Mathematics

MATH 413  **Intro to Combinatorics**  credit: 3 OR 4 hours.
Permutations and combinations, generating functions, recurrence relations, inclusion and exclusion, Polya's theory of counting, and
block designs. Same as CS 413. 3 undergraduate hours. 3 or 4 graduate hours. 4 hours of credit requires approval of the instructor and
completion of additional work of substance. Prerequisite: MATH 347 or MATH 348 or equivalent experience.

<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>62937</td>
<td>Lecture-Discussion</td>
<td>E13</td>
<td>01:00 PM - 01:50 PM</td>
<td>MWF</td>
<td>245 - Altgeld Hall</td>
<td>Li, X</td>
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<tr>
<td>62938</td>
<td>Lecture-Discussion</td>
<td>E14</td>
<td>01:00 PM - 01:50 PM</td>
<td>MWF</td>
<td>245 - Altgeld Hall</td>
<td>Li, X</td>
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</tbody>
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Credit Hours: 3 hours
This course is restricted to Mathematics majors initially, but the restriction will be removed during business hours on April 18, 2018.

Credit Hours: 4 hours
Departmental 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.