

**COMPUTER SCIENCE ADT TO CSU EAST BAY BUSINESS ANALYTICS BS
MARKETING ANALYTICS CONCENTRATION ROADMAP**

ADT Computer Science – 60 Sem. Units	Sem. Units	Community College Courses
CSUGE or IGETC	39	<i>CSU general education certification requires completion of all requirements in Areas A through E, approximately 39 units</i>
AREA D REQUIREMENT: US History, Constitution & American Ideals Code Requirement	3-9	US-1: US-2: US-3:
Diversity/Social Justice/Sustainability <i>Can be fulfilled in area C or D</i>	3-9	DIV: SJ: SUS:
Second Composition (Comp II) Any Composition course with ENGL 100 as a prerequisite	3	
<i>The following areas are for the CID TMC/Courses and matching Community College Courses</i>		
Required Core (C-ID)	7	Community College Courses
COMP 152 Discrete Structures	3	
MATH 210 Single Variable Calculus I - Early Transcendentals (4 units) or MATH 211 Single Variable Calculus I - Late Transcendentals (4 units) or Any math course that is articulated preparation for the business analytics major at CSUEB	4 Counted in GE	
LIST A: Choose 1 course	3	
COMP 122 Programming Concepts & Methodology I	3	
Any computer programming course that is articulated preparation for the business analytics major at CSUEB	3	
Lower Division Electives	12	
Any five (5) courses that are articulated preparation for the business analytics major at CSUEB	12	
Total Units ADT *COMPUTER SCIENCE*	60	

PLEASE NOTE: This page assumes Semester Units.

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CSUEB: B.S. BUSINESS ANALYTICS <i>Complete Degree in 60 Semester Units</i>	Semester UNITS	NOTES
GRADUATION REQUIREMENTS <i>These should be fulfilled at the Community College, however if not taken at the Community College, they must be completed at CSU East Bay</i>		
US History, Constitution & American Ideals	0-9	
1) First Category US-1	0-3	
2) Second Category US-2	0-3	
3) Third Category US-3	0-3	
These courses must be taken at CSU East Bay		
Upper Division GE <i>See catalog</i>	9	CSUEB COURSES
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, Social Justice, or Sustainability.		
Area B6 Upper Division Science course	3	Course: BAN 320 OVERLAY: Sustainability
Area C4 Upper Division Humanities course	3	Course: OVERLAY:
Area D4 Upper Division Social Sciences course	3	Course: MKTG 305 OVERLAY:
Upper Division Major Core	24	
BAN 310 Data Analysis with Python I	3	Prerequisites: will change to CS 100 or ITM 330 (currently MATH 130 and CS 100)
BAN 315 Data Analysis with Python II	3	Prerequisites: BAN 310
BAN 320 Optimization and Simulation for Business Applications	UD GE	G.E./G.R. Area: B6; Sustainability; Prerequisites: CS 100 (or CS 101)
BAN 331 Database Management and SQL	3	Prerequisites: BAN 310 or ITM 300
BAN 340 Machine Learning for Business Applications	3	Prerequisites: BAN 315
BAN 350 Data Wrangling and Data Pipeline	3	Prerequisites: BAN 310
MKTG 305 Business Communication	UD GE	G.E./G.R. Area: D4; UWSR Prerequisites: Junior standing
BAN 449 Big Data Technology and Business Applications	3	Prerequisites: BAN 315 or ITM 330
BAN 441 Business Data Visualization and Reporting	3	Social Justice Prerequisites: BAN 310 or ITM 300
Concentration Required Courses	9	
MKTG 300 Marketing Principles	3	
MKTG 310 Marketing Research	3	Prerequisites: MKTG 300
MKTG 312 Marketing Analytics	3	Prerequisites: MKTG 300
Concentration Elective Courses Choose four (3) courses	9	
MKTG 420 Product, Service, and Brand Management		
MKTG 427 Digital Marketing and Social Media		
MKTG 432 Marketing for New Ventures		
MKTG 434 Social and Digital Media Analytics		
Capstone	3	
BAN 499 - Capstone Seminar	3	BAN 340 and BAN 441

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Upper Division Free Elective	12	
Complete twelve (12) units of Upper Division statistics, computer science, or business courses		
Total Semester Units at CSUEB	60	60

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FIRST SEMESTER JUNIOR YEAR			
Register to take the University Writing Skills Requirement			
UDGE C4	COURSE:	OVERLAY:	3
UD Major Core	BAN 310	Data Analysis with Python I	3
UD Major Core	BAN 315	Machine Learning for Business Analytics	3
UD Major Core	CS TBD		3
UD Major Core	MKTG 305	Business Communication	3
		TOTAL:	15
SECOND SEMESTER JUNIOR YEAR			
TAKE THE UNIVERSITY WRITING SKILLS TEST			
Major Core/UDGE B6 /Sustainability	BAN 320	Optimization and Simulation for Business Applications	3
UD Major Core	BAN 331	Database Management and SQL	3
UD Major Core	BAN 340	Machine Learning for Business Applications	3
UD Major Core	BAN 350	Data Wrangling and Data Pipeline	3
Concentration	MKTG 300	Marketing Principles	3
		TOTAL:	15
THIRD SEMESTER SENIOR YEAR			
Verify that you have completed the University Writing Skills Requirement. Check your MyCSUEB "Degree Audit Report" (DAR) and email any discrepancies to The ADT ADVISER.			
Concentration	MKTG 310	Marketing Research	3
UD Major Core /Social Justice	BAN 441	Business Data Visualization and Reporting	3
UD Major Core	BAN 449	Big Data Technology and Business Applications	3
Concentration	MKTG 312	Marketing Analytics	3
Concentration Elect		Choose 1 from Elect List	3
		TOTAL:	15
FOURTH SEMESTER SENIOR YEAR			
See the ADT ADVISER and apply for graduation through MyCSUEB by the posted deadline, available at Important Dates			
UD Free Elective		Choose 1 UD statistics, computer, or business course	3
Concentration Elect		Choose 1 from Elect List	3
Concentration Elect		Choose 1 from Elect List	3
Major Capstone	BAN 499	Capstone Seminar	3
UD Free Elective		Choose 1 UD statistics, computer, or business course	3
		TOTAL:	15
GRAND TOTAL:			60