1983

PETERSON, P. VICTOR JR. (1959), *Professor of Chemistry and Conservation*: B.A., 1947, San Jose State College; M.S., 1950, Stanford University; Ph.D., 1952, Cornell University. Emeritus, 1988

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PONCE DE LEON, LUIS (1972), *Professor of Spanish*: B.S., 1948, Instituto Nacional de Enseñanza Media; M.A., 1965, Ph.D., 1966, Stanford University. Emeritus, 1992

POSCHMAN, GENE S. (1965), *Professor of Political Science*: A.B., 1956, M.A., 1963, Ph.D., 1970, University of California, Berkeley. Emeritus, 1992

PUGLIESE, JOSEPH A. (1964), *Professor of Art*: B.A., 1950, Miami University; M.A., 1955, Ph.D., 1960, Ohio State University. Emeritus, 1988

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RAILTON-RICE, ESTHER P. (1960), *Professor of Teacher Education*: B.S., 1951, Western Michigan University; M.S., 1955, University of Michigan; Ed.D., 1960, University of Illinois. Emerita, 1991

RAMOS, MELVIN J. (1966), *Professor of Art*: B.A., 1957; M.A., 1958, Sacramento State College. Emeritus, 1997

RATNER, MARC L. (1967), *Professor of English*: B.A., 1950, Fordham University; M.A., 1951, University of Pennsylvania; Ph.D., 1958, New York University. Emeritus, 1992

REEDER, RAY A. (1968), *Librarian*: B.A., 1952, M.A., 1955, New Mexico Highlands University; M.L.S., 1968, University of California, Berkeley. Emeritus, 1992

REUTER, WILLIAM C. (1965), *Professor of History*: A.B., 1955, M.A., 1959, Ph.D., 1966, University of California, Berkeley. Emeritus, 1995

RICE, RICHARD B. (1960), *Professor of History*: B.A., 1945, M.A., 1947, Ph.D., 1957, University of California, Berkeley. Emeritus, 1984

RIOS, HERMINIO C. (1975), *Professor of Teacher Education*: B.A., 1960, Fresno State College; M.A., 1970, University of Arizona; Ed.D., 1980, University of San Francisco. Emeritus, 1997

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RODRIGO, ROBERT M. (1968), *Professor of Kinesiology and Physical Education*: A.B., 1958, M.A., 1963, San Francisco State College. Emeritus, 1990

ROSZAK, THEODORE (1963), *Professor of History*: B.A., 1955, University of California at Los Angeles; Ph.D., 1958, Princeton University

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SALTZER, RUDOLPH B. (1965), *Professor of Music*: B.A., 1947, University of California at Los Angeles; M.S., 1952, D.M.A., 1964, University of Southern California. Emeritus, 1979

SAMOSKY, JACK A. (1972), *Professor of Speech Communication*: B.S., 1958, M.S., 1962, University of Wisconsin; Ph.D., 1974, Indiana University. Emeritus, 1999

SANDERS, DAVID L. (1972), *Professor of Mass Communication*: B.A., 1954, M.A., 1957, Ph.D., 1961, Stanford University. Emeritus, 1987

SAPONTZIS, STEVE F. (1971), *Professor of Philosophy*: B.A., 1967, Rice University; M. Phil., 1970, Ph.D., 1971, Yale University. Emeritus, 1999

SAUNDERS, RAYMOND J. (1968), *Professor of Art*: B.F.A. 1960, Carnegie Inst. Technology; M.F.A., 1961, California College of Arts and Crafts. Emeritus, 1987

SAWREY, WILLIAM L. (1960), *Professor of Psychology and Statistics*: A.B., 1949, Indiana University; Ph.D., 1952, University of Nebraska. Emeritus, 1990

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SHELTON, JOHN C. (1965), *Professor of Chemistry*: B.S., 1959, Lock Haven State College; Ph.D., 1964, Cornell University. Emeritus, 1997

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MORGAN, STEPHEN P. (1993), *Lecturer in Public Administration*: A.B., 1974, University of California, Berkeley; M.P.A., 1979, California State University, Hayward

MORRISON, DIRK L. (1990), *Lecturer in Kinesiology and Physical Education*: B.A., 1977, California State University, Hayward

NEWAY, MAUREEN C. (1999), *Lecturer in English*: B.A., 1988, M.A., 1993, California State University, Hayward

ORTEGA, JANICE D. (1991), *Lecturer in Music*: B.A., 1979, California State University, Hayward; M.M., 1990, Indiana University

POTTER, JAMES E. (1983), *Lecturer in Computer Information Systems*: B.S., 1964, University of California, Berkeley; M.S., 1977, California State University, Hayward

QUAN, NORMA A. (1999), *Lecturer in Teacher Education*: M.A.T., 1975, Ph.D., 1989, University of California, Berkeley

RAINE, BRUCE L. (1980), *Lecturer in Accounting*: B.S., 1971, Dalhousie University; Chartered Accountant, 1977, Nova Scotia

RENAUD-WILSON, LAURA (1982), *Lecturer in Theatre and Dance*: B.A., 1962, San Jose State University; M.A., 1973, Mills College

RING, JONATHAN A. (1992), *Lecturer in Music*: B. Music, 1983, Northwestern University

RIZZETTO, JAY (1988), *Lecturer in Music*: B.M., 1971, Lowell State College; M.M., 1973, New England Conservatory of Music

ROCKMAN, BARBARA K. (1987), *Lecturer in Communicative Sciences and Disorders*: B.S., 1964, West Virginia University; M.A., 1966, Western Reserve University; Ph.D., 1983, Indiana University

ROVASIO, MICHAEL A. (1998), *Lecturer in English*: B.A., 1990, M.A., 1993, California State University, Hayward

SCHUMAN-POST, BRENDA J. (1985), *Lecturer in Music*: B.A., 1970, City University of New York-Queens; M.M., 1972, State University of New York; M.F.A., 1974, Sarah Lawrence College

SESHAGIRI, MALATHI (1983), *Lecturer in Health Sciences*: B.S., 1970, University of Madras (India); M.S., 1973, University of California, Berkeley

SEVERET, JULIE L. (1994), *Lecturer in Nursing and Health Science*: B.S., 1983, California State University, Hayward; M.S.N., 1992, San Francisco State University

SHOEMAKER, HELEN J. (1987), *Lecturer in Human Development*: B.A., 1985, M.S., 1987, California State University, Hayward; Ph.D., 1992, Saybrook Institute and Research Center

SHOR, GLENN M. (1986), *Lecturer in Public Administration*: B.A., 1975, University of Pennsylvania; M.P.P., 1977, Ph.D., 1990, University of California, Berkeley

SHUMATE, MICHAEL S. (1989), *Lecturer in Recreation and Community Services*: B.S., 1986, M.P.A., 1989, California State University, Hayward; D.P.A., 1995, Golden Gate University

SIMUTIS, JEAN S. (1990), *Lecturer in Mathematics and Computer Science*: B.S., 1971, University of San Francisco; M.A., 1973, Ph.D., 1977, University of California, Davis

SINCLAIR, GREGORY L. (1988), *Lecturer in Accounting and Computer Information Systems*: B.A., 1970, University of California, Los Angeles; M.B.A., 1976, University of California, Berkeley

SPAGLE, JAMES A. (1996), *Lecturer in Kinesiology and Physical Education*: B.A., 1981, California State University, Fullerton; M.A., 1991, St. Mary's College

STANLEY, CARL R. (1981), *Lecturer in Music*: B.A., 1972, University of California, Davis; M.A., 1974, San Francisco State University

STANTON, F. VICTOR, JR. (1981), *Lecturer in Accounting*: B.A., 1971, San Jose State University; M.B.A., 1973, Golden Gate University

STORCH, ARTHUR L. (1984), *Lecturer in Music*: B.S., 1977, Brooklyn College; M.M., 1979, The Juilliard School

SULLIVAN, SUZANNE (1998), *Lecturer in Teacher Education*: M.T.S., 1976, Franciscan School of Theology/Graduate Theological Union

TEJADA-FLORES, RICK (1995), *Lecturer in Mass Communication* B.F.A., 1968, San Francisco Art Institute

TRIMBLE, WILLIAM (1975), *Lecturer in Music*: B.A., 1965, San Jose State College

WAGNER, EMILY E. (1989), *Lecturer in Public Administration*: B.S., 1974, San Jose State University; M.B.A., 1983, California State University, Hayward

ZANER, WILLIAM (1988), *Lecturer in Public Administration*: A.B., 1963, University of Maryland; M.P.A., 1971, California State University, Hayward:



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## Policies, Credits, Acknowledgments

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### Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this catalog, students and others who use this catalog should note that laws, rules, and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the Board of Trustees of the California State University, by the Chancellor or designee of the California State University, or by the President or designee of the institution. Further, it is not possible in a publication of this size to include all of the rules, policies and other information which pertain to the student, the institution, and the California State University. More current or complete information may be obtained from the appropriate department, school, or administrative office.

