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.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
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page 1 - Mathematics, Spring 2012
Online
Restricted to MS: Civil Engr - Online - UIUC, MCS:Computer Sci Online -UIUC, MS:Mechanical Engineering -UIUC, or NDEG:Grad Nondegree-CE-UIUC.
Restricted to online non-degree, online MCS, online MSME and online MS CE students. Instructor permission and an extra substantive project are required for students enrolling for 4 hours. Online & 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/spring2012.htm.
OCE Tuition $988.00 per Bill Hour, and OCE Fees $50.00 per Bill Hour.

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Uses Mathematica courseware. See http://www.math.uiuc.edu/timetable/ for details. Open to both undergraduate and graduate students.

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