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. 3 or 4 undergraduate hours. 3 or 4 graduate hours. 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>
</tr>
</thead>
<tbody>
<tr>
<td>32102</td>
<td>Lecture-Discussion</td>
<td>F13</td>
<td>02:00 PM - 02:50 PM</td>
<td>MWF</td>
<td>243 - Altgeld Hall</td>
<td>Cliff, E</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Quantitative Reasoning II course.

| 39113 | Lecture-Discussion  | F14     | 02:00 PM - 02:50 PM | MWF  | 243 - Altgeld Hall | Cliff, E   |

Credit Hours: 4 hours
Quantitative Reasoning II course.
Instructor Approval Required
Restricted to Graduate - Urbana-Champaign.
Graduate students requesting the 4 credit hour section must first register for the 3 hour section. If the instructor is willing to offer extra work to graduate students for the 4-hour section, students can get an approval form from 313 Altgeld Hall between the first day of the semester and the 8th week of the semester.

| 32099 | Lecture-Discussion  | X13     | 12:00 PM - 12:50 PM | MWF  | 347 - Altgeld Hall | Walsberg, E|

Credit Hours: 3 hours
Quantitative Reasoning II course.

| 39112 | Lecture-Discussion  | X14     | 12:00 PM - 12:50 PM | MWF  | 347 - Altgeld Hall | Walsberg, E|

Credit Hours: 4 hours
Quantitative Reasoning II course.
Instructor Approval Required
Restricted to Graduate - Urbana-Champaign.
Graduate students requesting the 4 credit hour section must first register for the 3 hour section. If the instructor is willing to offer extra work to graduate students for the 4-hour section, students can get an approval form from 313 Altgeld Hall between the first day of the semester and the 8th week of the semester.