# Mathematics

**MATH 402  Non Euclidean Geometry**  credit: 3 OR 4 hours.

Historical development of geometry; includes tacit assumptions made by Euclid; the discovery of non-Euclidean geometries; geometry as a mathematical structure; and an axiomatic development of plane geometry. 4 hours of credit requires approval of the instructor and department with completion of additional work of substance. Prerequisite: MATH 241; MATH 347 or MATH 348, or equivalent; or consent of instructor.

This course satisfies the General Education Criteria for a:
Quantitative Reasoning II

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>37929</td>
<td>Lecture-Discussion</td>
<td>C13</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>147 - Altgeld Hall</td>
<td>Kerman, E</td>
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<td>-</td>
<td>Francis, G Woods, D</td>
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</table>

Credit Hours: 3 hours
Quant Reasoning II course.
Open to both undergraduate and graduate students.

Credit Hours: 4 hours
Quant Reasoning II course.
Instructor Approval Required
Not intended for Undergrad - Urbana-Champaign.
Instructor approval forms available in 313 Altgeld Hall.

Credit Hours: 3 hours
Online
Quant Reasoning II course.
Departmental Approval Required
Quant Reasoning II course.
Instructor Approval Required
Restricted to NDEG:Grad Nondegree-CE-UIUC or NDEG:Undergrad Nondeg-CE-UIUC.
Academic Outreach restrictions and assessments apply, see http://www.outreach.uiuc.edu. Enrollment in this course section is
restricted to nondegree students only, and prospective nondegree students must first obtain the instructor?s approval. Degree
seeking students should go to the UIUC class schedule to identify a section they are eligible to enroll in. Please e-mail Prof. George
Francis at gfrancis@illinois.edu to seek approval to take the course. This course is not available to high school students. The
prerequisites are Math 347/348 or the equivalent in the fundamentals of mathematical discourse and proofs.
Graduate - Urbana-Champaign OCE Tuition $339.00 per Bill Hour, Undergrad - Urbana-Champaign OCE Tuition $304.00 per Bill
Hour, and OCE Fees $50.00 per Bill Hour.