

# MATHEMATICS DEGREE REQUIREMENTS

## • Core Requirements for All Mathematics •

A. Math 2A \_\_\_ 2B \_\_\_ 2D/H2D \_\_\_  
3A/H3A \_\_\_ 3D \_\_\_ 13 \_\_\_

B. Math 9 \_\_\_

C. One of the following sequences:

- Chem 1A \_\_\_ B \_\_\_ C \_\_\_ ; or
- Physics 7C \_\_\_ D \_\_\_ E \_\_\_ ; or
- Physics 7C \_\_\_ Stats 7 \_\_\_ Math 10 \_\_\_

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):  
\_\_\_\_\_  
\_\_\_\_\_

## For ALL Specializations/Concentrations (EXCEPT CalTeach)

An application should be completed at least 3 quarters prior to graduation. **Admission into a concentration or specialization is not guaranteed.** The department may limit the number of students admitted into this concentration during impacted years.

<http://www.math.uci.edu/undergraduate-studies/concentrations-and-specializations>

## • Concentration in Mathematical Finance •

**Core requirements for all Mathematics Majors plus:**

Replace Item C in the Core Requirements with the following:

Physics 7C \_\_\_ Stats 7 \_\_\_ Math 10 \_\_\_

A. All of the following:

Math 2E/H2E \_\_\_ 120B \_\_\_ 121B \_\_\_  
130B \_\_\_ 130C \_\_\_ 134A \_\_\_ 134B \_\_\_  
134C \_\_\_ 147 \_\_\_

B. One elective courses from:

Math 105A/LA \_\_\_ 105B/LB \_\_\_ 110A \_\_\_  
173A \_\_\_ 176 \_\_\_  
CompSci 171 \_\_\_ 172B \_\_\_ 177 \_\_\_ 178 \_\_\_

C. Eight required economics courses:

Econ 20A \_\_\_ 20B \_\_\_  
Econ 105A \_\_\_ 105B \_\_\_ 105C \_\_\_  
Econ 122A \_\_\_ OR 123A \_\_\_  
Econ 132A \_\_\_  
Econ 134A \_\_\_ OR 161A \_\_\_

## • Concentration in Data Science •

**Core requirements for all Mathematics Majors plus:**

Math 2E/H2E \_\_\_

Replace Item C in the Core Requirements with the following:

Physics 7C \_\_\_ Stats 7 \_\_\_ Math 10 \_\_\_

A. All of the following:

Math 105A/LA \_\_\_ 105B/LB \_\_\_  
120B \_\_\_ 121B \_\_\_ 130B \_\_\_ 147 \_\_\_  
110A \_\_\_ 110B \_\_\_

B. Three elective courses from<sup>1</sup>:

Stats 110 \_\_\_  
I&C Sci 105 \_\_\_  
Math 115 \_\_\_ 117 \_\_\_ 118 \_\_\_ 130C \_\_\_  
133A \_\_\_ & 133B \_\_\_ OR 134A \_\_\_ &  
134B \_\_\_  
140C \_\_\_ 162A \_\_\_ 162B \_\_\_ 173A \_\_\_  
173B \_\_\_ 175 \_\_\_ 176 \_\_\_  
CompSci 171 \_\_\_ 172B \_\_\_ 177 \_\_\_  
178 \_\_\_ 179 \_\_\_ 183 \_\_\_ 184A \_\_\_ 184C \_\_\_

## • Specialization in Mathematical Biology •

**Core requirements for all Mathematics Majors plus:**

Math 2E/H2E \_\_\_

Replace Item C in the Core Requirements with the following:

- Bio Sci 93 \_\_\_ 94 \_\_\_ AND
- Two courses selected from:  
Chem 1A \_\_\_ 1B \_\_\_  
Bio Sci 97 \_\_\_  
Physics 2 \_\_\_ 7C \_\_\_ 7D \_\_\_

A. All of the following:

Math 105A/LA \_\_\_ 105B/LB \_\_\_  
112A \_\_\_ 112B \_\_\_ 113A \_\_\_ 113B \_\_\_  
115 \_\_\_

B. Two elective courses (at least one from Math (100-189). The second may be either upper-division Math or a 4-unit upper-division Biological Sciences course with advanced approval from the advisor for this specialization.