Nothing in this catalog shall be construed, operate as, or have the effect of an abridgement or a limitation of any rights, powers, or privileges of the Board of Trustees of the California State University, the Chancellor of the California State University, or the President of the campus. The Trustees, the Chancellor, and the President are authorized by law to adopt, amend, or repeal rules and policies which apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and the institution or the California State University. The relationship of the student to the institution is one governed by statute, rules, and policy adopted by the Legislature, the Trustees, the Chancellor, the President and their duly authorized designees.

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### Catalog Production

The printed *2000-2002 University Catalog* was produced using MS Word 97 (PC), MS Word 98 (Mac), PageMaker 6.5, PageMaker scripting, Adobe Photoshop and Adobe Illustrator on Apple G3's and Dell computers with Pentium II microprocessors. The online *2000-2001 University Catalog* (based upon the printed *2000-2002 University Catalog*) was produced using Microsoft Word 97, Javascript code, Cold Fusion Programming, Homesite, and Adobe Photoshop.

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- *Editor and Project Supervisor:* Bonni Symington, Publications Manager
- *Assisted by Graphics Specialists:* Jan DeRidder , Laura Murray, Aaron Priven, and Stephan von Pohl

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## Catalog Purchase

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The printed *2000-2002 University Catalog* is available from the Pioneer Bookstore, California State University, Hayward, CA 95929-0761 (Tel. 510-885-3507).

Price: \$6.50 + tax  
Plus shipping and handling, if ordering by mail.

This catalog may also be ordered online from the Pioneer Bookstore via the World Wide Web at:  
<http://www.bookstore.csuhayward.edu/>

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## Online Catalog

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The *2000-2001 online University Catalog* is based upon the printed *2000-2002 University Catalog*.



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## Appendix

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### California State University, Hayward Foundation, Inc.

The Foundation is a non-profit corporation established in 1963 to provide services to the University community which cannot be provided under normal State operations. It is governed by an eleven-member Board of Trustees, drawn from faculty, administration, students, and the community. It operates the Pioneer Bookstore, contracts for operation of food and vending services, provides accounting and management to the Instructionally Related Activities Board, and administers in trust the funds of various self-supporting University activities.

The Foundation supports research programs at Cal State Hayward through grant funds received from State, Federal, and other agencies. It helps initiate proposals, consults in the preparation of grant applications, gives guidance in the development of project budgets, and manages the accounting and preparation of reports for funded research projects.

### Cal State Hayward Educational Foundation

Cal State Hayward recognizes that the margin of excellence in institutions of higher education depends increasingly on external funding from corporate foundations, small businesses, and individual donors. In order to further The University's mission of service to the region, the Cal State Hayward Educational Foundation was formed in 1990 to help forge partnerships with the private sector. The foundation is managed by a board of directors drawn from local businesses and corporations. The board meets regularly to review proposals and conduct business.

### Career Placement

The Career Development Office may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in the California State University.

### Grievance Procedures

Students who feel aggrieved in their relationships with the university, its policies, practices and procedures, or its faculty and staff and who seek information on grievance procedures may contact the Special Assistant to the Vice President, Student Judicial Services office (Warren Hall, Room 465). Also see the appropriate section of this chapter for the name and address of offices which handle a specific type of grievance.

### Immigration Requirements for Licensure

On August 27, 1996, Governor Pete Wilson issued Executive

Order W-135-96 which requested that the CSU and other state agencies implement "as expeditiously as reasonably practicable" the provision of The Personal Responsibility and Work Opportunity Reconciliation Act (PRAWORA) of 1996 (P.L. 104-193). The Act, also known as the Welfare Reform Act, included provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants, as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the new Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure. (Students in Biological Science, Educational Psychology, Engineering, Kinesiology, Nursing, and Teacher Education, in particular should be aware of these provisions.) Information concerning the regulation is available from Ray Wallace, Director, International Education Center, Support Building 1325, Tel. 510-885-2880.

### Military Selective Service Act

The federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthday. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959 may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public post-secondary institution.

Selective Service registration forms are available at any U.S. Post Office and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at <http://www.sss.gov>.

### Nondiscrimination Policies

Age, Marital Status, Religion, or Sexual Orientation  
By CSU Board of Trustees policy, the California State University does not discriminate on the basis of age, marital status, religion, or sexual orientation.

#### Disability

The California State University does not discriminate against individuals with disabilities in admission, employment, or access to its programs and activities. Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990 prohibit such discrimination.

The Assistant to the President for Diversity and Equal Opportunity has been designated to coordinate the efforts of California State University, Hayward to comply with these Acts and their

implementing regulations. Inquiries concerning compliance may be addressed to the Assistant to the President for Diversity and Equal Opportunity at the President's Office, California State University, Hayward, CA 94542 or phone (510) 885-3870.

#### Gender Equity

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics.

#### HIV/AIDS

The hiring process and employment practices for University employees and the student admission process to the University or any program within or related to the University shall not include consideration of an individual's HIV/AIDS status or perceived inclusion in a high risk group.

#### Race, Color, National Origin, or Disability

The California State University complies with the requirements of Title VII of the Civil Rights Act of 1964, as amended by the Americans with Disabilities Act, and the regulations adopted thereunder. No person shall, on the grounds of race, color, national origin, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program of the California State University.

#### Sex Discrimination

The California State University does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by California State University, Hayward. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of California State University, Hayward may be referred to the Assistant to the President for Diversity and Equal Opportunity (885-3870), or to the Regional Director of the Office of Civil Rights, Region 9, 50 UN Plaza, Room 239, San Francisco, California 94102.

The California State University is committed to providing equal opportunities to male and female CSU students in all campus programs, including intercollegiate athletics.

#### Sexual Harassment

The University desires to maintain an academic and work environment which protects the dignity and promotes the mutual respect of all employees and students. Sexual harassment of employees or students is prohibited. In general, deliberate verbal comments, gestures, or physical contact of a sexual nature that are unsolicited and unwelcomed will be considered harassment (Title VII of the Civil Rights Act of 1964). Complaints by employees or students should be directed to the Special Assistant to the President for Diversity and Equal Opportunity, WA 912 (885-3870).

#### Sexual Orientation

By CSU Board of Trustees policy, the California State University does not discriminate on the basis of sexual orientation.

## Nonresident Tuition Exceptions

There are exceptions from nonresident tuition, including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues until the student has resided in the state the minimum time necessary to become a resident.
2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date, and entirely self-supporting for that period of time. The exception continues until the student has resided in the state the minimum time necessary to become a resident.
3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult or adults, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year. The exception continues until the student has resided in the state the minimum time necessary to become a resident.
4. Dependent children and spouse of persons in active military service stationed in California on the residence determination date. There is no time limitation on this exception unless the military person transfers out of California or retires from military service. If either of those events happen, the student's eligibility for this exception continues until he or she resides in the state the minimum time necessary to become a resident.
5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception continues until the military personnel has resided in the state the minimum time necessary to become a resident.
6. Military personnel in active service in California for more than one year immediately prior to being discharged from the military. Eligibility for this exception runs from the date the student is discharged from the military until the student has resided in state the minimum time necessary to become a resident.
7. Dependent children of a parent who has been a California resident for the most recent year. This exception continues until the student has resided in the state the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.
8. Graduates of any school located in California that is operated by the United States Bureau of Indian Affairs, including, but not limited to, the Sherman Indian High School. The exception continues so long as continuous attendance is maintained by the student at an institution.

9. Certain credentialed, full-time employees of California school districts.
10. Full-time CSU employees and their children and spouse; State employees assigned to work outside the State and their children and spouse. This exception continues until the student has resided in the state the minimum time necessary to become a California resident.
11. Children of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties.
12. Certain amateur student athletes in training at the United States Olympic Training Center in Chula Vista, California. This exception continues until the student has resided in the state the minimum time necessary to become a resident.
13. Federal civil service employees and their natural or adopted dependent children if the employee has moved to California as a result of a military mission realignment action that involves the relocation of at least 100 employees. This exception continues until the student has resided in the state the minimum time necessary to become a resident.
14. State government legislative or executive fellowship program enrollees. The student ceases to be eligible for this exception when he or she is no longer enrolled in the qualifying fellowship.

