Engineering

ENG 491  Interdisciplinary Design Proj  credit: 1 TO 4 hours.
Disciplined, multi-department, team-structured project design experience with an overall (or major phase) end-of-term completion date. Projects involve design specification through a proposal, analyses of cost and other tradeoffs among alternative designs, design review, fabrication and assembly, functional and environmental testing, and demonstrations (as applicable). Reports and presentations at the end of each term. Individual engineering activities as well as team responsibilities. No graduate credit. Senior standing required. May be repeated. Credit toward the degree is determined by the student's major department. Prerequisite: Consent of instructor.

<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>39190</td>
<td>Laboratory-Discussion</td>
<td>470</td>
<td>04:00 PM - 05:50 PM</td>
<td>M</td>
<td>106B1 - Engineering Hall</td>
<td>Philpott, M</td>
</tr>
<tr>
<td>55653</td>
<td>Lecture</td>
<td>CU1</td>
<td>12:00 PM - 12:50 PM</td>
<td>MW</td>
<td>256 - Mechanical Engineering Bldg</td>
<td>Carney, P, Carroll, D, Coverstone, V</td>
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<tr>
<td>41432</td>
<td>Laboratory</td>
<td>CU2</td>
<td>12:00 PM - 12:50 PM</td>
<td>MW</td>
<td>106B6 - Engineering Hall</td>
<td>Carney, P, Carroll, D, Coverstone, V</td>
</tr>
<tr>
<td>45129</td>
<td>Laboratory</td>
<td>EWB</td>
<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
<td>Litchfield, J</td>
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<tr>
<td>56238</td>
<td>Lecture-Discussion</td>
<td>FEC</td>
<td>04:00 PM - 04:50 PM</td>
<td>TR</td>
<td>257 - Everitt Laboratory</td>
<td>Krein, P</td>
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<td>47381</td>
<td>Lecture</td>
<td>SD</td>
<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
<td>Wang, X</td>
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</table>

Credit Hours: 3 hours
Instructor Approval Required
Formula SAE design course

Small Satellite Design. ENG 491 section CU1 is a required prerequisite. Instructor Permission Required.

Variable credit: 1,2,3 or 4 hours For Engineers Without Borders team projects. Registration in this section requires involvement in one of the approved EWB projects.

Credit Hours: 2 hours
Instructor Approval Required
Topic offering of this team projects course to address the International Future Energy Challenge. The University of Illinois proposal for an efficient solar-powered water processing system was accepted, and students will proceed with the activity. Instructor approval required.

Engineering Design for Solar Decathlon. Students will design and build energy efficient mechanical systems, power system, and control system for a solar-powered house and compete with 19 other collegiate institutions from around the world in the Solar Decathlon 2011. The solar home will be constructed on campus during 2010 and 2011. Days and times to be arranged.
39675  |  Lecture  |  SSD  |  ARRANGED -  |  106B6 - Engineering Hall  |  Clifton, R
Lilly, B
Singer, A

Credit Hours: 3 hours
Instructor Approval Required
 Restricted to students with Senior class standing.
START UP SENIOR DESIGN Two-course sequence in which students gain design experience as well as hands-on experience in launching a startup. This is a continuation of a class held during the Fall semester. Students participate in engineering and venture creation activities with individual as well as team responsibilities. For the second term, student teams will develop their own technology and will launch a venture to develop a prototype (or reach a pre-determined milestone if a prototype is not feasible). Students will present their ventures at an end-of-year venture fair and demonstration day, open to the public and attended by the CEC leadership and member companies. Students must complete an application and be approved in order to enroll. For application materials, please see www.tec.illinois.edu. Days, times, and location to be arranged.

51207  |  Laboratory  |  UGR  |  ARRANGED -  |  -  |  Larson, S
Nibec, K

Instructor Approval Required
Research credit for Undergraduate Students participating in the Intel Scholars Undergraduate Research Program.