Engineering Management, BSE
ESEMGBSE

Program Description

The BSE 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.

Graduates have a deep understanding of at least one industry sector based upon the focus area courses.


At a Glance

- **College/School:** [Ira A. Fulton Schools of Engineering](https://www.asu.edu/fulton)
- **Location:** Tempe campus or [Online](https://www.asu.edu), [ASU Local](https://www.asu.edu)
- **Additional Program Fee:** Yes
- **Second Language Requirement:** No
- **First Required Math Course:** MAT 265 - Calculus for Engineers I
- **Math Intensity:** Substantial

Required Courses (Major Map)
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 and 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 (Integrated Health Care), 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. During their junior year, eligible students are advised by their academic departments to apply.
Admission Requirements

General University Admission Requirements:
All students are required to meet general university admission requirements.
Freshman | Transfer | International | Readmission

Additional Requirements:

The admission requirements for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission requirements. Students should select a second major choice when applying for admission to a degree program in the Ira A. Fulton Schools of Engineering.

International students may have an additional English language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant (https://admission.asu.edu/international/undergrad-student), then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 79 on iBT (internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. minimum 1210 SAT combined evidence-based reading and writing plus math score or minimum 24 ACT combined score or 3.00 minimum ABOR GPA 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: https://admission.asu.edu/first-year/competency-requirements. 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 less than 24 transfer hours, and
2. satisfy the freshmen 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 Admission Services requires submission of a high school transcript, admission may be granted with one deficiency in no more than two competency areas: https://admission.asu.edu/first-year/competency-requirements. Deficiencies in both math and laboratory science are not acceptable.
Change of Major Requirements

Admission requirements for many majors in the Ira A. Fulton Schools of Engineering are higher than university admission standards. Students can find more information on the following Engineering website: [https://engineering.asu.edu/admission-requirements/](https://engineering.asu.edu/admission-requirements/).

Students should refer to [https://changemajor.apps.asu.edu](https://changemajor.apps.asu.edu) 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 description and request more information [here](https://changemajor.apps.asu.edu).

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. Those interested may learn more about ASU Local [here](https://changemajor.apps.asu.edu).

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™](https://admission.asu.edu/transfer/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. Students may learn more about these programs by visiting the admission site: [https://admission.asu.edu/transfer/MyPath2ASU](https://admission.asu.edu/transfer/MyPath2ASU).

Global Opportunities

Global Experience

With over 250 programs available, study abroad allows students to tailor their experience to their unique interests and skill sets. Students in engineering management are able to gain hands-on experience in various countries; most recent examples include Germany and Singapore.

Students acquire heightened cultural competency and leadership and critical thinking skills through study abroad, and this valuable experience on their resumes ensures they stand out in a competitive field. [https://goglobal.asu.edu/](https://goglobal.asu.edu/)
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 a similar role

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

Career examples include but are not limited to those shown in the following list. Advanced degrees or certifications may be required for academic or clinical positions.

<table>
<thead>
<tr>
<th>Career</th>
<th>*Growth</th>
<th>*Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance Manager</td>
<td>not available</td>
<td>not available</td>
</tr>
<tr>
<td>Construction Manager</td>
<td>8.5%</td>
<td>$97,180</td>
</tr>
<tr>
<td>Environmental Engineer</td>
<td>3.1%</td>
<td>$92,120</td>
</tr>
<tr>
<td>General Manager (GM)</td>
<td>5.8%</td>
<td>$103,650</td>
</tr>
<tr>
<td>IT Project Manager</td>
<td>5.7%</td>
<td>$92,870</td>
</tr>
<tr>
<td>Information Technology Manager (IT Manager)</td>
<td>10.4%</td>
<td>$151,150</td>
</tr>
<tr>
<td>Quality Control Manager</td>
<td>0.9%</td>
<td>$108,790</td>
</tr>
<tr>
<td>Regulatory Affairs Manager</td>
<td>not available</td>
<td>not available</td>
</tr>
<tr>
<td>Software Developer</td>
<td>not available</td>
<td>not available</td>
</tr>
<tr>
<td>Wind Energy Project Manager</td>
<td>not available</td>
<td>not available</td>
</tr>
</tbody>
</table>

* 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. Green Occupation

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: https://admission.asu.edu/academics/licensure.
Students should note that not all programs within the Fulton Schools of Engineering lead to professional licensure.

**Contact Information**

[Industrial, Systems & Operations Engineering Prgm](mailto:)| CTRPT 105  
[SCAI.Undergrad.Admission@asu.edu](mailto:)| 480-965-3199