Mathematics Teaching Program

for the degree of Bachelor of Science in Liberal Arts & Sciences Major in Mathematics, Mathematics Teaching Concentration

department website: https://math.illinois.edu/
department faculty: Mathematics Faculty
advising: Math advising
overview of college admissions & requirements: Liberal Arts & Sciences
college website: https://las.illinois.edu/
email: mathadvising@illinois.edu

Mathematics is a broad discipline that contains a range of areas of specialization within it. The required core courses provide fundamental background for mathematics in general. The concentrations allow the student to broaden this background or begin to specialize. Students must complete the core courses and a concentration.

An entering student in mathematics should have academic preparation to enroll in MATH 220 during the first semester. Admission to MATH 220 (http://catalog.illinois.edu/search/?P=MATH%20220) requires an acceptable ALEKS score. A student should attain grades of B in calculus in order to complete the advanced courses successfully.

Undergraduate programs in Mathematics
Actuarial Science, BSLAS (http://catalog.illinois.edu/undergraduate/las/actuarial-science-bslas)
Mathematics, BSLAS (http://catalog.illinois.edu/undergraduate/las/mathematics-bslas/#text)
Mathematics & Computer Science, BSLAS (http://catalog.illinois.edu/undergraduate/eng_las/mathematics-computer-science-bslas)

for the degree of Bachelor of Science in Liberal Arts & Sciences Major in Mathematics, Mathematics Teaching Concentration

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

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.

General education: Students must complete the Campus General Education requirements including the campus general education language requirement.
Minimum required major and supporting 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. Twelve hours of 300- and 400-level in the major must be taken on this campus.
Minimum hours required for graduation: 120 hours.
Students in this concentration must complete the Teacher Education Minor in Secondary School Teaching (39 hours).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Calculus or MATH 220 calculus I</td>
<td>4-5</td>
</tr>
<tr>
<td>MATH 231</td>
<td>Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 241</td>
<td>Calculus III 1</td>
<td>4</td>
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<tr>
<td>MATH 347</td>
<td>Fundamental Mathematics or MATH 34 Fundamental Mathematics-ACP</td>
<td>3-4</td>
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Required Core Courses

MATH 416 Abstract Linear Algebra 2 3
MATH 417 Intro to Abstract Algebra or MATH 42 Honors Abstract Algebra
MATH 424 Honors Real Analysis 3 or MATH 44 Honors Real Analysis or MATH 44 Real Variables
MATH 461 Probability Theory 4 or STAT 40K Statistics and Probability I
CS 101 Intro Computing: Engrg & Sci or CS 125 Intro to Computer Science

Teacher Education Minor in Secondary School Teaching

Mathematics Teaching Courses

MATH 402 Non Euclidean Geometry
or MATH 40K Euclidean Geometry
MATH 453 Elementary Theory of Numbers
Two additional 400- or 500-level mathematics courses

Total Hours 80-84

Information listed in this catalog is current as of 04/2020
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.

Requirements for the Teacher Education in Secondary School Teaching Minor

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDUC 201</td>
<td>Identity and Difference in Education</td>
<td>3</td>
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<tr>
<td>EDUC 202</td>
<td>Social Justice, School and Society</td>
<td>3</td>
</tr>
<tr>
<td>CI 401</td>
<td>Introductory Teaching in a Diverse Society</td>
<td>3</td>
</tr>
<tr>
<td>CI 403</td>
<td>Teaching a Diverse High School Student Population</td>
<td>3</td>
</tr>
<tr>
<td>CI 404</td>
<td>Teaching and Assessing Secondary School Students</td>
<td>3</td>
</tr>
<tr>
<td>CI 473</td>
<td>Disciplinary Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 201</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 485</td>
<td>Assessing Student Performance</td>
<td>3</td>
</tr>
<tr>
<td>SPED 405</td>
<td>General Educator's Role in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDPR 442</td>
<td>Educational Practice in Secondary Education</td>
<td>12</td>
</tr>
</tbody>
</table>

Total Hours: 39-40

1. EDUC 201, EDUC 202 and EPSY 201 can be completed at any time during the degree and are not pre-requisites to apply for the minor.

2. PSYC 100 is a pre-requisite for EPSY 201.

Information listed in this catalog is current as of 04/2020