## Mathematics

**MATH 415  Applied Linear Algebra**  credit: 3 OR 4 hours.

Introductory course emphasizing techniques of linear algebra with applications to engineering; topics include matrix operations, determinants, linear equations, vector spaces, linear transformations, eigenvalues, and eigenvectors, inner products and norms, orthogonality, equilibrium, and linear dynamical systems. 4 hours of credit requires approval of the instructor and department with completion of additional work of substance. Credit is not given for both MATH 415 and any of MATH 125, MATH 225, or MATH 410. Prerequisite: MATH 241 or consent of instructor.

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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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<tbody>
<tr>
<td>30979</td>
<td>Lecture-Discussion</td>
<td>B3</td>
<td>09:00 AM - 09:50 AM</td>
<td>MTWRF</td>
<td>341 - Altgeld Hall</td>
<td>Rotman, J</td>
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<td>Lecture-Discussion</td>
<td>B3</td>
<td>03:00 PM - 03:50 PM</td>
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Credit Hours: 3 hours  

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<tbody>
<tr>
<td>30978</td>
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<td>B4</td>
<td>09:00 AM - 09:50 AM</td>
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Credit Hours: 4 hours  
Departmental Approval Required  

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<td>31858</td>
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<td>EGR</td>
<td>ARRANGED</td>
<td>-</td>
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Online  
Restricted to MCS:Computer Sci Online -UIUC, MS:Mechanical Engineering -UIUC, or NDEG:Grad Nondegree-CE-UIUC.  
Meets 31-May-11 - 04-Aug-11.
Restricted to online non-degree, online MCS, and online MSME students. Online and Continuing Education (OCE) restrictions and assessments apply, see http://www.oce.illinois.edu. For more details on this course section, please see http://online.engineering.illinois.edu.descriptions/summer2011.htm.
OCE Tuition $925.00 per Bill Hour, and OCE Fees $50.00 per Bill Hour.