## Reporting Campus Emergencies

When reporting an on-campus emergency, call the following number:

### *On-campus Emergencies-*

Police, Fire, 911

Medical

Other frequently called numbers are:

### *On-campus Non-Emergencies-*

Police x3791

Business

Escort x3791

Service

Crime x3791

Prevention

Service

Lost & Found x3791

Property

Parking x3790

Services

Student x3735

Health

Services

Counseling x3690

and

Psychological

Services

University x3000



### Information

*Note:* When using a non-campus phone, you must use the "885" prefix with the above extensions; when using a (white) campus phone, simply use the extensions.

## Research with Human Subjects

The University has approved policies and procedures for the protection of human subjects in research, development, and related activities carried out by faculty, staff and students. An Institutional Review Board has been established to review research protocols in order to determine whether human subjects would be at risk and to protect their rights and welfare. Protocols must be approved before research commences. Further information and copies of the policy document may be obtained from the office of the Director, Research and Sponsored Programs, WA 977, 885-4212.

## Sexual Harassment

Sexual harassment is prohibited by law and by university policy. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:

- submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, appointment, admission, or academic evaluation
- submission to such conduct is used as a basis for evaluation in personnel decisions or academic evaluations affecting an individual
- such conduct has the purpose or effect of unreasonably interfering with an individual's performance or of creating an intimidating, hostile, offensive, or otherwise adverse working or educational environment
- the conduct has the purpose or effect of interfering with a student's academic performance; creating an intimidating, hostile, offensive, or otherwise adverse learning environment; or adversely affecting any student.

Sexual harassment happens to both men and women. In determining whether conduct constitutes sexual harassment, the circumstances surrounding the conduct should be considered.

Sexual harassment may include one or more of the following: questions about one's sexual behavior; sexually oriented jokes; inappropriate comments about one's body and clothing; conversation filled with innuendoes and double meanings; sexually suggestive pictures or objects displayed to embarrass or humiliate; pinching, fondling, patting or kissing; requests for sexual intercourse; unfavorable consequences for refusing to submit.

Prevent sexual harassment. For more information on student, staff or faculty rights, call the Assistant to the President for Diversity and Equal Opportunity at (510) 885-3870.

## Student Disciplinary Action

Applicants for admission and enrolled students are responsible for



observing all legal regulations, deadlines, and procedures for access and retention in the university. Conduct which is incompatible with the educational mission of the university is subject to disciplinary action as provided in Section 41304, Title 5, California Code of Regulations.

#### Student Rights in Disciplinary Procedures

The administration of student discipline at the university guarantees procedural fairness to an accused student or student organization. Practices in disciplinary cases may vary in formality depending on the gravity of the offense and the sanctions which may be applied. Such sanctions will take into account the presence and conditions prescribed by the institution's policies for student conduct, student academic standards, and Time, Manner, and Place regulations.

In all disciplinary situations, students who are charged with misconduct will be informed of the nature of the charges and be given a fair opportunity to refute the charges, provided an opportunity to participate in efforts to mediate a solution to problems, and to appeal decisions.

The following are student disciplinary procedures for the CSU. Information regarding non-academic student disciplinary matters should be referred to Student Judicial Services.

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of *Title 5, California Code of Regulations*. These sections are as follows:

#### 41301 Expulsion, Suspension and Probation of Students

Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus related:

- (a) Cheating or plagiarism in connection with an academic program at a campus.
- (b) Forgery, alteration or misuse of campus documents, records, or identification, or knowingly furnishing false information to a campus.
- (c) Misrepresentation of oneself or of an organization to be an agent of a campus.
- (d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
- (e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.
- (f) Theft of, or non-accidental damage to, campus property, or property in the possession of, or owned by, a member of the

campus community.

- (g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
- (h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
- (i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president.
- (j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.
- (k) Abusive behavior directed toward, or hazing of, a member of the campus community.
- (l) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section.
- (m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.
- (n) For purposes of this Article, the following terms are defined:
  - (1) The term "member of the campus community" is defined as meaning California State University Trustees, academic, non-academic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.
  - (2) The term "campus property" includes:
    - (A) real or personal property in the possession of, or under the control of, the Board of Trustees of the California State University, and
    - (B) all campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.
  - (3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, slingshot, billy, sandclub, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with a unguarded blade, and any metal pipe or bar used or intended to be used as a club.

(4) The term "behavior" includes conduct and expression.

(5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.

(o) This Section is not adopted pursuant to Education Code Section 89031.

(p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this Article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this Article as in effect immediately prior to such effective date.

#### 41302 Disposition of Fees: Campus Emergency; Interim Suspension

The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester, quarter, or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of The California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

#### 41303 Conduct by Applicants for Admission

Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any person who, while

a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

#### 41304 Student Disciplinary Procedures for the California State University

The Chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for the California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground for discipline under Sections 41301 or 41302, and for qualified admission or denial of admission under Section 41303; the authority of the campus President in such matters; conduct related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The Chancellor shall report to the Board actions taken under this section.

*Note:* Pursuant to Section 41304 of Title 5 of *The California Code of Regulations*, the Chancellor has issued Executive Order #628, "Student Disciplinary Procedures for California State University, 1994." These procedures govern determinations under Article 2, Subchapter 4, Chapter 1, Division 5 of that *Code* and other state and federal laws which require institutional hearings.

As prescribed in Executive Order #628, Article VI, Subsection 6, sanctions of, "probation and suspension shall be made part of the student's academic record during the term of the probation or suspension. Expulsion shall be made part of the student's permanent academic record."

### Student Freedoms, Rights, and Responsibilities

CSUH exists for the transmission of knowledge, the pursuit of truth, the development of students, and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community, students are encouraged and expected to develop the capacity for critical judgement, to accept appropriate responsibilities, and to engage in rational debate, in a sustained and independent search for truth.

Freedom to teach and freedom to learn are inseparable facts of academic freedom. The freedom to learn depends largely upon appropriate opportunities and conditions in the classroom, on the campus and in the larger community. The responsibility to secure and to respect general conditions conducive to the freedom to teach and learn is shared by all members of the academic community.

The following standards and regulations on students' freedoms, rights, and responsibilities are authorized by federal and state laws and by CSU policies.

Freedoms, Rights, and Responsibilities for Access and Retention

In all aspects of access to programs and services provided or sponsored by the institution, students have a right to be free from discrimination on the basis of individual attributes, including, but not limited to race, color, gender, age, disability, national origin, or sexual orientation. Admission to the university is limited by standards which are promulgated by the California legislature and the CSU Board of Trustees. Realities of the campus budget and facilities may impose additional constraints.

Beyond academic, fiscal, and physical limits to admission to the university, prospective and enrolled students have a right to unobstructed access to campus programs and services. In special cases, and with the CSU chancellor's concurrence, selected degree programs may be given "impacted" status, which adds certain stipulations on access to those majors.

Issues regarding freedom of access should be referred to the supervisor(s) of the appropriate program or service first. If the matter is not resolved satisfactorily, the student has the right to refer the issue through administrative channels to the Vice Presidents, Student Affairs or Academic Affairs. Students have a right to be informed about the institution's policies for access and retention in order to take responsibility for making appropriate choices and to participate effectively in campus programs and services.

**Fundamental Freedoms, Rights, and Responsibilities**  
A basic component of the university mission statement is the value of diversity in background, interests, experiences, beliefs, and cultures. Faculty, staff and students represent a variety of interests. Students come to campus with unique experiences, and while on campus, as a result of their interaction in the formal classroom and co-curricular programs and activities, they continue to develop and expand their knowledge and pursuits.

#### *In the Classroom*

The institution maintains minimum standards in order to preserve the following fundamental freedoms for students:

Freedom to teach and freedom to learn are inseparable facts of academic freedom. Student academic freedom is incorporated into the classroom setting where learning is concentrated and structured. Faculty and students share responsibility for student academic freedom in the classroom. The following minimum standards enhance student academic freedom in the classroom.

