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>
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<tr>
<td>57722</td>
<td>Lecture-Discussion</td>
<td>E13</td>
<td>01:00 PM - 01:50 PM</td>
<td>MWF</td>
<td>343 - Altgeld Hall</td>
<td>Dyachenko, S</td>
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<td>57723</td>
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<td>156 - Henry Administration Bldg</td>
<td>Dyachenko, S</td>
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</table>

Credit Hours: 3 hours
During early registration, Math 442 is restricted to majors specifically requiring the course. Restrictions will be removed during the business day on November 29, 2016. Students not already in those majors are welcome to register as soon as the restrictions have been removed.

Credit Hours: 4 hours
Departmental Approval Required
Restricted to Graduate - Urbana-Champaign.
Instructor approval forms available in 313 Altgeld Hall starting the first day of the spring semester.

Credit Hours: 3 hours
During early registration, Math 442 is restricted to majors specifically requiring the course. Restrictions will be removed during the business day on November 13, 2018. Students not already in those majors are welcome to register as soon as the restrictions have been removed.

Credit Hours: 4 hours
Instructor Approval Required
Not intended for Undergrad - 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.