Engineering

Program Administrator: Umberto Ravaioli
Program Office: 206 Engineering Hall, 1308 West Green, Urbana
Phone: 217-333-2280
www.engr.illinois.edu

Subjects associated with this department include: Engineering (ENG) and Technology and Management (TMGT)

ENG 198  Special Topics  credit: 0 TO 4 hours.
Subject offerings of new and developing areas of knowledge in engineering intended to augment the existing curriculum. See Class Schedule or college course information for topics and prerequisites. Approved for both letter and S/U grading. May be repeated in the same or separate terms if topics vary.

<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>37823</td>
<td>Lecture-Discussion</td>
<td>IDY</td>
<td>06:30 PM - 08:20 PM</td>
<td>MTW</td>
<td>-</td>
<td>Witmer, A</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
IEFX Industry
Meets 16-Jun-14 - 07-Aug-14.
Restricted to students with Freshman class standing.

IEFX Professional - Learn to enhance your professional and communication skills and shadow professional engineers in the workplace. Meets in 2436 DCL

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<tbody>
<tr>
<td>37086</td>
<td>Lecture-Discussion</td>
<td>PRJ</td>
<td>06:30 PM - 08:20 PM</td>
<td>MTW</td>
<td>ARR - Digital Computer Laboratory</td>
<td>Bradley, J</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
IEFX Projects
Meets 16-Jun-14 - 07-Aug-14.
Restricted to students with Freshman class standing.

IEFX Projects - Reinforcing the fundamental concepts introduced in ENG 100, you will work in small teams on real engineering projects led by experienced Engineering Learning Assistants. You learn problem-solving strategies and build skills in group formation, communication, and teamwork. The subject of the projects will help you explore your interests and aspirations and may be your own creation or chosen from a list prepared by the instructors. Meets in 2320 DCL.

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<tr>
<td>37824</td>
<td>Lecture-Discussion</td>
<td>RSC</td>
<td>01:00 PM - 02:50 PM</td>
<td>MW</td>
<td>-</td>
<td>Mena, I</td>
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</table>

Credit Hours: 3 hours
IEFX Research
Meets 16-Jun-14 - 07-Aug-14.
Restricted to students with Freshman class standing.

IEFX Research - Learn about research methods and topics around campus. Connect with research faculty and conduct research of your own. Meets in 2320 DCL.

ENG 199  Undergraduate Open Seminar  credit: 0 TO 5 hours.
Approved for both letter and S/U grading. May be repeated.
CRN | Type               | Section | Time            | Days | Location | Instructor            
--- | ------------------ | ------- | --------------- |------|---------- | ----------------------  
37827 | Conference         | SS      | 03:30 PM - 04:50 PM | TR   | 101 - Armory | Conner-Gaten, L        

**Summer Scholars Seminar**  
Meets 16-Jun-14 - 07-Aug-14.  
Restricted to students with Freshman class standing.  
Summer Scholars Seminar - You will be introduced to campus resources, engineering faculty, and company representatives.

**ENG 298 Special Topics**  
credit: 1 TO 4 hours.  
Subject offerings of new and developing areas of knowledge in engineering intended to augment the existing curriculum. See Class Schedule or college course information for topics and prerequisites. Approved for both letter and S/U grading. May be repeated in the same or separate terms if topics vary.

CRN | Type                      | Section | Time     | Days | Location | Instructor     
--- | -------------------------- | ------- | -------- |------|---------- |-----------------  
38212 | Lecture-Discussion        | IND     | ARRANGED - |      |         | Deahl, K      

Meets 16-Jun-14 - 07-Aug-14.  
Instructor Approval Required

**ENG 299 Engineering Study Abroad**  
credit: 0 TO 18 hours.  
Illinois credit placeholder for foreign study and mechanism to maintain continuous Illinois enrollment while studying abroad. A detailed proposal must be submitted by the student for approval by the student's department and the college office prior to such study abroad. Final determination of credit and its application toward the degree is made by the college office after a review of the student's work abroad. (Summer Session, 0 to 6 hours).

CRN | Type               | Section | Time     | Days | Location | Instructor     
--- | ------------------ | ------- | -------- |------|---------- |-----------------  
29929 | Conference         | A1      | ARRANGED - |      |         | Finis, T      

Departmental Approval Required  

30635 | Study Abroad       | A2      | ARRANGED - |      |         | Finis, T      

Departmental Approval Required  
Meets 16-Jun-14 - 07-Aug-14.

**ENG 310 Engineering Internship**  
credit: 0 hours.  
Full-time or part-time practice of engineering in an off-campus government, industrial, or research laboratory environment. Written work report, on-line Experiential Learning report and on-line ABET report required. Approved for S/U grading only. May be repeated.

CRN | Type | Section | Time     | Days | Location | Instructor     
--- |------|---------|-------- |------|---------- |-----------------  
30633 | Practice | A       | ARRANGED - |      |         | Fruehling, A Ng, J  

Meets 16-Jun-14 - 07-Aug-14.  
Instructor Approval Required
Full-time or part-time practice of engineering in an off-campus government, industrial, or research laboratory environment. Written work report, on-line Experiential Learning report and on-line ABET report required. Approved for S/U grading only. May be repeated.

**ENG 398 Special Topics** credit: 1 TO 4 hours.
Subject offerings of new and developing areas of knowledge in engineering intended to augment the existing curriculum. See Class Schedule or college course information for topics and prerequisites. Approved for both letter and S/U grading. May be repeated in the same or separate terms if topics vary.

