Requirement Area	Course	tics, B.S.: Marketing Analytics Concentration 25-26 Course Title	Prerequisites	Units
Requirement Area	Course	First Semester (FALL)	Trerequisites	Oilits
Recommended	GS 101A			
Recommended	GS 101A	Foundations of Success I Oral Communication		_
1C				- 1
1A		Written Communication		3
LD Major Core	CS 100	Programming for Everyone		
			One from the following:	
			Satisfactory score of 78 or	
Area 2/LD Major Core	MATH 130	Calculus I	higher on Mathematics	
			Placement Exam, MATH 120 or MATH 125 (either course	
			with grade C- or better).	
Flenkin			with grade C- or better).	
Elective				- :
			Total:	16
		Second Semester (SPRING)		
Recommended	GS 101B	Foundations of Success II		
1B/Second Comp		Critical Thinking and Compostion		
3A or 3B	_	Arts or Humanities		
		Arts or numarities		
Elective				
Area 4/Code 1	ECON 101, ES 120, HIST 110,	Social Sciences and US-1-2		
	POSC 101, or equivalent			- :
LD Major Elective				l
Lo major Elective				
			Total:	1
		Third Semester (FALL)		
	ES 121, HIST 111, POSC 102, or			
Area 4/Code 2	equivalent	Social Sciences and US-3		
5A/5C	equivalent	Dhysical Science / Shoratory Science		
	+	Physical Science/Laboratory Science		
Area 6		Ethnic Studies		
3A or 3B		Arts or Humanities		
Free Elective				
				1 3
			Total:	15
		1 c - (coppuse)	101011	
		Fourth Semester (SPRING)	I A A WILL A CO. CO.	
LD Major Core	CS/MATH 211	Discrete Structures	MATH 130 with grade C- or	
			better	
5B/5C		Life Science/Laboratory Science		3
Free Elective				4
Free Elective				3
				-
			Total:	
				13
		Fifth Semester (FALL)		
			Completion of GE Areas 1A,	
UD-Area 3	UD Arts or Humanities		1B, 1C and GE-2 with grade C-	
			(CR) or better	- 3
UD Major Core	BAN 310	Data Analysis with Python I	MATH 130 and CS 100 (or CS	
			101)	3
Concentration				
UD Major Core/UWR	MKTG 305W	Business Communication	Junior standing	
Concentration				
			Total:	
	•	Sixth Semester (SPRING)	•	
UD Major Core	BAN 315	Data Analysis with Python II	BAN 310	
-,			Completion of GE Areas 1A.	<u> </u>
_			1B, 1C and GE-2 with grade C-	l
UD-Area 5/UD Major Core/S	BAN 320	Optimization and Simulation for Business Applications	(CR) or better,CS 100 or CS	l
			101	
UD Major Core	BAN 331	Database Management and SQL	BAN 310 or ITM 300	
UD Major Core	BAN 350	Data Wrangling and Data Pipline	BAN 310	
Concentration				
Concentiation			Total:	19
		1 (7)	fotal:	15
	1	Seventh Semester (FALL)	1	
Concentration	MKTG 310	Marketing Research	MKTG 300	
UD Major Core/SJ	BAN 441	Business Data Visualization and Reporting	BAN 310 or ITM 300	3
UD Major Core	BAN 449	Big Data Technology and Business Applications	BAN 315 or ITM 330	
UD Major Core	BAN 340	Machine Learning for Business Applications	BAN 315	3
Concentration		Concentration Elective		
			Total:	
	-	Eighth Semester (SPRING)		
			Completion of GE Areas 1A,	
UD-Area 4 (with Div if needed)	UD Social Science (with Diversity		1B, 1C and GE-2 with grade C-	l
SS / CS 4 (with biv ii needed)	Overlay if needed)		(CR) or better	
Concentration	+	Concentration Elective	(City of Detter	
Concentration		Concentration Elective		
	244,400			3
Major Capstone	BAN 499	Capstone Seminar	BAN 340 and BAN 441	- 3
UD Free Elective				- 3
			Total:	1
Total Units:				12

Note: No changes to, or from, the credit/no credit pattern are permitted after the Grade Type Change period. There are no exceptions to this rule. Courses in a student's major department, regardless of course prefix, may not be taken "CR/NC," unless that is the only grading pattern in the course.

	CSUEB General Breadth and Graduation Requirement Checklist
	Area 1 (9 units): English Communication
	ower Division English Composition
	ower Division Critical Thinking and Composition
⊔ 1C - L	ower Division Oral Communication
	Area 2 (3 units): Mathematical Concepts and Quantitative Reasoning
□ Area	2 - Mathematical Concepts and Quantitative Reasoning
Are	a 3 (6 units): Arts & Humanities - Minimum of two different disciplines as designated by course prefix (e.g., ART, THEA, MUS)
	arts and Humanities (Arts)
	arts and Humanities (Humanities)
Area 4 (6 units) : Social and Behavioral Sciences - Minimum of two different discipli
	as designated by course prefix (e.g., ANTH, ECON, POSC)
	4 - Lower Division Social and Behavioral Sciences
□ Area	4 - Lower Division Social and Behavioral Sciences
Пгл :	Area 5 (7 units): Physical and Biological Sciences
⊔ 5A - L	ower Division Physical and Biological Sciences (Physical)
□ 5B - L	ower Division Physical and Biological Sciences (Biological)
	ower Division Physical and Biological Sciences (Laboratory) May be embed
in 5A or	5B course, as long as 7 units met for lower-division Subject Area 5.
