Molecular, Cellular, Tissue and Biomaterials Engineering (Graduate Certificate)

ESMCTBGRCT

This program is not accepting applications at this time.

Program Description

Degree Awarded: Certificate Molecular, Cellular, Tissue, and Biomaterials Engineering (Certificate)

Engineers are constantly improving in their capability to manipulate the components of biological systems. Approaches for localized delivery of drugs, genetic manipulations of cells, and building of tissue scaffolds are changing rapidly.

The certificate program in molecular, cellular, tissue and biomaterials engineering exposes students to many of the principles and techniques which are central to molecular, cellular, tissue and biomaterials engineering. Students who complete the program have a set of skills that enables them to participate in engineering biological systems at levels from the molecular to tissues.

At a Glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe or Online

Degree Requirements

15 credit hours
Required Core (3 credit hours)
BME 567 Tissue Engineering and Regenerative Medicine (3)

Electives (12 credit hours)

Additional Curriculum Information
Students should see the academic unit for an approved list of elective 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. Students should see below for more information.

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 applicants must have 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. proof of English proficiency

Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

Students must have a BS or BSE in biomedical engineering; or a BS or BSE in engineering plus advanced (postbaccalaureate) training in medicine, physiology or related fields; or a BS in a science discipline plus additional background work in biology, thermodynamics, fluids, transport and additional work in medicine, physiology or related fields. Specifically, applicants need to demonstrate equivalent proficiency in at least four of the following five areas:

- biomaterials
- electrical networks or circuits
- engineering mechanics
- fluid mechanics or engineering transport
- thermodynamics or physical chemistry

Admission examinations are not required.
Career Opportunities

Professionals who specialize in molecular, cellular, tissue and biomaterials engineering are in high demand across sectors and industries, including business, academia, hospitals, government agencies and research facilities. The skill set gained by completing the certificate program in molecular, cellular, tissue and biomaterials engineering is sought by local, national and international employers.

Contact Information

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