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<tr>
<td>37234</td>
<td>Lecture-Discussion</td>
<td>BL</td>
<td>ARRANGED -</td>
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<td>-</td>
<td>Litchfield, J</td>
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Independent Study
Meets 16-Jun-14 - 07-Aug-14.
Instructor Approval Required

**ENG 451 Success in the Workplace** credit: 2 hours.
Guided experiential learning that facilitates the development of professional skills for students participating in career-related internships. Basic business skills such as reading a financial statement and annual report, understanding contracts, and understanding corporate strategy. Interpersonal skills necessary to succeed in industry such as networking, leadership, and communication. No graduate credit.

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<tr>
<td>37466</td>
<td>Online</td>
<td>SW1</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Price, R Vojak, B Zehr, S</td>
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Instructor Approval Required
ENG 451 SW1 is an online course worth two hours of credit and counts toward the Other Social Sciences/Humanities requirement for engineering students. This course is restricted to students who have a career-related internship or co-op during the Summer 2013 term. If you do not meet this requirement you will be disqualified from the course. Please contact Sarah Zehr at szehr@illinois.edu or 217-333-1960 with questions about this policy.

**ENG 460 Entrepreneurship for Engineers** credit: 1 hours.
Fundamental concepts of entrepreneurship and commercialization of new technology in new and existing engineering and high-tech businesses. Guest speaker topics vary, but typically include: evaluation of technologies and business ideas in general; commercializing new technologies; financing through private and public sources; legal issues; product development; marketing; international business issues. Same as TE 460. Credit is not given for both ENG 360 and ENG 460.

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<tr>
<td>35614</td>
<td>Online</td>
<td>ONL</td>
<td>ARRANGED -</td>
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<td>Hwu, W</td>
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Meets 02-Jun-14 - 07-Aug-14.
Online
Restricted to MS: Civil Engr - Online - UIUC, MCS:Computer Sci Online -UIUC, MS:Mechanical Engineering -UIUC, MS:Mechanical Engineering -UIUC, NDEG:Grad Nondegree-CE-UIC, NDEG:Undergrad Nondeg-CE-UIC, or MCS: Computer Sci Online-UIC. 400-Level Restricted to online non-degree, online MSME, online MSCEE and online MCS students. Center for Innovation in Teaching & Learning (CITL) restrictions and assessments apply, see http://www.oce.illinois.edu. For more details on this course section, please see http://engineering.illinois.edu/online/courses/.

**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. Prerequisite: MATH 220 or MATH 221; one of CHEM 104, CHEM 204, PHYS 101, PHYS 211. Recommended: NPRE 201.

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<tr>
<td>36222</td>
<td>Online</td>
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<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
<td>Abelson, J</td>
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Meets 02-Jun-14 - 07-Aug-14.
Online
400-Level Restricted to online non-degree, online MSME, online MSCEEE and online MCS students. Center for Innovation in Teaching & Learning (CITL) restrictions and assessments apply, see http://www.oce.illinois.edu. For more details on this course section, please see http://engineering.illinois.edu/online/courses/.

ENG 510 **Engineering Practice**  credit: 0 hours.
Full-time or part-time practice of engineering in an off-campus government, industrial or research laboratory environment. Written work report, on-line Experiential Learning report, and on-line ABET report required. Approved for S/U grading only. May be repeated.

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<tr>
<td>30636</td>
<td>Practice</td>
<td>A</td>
<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
<td>Fruehling, A Ng, J</td>
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</table>

Meets 16-Jun-14 - 07-Aug-14.
Instructor Approval Required
Full-time or part-time practice of engineering in an off-campus government, industrial, or research laboratory environment. Written work report, on-line Experiential Learning report and on-line ABET report required. Approved for S/U grading only. May be repeated.

ENG 560 **Managing Advanced Technol I**  credit: 1 hours.
Business perspective of managing advanced technology in industry: strategic context of advanced technology; analytical financial tools used to estimate its potential value; legal concepts important in its management; interpersonal issues related to leading and advocating on behalf of advanced technology groups. Same as TE 560.

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<tr>
<td>36223</td>
<td>Online</td>
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<td>ARRANGED -</td>
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<td>Vojak, B</td>
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Meets 02-Jun-14 - 07-Aug-14.
Online
Restricted to MS: Civil Engr - Online - UIUC, MCS: Computer Sci Online - UIUC, MS: Mechanical Engineering - UIUC, MS: Mechanical Engineering - UIUC, NDEG: Grad Nondegree-CE-UIUC, or MCS: Computer Sci Online-UIUC.
Restricted to online grad non-degree, online MSME, online MSCEEE and online MCS students. Center for Innovation in Teaching & Learning (CITL) restrictions and assessments apply, see http://www.oce.illinois.edu. For more details on this course section, please see http://engineering.illinois.edu/online/courses/.

ENG 561 **Managing Advanced Technol II**  credit: 1 hours.
Continuation of ENG 560. Deepening of insights previously gained by the use of case studies. Same as TE 561. Prerequisite: ENG 560.
ENG 565  Technol Innovation & Strategy  credit: 2 hours.
Concepts and frameworks for analyzing how firms can create, commercialize and capture value from technology-based products and services. Business, commercialization, and management aspects of technology. Emphasis on reasons that existing firms or startups which have successfully commercialized products or services fail to sustain their success as technology changes and evolves. Same as TE 565. Prerequisite: STAT 400.

ENG 567  Venture Funded Startups  credit: 1 hours.
Concepts, tools, and language used by venture capitalists (VCs). Venture-scale opportunity assessment and articulation; venture capital financing and valuation; deal structure; term sheets; financial plans for startups; customer development and marketing; product iterations; sales execution. Same as TE 567. Prerequisite: ENG 566.