

Title	C-ID Designation	C-ID Units	Double	CSUEB Course	Units
Programming Concepts & Methodology I (CS1)	COMP 122	3			
Programming Concepts & Methodology II (CS2)	COMP 132	3			
Computer Architecture & Organization	COMP 142	3			
Discrete Structures	COMP 152	3			
Choose 1					
Single Variable Calculus I and II – Early Transcendentals (min. 8 units)		8			
or					
Single Variable Calculus I and II – Late Transcendentals (min. 8 units)		8			
or	MATH 210 and 220	8			
Single Variable Calculus Sequence (min. 8 units)					
or					
MATH 211 and 221		8			
or					
MATH 900S					
Choose 1					
PHYS 205	4				
	4				
(min. 4 units)					
or					
Cell and Molecular Biology		4			
(min. 4 units)					
or					
Organismal Biology		4			
Choose 1					
PHYS 210		4			
General Chemistry for Science Majors I, with Lab (min. 5 units)					
or					
BIOL 190					
or					
BIOL 140					
or					
CHEM 110					
TOTAL MAJOR UNITS		28			
CSU GE Requirements		39			
Double Counting GE		7			
Elective		0			
Total Units		60			

GRADUATION REQUIREMENTS These should be fulfilled at the Community College, however if not taken at the Community College, they must be completed at CSU East Bay			
US History, Constitution & American Ideals			
First Category US-1			0-3
Second Category US-2			0-3
Third Category US-3			0-3
		Total Units	0-9
These courses must be taken at CSU East Bay			
Please note: A minimum of three courses in the Upper Division General Education pattern must have a topic/learning outcome oriented toward one of the following topic areas (overlays): Diversity (DIV) , Social Justice (SJ) , or Sustainability (S) .			
Upper Division GE/Overlay	Courses	Overlay	Units
GE-UD-B			3
GE-UD-C			3
GE-UD-D			3
		Total Units	9
University Writing Requirement	Course	GE/Overlay	Units
UWR			
		Total Units	3
Introductory Co	Course	GE/Overlay	Units
Basic lower-division requirements for 9-10 units.			
Select one (1) of the following (CS 100 is recommended for Data Science Concentration):			
CS 100*	Programming for Everyone		3
MATH 130*	Calculus I	GE-B4	4
Select two (2) courses from the following (CS 200 is recommended for Data Science Concentration):			
CS 200*	Advanced Programming for Everyone		3
MATH 131*	Calculus II		3
STAT 303	Statistical Methods in Biology		3
*Completed at a CCC		Total Units	0-10
Advanced Core	Course	GE/Overlay	Units
The following courses for 24 units are required as outlined below:			
Take all of the following:			
STAT 330	Statistical Inference		3
STAT 331	Introduction to Analysis of Variance		3
STAT 432	Introduction to Linear Regression and Logistic Regression		3
STAT 495	Data Analysis with SAS		3
Select one (1) of the following (STAT 321 recommended for Data Science Concentration):			
STAT 320	Introduction to Probability Theory I		3
STAT 321	Probability Through Simulation		3
Select three (3) Elective Courses from the following:			
STAT 351	Sampling Procedures for Surveys		3
STAT 450	Introduction to R for Data Science (Cannot be double-counted for students in the Data Science Concentration)		3
STAT 451	Introduction to Data Visualization (Cannot be double-counted for students in the Data Science Concentration)		3
STAT 452	Introduction to Statistical Learning (Cannot be double-counted for students in the Data Science Concentration)		3
STAT 460	Advanced Statistical Package Usage		3
STAT 473	Introduction to Nonparametric Statistics		3
STAT 474	Introduction to Time Series and Forecasting		3
STAT 475	Introduction to Stochastic Processes		3
STAT 481	Bayesian Statistics		3
		Total Units	24
Data Science Concentration			
Complete fifteen (15) units of approved courses in Computer Science and/or Statistics as follows:			
STAT 450	Introduction to R for Data Science		3
STAT 451	Introduction to Data Visualization		3
STAT 452	Introduction to Statistical Learning		3
An additional approved course in Computer Science or Statistics			3
A second approved course in Computer Science or Statistics			3
		Total Units	15
ADDITIONAL COURSE(S) to MEET 60 UNITS		GE/Overlay	Units
These courses may be additional major courses or prerequisites taken at the Community College.			
Free Elective Elective			9
		Total Units	9
		Grand Total:	60

FIRST SEMESTER JUNIOR YEAR (FALL)			
UDGE UD-B	COURSE:	OVERLAY:	3
UD Major	STAT 330	Statistical Interference	3
*UD Major OR UD Elective	STAT 320	Introduction to Probability Theory I	3
CONCENTRATIO N			3
UWR			3
		TOTAL:	15
SECOND SEMESTER JUNIOR YEAR (SPRING)			
UDGE UD-D	COURSE:	OVERLAY:	3
UD Major	STAT 331	Introduction to Analysis of Variance	3
UD Major	STAT 432	Introduction to Linear Regression and Logistic Regression	3
*UD Major OR UD Elective	STAT 321	Probability Through Simulation	3
UD Elective			3
		TOTAL:	15
THIRD SEMESTER SENIOR YEAR (FALL)			
Check your MyCSUEB "Degree Audit Report" (DAR) and email any discrepancies to The ADT ADVISOR.			
UDGE UD-C	COURSE:	OVERLAY:	3
UD Major	STAT 495	Data Analysis with SAS	3
UD Elective			3
CONCENTRATIO N	STAT 450	Introduction to R for Data Science	3
CONCENTRATIO N	STAT 451	Introduction to Data Visualization	3
		TOTAL:	15
FOURTH SEMESTER SENIOR YEAR (SPRING)			
See the ADT ADVISOR and apply for graduation through MyCSUEB by the posted deadline, available at Important Dates			
CONCENTRATION	STAT 452	Introduction to Statistical Learning	3
CONCENTRATION			3
FREE ELECT			3
FREE ELECT			3
FREE ELECT			3
		TOTAL:	15
GRAND TOTAL:			60
Updated: 4/1/2024			