

Biomedical Engineering, MS

ESBIOENMS

Program description

Degree awarded: MS Biomedical Engineering

The School of Biological and Health Systems Engineering faculty offer a graduate program leading to the MS in biomedical engineering.

Areas of study include:

- biomaterials, biosensors, biomarkers and biomimetic materials
- biomedical imaging
- molecular, cellular and tissue engineering
- neural and rehabilitation engineering
- synthetic and systems biology

The biomedical engineering program offers an accelerated BSE/MS degree in biomedical engineering for students in the Bachelor of Science in Engineering program who have maintained a GPA of 3.50 (scale is 4.00 = "A") into their junior year. The program allows up to 12 credit hours of graduate-level coursework taken during the senior year to be applied toward both the undergraduate and graduate degrees.

At a glance

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

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:

[Biomedical Engineering, BSE](#)

Biomedical Engineering (Biological Devices), BSE

Biomedical Engineering (Biomedical Devices), BSE

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](#).

Degree requirements

30 credit hours and a thesis, or

30 credit hours including the required applied project course (BME 593)

All candidates pursuing a master's degree in biomedical engineering are required to complete an approved plan of study. Special course requirements for the different areas of study are established by the faculty.

A candidate whose undergraduate degree is in a field other than biomedical engineering may be required to complete more than the required credit hours of the program of study.

The following are program requirements for the applied project option:

biomedical engineering coursework (13)

biomedical engineering seminar (2)

general electives (6)

quantitative electives (6)

applied project (3)

The following are program requirements for the thesis option:

biomedical engineering coursework (9)

biomedical engineering seminar (3)

general electives (6)

quantitative electives (6)

thesis (6)

Admission requirements

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in any field from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. resume or curriculum vitae
4. a statement of purpose
5. two letters of recommendation
6. proof of English proficiency

Additional Application Information

An applicant whose native language is not English must provide proof of [English proficiency](#) regardless of their current residency.

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.

Application deadlines

Fall

Spring [expand](#)

[expand](#)

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:

- Ability to develop a research or design project in biomedical engineering for students who will be completing a thesis or an applied project
- Ability to evaluate quantitative problems related to biomedical engineering by applying statistical analysis, mathematical modeling, and image processing methods related to biomedical engineering
- Ability to communicate biomedical concepts to an interdisciplinary audience through data synthesis, interpretation and visualization

Career opportunities

Professionals who specialize in biomedical engineering research areas are in high demand by local, national and international employers across sectors and industries, including business, academia, health care, government and research.

Career examples include:

- biochemical engineer
- bioinformatics scientist
- biomedical engineer
- geneticist
- health sciences manager
- medical scientist
- molecular biologist
- nanosystems engineer

Contact information

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