



Overview

Gain an in-depth understanding of biomaterials by studying the properties, processing, and economics of biomedical and biotechnology applications.

After successfully completing this program, you will be able to:

- Explore how engineered materials are used in medical devices.
- Analyze functionalities of various biological species in tissue engineering.
- Identify design materials for biological engineering purposes.
- Think more critically about bioengineering concepts as they relate to emerging areas of tissue engineering and biomaterials.
- Effectively communicate and discuss advanced biomaterials concepts with technical experts in the field, along with professionals in related fields who do not have specific background in this area.
- Seek out additional multidisciplinary knowledge and conduct research to broaden your expertise in tissue engineering and biomaterials.

Requirements and Curriculum

Required course:

- BIOM 570 – Bioengineering (3 cr.)

Select 3 courses from the following:

- BIOM 525 – Cell and Tissue Engineering (3 cr.)
- BIOM 531 – Materials Engineering (3 cr.)
- BIOM 573 – Structure and Function of Biomaterials (3 cr.)
- BIOM 574 – Bio-Inspired Surfaces (3 cr.)

Total Credits: 12

Note: Additional coursework may be required due to prerequisites.

Note: This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted toward only one certificate.

Delivery

Online

Credits

12 credits

Tuition

\$964 per credit

- Includes [Student Services](#)
- [Fees](#) assessed separately
- [Financial aid](#) is available; eligibility determined on an individual basis

Time frame

1 year

More info

online.colostate.edu/certificates/biomaterials-tissue-engineering

Contact

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Application Deadlines

Spring semester: **November 15**

1 Review Admission Requirements

- B.S. in engineering, life sciences, or natural sciences from a regionally accredited institution
- GPA of 3.0 or higher in engineering or life science courses
- Calculus 1, 2, and 3
- Ordinary Differential Equations
- Physics 1 and 2 (calculus-based preferred)
- At least one semester of Life Science (biology, physiology, etc.)

2 Prepare Application Materials

Two letters of recommendation (professional and/or academic)

You will provide information about your recommenders in the online application. CSU will contact them with instructions and a link to a secure form they will submit on your behalf.

Statement of purpose

- Your purpose for pursuing graduate education and how it will contribute to your long-term goals and career plans
- Why you have selected Colorado State University as the place to pursue your graduate studies
- A description of teaching, research/creative, or other academic work you have engaged in relevant to the qualifications.

3 Complete Online Application

Complete the [online graduate application](#) and pay the nonrefundable application processing fee (payable online). As soon as you have completed the required information, please submit your application. Your application will not be reviewed until it is complete and all required materials have been received.

- Select “Biomaterials and Tissue Engineering (Certificate) – Distance” when choosing the Program of Study. (Note: You must first select “Certificate” at the top.)

4 Request Transcripts

Request one official transcript from the institution where you earned your bachelor’s degree. Transcripts from Colorado State University are not required. Official transcripts can either be mailed in or sent as e-transcripts.

Send e-transcripts to: gradadmissions@colostate.edu

Send paper copies to:

Graduate Admissions
Colorado State University – Office of Admissions
1062 Campus Delivery
Fort Collins, CO 80523-1062

Check Your Application Status

View your [application status](#) at any time to ensure your application checklist is complete or to check on updates. Once your complete application, including supporting materials, is received, the department admission committee will review your application and notify you of their decision.

International Students

See [website](#) for test score and transcript requirements.

