MATHMATICS DEGREE REQUIREMENTS

- **Core Requirements for All Math Majors**
  
  A. Math 2A 2B 2D/H2D 3A 3D 13
  
  B. E/CEE/MAE/EECS 10/EECS 12 OR ICS 31 OR Physics 53
  
  C. One of the following sequences:
  1. Chem 1A B C
  2. Physics 7C 7D 7E
  3. Physics 2 7C 7D
  4. 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 117
  
  Five additional 4-unit math courses (100-189):
  
  112A 112B 113A 113B 115 117 118 119
  
  121B 130C 133B 140C

- **Specialization in Mathematical Biology**
  
  Admission requires approval in advance from the Math Dept (RH 340). An application should be completed before the end of the junior year.

  Core requirements for all Mathematics Majors plus:
  
  Math 2E/H2E
  
  Five courses from:
  
  Econ 105A 105B 105C Econ 122A OR 123A Econ 132A Econ 134A

- **Specialization in Applied and Computational Mathematics**
  
  Admission requires approval in advance from the Math Dept (RH 340). An application should be completed before the end of the junior year.

  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 Mathematical Finance**
  
  Admission requires approval in advance from the Math Dept (RH 340). An application should be completed before the end of the junior year.

  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 OR 123A Econ 132A Econ 134A

- **Specialization 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 AND
  
  One additional math course numbered 100-189:
  
  Physical Sciences 5 105

- **Concentration in Mathematics for Education**
  
  Admission requires approval in advance from the Math Dept (RH 340). An application should be completed before the end of the junior year.

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