

HENRY E. RIGGS SCHOOL OF APPLIED LIFE SCIENCES

# Master of Engineering in Biopharmaceutical Processing

## MEng

The **MEng program** is designed for high-potential individuals to bridge the gap between traditional undergraduate programs in life sciences and engineering and the skills required for a successful career in development and manufacturing for the biopharmaceutical industry. Students will gain these skills via traditional seminars and lectures, workshops led by industry experts, practical hands-on lab courses, professional trainings, internships, individual and team projects, and independent and industry-led research projects.



### MEET THE DEMAND

The MEng program educates students to meet industry needs for a skilled workforce in biologics



### HANDS-ON LEARNING

Students benefit from active learning, laboratory classes, and summer internships



### INDUSTRY CONNECTION

Opportunities to develop a powerful network of senior academic and industry experts

## About the Program

The MEng program is an intensive two-year program housed within the Amgen Bioprocessing Center (ABC) at KGI. The program is designed to train students to become bioprocess engineering professionals employed within the biopharmaceutical industry.

### Year 1

- Core and prerequisite courses are combined to build basic skills in biopharmaceutical processing
- Foundational knowledge varies depending on a student's undergraduate degree
- Fundamental courses in quality/regulatory, business, and science

### Summer

Students choose one of the following options:

- Paid Industry Internship
- Team Master's Project (TMP)
- Independent Research

### Year 2

- Courses designed to give students real-world skills and training in the biopharmaceutical industry
- Advanced technical, management, and professional skill development courses
- Team Design Project to create an innovative solution to a bioprocess engineering design challenge



### Team Design Project | TDP

All second year MEng students complete the capstone TDP, which provides students with real-world experience of taking a drug molecule candidate to a marketable therapy. Students work in teams to design a complete biomanufacturing process capable of producing commercial quantities of a drug product. Teams are guided by a panel of academic and industry experts. Each team works on a separate design project using industry best practice while applying innovative methods and technologies. At the end of the academic year, students present a report of their work at a session with KGI faculty and industry participants.



## What can I do with this degree?

### Career Options

- Process development scientist and engineer
- Regulatory scientist
- Manufacturing science and technology (MS&T) specialist
- Process design engineer
- Process technology transfer & validation specialist
- Upstream – cell culture specialist
- Downstream – purification specialist
- Finished Product – formulation, filling & lyo specialist
- Technology innovation specialist
- Project management
- Product and portfolio management

### Top Companies of MEng Graduates

AMGEN



KITE PHARMA



Atara Biotherapeutics	Abzena
Allogene Therapeutics	Amphastar Pharmaceuticals
Berkeley Lights	BioMarin Pharmaceutical
Boehringer Ingelheim	Broadley James Corporation
Cell Care Therapeutics, Inc.	FDA
GE Healthcare	Genentech
GenVivo, Inc.	Gilead Sciences
Machine Bio	Navigant Consulting
Nohla Therapeutics, Inc.	Nuvera Life Science Consulting
Sartorius Stedim Biotech	Takeda Pharmaceutical Company
Teva Pharmaceutical Industries	Zoetis

## How to Apply

### Dates and Deadlines

**Start Term:** Fall

**Application Deadline:** January 15 (priority), rolling admissions thereafter

### Application Requirements

An online application form is required that contains questions about your personal and educational background. Additional requirements can be submitted along with your online application or separately:

- Personal Statement
- Resume
- Letter of Recommendation
- Transcripts
- Standardized Test Scores (GRE, MCAT, or GMAT)
- English Language Proficiency (TOEFL, PTE, IELTS, iTEP)
- \$75 non-refundable application fee

**Admission Interviews:** A phone, Skype, or on-campus interview is a requirement for admission. The Office of Admissions schedules individual interviews after an application is complete.

**Application Review:** The Admissions Committee is made up of faculty and senior administrators who will thoroughly and conscientiously review each application.

**Admitted Students:** Admitted students are required to submit a \$400 non-refundable enrollment fee to hold their spot in the program.

## Contact Us

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