Mathematics

MATH 442  Intro Partial Diff Equations  credit: 3 OR 4 hours.
Introduces partial differential equations, emphasizing the wave, diffusion and potential (Laplace) equations. Focuses on understanding the physical meaning and mathematical properties of solutions of partial differential equations. Includes fundamental solutions and transform methods for problems on the line, as well as separation of variables using orthogonal series for problems in regions with boundary. Covers convergence of Fourier series in detail. 3 or 4 undergraduate hours. 3 or 4 graduate hours. 4 hours of credit requires approval of the instructor and completion of additional work of substance. Prerequisite: One of MATH 284, MATH 285, MATH 286, MATH 441.

<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>30354</td>
<td>Lecture-Discussion</td>
<td>M13</td>
<td>09:30 AM - 10:50 AM</td>
<td>TR</td>
<td>156 - Henry Administration Bldg</td>
<td></td>
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</tbody>
</table>

Credit Hours: 3 hours
Restricted to Mathematics or Engineering Mechanics or Statistics & Computer Science major(s).
This course is restricted to Engineering Mechanics and Mathematics majors initially, but the restriction will be removed during business hours on April 17, 2019. 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.

| 39129| Lecture-Discussion | M14     | 09:30 AM - 10:50 AM | TR   | 156 - Henry Administration Bldg |            |

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.