Engineering, BSE

Engineers are creative problem-solvers who help shape the future. Few professions unleash the spirit of innovation like engineering.

Program Description

The BSE program in engineering prepares graduates to collaborate across disciplines to design and build solutions to real-world problems. In the engineering program, students apply engineering fundamental knowledge and design thinking to real projects every semester.

In the Bachelor of Science in engineering program, students choose a disciplinary concentration to develop in-depth knowledge in a specific area and they choose a secondary focus area. This flexibility allows students to tailor their degree to achieve their individual career and life goals.

Students can choose from the following concentrations: automotive systems, electrical systems, mechanical engineering systems and robotics.


This major is eligible for the Western Undergraduate Exchange program at the following location: Polytechnic campus. Students from Western states who select this major and campus may be eligible for reduced nonresident tuition at a rate of 150% of Arizona resident tuition plus all applicable fees. Students should click the link for more information and eligibility requirements of the WUE program.

At a Glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Polytechnic WUE
- **Additional Program Fee:** Yes
• **Second Language Requirement:** No
• **First Required Math Course:** MAT 265 - Calculus for Engineers I
• **Math Intensity:** Substantial

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**Required Courses (Major Map)**

- [2022 - 2023 Major Map](#)
- [Major Map (Archives)](#)

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**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.

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**Admission Requirements**

**General University Admission Requirements:**
All students are required to meet general university admission requirements.

[First-year](#) | [Transfer](#) | [International](#) | [Readmission](#)

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**Change of Major Requirements**

A current ASU student has no additional requirements for changing majors.

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.

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**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://www.mypath2asu.com) 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).

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**Global Opportunities**

**Global Experience**
Students gain valuable experience when studying abroad, experience that enhances their resume. With over 250 programs available, study abroad allows students to tailor their experience to their unique interests and skill sets. Students in engineering are able to gain hands-on experience in a variety of countries around the world, such as Germany and Colombia. In a competitive field, students stand out with the heightened cultural competency and leadership and critical thinking skills they achieved when studying abroad. https://goglobal.asu.edu/

Career Opportunities

Engineers collaborate on transdisciplinary teams to design, manufacture and deliver innovative technological products and services. The program enables students to develop sophisticated technical skills in tandem with the professional skills of communication, teamwork, collaboration, and the self-motivation and adaptability that many employers seek.

Graduates are prepared to work in large corporations, government agencies and small businesses as well as to go on to graduate school to pursue advanced degrees. The program's emphasis on open-ended design and project-based learning supports the development of entrepreneurial skills and attitudes, and some students start companies of their own.

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>Automation Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Automotive Engineer</td>
<td>3.9%</td>
<td>$90,160</td>
</tr>
<tr>
<td>Electrical Engineer</td>
<td>4.6%</td>
<td>$100,830</td>
</tr>
<tr>
<td>Energy Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Fuel Cell Engineer</td>
<td>3.9%</td>
<td>$90,160</td>
</tr>
<tr>
<td>Mechanical Engineer</td>
<td>3.9%</td>
<td>$90,160</td>
</tr>
<tr>
<td>Microsystem Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Robotics Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Solar Energy Systems Engineer</td>
<td>1.3%</td>
<td>$103,380</td>
</tr>
<tr>
<td>Wind Energy Engineer</td>
<td>1.3%</td>
<td>$103,380</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

Engineering Programs | SUTON 240
polyadvising@asu.edu | 480-727-1874