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.

<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>39528</td>
<td>Lecture-Discussion</td>
<td>X1</td>
<td>12:00 PM - 12:50 PM</td>
<td>MWF</td>
<td>445 - Altgeld Hall</td>
<td>Tzirakis, N</td>
</tr>
</tbody>
</table>

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.