Engineering

**ENG 471  Seminar Energy & Sustain Engrg  credit: 1 hours.**
Challenges of developing energy systems and civil infrastructure that are sustainable in terms of resource availability, security, and environmental impact. Guest lecturers focus on: (i) global challenges -- future energy demand, geologic sources of energy, climate change, energy-water nexus, energy and security; (ii) markets, policies and systems -- economic incentives, policy and law, life cycle analyses; (iii) opportunities for change -- CO2 sequestration, renewable power, bioenergy feedstocks, biofuels for transportation, energy use in buildings, advanced power conversion, the smart grid. 1 undergraduate hour. 1 graduate hour. Prerequisite: MATH 220 or MATH 221; one of CHEM 104, CHEM 204, PHYS 101, PHYS 211. Recommended: NPRE 201.

<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>61836</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>04:00 PM - 04:50 PM</td>
<td>W</td>
<td>103 - Talbot Laboratory</td>
<td>Abelson, J</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Singer, C</td>
</tr>
<tr>
<td>62948</td>
<td>Lecture-Discussion</td>
<td>B</td>
<td>ARRANGED -</td>
<td>-</td>
<td></td>
<td>Abelson, J</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Singer, C</td>
</tr>
<tr>
<td>58954</td>
<td>Online</td>
<td>ONL</td>
<td>ARRANGED -</td>
<td>-</td>
<td></td>
<td>Abelson, J</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Singer, C</td>
</tr>
</tbody>
</table>

This section is reserved for students who have a time conflict at 4:00 pm on Wednesdays.

Restricted to MS: Civil Engr - Online - UIUC, MCS:Computer Sci Online -UIUC, MS:Mechanical Engineering -UIUC, MS: Aerospace Engr-Online-UIUC, NDEG:Grad Nondegree-CE-UIUC, NDEG:Undergrad Nondeg-CE-UIUC, or MCS: Computer Sci Online-UIUC. Restricted to online non-degree, online MSAE, online MSME, online MSCEE and online MCS students. Center for Innovation in Teaching & Learning (CITL) restrictions and assessments apply, see http://www.citl.illinois.edu. For more details on this course section, please see http://engineering.illinois.edu/online/courses/.

OCE Tuition $1034.00 per Bill Hour, and OCE Fees $50.00 per Bill Hour.