Mathematics

MATH 522  Lie Groups and Lie Algebras I  credit: 4 hours.
A general introduction to Lie groups and algebras and their representation theory. Theory of finite group representations, Lie groups
as matrix groups, and as differentiable manifolds, Lie algebras as tangent spaces and as abstract objects, and their representations.
Examples of the classical groups. May be repeated up to 8 hours. Prerequisite: Undergraduate linear algebra, abstract algebra, point
set topology, differentiation on manifolds.

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<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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</thead>
<tbody>
<tr>
<td>39210</td>
<td>Lecture-Discussion</td>
<td>M1</td>
<td>09:30 AM - 10:50 AM</td>
<td>TR</td>
<td>149 - Henry Administration Bldg</td>
<td>Athreya, J</td>
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</tbody>
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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, MS:Statistics -UIUC, MS:Statistics -- Applied -UIUC, MS: Statistics: Analytics, or MS:
Financial Engineering.