#### *Freedom of Expression*

Students are free to take reasonable exception to the data or views offered in any course of study and to reserve judgement about matters of opinion. Students are responsible for learning the content of any course of study for which they are enrolled.

#### *Protection Against Improper Academic Evaluation*

Orderly procedures protect students from prejudice or capricious academic evaluation. Students are responsible for maintaining standards of academic performance established for each course in which they are enrolled.

Protection against improper disclosure of information about students' views, beliefs, and political activities which professors

acquire in the course of their work as instructors, advisers, and counselors shall be considered confidential. Judgments of academic ability and character may be provided under appropriate circumstances, normally with the knowledge or consent of the student.

The Fairness Committee (Instructional Services, Warren Hall, Room 757), which operates under the supervision of the Academic Senate, exists to resolve complaints concerning academic unfairness or discrimination. Students who are accused of academic dishonesty or other disciplinary matters have access to grievance procedures handled by the Student Judicial Services office (Warren Hall, Room 465).

#### *Student Publications*

Student publications and the student press are valuable aids in establishing and maintaining an atmosphere of free and responsible discussion and intellectual exploration on the campus.

While student publications and the student press operate with limited external control, the editorial freedom of student editors and managers entails corollary responsibilities to be governed by the concerns of responsible journalism, such as the evidence of libel, indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo. Students and faculty who produce student publications have the responsibility to establish and adhere to standards of responsible journalism.

#### *Freedom of Association*

Students are free to organize and join associations to promote their common interests and to have these associations be officially recognized by the university. "Institutional recognition" is understood to refer to the formal relationship between the student organization and the institution. Recognized student organizations are responsible for abiding by all institutional regulations for student organizations. These regulations are available in the office of Student Life Programs (Student Services Hub 1351).

#### *Freedom of Inquiry and Expression*

Students and student organizations are free to examine and discuss all questions of interest to them and to express opinions publicly and privately as long as others' rights are not violated in the process. Students are always free to support causes by orderly means which do not disrupt the regular and essential operation of the institution. However, such public expressions or demonstrations speak only for the student(s) involved, and not for the institution.

#### *Student Participation in Institutional Government*

Students are free to elect peers to serve and represent them in university government as members of the student body. Students who meet eligibility criteria are appointed to various standing committees by the administration and faculty upon the recommendation of the Associated Students Board of Directors. The role of student government is explicitly defined in the California Education Code and CSU policies. Copies of these regulations can be obtained in the office of the Vice President, Student Affairs (Warren Hall, Room 959).

### *Off Campus Freedom of Students*

The institution has the responsibility to protect students' citizenship rights on campus, and in approved activities which occur off campus. Off-campus activities of students may, upon occasion, result in violation of the law. In such cases, Student Judicial Services (Warren Hall, Room 465) is prepared to apprise students of legal counsel, and offer other assistance as required. Students who violate the law may incur penalties prescribed by civil authorities, but institutional authority will not be used merely to duplicate the functions of general laws.

The institution's Time, Manner, and Place Regulations provide guidelines and procedures to support student freedoms and rights to individuals and to hear any person of their own choosing. The Time, Manner, and Place Regulations are available in the Office of the Executive Director for Student Development Services (Warren Hall, Room 483).

### *Privacy Rights of Students in Education Records*

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (34 C.F.R. 99), set out requirements designed to protect the privacy of students concerning their records maintained by the campus. Specifically, the statute and regulations govern access to student records maintained by the campus and the release of such records. In brief, the law provides that the campus must provide students access to records directly related to the student and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate. The right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor. The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions. The institution has adopted a set of policies and procedures concerning implementation of the statutes and the regulations on the campus. Copies of these policies and procedures may be obtained at Office of the Vice President, Student Affairs, WA 959. Among the types of information included in the campus statement of policies and procedures are: 1) the types of student records and the information contained therein; 2) the official responsible for the maintenance of each type of record; 3) the location of access lists which indicate persons requesting or receiving information from the record; 4) policies for reviewing and expunging records; 5) the access rights of students; 6) the procedures for challenging the content of student records; 7) the cost which will be charged for reproducing copies of records; and 8) the right of the student to file a complaint with the Department of Education. An office and review board have been established by the Department to investigate and adjudicate violations and complaints. The office designated for this purpose is: Family Policy Office, U.S. Department of Education, Washington, D.C. 20202-4605.

The campus is authorized under the Act to release "directory information" concerning students. "Directory information" may include the student's name, address, telephone listing, e-mail address, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and



awards received, and the most recent previous educational agency or institution attended by the student. The above designated information is subject to release by the campus at any time unless the campus has received prior written objection from the student specifying information which the student requests not be released. Written objections should be sent to the Vice President, Student Affairs, WA 959.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons are those who have responsibilities in connection with the campus' academic, administrative or service functions and who have reason for using student records connected with their campus or other related academic responsibilities. Disclosure may also be made to other persons or organizations under certain conditions (e.g., as part of the accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; to other institutions to which the student is transferring.)

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HOME



HELP





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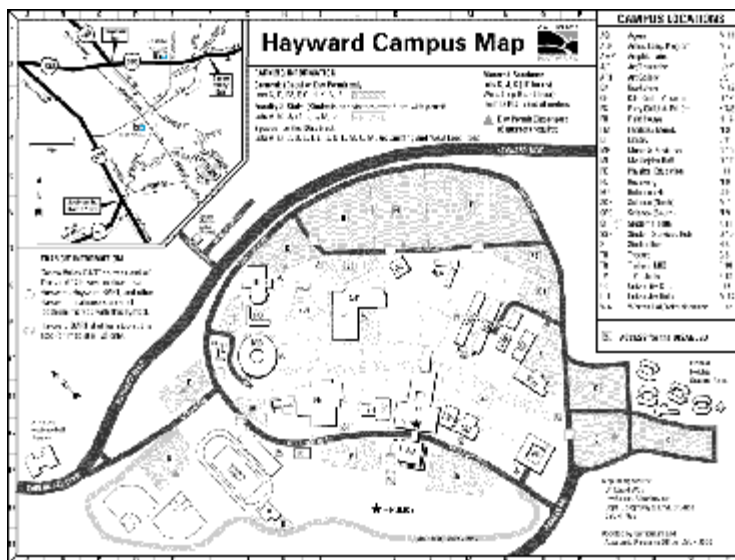
## Maps

- ▶ [Campus Map](#)
- ▶ [Contra Costa Campus Map](#)
- ▶ [Bay Area Setting](#)

Click on an image to see a full-sized version.

America Online users, if you are having problems viewing these images, click [here](#).

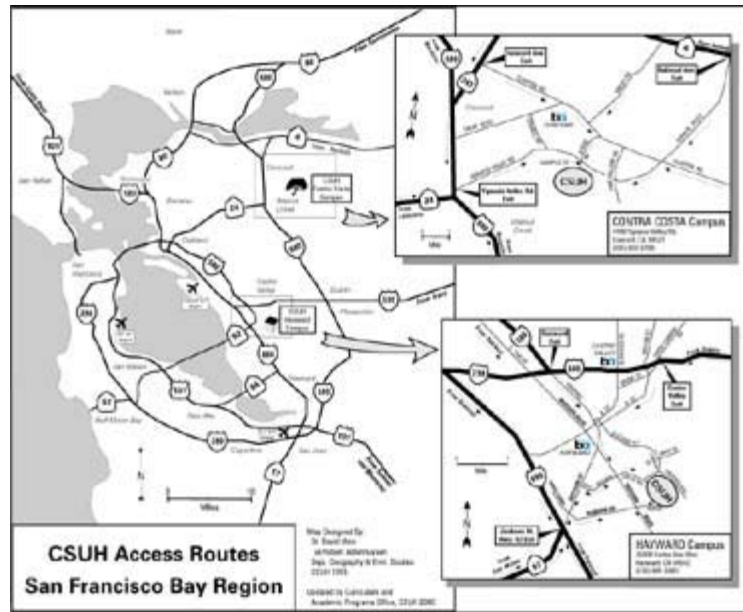
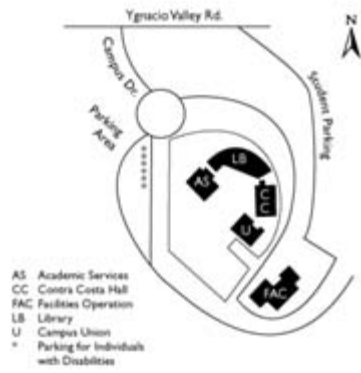
### Campus Map



If you wish to view or print a pdf (Portable Document Format) version of the Campus Map click [here](#). (Note: You must have Acrobat Reader installed on your computer to view or print a pdf file.)

