

BIOMEDICAL ENGINEERING - GRADUATE CERTIFICATE

MCEN 6228

Special Topics in Mechanical
Engineering

3

The graduate certificate in biomedical engineering trains next-generation professional engineers to interface engineering and medicine with design and problem solving to improve human health.

- Apply knowledge and skills to a broad range of biomedical fields, from the establishment of disruptive imaging technologies or fabrication of new biomimetic tissue replacements to conception of innovative medical devices.
- Engage with clinical, veterinary, and entrepreneurial partners at cutting edge institutions along the Front Range such as Anschutz Medical Campus, Colorado State University for veterinary medicine and local companies, such as Allosource, Medtronic and Terumo, among others.
- Gain unique experience in translational and applied medicine.

Distance Education Option

Students can take individual courses toward a master's degree or graduate certificate through distance education (online). For more information, connect with the individual graduate program directly.

Requirements

Admission Requirements

Applicants who are not degree-seeking students at the university may apply for a graduate certificate through Continuing Education by submitting a Nondegree Graduate Certificate Application (https://ce.apply.colorado.edu/register/nondegree_grad_cert_app/). Eligible candidates must hold an undergraduate degree in engineering, sciences or mathematics from an institution accredited by an agency recognized by the U.S. Department of Education. Our preferred minimum GPA is 3.0.

Internal applicants who are enrolled bachelor's–accelerated master's (BAM) or graduate students at CU Boulder in engineering, sciences or mathematics and have a 3.0 cumulative GPA or higher are eligible to apply. We accept applications on a rolling basis.

For more information on applying, visit the department's graduate certificates (<https://www.colorado.edu/mechanical/academics/graduate-certificates/>) webpage or contact megrad@colorado.edu.

Required Courses and Credits

Nine credit hours of graduate level coursework will be required to complete the certificate program with a B grade or above in each course. A minimum GPA of 3.0 is required to remain in good academic standing.

Code	Title	Credit Hours
MCEN 5117	Anatomy and Physiology for Engineers	3
MCEN 5127	Biomedical Ultrasound	3
MCEN 5133	Intro to Tissue Biomechanics	3
MCEN 5228	Special Topics in Mechanical Engineering (Topics: Materials and Devices in Medicine; Biometric Materials; Mechanobiology; Mechanics of Soft Matter)	3