

Computer Science ADT to Business Analytics B.S.

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	4		
or					
Single Variable Calculus I and II – Late Transcendentals (min. 8 units)		8	4		
or	MATH 210 and 220	8	4		
Single Variable Calculus Sequence (min. 8 units)					
or					
	MATH 211 and 221	8	4		
or					
	MATH 900S	8	4		
Choose 1	PHYS 205	4			
or					
Cell and Molecular Biology		4			
or					
Organismal Biology		4			
Choose 1					
	PHYS 210	4	4		
General Chemistry for Science Majors I, with Lab (min. 5 units)					
	or				
	BIOL 190		3-4		
	or				
	BIOL 140		3-4		
	or				
	CHEM 110		3-4		
TOTAL MAJOR UNITS		28			
CSU GE Requirements		39			
Double Counting GE		7-8			
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-Area 5	BAN 320	Sustainability	0
GE-UD-Area 3			3
GE-UD-Area 4			3
		Total Units	6
University Writing Requirement	Course	GE/Overlay	Units
UWR	MKTG 305W		0
		Total Units	0
Upper Division Coursework	Course	GE/Overlay	Units
BAN 310	Data Analysis with Python I		3
BAN 315	Data Analysis with Python II		3
BAN 320	Optimization and Simulation	GE-UD-Area 5; Sustainability	3
BAN 331	Database Management and SQL		3
BAN 340	Machine Learning for Business Applications		3
BAN 350	Data Wrangling and Data Pipeline		3
BAN 441	Business Data Visualization and Reporting (crosslist: ITM 441)	Social Justice	3
BAN 449	Big Data and Business Applications		3
BAN 499	Capstone Seminar		3
MKTG 305W	Business Communication		3
		Total Units	30
Information System and Supply Chain Analytics Concentration Required			
Students must complete two (2) courses of the following for 6 units:			
ITM 336	Information Systems Development and Management		3
MGMT 364	Global Supply Chain Management		3
		Total Units	6
Information System and Supply Chain Analytics Concentration Courses			
Choose four (4) courses of the following for 12 units:			
ITM 338	Cloud Computing and E-Commerce		3
ITM 442	Blockchain and Smart Contract		3
ITM 446	Information Security		3

MGMT 365	Enterprise Planning and Control		3
MGMT 450	Project Management		3
MGMT 455	AI Enabled Supply Chain Data Analytics		3
MGMT 460	Healthcare Analytics		3
MGMT 465	Supply Chain Forecasting with Machine Learning		3
		Total Units	12
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			6
		Total Units	6
		Grand Total:	60

FIRST SEMESTER (FALL)			
Free Elective			3
UD Major	BAN 310	Data Analysis with Python I	3
UD Major	MGMT 364	Global Supply Chain Management	3
UD Major/UWR	MKTG 305W	Business Communication	3
UD-Area 4/Overlay			3
		Total:	15
SECOND SEMESTER (SPRING)			
UD Major	BAN 315	Data Analysis with Python II	3
UD-Area 5/S/UD Major	BAN 320	Optimization and Simulation	3
UD Major	BAN 331	Database Management and SQL	3
UD Major	BAN 350	Data Wrangling and Data Pipeline	3
UD Major		Concentration Elective	3
		Total :	15
THIRD SEMESTER (FALL)			
UD Major	ITM 336	Information Systems Development and Management	3
UD Major/SJ	BAN 441	Business Data Visualization and Reporting	3
UD Major	BAN 449	Big Data Technology and Business Applications	3
UD Major	BAN 340	Machine Learning for Business Applications	3
UD-Area 3			3
		Total:	15
FOURTH SEMESTER (SPRING)			
Free Elective			3
UD Major	BAN 499	Capstone Seminar	3
UD Major		Concentration Elective	3
UD Major		Concentration Elective	3
UD Major		Concentration Elective	3
		Total:	15
		Grand Total:	60