Mathematics

MATH 447  **Real Variables**  credit: 3 OR 4 hours.
Careful development of elementary real analysis for those who intend to take graduate courses in Mathematics. Topics include
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 either Math 424 or 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>
</tr>
</thead>
<tbody>
<tr>
<td>32136</td>
<td>Lecture-Discussion</td>
<td>B13</td>
<td>09:00 AM - 09:50 AM</td>
<td>MWF</td>
<td>147 - Altgeld Hall</td>
<td></td>
</tr>
<tr>
<td>32137</td>
<td>Lecture-Discussion</td>
<td>B14</td>
<td>09:00 AM - 09:50 AM</td>
<td>MWF</td>
<td>147 - Altgeld Hall</td>
<td></td>
</tr>
<tr>
<td>32138</td>
<td>Lecture-Discussion</td>
<td>C13</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>2 - Illini Hall</td>
<td></td>
</tr>
<tr>
<td>32139</td>
<td>Lecture-Discussion</td>
<td>C14</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>2 - Illini Hall</td>
<td></td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
This course is restricted to Mathematics majors initially, but the restriction will be removed during business hours on May 7, 2020.
Some seats are reserved for off-campus transfer students in majors requiring this course. Any remaining seats would be released on
the Friday before fall classes begin.

Credit Hours: 4 hours
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.