**Mathematics**

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

(MATH 302) 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. 3 undergraduate hours. 3 or 4 graduate hours. 4 hours of credit requires approval of the instructor and completion of additional work of substance. Prerequisite: MATH 242 or MATH 243; MATH 347 or MATH 348 or equivalent experience; 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>
</tr>
</thead>
<tbody>
<tr>
<td>32099</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>Francis, G</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Quant Reasoning II course.

| 39112 | Lecture-Discussion | C14     | 10:00 AM - 10:50 AM | MWF  | 147 - Altgeld Hall | Francis, G |

Credit Hours: 4 hours
Quant Reasoning II course.
Instructor Approval Required
Restricted to Graduate - Urbana-Champaign.

| 32102 | Lecture-Discussion | D13     | 11:00 AM - 11:50 AM | MWF  | 147 - Altgeld Hall | Francis, G |

Credit Hours: 3 hours
Quant Reasoning II course.

| 39113 | Lecture-Discussion | D14     | 11:00 AM - 11:50 AM | MWF  | 147 - Altgeld Hall | Francis, G |

Credit Hours: 4 hours
Quant Reasoning II course.
Instructor Approval Required
Restricted to Graduate - Urbana-Champaign.