**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>37943</td>
<td>Lecture-Discussion</td>
<td>C13</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>445 - Altgeld Hall</td>
<td>Lidicky, B</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Open to both undergraduate and graduate students. The math major restriction will be removed during the day of December 2, 2013. Other students are welcome to add the course once the restrictions are removed.

| 38722| Lecture-Discussion   | C14     | 10:00 AM - 10:50 AM | MWF  | 445 - Altgeld Hall | Lidicky, B |

Credit Hours: 4 hours
Instructor Approval Required
Not intended for Undergrad - Urbana-Champaign.
Instructor approval forms available in 313 Altgeld Hall beginning on the first day of spring semester.

| 60748| Lecture-Discussion   | D13     | 11:00 AM - 11:50 AM | MWF  | 345 - Altgeld Hall | Lidicky, B |

Credit Hours: 3 hours
Open to both undergraduate and graduate students. The math major restriction will be removed during the day of December 2, 2013. Other students are welcome to add the course once the restrictions are removed.

| 60749| Lecture-Discussion   | D14     | 11:00 AM - 11:50 AM | MWF  | 345 - Altgeld Hall | Lidicky, B |

Credit Hours: 4 hours
Instructor Approval Required
Not intended for Undergrad - Urbana-Champaign.
Instructor approval forms available in 313 Altgeld Hall beginning on the first day of spring semester.