	Area 6 (3 units): Ethnic Studies
	6 - Ethnic Studies
Second	Composition : Second Composition (Required as part o for 2025-26 or later catalog)
☐ Secor	nd Composition
	University Writing Requirement (3-4 units)
U.S. C	de (American Institutions Requirement) - Two courses (6 units) covering th Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-
	Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government).
☐ Code	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2
☐ Code	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A,
☐ Code ☐ Code Upper D	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR)
□ Code □ Code Upper D	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities
□ Code □ Code Upper D □ UD- A	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities urea 4 - Upper Division Social and Behavioral Sciences
Code Code Upper D UD- A UD- A	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Science or Mathematical Concepts/Quantitative
□ Code □ Code Upper D □ UD- A □ UD- A □ UD- A Reasonir	Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-1 (U.S. History), US-2 (U.S. Constitution), and US-1 (California State & Local Government). 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences rea 5 - Upper Division Science or Mathematical Concepts/Quantitative us 4 (Upper Division Concepts/Quantitative us 4 (Upper Division C
□ Code □ Code Upper D □ UD- A □ UD- A □ UD- A Reasonir Overla	code Requirements of US-1 (Ú.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Science or Mathematical Concepts/Quantitative use 3 - Upper Division Science or Mathematical Concepts/Quantitative use Y Requirements (9 units): Courses may be upper or lower division, and GE major
□ Code □ Code Upper D □ UD- A □ UD- A □ UD- A Reasonir	code Requirements of US-1 (Ú.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Science or Mathematical Concepts/Quantitative ge y Requirements (9 units): Courses may be upper or lower division, and GE- major
□ Code □ Code Upper D □ UD- A □ UD- A □ UD- A Reasonir Overla	code Requirements of US-1 (Ú.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences rea 5 - Upper Division Science or Mathematical Concepts/Quantitative 18 19 19 10 10 11 11 11 11 11 11 11 11 11 11 11
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□ Code □ Code Upper D □ UD- A □ UD- A □ UD- A Reasonir Overla □ Diver:	code Requirements of US-1 (Ú.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences rea 5 - Upper Division Science or Mathematical Concepts/Quantitative 18 y Requirements (9 units): Courses may be upper or lower division, and GE: major sity (Div) Lustice (SJ)
□ Code □ Code □ Upper D □ UD- A □ UD- A □ UD- A Reasonir Overla □ Diver: □ Socia □ Susta	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-1 (U.S. History), US-2 (U.S. Constitution), and US-1 (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences urea 5 - Upper Division Science or Mathematical Concepts/Quantitative 18 19 19 19 10 10 10 10 11 11 11 11 11 11 11 11 11
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Code Code Upper D UD- A UD- A Reasonir Overla Socia Susta Marketii Take the	code Requirements of US-1 (Ú.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences rea 5 - Upper Division Social and Behavioral Sciences y Requirements (9 units): Courses may be upper or lower division, and GE: major sity (Div) 1. Justice (SJ) inability (5) 1g Analytics Concentration following three (3) courses for 9 units:
□ Code □ Code □ Upper D □ UD- A □ UD- A Reasonir Overla □ Diver: □ Socia □ Susta Marketir Take the MKTG 33 MKTG 33	Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-(California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Science or Mathematical Concepts/Quantitative ig ig y Requirements (9 units): Courses may be upper or lower division, and GE- major sity (Div) Lustice (SI) inability (5) ing Analytics Concentration following three (3) courses for 9 units: 10 - Marketing Principles Units: 3
Code Code Upper D UD- A UD- A Reasonir Overla Socia Susta Marketir Take the MKTG 30 MKTG 31	code Requirements of US-1 (Ú.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences rea 5 - Upper Division Science or Mathematical Concepts/Quantitative ig. y Requirements (9 units): Courses may be upper or lower division, and GE major sity (Div) Liustice (SJ) inability (5) inability (5) ing Analytics Concentration following three (3) courses for 9 units: 10 - Marketing Principles Units: 3 10 - Marketing Research Units: 3
Code Code Upper D UD- A UD- A Reasonir Overla Socia Susta Marketir Take the MKTG 30 MKTG 31	Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-(California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C-(CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences urea 5 - Upper Division Science or Mathematical Concepts/Quantitative ig gy Requirements (9 units): Courses may be upper or lower division, and GE: major Lustice (SJ) inability (S) inabi
□ Code □ Code □ Code □ Upper D □ UD- A □ UD- A Reasoniri □ Diver: □ Socia □ Sustat ■ Sustat Marketiri Take the MKTG 3: MKTG 3:	Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-(California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C-(CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Social and Behavioral Sciences urea 5 - Upper Division Science or Mathematical Concepts/Quantitative ig gy Requirements (9 units): Courses may be upper or lower division, and GE: major Lustice (SJ) inability (S) inabi
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Code Code Code Upper D Up- A U	code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US- (California State & Local Government). 1 2 ivision GE Requirements (9 units): Should be taken after completion of 1A, 1C, and Area 2 with a C- (CR) rea 3 - Upper Division Arts or Humanities rea 4 - Upper Division Science or Mathematical Concepts/Quantitative 18 19 19 19 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10