## Engineering

**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.

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<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>62863</td>
<td>Lecture-Discussion</td>
<td>EA</td>
<td>06:00 PM - 06:50 PM</td>
<td>T</td>
<td>ARR - Digital Computer Laboratory</td>
<td>Amos, J Brunet, M Mena, I</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours  
Technical Communication  
Instructor Approval Required  
Enrollment only for Engineering Ambassadors.

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<tbody>
<tr>
<td>51198</td>
<td>Lecture-Discussion</td>
<td>GC1</td>
<td>05:00 PM - 05:50 PM</td>
<td>R</td>
<td>163 - Everitt Laboratory</td>
<td>Bradley, J</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours  
Grand Challenges Solar Energy  
Grand Challenge 1: Make Solar Energy Economical - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. http://www.engineeringchallenges.org/cms/challenges.aspx

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<tbody>
<tr>
<td>62487</td>
<td>Lecture-Discussion</td>
<td>GC5</td>
<td>05:00 PM - 05:50 PM</td>
<td>R</td>
<td>4101 - Materials Science &amp; Eng Bld</td>
<td>Bradley, J</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours  
Grand Challenges Clean Water  
Grand Challenge 5: Provide Access to Clean Water - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. http://www.engineeringchallenges.org/cms/challenges.aspx

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<tbody>
<tr>
<td>62488</td>
<td>Lecture-Discussion</td>
<td>GC6</td>
<td>05:00 PM - 05:50 PM</td>
<td>R</td>
<td>252 - Mechanical Engineering Bldg</td>
<td>Bradley, J</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours  
Grand Challenge Infrastructure  
Grand Challenge 6: Restore and Improve Urban Infrastructure - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. http://www.engineeringchallenges.org/cms/challenges.aspx
| Course Code | Lecture-Discussion | Room | Time | Instructor | Credit Hours | Grand Challenges
|-------------|--------------------|------|------|------------|--------------|------------------------|
| 62490 | GC8 | 05:00 PM - 05:50 PM | R | Bradley, J | 1 hours | Grand Challenges Medicine
Grand Challenge 8: Engineer Better Medicines - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. [http://www.engineeringchallenges.org/cms/challenges.aspx](http://www.engineeringchallenges.org/cms/challenges.aspx)

| 62491 | GC9 | 05:00 PM - 05:50 PM | R | 1304 - Siebel Center for Comp Sci | Bradley, J | Grand Challenges Brain
Grand Challenge 9: Reverse-Engineer the Brain - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. [http://www.engineeringchallenges.org/cms/challenges.aspx](http://www.engineeringchallenges.org/cms/challenges.aspx)

| 62492 | GCA | 05:00 PM - 05:50 PM | R | 260 - Everitt Laboratory | Bradley, J | Grand Challenges Nuclear Terror
Grand Challenge 10: Prevent Nuclear Terror - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. [http://www.engineeringchallenges.org/cms/challenges.aspx](http://www.engineeringchallenges.org/cms/challenges.aspx)

| 62493 | GCB | 05:00 PM - 05:50 PM | R | 241 - Everitt Laboratory | Bradley, J | Grand Challenges Cyberspace
Grand Challenge 11: Secure Cyberspace - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. [http://www.engineeringchallenges.org/cms/challenges.aspx](http://www.engineeringchallenges.org/cms/challenges.aspx)

| 62494 | GCC | 05:00 PM - 05:50 PM | R | 245 - Everitt Laboratory | Bradley, J | Grand Challenge Virtual Rlty
Grand Challenge 12: Enhance Virtual Reality - Based on the National Academy of Engineering's 14 identifiable grand challenges, this course will enhance your ability to stimulate the critical thinking skills and project development surrounding these challenges, which have the potential to make a global impact. Together with fellow students and a faculty advisor, you focus on a subset of the listed challenge for this section to enhance your ability to address real world problems as an engineer. [http://www.engineeringchallenges.org/cms/challenges.aspx](http://www.engineeringchallenges.org/cms/challenges.aspx)
The World of Nanotechnology. Nanotechnology is an emerging interdisciplinary field with great potential for scientific innovation. There are, however, many misconceptions generated by popular fiction and the media. This course will provide a survey of the field with information on careers in nanotechnology as well as opportunities for undergraduate research on campus. In addition to the lectures, students will experiment with a variety of on-line tools and will work on team projects and independent study assignments. This course is reserved for freshman James Scholar students in the College of Engineering and it fulfills the freshman honors requirement.

Introduction to Research. Research is a wonderful way to fulfill honors requirements. The purpose of this course is to introduce students to research methodologies, to survey the outstanding opportunities available in the College of Engineering, and to help plan for an upper-class honors contract including research. In addition to the lectures, students will also work on team projects and independent study assignments. This course is reserved for freshman James Scholar students in the College of Engineering and it fulfills the freshman honors requirement.

Credit Hours: 1 hours
Project Cadet
Instructor Approval Required
Project Cadet.

Credit Hours: 1 hours
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