INNOVATION, LEADERSHIP & ENGINEERING ENTREPRENEURSHIP (ILEE), BS

for the degree of Bachelor of Science in Innovation, Leadership & Engineering Entrepreneurship

The Technology Entrepreneur Center offers studies leading to the Bachelor of Science in Innovation, Leadership, and Engineering Entrepreneurship (ILEE). The BS in ILEE degree is intended for Grainger Engineering students to better understand the innovative processes involved in identifying problems and creating, developing, and leading efforts to provide engineering solutions. The curriculum is based on a sound disciplinary engineering technical core with additional aspects of problem identification and innovation, and complex multidisciplinary engineering project management and leadership.

Currently, the BS in ILEE degree is only offered as a dual degree (double major) for current Grainger Engineering, Agricultural and Biological Engineering, and Chemical Engineering students.

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Students should follow their Grainger Engineering primary degree curriculum and take the additional required Orientation and Technical Core courses to earn a second bachelor’s degree in ILEE.

Overview of Curricular Requirements

Students must complete all requirements specified for the primary engineering degree, and 31 hours for the second (ILEE) degree, for a minimum of 158 credit hours.

Innovation, Leadership and Engineering Entrepreneurship Orientation

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 100</td>
<td>Introduction to Innovation, Leadership and</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Engineering Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>or TE 200</td>
<td>Introduction to Innovation</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 1

Innovation, Leadership and Engineering Entrepreneurship Technical Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>TE 230</td>
<td>Design Thinking/Need-Finding</td>
<td>3</td>
</tr>
<tr>
<td>TE 250</td>
<td>From Idea to Enterprise</td>
<td>2</td>
</tr>
<tr>
<td>TE 333</td>
<td>Creativity, Innovation, Vision</td>
<td>4</td>
</tr>
<tr>
<td>TE 360</td>
<td>Lectures in Engineering Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>SE 361</td>
<td>Emotional Intelligence Skills</td>
<td>3</td>
</tr>
<tr>
<td>TE 390</td>
<td>Innovation and Engineering Design</td>
<td>2</td>
</tr>
<tr>
<td>TE 401</td>
<td>Developing Breakthrough Projects</td>
<td>4</td>
</tr>
<tr>
<td>TE 450</td>
<td>Startups: Incorporation, Funding, Contracts,</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>&amp; Intellectual Property</td>
<td></td>
</tr>
<tr>
<td>TE 461</td>
<td>Technology Entrepreneurship</td>
<td>3</td>
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</tbody>
</table>

Total Hours

Sample Sequence

Students should follow their Grainger Engineering primary degree curriculum and take the additional 31 hours of ILEE courses. A sample sequence of courses is shown below.

First Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 100 or 200</td>
<td>1</td>
<td>TE 250</td>
<td>2</td>
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</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 230</td>
<td>3</td>
<td>TE 333</td>
<td>4</td>
</tr>
<tr>
<td>TE 360</td>
<td>1</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Third Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 361</td>
<td>3</td>
<td>TE 390</td>
<td>2</td>
</tr>
<tr>
<td>TE 466</td>
<td>2</td>
<td>TE 462</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>5</td>
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</table>

Fourth Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 450</td>
<td>3</td>
<td>TE 401</td>
<td>4</td>
</tr>
<tr>
<td>TE 461</td>
<td>3</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours 31

Learning objectives for the Innovation, Leadership, and Engineering Entrepreneurship Dual Degree BS Program are designed to allow Grainger Engineering students the opportunity to gain, sharpen, and refine their innovative, leadership, and entrepreneurship skill set through academic courses and hands-on experiential learning.

In conjunction with the student’s primary/first department’s curriculum, the Innovation, Leadership, and Engineering Entrepreneurship Program prepares students to achieve the following ABET outcomes by the time of graduation:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

Information listed in this catalog is current as of 06/2024
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

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Innovation, Leadership, and Engineering Entrepreneurship Program
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Innovation, Leadership, and Engineering Entrepreneurship website
Technology Entrepreneur Center website

The Grainger College of Engineering Admissions
The Grainger College of Engineering (https://grainger.illinois.edu/)