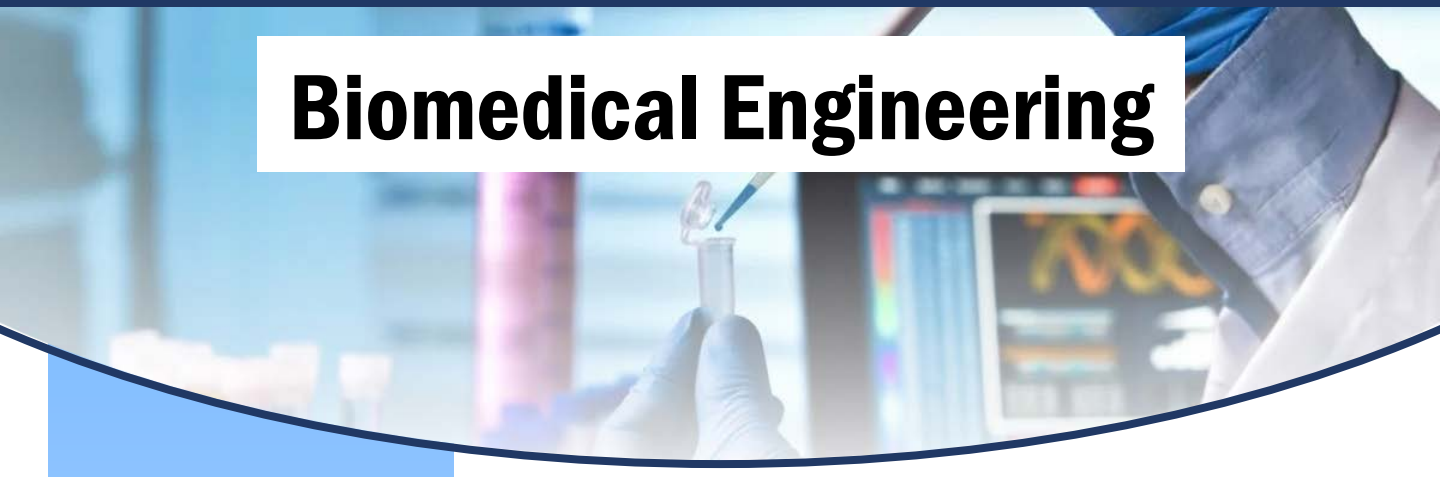
MASTER OF ENGINEERING PROGRAM



Biomedical Engineering

"California is No. 1 in Medical Device Industry."
Medical Design & Outsourcing (2019)

"Southern California Life Science industry directly employed 237,042 individuals in 2018. The average earnings for these jobs > $90,000/year."
BIOCOM California Economic Impact Report (2019)

"Distributed over sectors such as Biotech, Pharmaceuticals, and Medical Device Manufacturing, Orange County's Life Sciences industry is responsible for more than $35.3 billion in annual economic activity."
Orange County Businesses (2017)

Program Overview:

The Professional Master of Engineering (M.Eng) program's Biomedical Engineering Concentration, also known as BioENGINE (BioEngineering, Innovation, & Entrepreneurship), is designed to provide rigorous and practical hands-on team-based training in biomedical innovation, entrepreneurship / intrapreneurship and commercialization. BioENGINE will train students through experiential learning to become experts and leaders in developing biomedical devices and technologies.

Program Features:

- 3-course sequence focused on innovating, building, and launching a medical technology business.
- Job searches, industrial networking, career development facilitated by M.Eng staff.
- Choice of 6 technical electives on timely, relevant biomedical engineering topics, taught by experts in the field.
- Design-build-test new medical technology, with faculty and industry mentoring, via comprehensive Capstone design sequence.
- Interact and network with industry through symposiums, lectures, and design projects.
- Receive Master of Engineering degree in 9- 15 months.

For more information and to apply:

meng.eng.uci.edu

UCI University of California, Irvine

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MASTER OF ENGINEERING – BIOMEDICAL ENGINEERING

Plan of Study

FALL	WINTER	SPRING	SUMMER OR FALL (OPTIONAL)
Engineering Leadership	Engineering Leadership	Engineering Leadership	
Technical Course	Technical Course	Technical Course	
Technical Course	Technical Course	Technical Course	
Capstone Project*	Capstone Project*	Capstone Project*	Capstone Project*

Engineering Leadership (3 quarters/12 units):

Topics include: product ideation, design, manufacturing, and marketing, writing proposals and business plans, successful team building, project management, revenue generation, intellectual property, and regulatory issues.

Concentration Courses (select 6):

BME 210P Molecular and Cellular Engineering
BME 212P Cardiovascular Tissue Engineering
BME 220P Sensory Motor Systems
BME 234P Neuroimaging Data Analysis
BME 262P Microimplants
BME 295P Nanotechnology for Biomedicine
BME 295P Bio-spectroscopy
BME 295P Neural Time Series
BME 295P Coding in the Brain
BME 211P Microscale Tissue Engineering
BME 221P Quantitative Physiology: Organ Transport Systems
BME 233P Dynamic Systems in Biology and Medicine
BME 238P Spectroscopy and Imaging of Biological Systems
BME 240P Intro Clinical Medicine for Biomedical Engineering
BME 251P Engineering Medical Optics
BME 260P Microfluidics and Lab-on-a-Chip
BME 295P Cardiovascular Device Technologies
BME 295P Ophthalmology Biomedical Engineering

Capstone Project (*2 quarters/8 units required):

Hands-on design project where teams of students, mentored by faculty and industry representatives, may:

- Survey unmet needs in the medical technology business space
- Define FDA design control requirements and product specifications
- Explore market entry strategies and commercialization
- Determine optimal technical solution
- Fabricate and test a prototype in UC Irvine's world class facilities and laboratories
- Present project development results at the Device Design Symposium at UCI Beall Applied Innovation
- Option to extend projects (summer or fall)

More information: meng.eng.uci.edu
Contact us: gradengr@uci.edu, (949) 824-8090

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