

COMPUTER SCIENCE ADT TO STATISTICS BS 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) Can be fulfilled with A3 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>		
Major Core (C-ID)		Community College Courses
COMP 122 Programming Concepts & Methodology I		
COMP 132 Programming Concepts & Methodology II		
COMP 142 Computer Architecture & Organization		
COMP 152 Discrete Structures		
MTH 210 and 220 Single Variable Calculus I and II – Early Transcendentals or MATH 211 and 221 Single Variable Calculus I and II – Late Transcendentals or MATH 900S Single Variable Calculus Sequence		
PHYS 205 Calculus-Based Physics for Scientists and Engineers: A		
PHYS 210 Calculus-Based Physics for Scientists and Engineers: B or BIOL 190 or 140 Cell and Molecular Biology or CHEM 110 General Chemistry for Science Majors I, with Lab		
Electives/Major Prerequisites for CSUEB		
<i>If needed</i>		
Total Units Computer Science ADT	60	

PLEASE NOTE: This page assumes Semester Units.

COMPUTER SCIENCE ADT TO STATISTICS BS ROADMAP

CSUEB: Statistics B.S. <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 UD-B Upper Division Science course	3	Course: OVERLAY:
Area UD-C Upper Division Humanities course	3	Course: OVERLAY:
Area UD-D Upper Division Social Sciences course	3	Course: OVERLAY:
Introductory Core	0-9	
Select one (1) of the following (CS 100 is recommended for Data Science Concentration):		
CS 100 - Programming for Everyone <i>Units: 3</i>		*Completed at a CCC
MATH 130 - Calculus I <i>Units: 4; Breadth Area: GE-B4</i>		*Completed at a CCC
Select two (2) courses from the following (CS 200 and STAT 315 are recommended for Data Science Concentration):		
CS 200 - Advanced Programming for Everyone <i>Units: 3</i>		*Completed at a CCC
MATH 131 - Calculus II <i>Units: 3</i>		*Completed at a CCC
STAT 303 - Statistical Methods in Biology <i>Units: 3</i>		
STAT 315 - Exploring and Analyzing Data <i>Units: 3</i>		
Advanced Core	24	
Take all of the following:		
STAT 330 - Statistical Inference <i>Units: 3</i>		
STAT 331 - Introduction to Analysis of Variance <i>Units: 3</i>		
STAT 432 - Introduction to Linear Regression and Logistic Regression <i>Units: 3</i>		
STAT 495 - Data Analysis with SAS <i>Units: 3</i>		
Select one (1) of the following (STAT 321 recommended for Data Science Concentration):		
STAT 320 - Introduction to Probability Theory I <i>Units: 3</i>		
STAT 321 - Probability Through Simulation <i>Units: 3</i>		*STAT 321 is only offered in the SPRING SEMESTER

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Select three (3) Elective Courses from the following:		
STAT 351 - Sampling Procedures for Surveys <i>Units: 3</i>		
STAT 450 - Introduction to R for Data Science <i>Units: 3 (Cannot be double-counted for students in the Data Science Concentration)</i>		
STAT 451 - Introduction to Data Visualization <i>Units: 3 (Cannot be double-counted for students in the Data Science Concentration)</i>		
STAT 452 - Introduction to Statistical Learning <i>Units: 3 (Cannot be double-counted for students in the Data Science Concentration)</i>		
STAT 460 - Advanced Statistical Package Usage <i>Units: 3</i>		
STAT 473 - Introduction to Nonparametric Statistics <i>Units: 3</i>		
STAT 474 - Introduction to Time Series and Forecasting <i>Units: 3</i>		
STAT 475 - Introduction to Stochastic Processes <i>Units: 3</i>		
STAT 481 - Bayesian Statistics <i>Units: 3</i>		
Emphasis Coursework	15	Please refer to the University Catalog
ADDITIONAL COURSE to reach 60 Units	3-12	<i>These courses may be additional Major Courses or prerequisites taken at the Community College</i>
Total Semester Units at CSUEB	60	60

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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
Area of Emphasis			3
FREE ELECT			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
Area of Emphasis Elective			3
Area of Emphasis Elective			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			
Area of Emphasis Elective			3
Area of Emphasis Elective			3
FREE ELECT			3
FREE ELECT			3
FREE ELECT			3
		TOTAL:	15
GRAND TOTAL:			60