### Contra Costa Campus Map

# Bay Area Setting



HOME



HELP



[ [Previous](#) | [Next](#) ]

## General Education Requirements

Area	Subarea		Minimum Courses	Minimum Units		General Requirements
				Subarea	Area	
<b>A. Communication in English Language</b>	A1 Oral Communication		1	4	12	<ol style="list-style-type: none"> <li>1. Minimum of 12 upper division units taken as upper division student (<i>italicized at left</i>)</li> <li>2. Minimum of 12 units of G.E. in residence</li> <li>3. One G.E. course (minimum of 3 units) about cultural minorities and/or women in the U.S.A.</li> <li>4. No courses used for U.S. history/government at Cal State Hayward can be used for G.E.</li> <li>5. No course can be used for G.E. if it has the prefix of the major department, except Areas A, B4, G4; one course in one thematic cluster (B1-3, C1-3, D1-3);</li> </ol>
	A2 Written Communication		1	4		
	A3 Critical Thinking		1	4		
<b>B. Natural Sciences and Mathematics</b>	B1 Physical Science	One with lab	1	4	16	
	B2 Life Science		1	4		
	B3 Science Elective		1	4		
	B4 Quantitative Reasoning		1	4		
<b>C. Humanities: Fine Arts and Letters</b>	C1 Fine Arts		1	4	16	
	C2 Letters		1	4		
	C3 Humanities Elective		1	4		
	C4 U.D. Humanities Elect.		1	4		
<b>D. Social Sciences</b>	Three Depts.	D1 Elective	1	4	16	
		D2 Elective	1	4		
		D3 Elective	1	4		

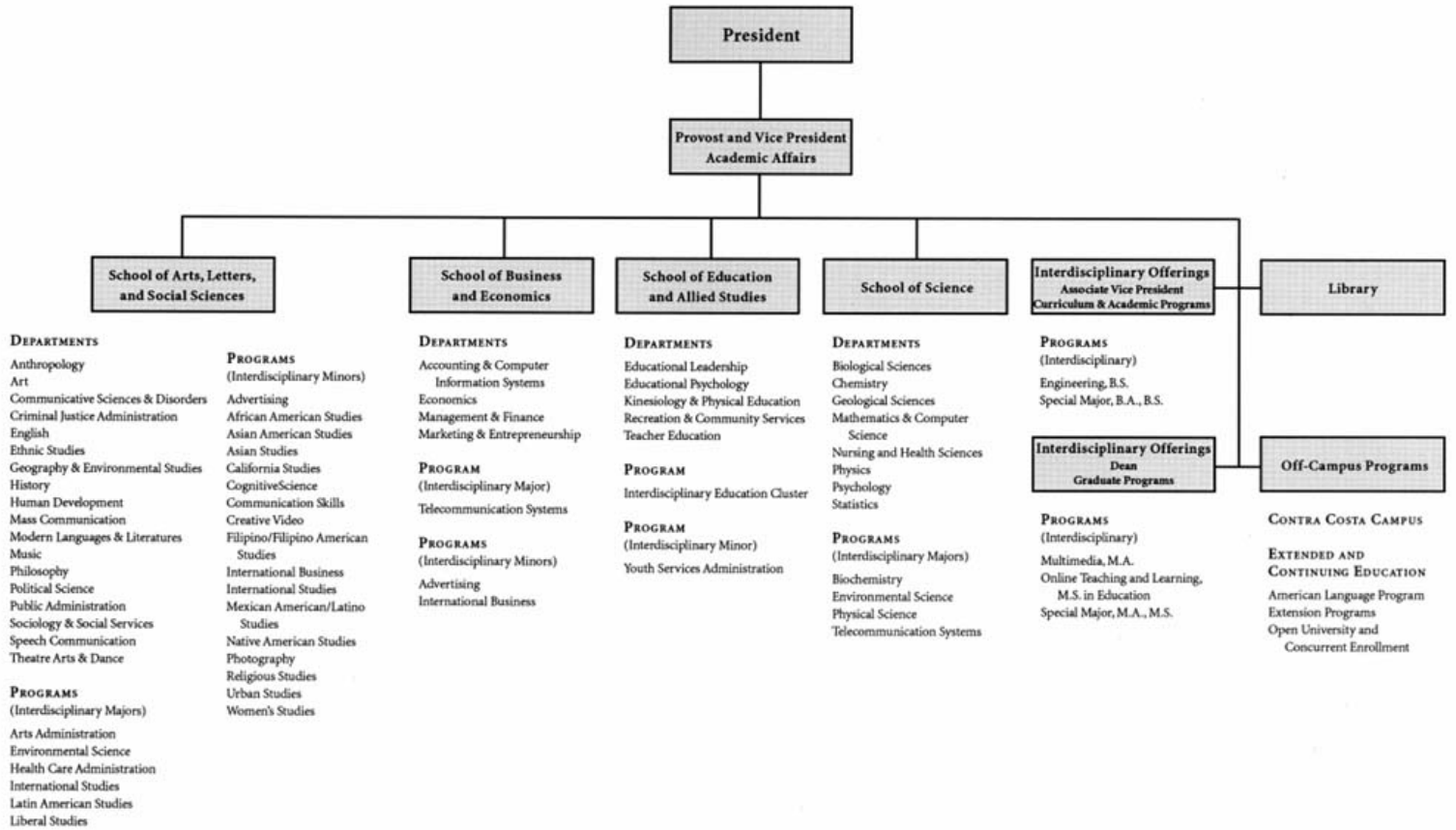
	<i>D4 U.D. Elective</i>	<i>1</i>	<i>4</i>	
<b><i>E. Capstone</i></b>		<i>1</i>	<i>4</i>	<i>4</i>
<b>F. Performing Arts and Activities</b>		1	4	4
<b>G. G.E. Electives</b>	G1-3 Frosh Activities	3	3	4
	G4 Information Literacy	1	1	
<b>TOTALS</b>		<b>21</b>	<b>72</b>	

and Area C for MLL courses in a language other than the student's major

**Note: Italicized areas (C4, D4, E) comprise the minimum three-course, 12-unit upper division General Education requirement; course and student must be upper division.**

**Note: No single course may be applied to more than one Area or Subarea requirement.**

Academic Organization



CALIFORNIA STATE UNIVERSITY, HAYWARD

Academic Organization

President

Provost and Vice President  
Academic Affairs

School of Arts, Letters,  
and Social Sciences

School of Business  
and Economics

School of Education  
and Allied Studies

School of Science

Interdisciplinary Offerings  
Associate Vice President  
Curriculum & Academic Programs

Library

DEPARTMENTS

Anthropology  
Art  
Communicative Sciences & Disorders  
Criminal Justice Administration  
English  
Ethnic Studies  
Geography & Environmental Studies  
History  
Human Development  
Mass Communication  
Modern Languages & Literatures  
Music  
Philosophy  
Political Science  
Public Administration  
Sociology & Social Services  
Speech Communication  
Theatre Arts & Dance

PROGRAMS  
(Interdisciplinary Minors)

Advertising  
African American Studies  
Asian American Studies  
Asian Studies  
California Studies  
Cognitive Science  
Communication Skills  
Creative Video  
Filipino/Filipino American Studies  
International Business  
International Studies  
Mexican American/Latino Studies  
Native American Studies  
Photography  
Religious Studies  
Urban Studies  
Women's Studies

PROGRAMS  
(Interdisciplinary Majors)

Arts Administration  
Environmental Science  
Health Care Administration  
International Studies  
Latin American Studies  
Liberal Studies

DEPARTMENTS

Accounting & Computer  
Information Systems  
Economics  
Management & Finance  
Marketing & Entrepreneurship

PROGRAM  
(Interdisciplinary Major)

Telecommunication Systems

PROGRAMS  
(Interdisciplinary Minors)

Advertising  
International Business

DEPARTMENTS

Educational Leadership  
Educational Psychology  
Kinesiology & Physical Education  
Recreation & Community Services  
Teacher Education

PROGRAM

Interdisciplinary Education Cluster

PROGRAM  
(Interdisciplinary Minor)

Youth Services Administration

DEPARTMENTS

Biological Sciences  
Chemistry  
Geological Sciences  
Mathematics & Computer  
Science  
Nursing and Health Sciences  
Physics  
Psychology  
Statistics

PROGRAMS  
(Interdisciplinary Majors)

Biochemistry  
Environmental Science  
Physical Science  
Telecommunication Systems

PROGRAMS  
(Interdisciplinary)

Engineering, B.S.  
Special Major, B.A., B.S.

