BS in Engineering Leadership

The B.S. in Engineering Leadership program (BSEL) offers a rigorous and flexible major in Engineering with an in-depth study of leadership and its effect upon engineering and society. The program includes tracks in Business, Education, and Technical Specialization. Each track contains 12 hours of core competencies. The Engineering Leadership program and its associated tracks meet the curricular accreditation requirements of the Engineering Accreditation Commission of ABET using the criteria for General Engineering.

"We live in a technological age, and if our society is to flourish, many of our leaders should be engineers, and many of our engineers should be leaders." - Samuel Florman, The Interactive Engineer, 1997

Program Objectives

Graduates of this program will

Value the role of engineering and leadership for the betterment of community and society.

Elaboration: Our graduates will value and will demonstrate their ability to recognize leadership opportunities and to take initiative for beneficial change. They will understand the broad social, economic, and ethical implications of their endeavors both inside and outside of engineering, and they will be cognizant of their professional, civic, and societal responsibilities.

Inventively cultivate success in their field by demonstrating technical competence and problem solving skills, which will foster success in a variety of postgraduate environments, including professional practice and graduate school.

Elaboration: Our graduates will have a solid grounding in fundamental principles of engineering, mathematics, and science, and they will apply this knowledge to a variety of systems inside and outside of engineering. They will be able to develop inventive solutions that are responsive to technical, social, economic, and cultural considerations and constraints among others.

Possess attributes for assuming increasing levels of professional responsibility

Elaboration: Our graduates will possess a broad understanding of leadership informed by the need to have and to develop Character, Competency, and Capacity. They will also develop a deep understanding of engineering, mathematics, science, business, and entrepreneurship. They will build on this foundation by engaging in independent learning to identify and to respond to emerging technical and societal developments.

Admission Requirements

New and returning students can declare their intention to work toward an Engineering Leadership degree if they meet UTEP’s admission requirements. Each semester, students admitted into the BSEL program must meet with a BSEL advisor to select their courses and electives.

Tracks

Two tracks will be offered in the BSEL program. These tracks, in Business and Technical Specialization (Engineering), require a minimum of 12 semester credit hours. Students will choose a track in their sophomore year. They will work closely with their EL advisor to determine their anticipated career trajectory and to determine which track best suits their goals. Careful advising of each student will result in a plan of study that will guide student's coursework the last two years of the program.

Business:

Business track students can choose one of six stems in Management, Accounting, Economics, Marketing, Entrepreneurship, and General Business. These stems also parallel with the already developed minors in the College of Business for non-majors. These minors require six courses, and our program track will get students within two courses of receiving a minor if they chose to do so. Many of the students who choose the Business track will likely take those two additional courses and obtain a minor in a Business field.

Technical Specialization:

Technical track students will focus on a particular engineering discipline or on a specialized combination of discipline specific courses. Students can choose from a wide variety of courses in mechanical, electrical, civil, metallurgical & materials, industrial manufacturing & systems, and computer science engineering. Students who choose this track will likely proceed into either conventional engineering employment or into graduate school to obtain an M.S. or a Ph.D. in engineering.