Engineering Management, BSE

ESEMGBSE

Some accelerated combinations are not available to ASU Online students. Interested students should contact their academic advisor for more information.

Fast-track your engineering career into management through this degree program.

Program description

The Bachelor of Science in Engineering program in engineering management is designed to provide students with skills required for effective management and leadership of engineering-driven enterprises.

The curriculum provides a breadth of engineering science and design, with depth in one specific area suitable for practice. This knowledge is augmented with an understanding of business practices and organizational behavior and with the development of management skills, enabling the graduate to succeed in the management of a scientific or engineering enterprise. Topics covered include project and resource management, financial engineering, risk management, configuration management, service plans, product liability, entrepreneurship, and operations management, in addition to product design and process development.

Students gain a deep understanding of at least one industry sector based on the focus area courses.

Accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Engineering Management Program Criteria.

STEM-OPT for international students on F-1 visas

This program may be eligible for an Optional Practical Training extension for up to 24 months. This OPT work authorization period may help international students gain skills and experience in the U.S. Those interested in an OPT extension should review ASU degrees that qualify for the STEM-OPT extension at ASU's International Students and Scholars Center website.

The OPT extension only applies to students on an F-1 visa and does not apply to students completing a degree through ASU Online.

At a glance

- **College/school:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe or Online, ASU Local

- **Second language requirement:** No
- **STEM-OPT extension eligible:** Yes
- **First required math course:** MAT 265 - Calculus for Engineers I
- **Math intensity:** Substantial 

Curriculum

View 2025 - 2026 curriculum | View curriculum archives

Concurrent program options

Students pursuing concurrent degrees (also known as a “double major”) earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

Accelerated program options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's plus master's degree with:

Global Management (Creative Industries and Design Thinking), MGM

Global Management (Data Science), MGM

Global Management (Digital Audience Strategy), MGM

Global Management (Global Affairs), MGM

Global Management (Global Business), MGM

Global Management (Global Development and Innovation), MGM

Global Management (Global Digital Transformation), MGM

Global Management (Global Entrepreneurship), MGM

Global Management (Global Health Care Delivery), MGM

Global Management (Global Legal Studies), MGM

Global Management (Nonprofit Leadership and Management), MGM

Global Management (Public Administration), MGM

Global Management (Public Policy), MGM

Global Management (Sustainability Solutions), MGM

Global Management (Sustainable Tourism), MGM

Global Management, MGM

Industrial Engineering, MS

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master’s during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and how to apply.

Admission requirements

General university admission requirements:

All students are required to meet general university admission requirements.
First-year | Transfer | International | Readmission

Additional requirements:

The admission standards for majors in the Ira A. Fulton Schools of Engineering, shown below, are higher than minimum university admission standards. International students must meet the same admission standards, with the possible additional requirement of a minimum English language proficiency test score. If the university requires an English proficiency test score from the applicant, then admission to engineering requires a minimum TOEFL iBT score of 79 (internet-based test, taken in a testing center), a minimum IELTS score of 6.5, a minimum PTE score of 58, a minimum Duolingo English score of 105, or a minimum Cambridge English exam score of 176.

First-year admission:

1. Minimum 1210 SAT combined evidence-based reading and writing plus math score or minimum 24 ACT combined score, **or** a minimum high school cumulative GPA of 3.00 in ASU competency courses, **or** class ranking in top 25% of high school class, **and**
2. Admission may be granted with one deficiency in no more than two competency areas. Deficiencies in both math and laboratory science are not acceptable.

Transfer admission requirements:

Transfer students with fewer than 24 transferable college credit hours:

1. minimum transfer GPA of 2.75 for fewer than 24 transfer hours, **and**
2. meet first-year admission requirements

Transfer students with more than 24 transferable college credit hours:

1. Minimum transfer GPA of 2.75 for 24 or more transfer hours, **and**
2. If ASU Admission Services requires submission of a high school transcript, admission may be granted with one deficiency in no more than two competency areas. Deficiencies in both math and laboratory science are not acceptable.

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about ASU tuition and financial aid options to find out which will work best for them.

Change of Major requirements

Admission requirements for many majors in the Ira A. Fulton Schools of Engineering are higher than university admission standards.

Students should visit the Change of Major form for information about how to change a major to this program.

Attend online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program's ASU Online page for program descriptions and to request more information.

ASU Local

It is now possible to earn an ASU degree with ASU Local, an integrated college experience in which students take advantage of in-person success coaching and programming experiences on site while completing one of 130+ undergraduate online degree programs, all of which come with online faculty interaction and tutoring support.

Transfer options

ASU is committed to helping students thrive by offering tools that allow personalization of the transfer path to ASU. Students may use MyPath2ASU® to outline a list of recommended courses to take prior to transfer.

ASU has transfer partnerships in Arizona and across the country to create a simplified transfer experience for students. These pathway programs include exclusive benefits, tools and resources, and they help students save time and money in their college journey.

Program learning outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Students will have an ability to function effectively as a member or leader of a team. Graduates will successfully perform work related tasks including establishing goals, work plans, tasks, meets deadlines in order to create a collaborative and inclusive environment that establishes goals, plans, tasks, meets deadlines, and creates a collaborative and inclusive environment. (ABET)
- Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. (ABET)
- Communicate effectively with a range of audiences.(ABET)

Global opportunities

Global experience

Students gain valuable experience through study abroad, and with more than 300 Global Education programs available to them, they can tailor their experience to their specific interests and skills.

As students learn to thrive in a global environment, they build communication skills, are challenged to adapt and persevere, and are exposed to research and internships across the world, in addition to increasing their professional networks.

Participation in a global education program, whether in a foreign country, in the U.S. or online, provides students with heightened cultural competency, enhancing their resumes and helping them stand out in a competitive field.

Career opportunities

An engineering management graduate is prepared to begin a career as a:

- production supervisor
- project management team member or lead
- supply logistics engineer
- system specification and customer relationship management specialist or similar role

Graduates are ready to progress through successively higher levels of management responsibility.

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary
Compliance Manager	3.3%	$128,620
Construction Manager	4.5%	$101,480
Environmental Engineer	6.1%	$96,530
General Manager (GM)	4.2%	$98,100
IT Project Manager	9.7%	$98,740
Information Technology Manager (IT Manager)	15.4%	$164,070
Quality Control Manager	1.6%	$107,560
Regulatory Affairs Manager	3.3%	$128,620
Software Developer	25.7%	$127,260
Wind Energy Project Manager	3.3%	$128,620

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

Bright Outlook

Professional licensure

ASU programs that may lead to professional licensure or certification are intended to prepare students for potential licensure or certification in Arizona. Completion of an ASU program may not meet

educational requirements for licensure or certification in another state. For more information, students should visit the ASU professional licensure webpage.

Students should note that not all programs within the Ira A. Fulton Schools of Engineering lead to professional licensure.

Contact information

Industrial, Systems & Operations Engineering Prgm | CTRPT 105
SCAI.Undergrad.Admission@asu.edu
480-965-3199