Interdisciplinary Offerings  
Dean  
Graduate Programs

PROGRAMS  
(Interdisciplinary)

Multimedia, M.A.  
Online Teaching and Learning,  
M.S. in Education  
Special Major, M.A., M.S.

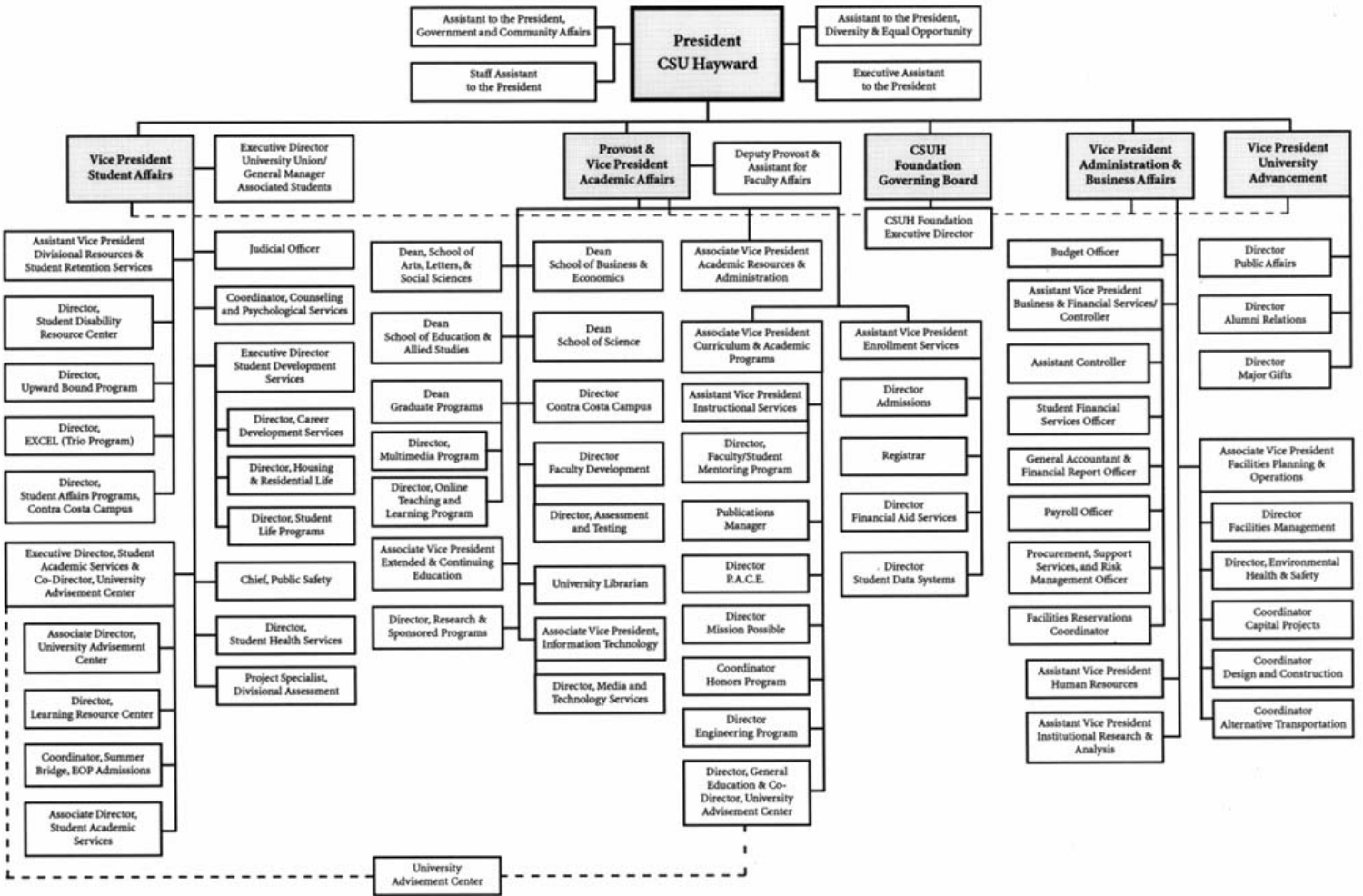
Off-Campus Programs

CONTRA COSTA CAMPUS

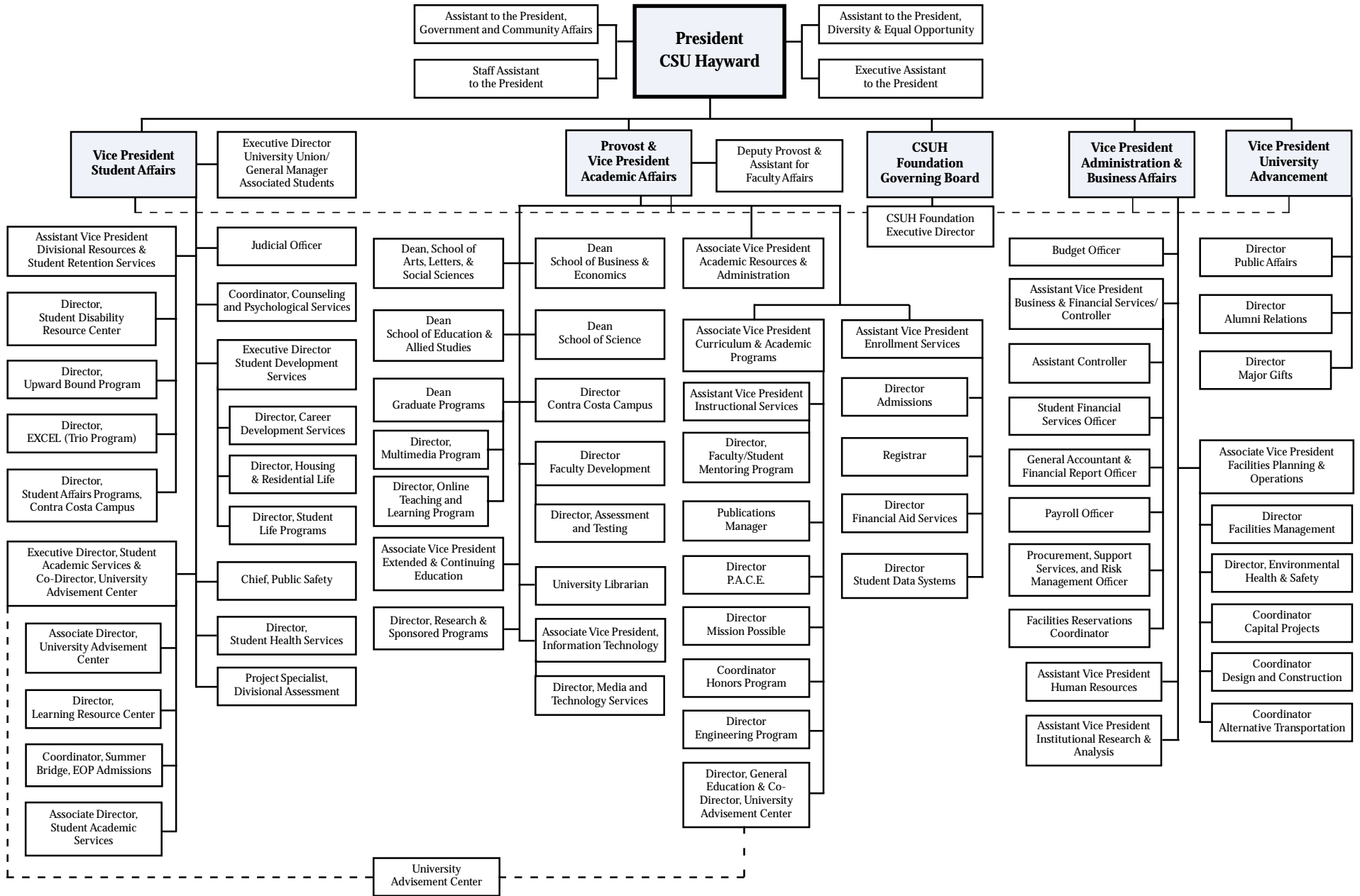
EXTENDED AND  
CONTINUING EDUCATION

American Language Program  
Extension Programs  
Open University and  
Concurrent Enrollment

CALIFORNIA STATE UNIVERSITY, HAYWARD



CALIFORNIA STATE UNIVERSITY, HAYWARD





## Using the America Online Browser

## America Online User Help

- ▶ [Using the America Online Browser](#)
- ▶ [Solving the Problem](#)

If you are using the America Online built-in browser, you may experience problems viewing images. It depends on how you have your preferences set. Below is an example of how the wrong preferences can make the images look blurry or jagged.



