Mathematics

MATH 447  **Real Variables**  credit: 3 OR 4 hours.
Careful development of elementary real analysis including such topics as completeness property of the real number system; basic topological properties of n-dimensional space; convergence of numerical sequences and series of functions; properties of continuous functions; and basic theorems concerning differentiation and Riemann integration. 3 undergraduate hours. 3 or 4 graduate hours. 4 hours of credit requires approval of the instructor and completion of additional work of substance. Credit is not given for both MATH 447 and MATH 444. Prerequisite: MATH 241 or equivalent; junior standing; 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>
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<tbody>
<tr>
<td>32136</td>
<td>Lecture-Discussion</td>
<td>B13</td>
<td>09:00 AM - 09:50 AM</td>
<td>MWF</td>
<td>345 - Altgeld Hall</td>
<td>Nikolaev, I</td>
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<tr>
<td>32137</td>
<td>Lecture-Discussion</td>
<td>B14</td>
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<td>MWF</td>
<td>345 - Altgeld Hall</td>
<td>Nikolaev, I</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Quant Reasoning II course.

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