MATHEMATICS DEGREE REQUIREMENTS

Effective Fall 2015

Core Requirements for All Math Majors

A. Math 2A 2B 2D/H2D 3A 3D 13
B. Math 9
C. One of the following sequences:
   - Chem 1A B C
   - Physics 7C D E
   - Physics 2 7C 7D
   - Physics 2 7C 7E

Upper-div: Math 120A 121A 130A 140A 140B

No specialization/concentration (Pure Mathematics)

Core requirements for all Mathematics Majors plus:
- Math 2E/H2E
- Math 120B 121B 147
- Five additional 4-unit math courses (100-189):

Specialization in Mathematical Biology

Core requirements for all Mathematics Majors plus:
- Math 2E/H2E
- Math 120B 121B 147
- Five additional 4-unit math courses (100-189):

Concentration in Mathematical Finance

Core requirements for all Mathematics Majors plus:
- Math 2E/H2E
- Math 130B 133A 176

A. Three elective courses from:
   - Math:
     105A/LA 105B/LB 107/L
     112A 112B 112C
     115 117 118 119
     121B 130C 133B 140C

B. Eight required economics courses:
   - Econ 20A 20B
   - Econ 105A 105B 105C
   - Econ 122A
   - Econ 132A
   - Econ 134A

Specialization in Applied and Computational Mathematics

Core requirements for all Mathematics Majors plus:
- Math 2E/H2E
- All of the following:
  - Math 105A/LA 105B/LB 112A 112B 115 121B
- Three elective courses from:
  - Math:
    107/107L 112C 117
    118 130B 130C
    133A 133B 140C 176
- Two approved upper-division courses in an area of application outside of Mathematics. Approval must be obtained in advance from the advisor for this specialization. The student is responsible for satisfying any prerequisites for these courses.

Elec. #1. Elec. #2.

Concentration in Mathematics for Education/Secondary Teaching Certification

Core requirements for all Mathematics Majors plus:
- Math 8
- Math 105A/LA 120B 130B 150 161 180A 184 184L
- One additional math course numbered 100-189:
- Physical Sciences 5 105

Specialization in Mathematics for Education

Core requirements for all Mathematics Majors plus:
- Math 8
- Math 105A/LA 120B 130B 150 161 180A 184 184L
- One additional math course numbered 100-189:
- Physical Sciences 5 105
- Chemistry/Physics 193
- Education 55 109 143A 143B 148
- Two quarters of Education 158

This concentration allows students to earn a bachelor’s degree and complete the required coursework and field experience for a California Preliminary Single Subject Teaching Credential at the same time.

NOTE: Students may pursue either the concentration in Mathematics for Education/Secondary Teaching Certification OR the specialization in Mathematics for Education, but not both.

Concentration in Mathematics for Education/Secondary Teaching Certification

Admission requires approval in advance. The admission process begins with completing an Intent form at the Cal Teach Resource and Advising Center.

Core requirements for all Mathematics Majors plus:
- Math 8
- Math 105A/LA 120B 130B 150 161 180A 184 184L
- One additional math course numbered 100-189:
- Physical Sciences 5 105
- Chemistry/Physics 193
- Education 55 109 143A 143B 148
- Two quarters of Education 158

This concentration allows students to earn a bachelor’s degree and complete the required coursework and field experience for a California Preliminary Single Subject Teaching Credential at the same time.

NOTE: Students may pursue either the concentration in Mathematics for Education/Secondary Teaching Certification OR the specialization in Mathematics for Education, but not both.