BS – Teaching Mathematics Concentration Requirements | Units (63 – 64) | Quarter Equivalent
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**Lower Division Requirements** | 26 – 27 total | 
Select one of the following:
CSE 1100 - Critical Thinking through Computer Programming | 3 – 4 | CSE 201
CSE 1250 - Programming Basics | 3 – 4 | CSE 201
CSE 2010 - Computer Science I | 3 – 4 | CSE 201
MATH 2210 - Calculus I | 4 | Math 211/212
MATH 2220 - Calculus II | 4 | Math 212/213
MATH 2265 - Statistics with Applications | 3 | Math 262
MATH 2310 - Applied Linear Algebra | 4 | Math 251/331
MATH 2320 - Multivariable Calculus | 4 | Math 252
MATH 2900 - Problem Solving and Mathematical Reasoning for Teachers I | 4 | Math 199/299

**Upper Division Requirements** | 31 total | 
MATH 3100 - Mathematical Thinking: Communication and Proof | 4 | None
MATH 3329 - Euclidean Geometry with Transformations | 3 | Math 329
MATH 3345 - Number Theory | 3 | Math 345
MATH 3460 - Probability Theory | 3 | Math 465
MATH 3480 - Topics in History of Mathematics | 3 | Math 480
MATH 4300 - Real Analysis | 4 | Math 553
MATH 4600 - Theory of Rings and Fields | 4 | Math 546*
MATH 4900 - Problem Solving and Mathematical Reasoning for Teachers II | 4 | Math 399/499
MATH 5900 - Senior Seminar for Future Mathematics Educators | 3 | Math 599

**Electives** | 6 total | 
Two courses (6 units) selected from the following with at least one course from Group A.

**Group A**
MATH 5170 - Complex Analysis | Math 557
MATH 5300 - Advanced Real Analysis | Math 554
MATH 5310 - Advanced Linear Algebra | Math 531
MATH 5529 - Advanced Topics in Geometry | Math 529
MATH 5550 - Introduction to Topology | Math 555
MATH 5565 - Mathematical Statistics | Math 565
MATH 5600 - Group Theory | Math 545

**Group B**
MATH 2270 – Differential Equations with Dynamical Systems I | Math 270
MATH 3140 - Introduction to Systems Modeling | None
MATH 3320 - Mathematical Interest Theory | Math 320
MATH 3372 - Combinatorics | Math 372
MATH 3770 - Introduction to Graph Theory | None
MATH 4320 - Introduction to Actuarial Modeling | None
MATH 4360 - Linear Statistical Models | None
MATH 4485 - Differential Geometry | Math 485
MATH 5510 - Topics in Advanced Mathematics | Math 510
MATH 5953 - Independent Study | Math 595

*Note: Students completing quarter requirements under semesters who need Math 545 should complete Math 4600 to substitute for Math 545. They can then take Math 5600 as an elective. If a student has completed Math 545 on quarters and needs an elective, they can take Math 4600 to substitute for the Math 546 elective

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