

Biomedical Engineering, PhD

ESBIOENPHD

Program description

Degree awarded: PHD Biomedical Engineering

The School of Biological and Health Systems Engineering faculty offer a graduate program leading to the PhD 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 doctoral degree in biomedical engineering is conferred upon evidence of excellence in research resulting in a scholarly dissertation that is a contribution to knowledge.

At a glance

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

Degree requirements

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

Required Bioengineering Courses (18 credit hours)

Doctoral students are required to complete six credit hours from each of the following three areas:
BME graduate courses (BME prefix) (6)

life science or biology graduate courses (6)

quantitative math or engineering (6)

Other Requirement (3 credit hours)

BME 780 Teaching Practicum (3)

Technical Electives (9 credit hours)

Research (37 credit hours)

BME 792 Research (37)

Seminar (5 credit hours)

BME 591 Seminar (5)

Culminating Experience (12 credit hours)

BME 799 Dissertation (12)

Additional Curriculum Information

Up to six credit hours of the required biomedical engineering courses and technical electives combined may be at the 400 level.

Courses used to satisfy the technical electives requirement must be selected from the list of 400- to 700-level courses that are not selected as required BME courses.

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 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. a statement of purpose
4. resume or curriculum vitae
5. three 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.

Students should view the School of Biological and Health Systems [admission checklist](#) for specific admission procedures and deadlines.

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 independently develop an approach for identifying problems, collecting, analyzing and interpreting data in the area of biomedical engineering
- Develop ability to communicate original biomedical research as scholarly work or publication
- Develop teaching practices under faculty supervision that are appropriate for biomedical engineering education within industry or academia

Career opportunities

Professionals who specialize in biomedical engineering research areas are in high demand across sectors and industries, including business, academia, hospitals, government agencies and research facilities. The skill sets gained by graduates of the doctorate program in biomedical engineering are sought by local, national and international employers.

Career examples include:

- bioinformatics scientist
- biomedical engineer
- geneticist
- medical scientist
- molecular biologist
- professor

Contact information

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