## Engineering

**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.

<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>60920</td>
<td>Discussion/Recitation</td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td></td>
<td>Herman, G</td>
</tr>
<tr>
<td>61672</td>
<td>Lecture-Discussion</td>
<td>1</td>
<td>03:00 PM - 03:50 PM</td>
<td>TR</td>
<td>4101 - Materials Science &amp; Eng Bld</td>
<td>Singer, A</td>
</tr>
<tr>
<td>54524</td>
<td>Lecture-Discussion</td>
<td>CLD</td>
<td>04:00 PM - 06:40 PM</td>
<td>W</td>
<td>320 - Flagg Hall</td>
<td>Noursalehi, E Weightman, D</td>
</tr>
<tr>
<td>58523</td>
<td>Lecture-Discussion</td>
<td>FFE</td>
<td>10:00 AM - 11:20 AM</td>
<td>TR</td>
<td>252 - Mechanical Engineering Bldg</td>
<td>Levinson, S</td>
</tr>
</tbody>
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### From Idea to Enterprise

High Tech Ventures: From Idea to Enterprise: This class examines the fundamentals of technology entrepreneurship and addresses critical areas of the entrepreneurship process such as: Creating a successful startup and transforming it into a sustainable business; Validating an idea and taking it to market; Evaluation of new ideas; Forming high performance teams; Financing a technology-based startup. This class combines field trips to local startups and businesses as well as the University Research Park and EnterpriseWorks incubator, in-depth case studies, and a hands-on class project. The class is intended for undergraduates of all majors interested in technology entrepreneurship and is intended to be the first class in a three course track towards a technology entrepreneurship certificate.

### User-Oriented Collab Design

User-Oriented Collaborative Design: Students develop detailed concepts and models of authentic new products and services. Our focus is on user-oriented, collaborative approaches to design and seeking holistic solutions integrating user and functional perspectives. We emphasize the importance of process and the development of strategies. Students observe and engage people to develop a deep understanding of their values and the patterns of their lives. They work collaboratively in a studio environment to create a shared understanding of the people they design for (and with) and the product ideas they develop. Topics covered include design thinking, ethnographic methods, concept development and interaction design. This course offers an intensive design and team work experience, focused on understanding customer needs. Restricted to iFoundry Innovation Certificate students. Other students may take the course with permission of the instructor.

### Foundations & Frontiers of Eng

ENG 298: Foundations and Frontiers of Engineering. It is widely thought that Science is concerned only with the physical world. Yet, for the last 80 years, significant effort has been devoted to adapting the principles and methods of the physical sciences to the life and social sciences. Although this work is in its early stages, it is already clear that Science can directly address such human concerns as the nature of mental and social reality. This course examines the origins, methodology, and implications of these developing mathematical theories. Each class will consist of a short (20 minute) lecture followed by open discussion of the assigned readings. Course grades will be based on weekly one page essays on the assigned subject and a final research paper on any
relevant topic. The course is primarily a history of ideas course. It is recommended for all Engineering, iFoundry and iEFX students with at least one semester of calculus and physics, or sufficiently strong high school preparation or AP credit in these areas.

| 59976 | Lecture-Discussion | INA | 03:00 PM - 03:50 PM | M | ARR - Illinois Street Residence Lng | Bechtel, J |

Credit Hours: 1 hours
Introduction to Innovation A
Students will expand their knowledge of resources related to innovation, entrepreneurship, and creativity, with a primary focus on campus and community resources. They will also participate in activities to encourage creative thinking and inventive problem-solving. Fundamental concepts of entrepreneurship, creativity and innovation will be explored in new and existing businesses. Weekly topics will vary, but typically include: business ideas in general; brainstorming concepts; marketing; navigating through campus and community resources; and more. 1 hr credit; this course is restricted to Innovation LLC students and is required for all incoming Innovation LLC residents. This class meets in Illinois Street Residence Hall - MPR 29B.
Restricted to Innovation LLC students.

| 59977 | Lecture-Discussion | INB | 04:00 PM - 04:50 PM | M | ARR - Illinois Street Residence Lng | Bechtel, J |

Credit Hours: 1 hours
Introduction to Innovation B
Students will expand their knowledge of resources related to innovation, entrepreneurship, and creativity, with a primary focus on campus and community resources. They will also participate in activities to encourage creative thinking and inventive problem-solving. Fundamental concepts of entrepreneurship, creativity and innovation will be explored in new and existing businesses. Weekly topics will vary, but typically include: business ideas in general; brainstorming concepts; marketing; navigating through campus and community resources; and more. 1 hr credit; this course is restricted to Innovation LLC students and is required for all incoming Innovation LLC residents. This class meets in Illinois Street Residence Hall - MPR 29B.
Restricted to Innovation LLC students.

| 59978 | Lecture-Discussion | INC | 04:00 PM - 04:50 PM | R | ARR - Illinois Street Residence Lng | Bechtel, J |

Credit Hours: 1 hours
Introduction to Innovation C
Students will expand their knowledge of resources related to innovation, entrepreneurship, and creativity, with a primary focus on campus and community resources. They will also participate in activities to encourage creative thinking and inventive problem-solving. Fundamental concepts of entrepreneurship, creativity and innovation will be explored in new and existing businesses. Weekly topics will vary, but typically include: business ideas in general; brainstorming concepts; marketing; navigating through campus and community resources; and more. 1 hr credit; this course is restricted to Innovation LLC students and is required for all incoming Innovation LLC residents. This class meets in Illinois Street Residence Hall - MPR 29B.
Restricted to Innovation LLC students.

| 59979 | Lecture-Discussion | IND | 09:00 AM - 09:50 AM | F | ARR - Illinois Street Residence Lng | Bechtel, J |

Credit Hours: 1 hours
Introduction to Innovation D
Students will expand their knowledge of resources related to innovation, entrepreneurship, and creativity, with a primary focus on campus and community resources. They will also participate in activities to encourage creative thinking and inventive problem-solving. Fundamental concepts of entrepreneurship, creativity and innovation will be explored in new and existing businesses. Weekly topics will vary, but typically include: business ideas in general; brainstorming concepts; marketing; navigating through campus and community resources; and more. 1 hr credit; this course is restricted to Innovation LLC students and is required for all incoming Innovation LLC residents. This class meets in Illinois Street Residence Hall - MPR 29B.
Restricted to Innovation LLC students.

| 60877 | Lecture-Discussion | LRM | ARRANGED - |  |  | Hsiao-Wecksler, E |
LEGO Robotics Mentoring  
Lecture/Discussion on the fundamentals of mentoring a FIRST LEGO League team. Students will focus on programming/building a LEGO robot, strategies of mentoring, working with elementary and middle school-age students, problem solving, and continuous learning.

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<tr>
<th>59219</th>
<th>Lecture-Discussion</th>
<th>OIX</th>
<th>ARRANGED -</th>
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<th>Tucker, C</th>
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Credit Hours: 4 hours  
Olin Illinois Program  
Instructor Approval Required  
Restricted to students in the Olin Illinois Program.