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 the innovation, building, and launching of a medical technology business.
- Program staff available to facilitate job searches, industrial networking, career development.
- Students choose 6 technical courses on timely, relevant biomedical engineering topics, taught by experts in the field.
- 2-quarter Capstone design course where interdisciplinary student teams design, build, and test new medical technology, with faculty and industry mentors.
- Regularly interact and network with industry through symposia, lectures, design projects, and company site visits.
- Earn a Master of Engineering degree in as soon as 9 months.

The life science industry in California generates $131B annually, providing 1.38M jobs.”
BIOCOM California Economic Impact Report (2021)

“Given the amount of medical device and diagnostic equipment companies in Orange County … life sciences has now become the largest industry in the market.”
Rebusiness Online (2021)

“California’s life sciences industry remains resilient amidst the COVID-19 pandemic. During this time, the overall number of life science job postings across the state increased 20%.”
Biocom and California Life Sciences “Life Sciences Workforce Trends” (2021)

For more information and to apply online:
https://meng.eng.uci.edu/
Biomedical Engineering Concentration -- Curriculum

**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.

**Technical Core Courses (1 per quarter):**
- BME 201P Biomedical Big Data
- BME 202P Biomedical Imaging and Photonics
- BME 203P Microimplants

**Technical Elective Courses (1 per quarter*):**
- BME 210P Molecular and Cellular Engineering
- BME 295P Intro to Machine Learning
- BME 295P Personalized Medical Devices
- BME 295P Bioinstrumentation

* Course offerings subject to change

**Capstone Project (* 2 quarters/ 8 units):**
Hands-on design project where teams of students, mentored by faculty and industry representatives, will:
- Perform competitive analysis and develop market entry strategies towards new product commercialization.
- Define FDA design control requirements and product specifications; determine optimal solution.
- Design, fabricate, and test a prototype in UC Irvine’s world class facilities and laboratories.
- Present project results to faculty and industry at the end-of-term Project Showcase.
- Option to do project Winter/Spring or Summer/Fall.

Apply online: [https://meng.eng.uci.edu/](https://meng.eng.uci.edu/)
Contact us: gradengr@uci.edu, (949) 824-8090
For more information, scan QR code