

MATHEMATICS TEACHING CONCENTRATION

<https://math.illinois.edu/academics/undergraduate-program-mathematics>

For the Degree of Bachelor of Science in Liberal Arts and Sciences Major in Mathematics, Mathematics Teaching Concentration

E-mail: mathadvising@illinois.edu

Minimum required course work normally equates to 80-84 hours including 27-29 hours of mathematics beyond calculus, 3-4 hours of computer science, and 39 hours for the Teacher Education Minor in Secondary School Teaching.

General education: Students must fulfill the Campus General Education (<https://courses.illinois.edu>) requirements including the campus general education language requirement.

Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

Minimum hours required for graduation: 120 hours

This concentration fulfills state certification requirements to teach high school math (grades 9-12) through the AP/honors level.

Students in this concentration must complete the Teacher Education Minor in Secondary School Teaching (39 hours). See the College of Education section for requirements of the minor (<http://catalog.illinois.edu/undergraduate/education/secondary>).

Time to degree completion varies. Minimum time to completion is 8 semesters, with some students requiring 10 semesters. Transfer students may need 10 total semesters combined to complete the program. Please see the LAS section in the transfer handbook (https://admissions.illinois.edu/Content/docs/Handbook_LAS.pdf) for more information.

To remain in good standing in this program and be recommended for certification, candidates are required to maintain UIUC, cumulative, content area, and professional education grade-point averages of 2.5 (A= 4.0). Candidates should consult their adviser or the Council on Teacher Education for the list of courses used to compute these grade-point averages.

Departmental distinction: Distinction will be awarded on the basis of selection of 400-level courses in mathematics and the grade point average. Graduation with High Distinction or Highest Distinction in Mathematics requires participation in the Program for Distinction in Mathematics or Mathematics Education. Full details are available at the departmental website.

Code	Title	Hours
Foundation Courses		

The following courses must be completed or in progress when students apply to the Secondary Education minor.

MATH 220	Calculus	4-5
----------	----------	-----

	or MATH 220 Calculus I	
MATH 231	Calculus II	3
MATH 241	Calculus III ¹	4
Three advanced mathematics courses, including		
MATH 347	Fundamental Mathematics	3-4
	or MATH 348 Fundamental Mathematics-ACP	
Required Core Courses		
MATH 416	Abstract Linear Algebra ²	3
MATH 417	Intro to Abstract Algebra	3
	or MATH 420 Honors Abstract Algebra	
MATH 424	Honors Real Analysis ³	3
	or MATH 447 Elementary Real Analysis	
	or MATH 448 Real Variables	
MATH 461	Probability Theory ⁴	3-4
	or STAT 400 (Statistics and Probability I)	
CS 101	Intro Computing: Engrg & Sci	3-4
	or CS 125 Intro to Computer Science	
Teacher Education Minor in Secondary School Teaching		39
http://catalog.illinois.edu/undergraduate/education/secondary		
Mathematics Teaching Courses		
MATH 402	Non Euclidean Geometry	3
	or MATH 400 Euclidean Geometry	
MATH 453	Elementary Theory of Numbers	3
Two additional 400- or 500-level mathematics courses		6
Total Hours		80-84

¹ Students should have credit for MATH 220/MATH 221 and MATH 231 before enrolling in MATH 241.

² Students may not receive credit for both MATH 416 and either ASRM 406 (formerly MATH 410) or MATH 415.

³ If MATH 424 or MATH 447 is completed, a requirement for the Graduate Preparatory concentration has been satisfied.

⁴ If STAT 400 is completed, a group requirement for the Operations Research concentration has been satisfied.