## **MATHEMATICS MINOR**

Natural Sciences, Mathematics, and Engineering (nsme) (https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/)

Mathematics Department (https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/mathematics-department/)

Department Chair: Maureen E. Rush

Office: Science Building III, Room 228

Phone: (661) 654-3151 Email: math@csub.edu

www.csub.edu/math/ (http://www.csub.edu/math/)

Program Maps for Natural Sciences, Mathematics, and Engineering (https://programmap.csub.edu/academics/interest-clusters/4e942a6e-b8e4-4b60-a1ae-334235acc581/)

## **Program Requirements**

Although no minor is required for the BS degree in Mathematics, a minor in Mathematics is available. The requirement is 16 units.

Code	Title	Units	
Minor Requirements <sup>1</sup>			
Lower Division			
Select at least 8 units of lower division courses			
MATH 2020	Calculus for Biological & Chemical Sciences II		
MATH 2320	Single Variable Calculus II for Engineers		
MATH 2520	Single Variable Calculus II		
MATH 2533	Multivariable and Vector Calculus		
MATH 2540	Ordinary Differential Equations		
Upper Division			
Select at least 8 units of upper division courses			
MATH 3000	Mathematical Foundations		
MATH 3130	Geometry, Measurement, and Fractions for the Middle Grades		
MATH 3140	Statistics, Data Analysis, and Mathematical Modeling for the Middle Grades		
MATH 3150	Focus on Algebra for the Middle Grades		
MATH 3200	Probability Theory		
MATH 3210	Applied Statistical Computing and Multivariate Methods		
MATH 3300	Numerical Analysis		
MATH 3310	Discrete Mathematical Modeling		
MATH 3400	Euclidean Geometry		
MATH 3500	Complex Variables		
MATH 3520	Analysis I		
MATH 3600	Modern Algebra		
MATH 3620	Abstract Algebra I		
MATH 4110	Introduction to the History of Mathematics		
MATH 4120	Modern Mathematics for Teachers		
MATH 4200	Mathematical Statistics		

Total Units	16		
MATH 462	20 Abstract Algebra II		
MATH 461	0 Linear Algebra II		
MATH 460	00 Number Theory		
MATH 452	20 Analysis II		
MATH 450	00 Partial Differential I	Equations	
MATH 430	00 Applied Cryptograp	Applied Cryptography	
MATH 422	20 Design and Analysi	s of Experiments	
MATH 421	0 Regression Modelin	ng and Analysis	

An upper division course that does not count is MATH 3120 Geometry, Probability, and Statistics for Preservice Elementary Teachers. A minimum of eight upper division units must be completed at California State University, Bakersfield. Only one of these courses can also be counted towards the student's major.