Title	C-ID Units	C-ID Designation	Double Counted for GE	CSUEB Course	Units
Single Variable Calculus I – Early Transcendentals Or Single Variable Calculus I – Late Transcendentals	Math 210 or Math 211	4			
Single Variable Calculus II – Early Transcendentals Or Single Variable Calculus II – Late Transcendentals	Math 220 or Math 221	4			
Multivariable Calculus	Math 230	4			
OR					
Single Variable Calculus Sequence (2 sem/3 quarters) Or Single Variable Calculus I – Early Transcendentals And Single Variable Calculus II – Early Transcendentals Or Single Variable Calculus I – Late Transcendentals And Single Variable Calculus II – Late Transcendentals	Math 900S or Math 210 and Math 220 or Math 211 and Math 221	≥8			
Multivariable Calculus	Math 230	4			
OR					
Single Variable and Multivariable Calculus Sequence (3 sem/4 quarters)		≥12			
Choose a minimum of 6 units from below with at least 3 units from Group A.					
Group A Provides Depth of understanding in subject major					
Ordinary Differential Equations	Math 240	3			
Introduction to Linear Algebra	Math 250	3			
OR					
Differential Equations and Linear Algebra	Math 910S	5			
Group B Expands application of discipline					
Discrete Math	Math 160	3			
Calculus-Based Physics for Scientists and Engineers: A (Any course articulated as preparation for the physics major at a CSU)	Physics 205	4			
Mathematical Computing Systems	See sample.	1			
Computer Programming	rticulated prepara	3			
Proof	See sample.	3			

Introduction to Statistics	Math 110	3			
TOTAL MAJOR UNITS		**18**			
CSU GE Requirements		39			
Double Counting GE		4			
Elective		**7***			
Total Units		**60**			

***Can be used to fulfill CSU American Institutions or any additional major requirements**

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 outcomeoriented 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**

Upper Division Core	Course	GE/Overlay	Units
Take the following six (6) upper-division courses for 18 units:			
MATH 300	Introduction to Mathematical Proof		3
MATH 305	Mathematical Software		3
MATH 310	Linear Algebra Theory		3
MATH 320	Abstract Algebra I		3
MATH 330	Analysis I		3
MATH 493	Senior Seminar		3
		Total Units	**18**

Applied Mathematics Coursework	Course	GE/Overlay	Units
Choose two (2) courses from the following for 6 units:			
Course Name	Units:		
MATH 370	Numerical Analysis I		3
MATH 380	Linear Programming		3
MATH 385	Linear and Nonlinear Systems of Differential Equations		3
		Total Units	**6**

Theoretical Mathematics Coursework	Course	GE/Overlay	Units
Choose two (2) courses from the following for 6 units:			
MATH 321	Abstract Algebra II		3
MATH 331	Analysis II		3
MATH 340	Modern Geometry		3
		Total Units	6

Elective Courses	Course	GE/Overlay	Units
Choose two (2) elective courses from the following for 6 units:			

MATH 360	Number Theory		3
MATH 470	Numerical Analysis II		3
MATH 497	Topics in Advanced Mathematics		3
Or any upper-division mathematics course(s) NOT used to fulfill other major requirements, except MATH 318, 319, 402, 403, or 406.			
Or any graduate level Math course.			
STAT 316	Statistics and Probability for Science and Engineering		3
		Total Units	**6**
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			12
		Total Units	**12**
		Grand Total:	**60**

FIRST SEMESTER (FALL)			
UD-B/Overlay			3
UD Major	MATH 300	Introduction to Mathematical Proof	3
UD Major	MATH 305	Mathematical Software	3
Free Elective			3
UWR			3
		Total:	15
SECOND SEMESTER (SPRING)			
UD Major	MATH 310	Linear Algebra Theory	3
UD Major	MATH 320	Abstract Algebra I	3
UD Major	MATH		3
UD Major	MATH		3
UD-C/Overlay			3
		Total :	15
THIRD SEMESTER (FALL)			
UD Major	MATH 330	Analysis I	3
UD Major	MATH		3
UD Major	MATH		3
UD-D/Overlay			3
Free Elective			3
		Total:	15
FOURTH SEMESTER (SPRING)			
UD Major	MATH 493	Senior Seminar	3
UD Major	MATH		3
UD Major	MATH		3
Free Elective			3
Free Elective			3
		Total:	15
		Grand Total:	60