Mathematics

MATH 553  **Partial Differential Equations**  credit: 4 hours.
Basic introduction to the study of partial differential equations; topics include: the Cauchy problem, power-series methods, characteristics, classification, canonical forms, well-posed problems, Riemann's method for hyperbolic equations, the Goursat problem, the wave equation, Sturm-Liouville problems and separation of variables, Fourier series, the heat equation, integral transforms, Laplace's equation, harmonic functions, potential theory, the Dirichlet and Neumann problems, and Green's functions. Prerequisite: Consent of instructor.

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<th>CRN</th>
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<tbody>
<tr>
<td>30827</td>
<td>Lecture-Discussion</td>
<td>P1</td>
<td>11:00 AM - 12:20 PM</td>
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<td>7 - Illini Hall</td>
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Restricted to Graduate - Urbana-Champaign. Not intended for MS:Economics:Policy Econ -UIUC or MS: Financial Engineering. Undergraduate students may register with approval. For more information go to room 313 AH. Students from the following programs must contact the Director of Graduate Studies in Mathematics  <Laugesen@illinois.edu> to request permission to register for the course: MS:Economics:Policy Econ -UIUC or MS: Financial Engineering.