The image on the top is rendered with compression turned on. The image underneath is how it should look. If both images look the same, or if the bottom image isn't crystal clear (it may still be a little clearer than the top image, since AOL even compresses the top image somewhat), then you have your preferences set wrong for viewing images on this site, and many other sites out there. Instructions are shown below.



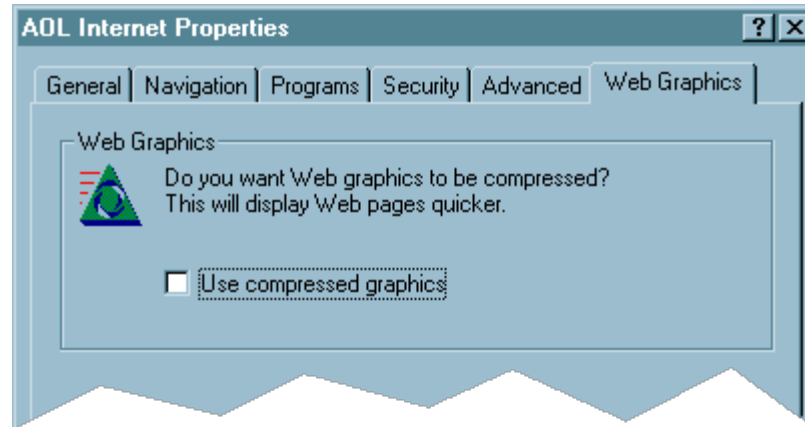
To increase download speed, AOL decided to add the option to

## Solving the Problem

over-compress the graphics at AOL before they ship the images to you. This over-compression destroys a lot of images.

To remedy this, look at the top of your AOL browser and click on the [Prefs button](#).

In Windows 95, go to the Web Graphics tab and unclick the "Used compressed graphics" box, shown below. Click 'OK'.



See also [Windows 3.x](#) and [Macintosh](#) preference screen shots.

*(screen captures are from AOL 3.0 - other versions may differ)*

One problem with the AOL browser is that it will not reload the graphics once you have visited them with compressed mode on. Once you have viewed an image in compressed mode, it remains on your disk until you clear the cache. To clear the cache, select Preferences -> Advanced -> Purge Cache.

A better solution is to use another browser. Get the latest version of AOL. Go to Keyword Netscape and download it. You can use it as is as long as you are logged into AOL. Just iconize AOL and launch [Netscape](#). The same is true for [Microsoft's Internet Explorer](#).



HOME



HELP



# Hayward Campus Map



## PARKING INFORMATION

**General:** (Decal or Day Permit only)

Lots C, D, E2, F, G, H, K, N, P

**Faculty & Staff:** (Students and visitors after 5 pm with permit)

Lots A, B, D, E1, J, L, M, O

**Spaces for the Disabled:**

Lots A, B, C, D, E, F, G, J, K, L, M, O, Music Building and West Loop Road

## Metered Sections:

Lots C, J, K (10 hours)

West Loop Rd. (1 hour)

Permits NOT valid at meters

▲ Day Permit Dispensers  
(6 quarters required)

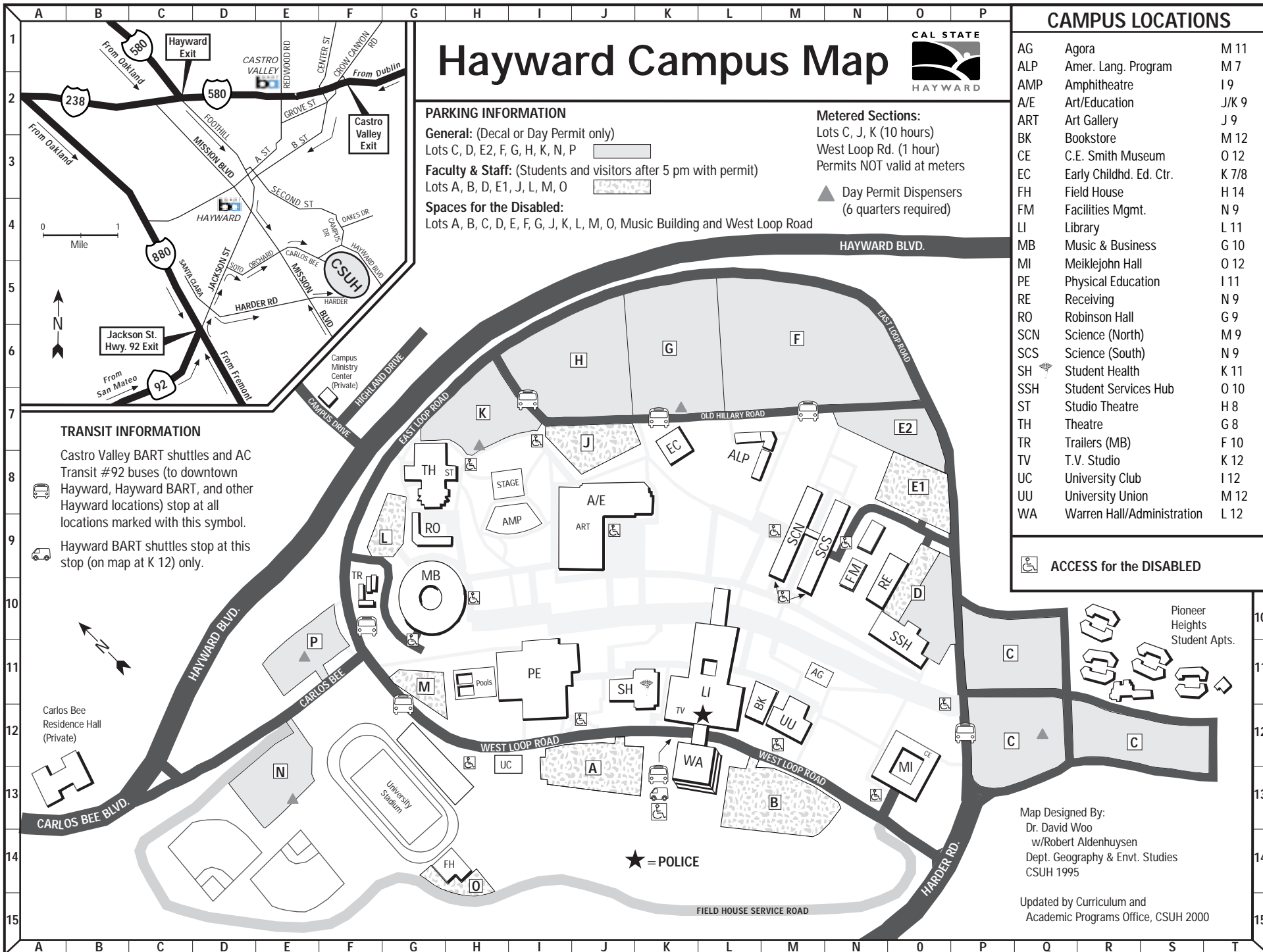
## CAMPUS LOCATIONS

AG	Agora	M 11
ALP	Amer. Lang. Program	M 7
AMP	Amphitheatre	I 9
A/E	Art/Education	J/K 9
ART	Art Gallery	J 9
BK	Bookstore	M 12
CE	C.E. Smith Museum	O 12
EC	Early Childhd. Ed. Ctr.	K 7/8
FH	Field House	H 14
FM	Facilities Mgmt.	N 9
LI	Library	L 11
MB	Music & Business	G 10
MI	Meiklejohn Hall	O 12
PE	Physical Education	I 11
RE	Receiving	N 9
RO	Robinson Hall	G 9
SCN	Science (North)	M 9
SCS	Science (South)	N 9
SH	Student Health	K 11
SSH	Student Services Hub	O 10
ST	Studio Theatre	H 8
TH	Theatre	G 8
TR	Trailers (MB)	F 10
TV	T.V. Studio	K 12
UC	University Club	I 12
UU	University Union	M 12
WA	Warren Hall/Administration	L 12

♿ ACCESS for the DISABLED

Map Designed By:  
Dr. David Woo  
w/Robert Aldenhuyzen  
Dept. Geography & Env't. Studies  
CSUH 1995

Updated by Curriculum and  
Academic Programs Office, CSUH 2000



## TRANSIT INFORMATION

Castro Valley BART shuttles and AC Transit #92 buses (to downtown Hayward, Hayward BART, and other Hayward locations) stop at all locations marked with this symbol.

