## 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.

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

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

Code	Title	Hours
TE 100	Introduction to Innovation, Leadership and Engineering Entrepreneurship	1
or TE 200	Introduction to Innovation	
Total Hours		1

#### Innovation, Leadership and Engineering Entrepreneurship Technical Core

Code	Title	Hours
TE 230	Design Thinking/Need-Finding	3
TE 250	From Idea to Enterprise	2
TE 333	Creativity, Innovation, Vision	4
TE 360	Lectures in Engineering Entrepreneurship	1
SE 361	Emotional Intelligence Skills	3
TE 390	Innovation and Engineering Design	2
TE 401	Developing Breakthrough Projects	4

TE 450	Startups: Incorporation, Funding, Contracts, & Intellectual Property	3
TE 461	Technology Entrepreneurship	3
TE 462	Leading Sustainable Change	3
TE 466	High-Tech Venture Marketing	2
Total Hours		30
Code	Title	Hours
Total Hours of ILEE Curriculum to Graduate		31

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

### **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		
First Semester	<b>Hours Second Semester</b>	Hours
TE 100 or 200	1 TE 250	2
	1	2
Second Year		
First Semester	Hours Second Semester	Hours
TE 230	3 TE 333	4
TE 360	1	

Third Year		
First Semester	<b>Hours Second Semester</b>	Hours
SE 361	3 TE 390	2
TE 466	2 TE 462	3
	5	5
Fourth Year		

Fourth Year		
First Semester	<b>Hours Second Semester</b>	Hours
TE 450	3 TE 401	4
TE 461	3	
	6	4

#### **Total Hours 31**

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

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:

- 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.
- 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.
- 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.
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

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

# Innovation, Leadership, and Engineering Entrepreneurship Program

Program Director: Ranjitha Kumar (ranjitha@illinois.edu)
Program Faculty Advisor: Keilin Jahnke (deahl1@illinois.edu)
Program Academic Advisor: Laura Miller (arriola@illinois.edu)
351 Coordinated Science Lab, 1308 W Main St, Urbana, IL 61801
(217) 244-3124
tec-ilee@illinois.edu

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/)