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. Credit
is not given for both MATH 447 and MATH 444. 4 hours of credit requires approval of the instructor and completion of additional work
of substance. Prerequisite: MATH 241 or equivalent; junior standing; MATH 347 or MATH 348, or equivalent experience; or consent of
instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>38030</td>
<td>Lecture-Discussion</td>
<td>P13</td>
<td>11:00 AM - 12:20 PM</td>
<td>TR</td>
<td>1 - Illini Hall</td>
<td>Tumanov, A</td>
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</tbody>
</table>

Credit Hours: 3 hours
Open to both undergraduate and graduate students.

| 38031| Lecture-Discussion  | P14     | 11:00 AM - 12:20 PM| TR   | 1 - Illini Hall | Tumanov, A  |

Credit Hours: 4 hours
Instructor Approval Required
Not intended for Undergrad - Urbana-Champaign.
Instructor approval forms available in 313 Altgeld Hall beginning on the first day of Spring semester.