

CSUSB Department of Mathematics
BS in Mathematics - General Mathematics Concentration

BS - General Mathematics Concentration Requirements	Units (67 - 70)
Lower Division Requirements	28 – 31 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 2270 - Differential Equations with Dynamical Systems I	3
MATH 2310 - Applied Linear Algebra	4
MATH 2320 - Multivariable Calculus	4
In addition to the lower-division CSE requirement, select one 2000-level course from the list on page 2	3 - 5
Upper Division Requirements	24 total
MATH 3100 - Mathematical Thinking: Communication and Proof	4
MATH 3329 - Euclidean Geometry with Transformations	3
MATH 3345 - Number Theory	3
MATH 4300 - Real Analysis	4
MATH 4600 - Theory of Rings and Fields	4
MATH 5300 - Advanced Real Analysis	3
MATH 5600 - Group theory	3
Electives	15 total
Five courses (15 units) selected from the following with at least one course from each of Group A, Group B, and Group C	
Group A	
MATH 3372 - Combinatorics MATH 3770 - Introduction to Graph Theory	
Group B	
MATH 4270 - Differential Equations with Dynamical Systems II MATH 4455 - Partial Differential Equations & Fourier Analysis	
Group C	
MATH 4485 - Differential Geometry MATH 5170 - Complex Analysis MATH 5310 - Advanced Linear Algebra MATH 5529 - Advanced Topics in Geometry MATH 5550 - Introduction to Topology	
Group D	
MATH 3320 - Mathematical Interest Theory MATH 3460 - Probability Theory MATH 3480 - Topics in History of Mathematics MATH 4320 - Introduction to Actuarial Modeling MATH 4360 - Linear Statistical Models MATH 5510 - Topics in Advanced Mathematics MATH 5565 - Mathematical Statistics MATH 5580 - CSUSB to PhD Bridge MATH 5953 - Independent Study PHIL 3560 - Philosophy of Logic and Mathematics	

Lower Division Requirements

In addition to the lower-division CSE requirement, select one 2000-level course from the following:

BIOL 2010*, BIOL 2160, BIOL 2170, BIOL 2180, CHEM 2050, CHEM 2070, CHEM 2100, CSE 2010*, ECON 2201, ECON 2202, GEOL 2040, GEOG 2040, GEOG 2249, GEOG 2250, PHIL 2100, PHYS 2000, or PHYS 2500

*Note course has prerequisite(s)