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>32108</td>
<td>Lecture-Discussion</td>
<td>C13</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>159 - Altgeld Hall</td>
<td>Bergvelt, M</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours  
Quant Reasoning II course.

| 32110| Lecture-Discussion    | C14     | 10:00 AM - 10:50 AM | MWF  | 159 - Altgeld Hall | Bergvelt, M |

Credit Hours: 4 hours  
Quant Reasoning II course.  
Instructor Approval Required

| 32103| Lecture-Discussion    | M13     | 09:00 AM - 10:20 AM | TR   | 341 - Altgeld Hall | Malkin, A  |

Credit Hours: 3 hours  
Quant Reasoning II course.

| 32106| Lecture-Discussion    | M14     | 09:00 AM - 10:20 AM | TR   | 341 - Altgeld Hall | Malkin, A  |

Credit Hours: 4 hours  
Quant Reasoning II course.  
Instructor Approval Required