Mathematics

MATH 489  **Differential Equations II**  credit: 3 OR 4 hours.
Continuation of MATH 385. The course treats systems of linear differential equations (and includes the necessary matrix theory), and then concentrates on nonlinear systems, studying their dynamics by means of phase plane analysis and other methods. Applications of nonlinear systems to physics and biology will be given. 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 385 or MATH 386 or MATH 441.

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<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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<td>30810</td>
<td>Lecture-Discussion</td>
<td>E13</td>
<td>01:00 PM - 01:50 PM</td>
<td>MWF</td>
<td>145 - Altgeld Hall</td>
<td>Rapti, Z</td>
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<td><strong>Credit Hours:</strong> 3 hours</td>
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|       | **Credit Hours:** 4 hours  
Instructor Approval Required  
Restricted to Graduate - Urbana-Champaign.