

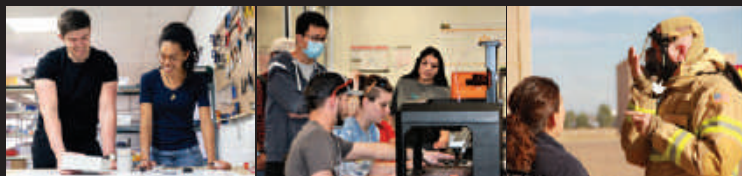
BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING



TEXAS TECH UNIVERSITY

Department of Industrial, Manufacturing, & Systems Engineering™

HANDS-ON EXPERIENCE



You will gain hands on experience as you focus on studying topics such as manufacturing, data science, logistics, work design, & project management. You will greatly benefit from a well-rounded education to prepare you to become an outstanding industrial engineer. Your curriculum encompassing a wide range of disciplines reflects the dynamic nature of industrial engineering. You will have the opportunity to experience the excitement of our state-of-the-art Stinson Advanced Manufacturing Lab, equipped with cutting-edge 3D printing technology, as well as our other advance manufacturing and human factor and ergonomics laboratories. Small class sizes allow you to receive personalized attention and meaningful student-faculty interactions. Our professors are dedicated to their students' success and take the time to know each student by name. This is a key component that sets IMSE apart from other programs, and why our alumni are successful as IE industry leaders.



IE CURRICULUM

- IE 2311 Computing for Industrial Engineers
- IE 2324 Engineering Economic Analysis
- IE 2341 Engineering Statistics I
- IE 2401 Work Design for Production Operations

- IE 3311 Deterministic Operations Research
- IE 3312 Probabilistic Operations Research
- IE 3328 Manufacturing Systems Control
- IE 3329 Fundamentals of Project Management
- IE 3342 Engineering Statistics II
- IE 3346 Quality Assurance & Engineering Statistics
- IE 3351 Manufacturing Engineering I
- IE 3352 Manufacturing Engineering II

- IE 4301 Engineering Design for People
- IE 4306 Advanced Systems Safety Engineering
- IE 4316 Simulation Systems Modeling
- IE 4320 Fundamentals of Systems
- IE 4333 Senior Design Project
- IE 4351 Facilities Planning & Design

\$75,032

AVERAGE STARTING SALARY

19-1

STUDENT-FACULTY RATIO

100%

CAREER PLACEMENT

IEs CAN WORK ANYWHERE!



Our graduates are heavily recruited by a diverse range of national and regional corporations, a testament to the quality and relevance of our curriculum. TTU IMSE students often secure positions with above-average salaries, reflecting the strong demand for industrial engineering professionals in the job market. Students are supported by our Engineering Opportunities Center in seeking internships during their study as well as career placement upon graduation and beyond.



TEXAS TECH UNIVERSITY

Department of Industrial, Manufacturing, & Systems Engineering™

The Department of Industrial, Manufacturing, and Systems Engineering at Texas Tech University (IMSE) was founded in 1933. As the oldest program of its kind in the State of Texas, our students receive a well-rounded education across all industrial engineering (IE) specializations. IMSE graduates are well prepared to be leaders in IE and are sought after by key industries upon graduation.

WHAT IS INDUSTRIAL ENGINEERING?

Industrial Engineering focuses on optimizing complex systems, processes, and operations in order to improve efficiency, productivity, and quality. Industrial engineers analyze and design systems that integrate people, materials, equipment, energy, and information to achieve optimal outcomes in various industries. The primary goal of industrial engineering is to identify and eliminate inefficiencies and waste within a system.

Compared to other engineering disciplines, Industrial Engineers are specially trained here at the IMSE to assess an entire system's effectiveness and outcomes, leading our graduates to often serve in management positions as key decision makers. Our Red Raiders are prepared to be and are successful and outstanding Industrial Engineers and industry leaders. Many of our faculty serve as key leaders in industry professional organizations as well.

WHAT DO INDUSTRIAL ENGINEERS DO?



ERGONOMICS & HUMAN FACTORS

Students learn to design work environments that are safe, efficient, and comfortable for workers in order to optimize the interaction between humans and machines.



DATA SCIENCE

Students learn concepts such as programming, calculus, linear algebra, probability, & statistics in order to solve problems and make data-driven decisions.



MANUFACTURING & PRODUCTION

Students learn design, analysis, and optimization of manufacturing systems, including facility layout, production planning, quality control, process improvement, & lean manufacturing principles.



OPERATIONS RESEARCH/LOGISTICS

Students study topics like demand forecasting, procurement, distribution, inventory control, and supply chain network design to coordinate and optimize the flow of goods, services, and information.



SYSTEMS ENGINEERING

Systems engineering is an interdisciplinary field of engineering and engineering management that focuses on how to design, integrate, and manage complex systems over their life cycles.



ENGINEERING SCIENCES

Courses in fundamental engineering sciences, such as physics and materials science to help students understand the principles behind engineering systems and their behavior.

From Here, It's Possible™



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RESEARCH OPPORTUNITIES

You will be engaging in research projects expanding your knowledge and equipping you with essential skills for the professional workforce and graduate school. Collaborations between students and professors on innovative research projects that align with our focus areas and your areas of interest are a priority here at the IMSE. By working closely with faculty members who are experts in their respective fields, you will delve into real-world challenges and contribute to the advancement of knowledge.