Elec. #1. \_\_\_\_\_ Elec. #2. \_\_\_\_\_

## • Specialization in Math for Education •

**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 \_\_\_

## • Specialization in Applied and Computational Mathematics •

**Core requirements for all Mathematics Majors plus:**

Math 2E/H2E \_\_\_

A. All of the following:

Math 105A/LA \_\_\_ 105B/LB \_\_\_  
112A \_\_\_ 112B \_\_\_ 115 \_\_\_ 121B \_\_\_

B. Three elective courses from:

Math 107/107L \_\_\_ 110A \_\_\_ 110B \_\_\_  
112C \_\_\_ 117 \_\_\_ 118 \_\_\_ 130B \_\_\_ 130C \_\_\_  
134A \_\_\_ & 134B \_\_\_ 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 •

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

**Core requirements for all Mathematics Majors plus:**

Math 8 \_\_\_

A. All of the following:

Math 105A/LA \_\_\_ 120B \_\_\_  
130B \_\_\_ 150 \_\_\_ 161 \_\_\_ 180A \_\_\_  
184 \_\_\_ 184L \_\_\_ AND

One additional math course numbered 100-189: \_\_\_\_\_

B. All of the following:

Phy Sci 5 \_\_\_ 105 \_\_\_

Chem/Physics 193 \_\_\_

Educ 55 \_\_\_ 109 \_\_\_ 143AW \_\_\_ 143BW \_\_\_  
148 \_\_\_ AND  
two quarters of Educ 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.

**UCI SCHOOL OF PHYSICAL SCIENCES**  
**UNIVERSITY / GENERAL EDUCATION REQUIREMENTS**

NAME \_\_\_\_\_ STUDENT ID \_\_\_\_\_

Other Colleges \_\_\_\_\_

**UNIVERSITY REQUIREMENTS:**

English (UC ELW) \_\_\_\_\_ American History \_\_\_\_\_ Institutions \_\_\_\_\_

**RESIDENCY REQUIREMENTS:**

36 of the final 45 units must be completed at UCI \_\_\_\_\_

**UNIT REQUIREMENT:** 180 units are required for graduation \_\_\_\_\_

**GPA REQUIREMENT AND STANDING:**

Overall GPA of 2.0 \_\_\_\_\_ GPA in major at least a 2.0 \_\_\_\_\_

GPA in upper-division major classes at least a 2.0 \_\_\_\_\_

**TRANSFER STUDENTS:**

Partial IGETC \_\_\_\_\_

Full IGETC \_\_\_\_\_

cert received? yes \_\_\_\_\_ no \_\_\_\_\_

General Education (GE) Requirements	Fall	Winter	Spring
<b>I. Writing (2 lower-division, 1 upper-division)</b> <input type="checkbox"/>	<b>Freshman</b>		
1.	Math 2A	Math 2B	Math 2D
2.	GEN ED/Elective	Phys 7C, 7LC	Phys 7D, 7LD
3.	GEN ED/Elective	Math 13	GEN ED/Elective
	GEN ED/Elective	GEN ED/Elective	GEN ED/Elective
<b>II. Science &amp; Technology (any 3)</b> <input type="checkbox"/>	<b>Sophomore</b>		
1.	Math 2E	Math 3A	Math 3D
2.	Phys 7E	Math 9	GEN ED/Elective
3.	GEN ED/Elective	GEN ED/Elective	GEN ED/Elective
	GEN ED/Elective	GEN ED/Elective	GEN ED/Elective
<b>III. Social &amp; Behavioral Sciences (any 3)</b> <input type="checkbox"/>	<b>Junior</b>		
1.	Math 130A	Math 140A	Math 140B
2.	Math 120A	Math 120B	Math 141
3.	GEN ED/Elective	GEN ED/Elective	GEN ED/Elective
	GEN ED/Elective	GEN ED/Elective	GEN ED/Elective
<b>IV. Arts &amp; Humanities (any 3)</b> <input type="checkbox"/>	<b>Senior</b>		
1.	Math 121A	Math 121B	Math 115
2.	Math 150	Math 147	GEN ED/Elective
3.	Math 112A	Math 180A	GEN ED/Elective
	GEN ED/Elective	GEN ED/Elective	GEN ED/Elective
<b>V. Quantitative, Symbolic and Computational Reasoning</b> <input type="checkbox"/>	(sample program, your schedule may differ greatly)		
Va.			
Vb.			
Va or Vb.			
<b>VI. Language Other than English</b> <input type="checkbox"/>	Mathematics Department: <a href="http://www.math.uci.edu/">http://www.math.uci.edu/</a>		
1C or equivalent	Enrollment questions: <a href="http://www.math.uci.edu/undergraduate">http://www.math.uci.edu/undergraduate</a>		
	Mathematics tutoring: <a href="http://www.math.uci.edu/undergrad-courses/tutoring-assistance">http://www.math.uci.edu/undergrad-courses/tutoring-assistance</a>		
<b>VII. Multicultural Studies (one course)</b> <input type="checkbox"/>	How to find research: <a href="http://ps.uci.edu/stuaff/content/research">http://ps.uci.edu/stuaff/content/research</a>		
	Course offerings: <a href="http://www.math.uci.edu/undergrad-courses/plan-math-course-offerings">http://www.math.uci.edu/undergrad-courses/plan-math-course-offerings</a>		
<b>VIII. International/Global Issues (one course)</b> <input type="checkbox"/>			