BACHELOR OF SCIENCE IN INNOVATION, LEADERSHIP AND ENGINEERING ENTREPRENEURSHIP (ILEE)

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 College of Engineering students to better understand the innovative processes involved in identifying problems and creating, developing, and leading efforts to provide their 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 being offered as a dual degree for current College of Engineering Students.

Overview of Curricular Requirements
The curriculum requires 128 hours for graduation and is organized as shown below.

Orientation and Professional Development
These courses introduce the opportunities and resources your college, department, and curriculum can offer you as you work to achieve your career goals. They also provide the skills to work effectively and successfully in the engineering profession.

Code	Title	Hours
TE 298	Special Topics I	1
COE Department of Concentration introduction course		0
ENG 100	Engineering Orientation [1]	0
Total Hours		1

[1] External transfer students take ENG 300 - Engrg Transfer Orientation instead.

Foundational Mathematics and Science
These courses stress the basic mathematical and scientific principles upon which the engineering discipline is based.

Code	Title	Hours
CHEM 102	General Chemistry I	3
CHEM 103	General Chemistry Lab I	1
MATH 221	Calculus I [1]	4
MATH 231	Calculus II	3
MATH 241	Calculus III	4
MATH 285	Intro Differential Equations	3
PHYS 211	University Physics: Mechanics	4
PHYS 212	University Physics: Elec & Mag	4

[1] MATH 220 - Calculus may be substituted, with four of the five credit hours applying toward the degree. MATH 220 is appropriate for students with no background in calculus.

Innovation, Leadership and Engineering Entrepreneurship Technical Core
These courses stress fundamental concepts that comprise the common intellectual understanding of innovation and leadership in Engineering Entrepreneurship.

Code	Title	Hours
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 398	Special Topics II (Innovation and Engineering Design)	2
TE 401	Developing Breakthrough Projects	4
TE 450	Startups: Inc, Fund, Contracts, IP	3
TE 461	Technology Entrepreneurship	3
SE 462	Leading Sustainable Change	3
TE 466	High-Tech Venture Marketing	2
COE Department of Concentration Approved Technical core		14
TE 230	Design Thinking/Need-Finding	3
Total Hours		44

Technical Electives
This elective requirement gives each student freedom to define a technical course of study in innovation and leadership of considerable breadth and focus.

Code	Title	Hours
Technical electives to be chosen from ILEE approved list		19
Technical electives to be chosen from COE Department of Concentration approved list		8

Liberal Education
The liberal education courses develop student' understanding of human culture and society, build skills of inquiry and critical thinking, and lay a foundation for civic engagement and lifeliong learning.

Code	Title	Hours
Electives from the campus General Education social & behavioral sciences list.		6
Electives from the campus General Education humanities & the arts list.		6
Electives either from a list approved by the college or from the campus General Education lists for social & behavioral sciences or humanities & the arts.		6
Total Hours		18

Students must also complete the campus cultural studies requirement by completing (i) one western/comparative culture(s) course, (ii) one non-western culture(s) course, and (iii) one U.S. Minority Culture(s) course from the General Education cultural studies lists. Most students select liberal education courses that simultaneously satisfy these cultural studies requirements. Courses from the western and non-western lists that fall into free electives or other categories may also be used to satisfy the cultural studies requirements.

Composition
These courses teach fundamentals of expository writing.

Code	Title	Hours
RHET 105	Writing and Research	4
Advanced Composition may be satisfied by taking any course in either the liberal education or free elective categories which has the Advanced Composition designation.		
Total Hours		4

Free Electives

These unrestricted electives, subject to certain exceptions as noted at the College of Engineering advising Website, give the student the opportunity to explore any intellectual area of unique interest. This freedom plays a critical role in helping students to define research specialties or to complete minors.

Code	Title	Hours
Free electives not counted above additional unrestricted course work, subject to certain exceptions as noted at the College of Engineering advising website. At least 128 credit hours must be earned to graduate.		8

Suggested Sequence

The schedule that follows is illustrative, showing the typical sequence in which courses would be taken by a student with no college course credit already earned and who intends to graduate in four years. Each individual's case may vary, but the position of required named courses is generally indicative of the order in which they should be taken.