Hayward BART shuttles stop at this stop (on map at K 12) only.

Carlos Bee Residence Hall (Private)

University Stadium

Field House

Campus Ministry Center (Private)

Highland Drive

Old Hillary Road

East Loop Road

West Loop Road

Harder Rd.

Field House Service Road

Carlos Bee Blvd.

Hayward Blvd.

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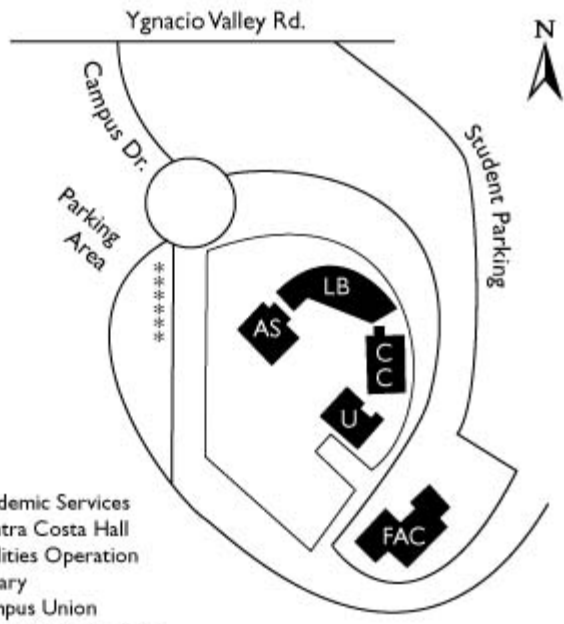
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Field House Service Road

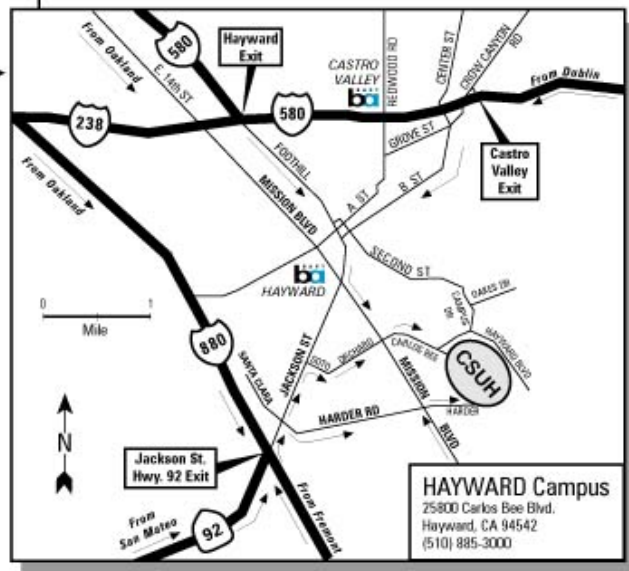
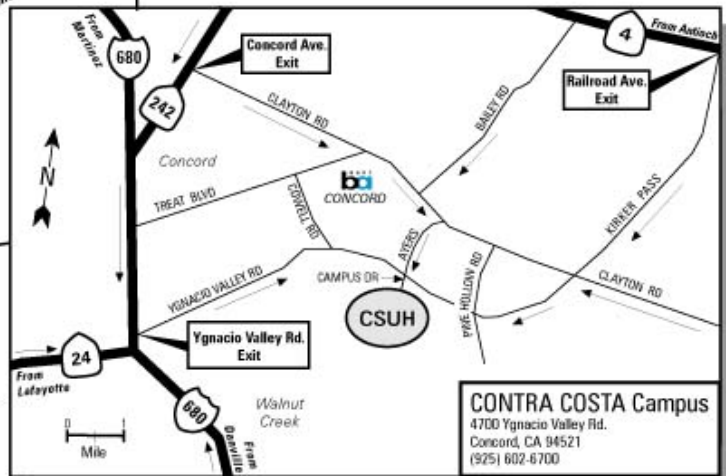
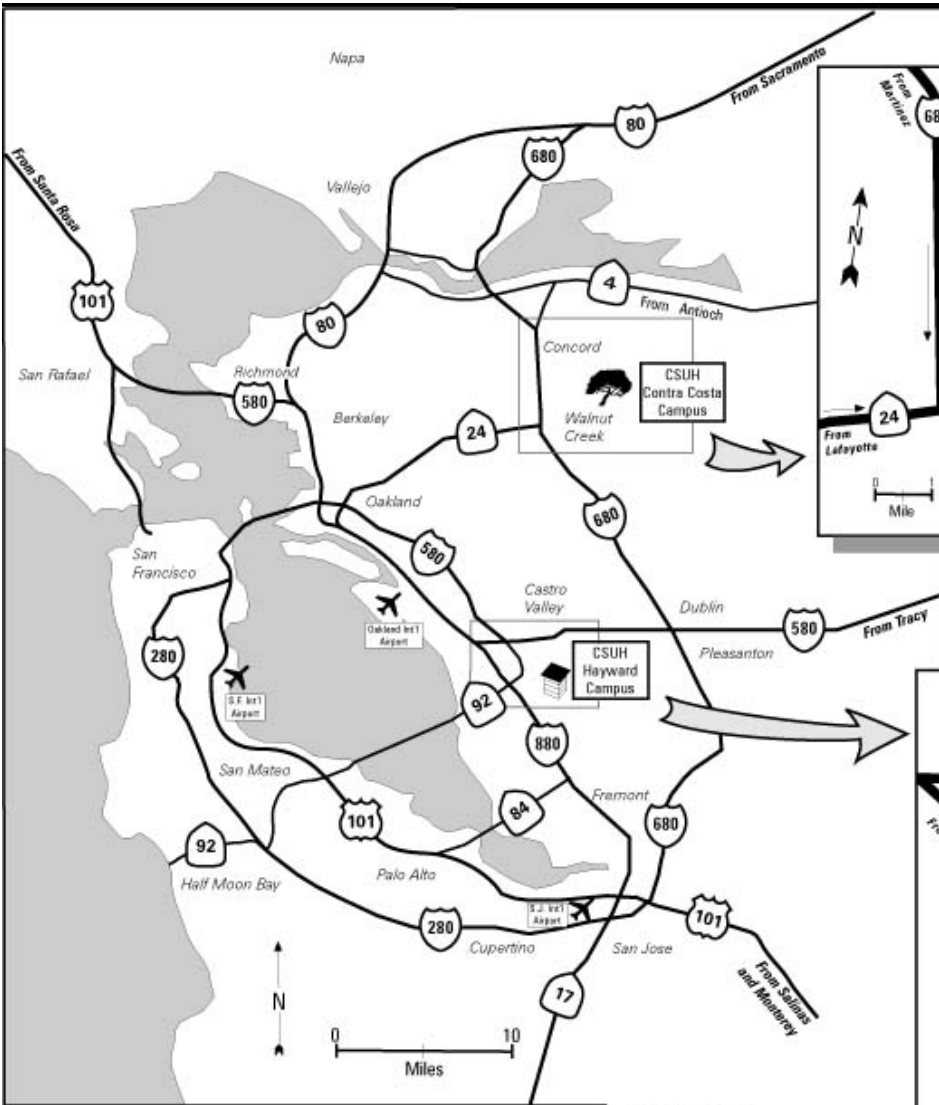
Carlos Bee Blvd.

Hayward Blvd.

Highland Drive



- AS Academic Services
- CC Contra Costa Hall
- FAC Facilities Operation
- LB Library
- U Campus Union
- \* Parking for Individuals with Disabilities



# CSUH Access Routes San Francisco Bay Region

Map Designed By:  
 Dr. David Woo  
 w/Robert Aldenhuisen  
 Dept. Geography & Env't. Studies  
 CSUH 1995

Updated by Curriculum and  
 Academic Programs Office, CSUH 2000