

**CSUSB Department of Mathematics**  
**BS in Mathematics - Teaching Mathematics Concentration**

<b>BS – Teaching Mathematics Concentration Requirements</b>	<b>Units (63 – 64)</b>
<b>Lower Division Requirements</b>	26 – 27 total
Select one of the following: CSE 1100 - Critical Thinking through Computer Programming CSE 1250 - Programming Basics CSE 2010 - Computer Science I	3 – 4
MATH 2210 - Calculus I	4
MATH 2220 - Calculus II	4
MATH 2265 - Statistics with Applications	3
MATH 2310 - Applied Linear Algebra	4
MATH 2320 - Multivariable Calculus	4
MATH 2900 - Problem Solving and Mathematical Reasoning for Teachers I	4
<b>Upper Division Requirements</b>	31 total
MATH 3100 - Mathematical Thinking: Communication and Proof	4
MATH 3329 - Euclidean Geometry with Transformations	3
MATH 3345 - Number Theory	3
MATH 3460 - Probability Theory	3
MATH 3480 - Topics in History of Mathematics	3
MATH 4300 - Real Analysis	4
MATH 4600 - Theory of Rings and Fields	4
MATH 4900 - Problem Solving and Mathematical Reasoning for Teachers II	4
MATH 5900 - Senior Seminar for Future Mathematics Educators	3
<b>Electives</b>	6 total
<b>Two courses (6 units) selected from the following with at least one course from Group A.</b>	
<b>Group A</b>	
MATH 5170 - Complex Analysis MATH 5300 - Advanced Real Analysis MATH 5310 - Advanced Linear Algebra MATH 5529 - Advanced Topics in Geometry MATH 5550 - Introduction to Topology MATH 5565 - Mathematical Statistics MATH 5600 - Group Theory	
<b>Group B</b>	
MATH 2270 – Differential Equations with Dynamical Systems I MATH 3140 - Introduction to Systems Modeling MATH 3320 - Mathematical Interest Theory MATH 3372 - Combinatorics MATH 3770 - Introduction to Graph Theory MATH 4320 - Introduction to Actuarial Modeling MATH 4360 - Linear Statistical Models MATH 4485 - Differential Geometry MATH 5510 - Topics in Advanced Mathematics MATH 5580 - CSUSB to PhD Bridge MATH 5953 - Independent Study	