Engineering Management, **Minor**

**ESENMMIN**

**Description**

The minor in engineering management program provides students with the skills for effective management and leadership of engineering-driven enterprises.

The minor curriculum supplements students' majors by adding to the breadth of engineering science and design and equipping the student with additional management and design skills. This knowledge is augmented with an understanding of business practices, organizational behavior and management skills to enable the student to succeed in the management of a scientific or engineering enterprise. Topics such as project and resource management, financial engineering, risk management, configuration management, service plans, product liability, entrepreneurship and operations management are covered, in addition to product design and process development.

**At a Glance**

- **College/School:** [Ira A. Fulton Schools of Engineering](#)
- **Location:** Tempe campus or [online](#)

**Program Requirements**

**Minor Map (Archives)**

2021 - 2022 Minor Map

The minor in engineering management requires completion of 18 credit hours: four core courses (12 credit hours) and two elective courses (six credit hours). All courses must be passed with a "C" or better. At least 12 credit hours must be completed in residency at ASU or through ASU Online.

**Core Courses -- 12 credit hours**

- [IEE 300: Economic Analysis for Engineers](#) (3)
IEE 380: Probability and Statistics for Engineering Problem Solving (CS) or IEE 220: Business and Industrial Engineering (3)

Notes: *Students whose major requires IEE 380 Probability and Statistics for Engineering Problem Solving will need to take IEE 220 Business and Industrial Engineering for the engineering management minor. **Students who are not required to take IEE 380 as part of their major requirements should select it for the minor to be eligible for more elective options. ***IEE 380 is the option for ASU Online students.

IEE 431: Engineering Administration (L) (3)

IEE 458: Project Management or CEE 481: Civil Engineering Project Management (3)

Notes: CEE 481 may not be used for both the BSE in civil engineering and the minor in engineering management.

Electives -- 6 credit hours

IEE 369: Work Analysis and Design (L) (3)
IEE 376: Operations Research Deterministic Techniques/Applications (4)
IEE 381: Lean Six Sigma Methodology (3)
IEE 412: Introduction to Financial Engineering (3)
IEE 454: Risk Management (3)
IEE 456: Introduction to Systems Engineering (3)
IEE 474: Quality Control (3)

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this minor.

Enrollment Requirements

GPA Requirement: None

Incompatible Majors: BSE in engineering management; BSE in industrial engineering

Other Enrollment Requirements: Prior to enrolling in the minor, students must have completed MAT 265 and MAT 266 (or an equivalent calculus sequence) with a grade of "C" or better in each.

Students who are not required to take IEE 380 as part of their major requirements should plan to take it for the minor instead of IEE 220 to be eligible for more required electives.

Interested students should consult with a School of Computing, Informatics and Decision Systems Engineering advisor to verify eligibility and to review all courses required for the minor. To schedule a CIDSE advising appointment, students should visit https://fultonapps.asu.edu/advising.

Current ASU undergraduate students may pursue a minor and have it recognized on their ASU transcript at graduation. Minor requirements appear on the degree audit once the minor is added. Certain major and minor combinations may be deemed inappropriate by the college or department of either the major
program or the minor. Upper-division courses taken for the minor may not count toward both the major and the minor. Students should contact their academic advisor for more information.

**Attend Online**

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program description and request more information [here](#).

**Career Opportunities**

A minor can help students enhance the marketable skills they acquire in their major program and help them develop new skills apart from it, though most career areas do require more training than a minor alone can provide. The minor in engineering management can help students pursuing careers in engineering and business fields gain valuable skills in management for engineering-related professions, which could fast track an individual into a managerial role down the line in their profession.

Career examples include production supervisor, project management team member or project management team leader.

**Contact Information**

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