Mathematics

MATH 417  **Intro to Abstract Algebra**  credit: 3 OR 4 hours.
Fundamental theorem of arithmetic. Congruencies, groups and group actions, Polya counting, rings, fields, and roots of polynomials. Emphasizes proofs. 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 415 and either MATH 347 or MATH 348; 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>37997</td>
<td>Lecture-Discussion</td>
<td>C13</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>145 - Altgeld Hall</td>
<td>Bergvelt, M</td>
</tr>
</tbody>
</table>

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

| 37999 | Lecture-Discussion    | C14     | 10:00 AM - 10:50 AM | MWF  | 145 - Altgeld Hall | Bergvelt, M |

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.

| 38000 | Lecture-Discussion    | E13     | 01:00 PM - 01:50 PM | MWF  | 147 - Altgeld Hall | Ullom, S   |

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

| 38009 | Lecture-Discussion    | E14     | 01:00 PM - 01:50 PM | MWF  | 147 - Altgeld Hall | Ullom, S   |

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.