First Year

First Semester		Hours
CHEM 102	General Chemistry I	3
CHEM 103	General Chemistry Lab I	1
COE Dept of Concentration introduction course		0
TE 298 (Introduction to ILEE)	Special Topics I	1
ENG 100	Engineering Orientation	0
TE 250	From Idea to Enterprise	2
MATH 221[1]	Calculus I	4
RHET 105 (or Liberal education elective)[2,3]	Writing and Research	4-3
	Semester Hours	15-14
Second Semester		
TE 230	Design Thinking/Need-Finding	3
COE Dept of Concentration Technical core[4]		3
MATH 231	Calculus II	3
PHYS 211	University Physics: Mechanics	4
Rhet 105 or Liberal education elective[2,3]		3-4
	Semester Hours	16-17

Second Year

First Semester		
TE 333	Creativity, Innovation, Vision	4
TE 360	Lectures in Engineering Entrepreneurship	1
MATH 241	Calculus III	4
SE 361	Emotional Intelligence Skills	3
PHYS 212	University Physics: Elec Mag	4
	Semester Hours	16
Second Semester		
COE Dept. of Concentration Technical Core[4]		3
TE 450	Startups: Inc, Fund, Contracts, IP	3
MATH 285	Intro Differential Equations	3
Liberal education electives[3]		6
	Semester Hours	15

Third Year

First Semester		
TE 461	Technology Entrepreneurship	3
TE 401	Developing Breakthrough Projects	1 to 4
SE 462	Leading Sustainable Change	3
COE Dept. of Concentration Technical Core[4]		4-1
Liberal education elective[3]		3
Free elective		4
	Semester Hours	18
Second Semester		
ILEE Technical electives[4]		9
TE 398 (Innovation and Engineering Design)	Special Topics II	2
TE 466	High-Tech Venture Marketing	2
COE Dept. of Concentration Technical core[4]		4
	Semester Hours	17

Fourth Year

First Semester		
ILEE Technical Electives[4]		5
COE Dept of Concentration Technical Electives[4]		3
COE Dept of Concentration Technical Core[4]		4
Free Electives		4
	Semester Hours	16
Second Semester		
ILEE Technical Electives[4]		5
COE Dept of Concentration Technical Electives[4]		4
Liberal Education Electives[3]		6
	Semester Hours	15
	Total Hours:	128

1 MATH 220 - Calculus may be substituted with four of the five credit hours applying toward the degree. MATH 220 is appropriate for students with no background in calculus

2 RHET 105 should be taken in the first or second semester of the first year as authorized. The alternative is a social sciences or humanities elective.

[3] Liberal education electives must include 6 hours of social & behavioral sciences and 6 hours of humanities & the arts course work from the campus General Education lists. The remaining 6 hours may be selected from a list maintained by the college, or additional course work from the campus General Education lists for social & behavioral sciences or humanities & the arts. Students must also complete the campus cultural studies requirement by completing (i) one western/comparative culture(s) course, (ii) one non-western culture(s) course, and (iii) one U.S. Minority Culture(s) course from the General Education cultural studies lists. Most students select liberal education courses that simultaneously satisfy these cultural studies requirements. Courses from the western and non-western lists that fall into free electives or other categories may also be used to satisfy the cultural studies requirements.

[4] to be chosen from approved list

Technical Core

Code	Title	Hours
TE 250	From Idea to Enterprise	2
TE 401	Developing Breakthrough Projects	4
TE 333	Creativity, Innovation, Vision	4
TE 230	Design Thinking/Need-Finding	3
TE 360	Lectures in Engineering Entrepreneurship	1
TE 450	Startups: Inc, Fund, Contracts, IP	3
SE 361	Emotional Intelligence Skills	3
TE 398	Special Topics II (Innovation and Engineering Design)	2
TE 461	Technology Entrepreneurship	3
SE 462	Leading Sustainable Change	3
TE 466	High-Tech Venture Marketing	2
COE Department of Concentration Approved Technical Core		14
Total Hours		44