

Master of Science in Biopharmaceutical Process Engineering (MSBPE)

Amgen Bioprocessing Center, Riggs School of Applied Life Sciences, Keck Graduate Institute, Claremont, CA

Introduction: Elevate your foundational knowledge in biomanufacturing or similar field and transform to a Bioprocess Engineer with the accelerated MSBPE program at Keck Graduate Institute, CA, USA (a part of the Claremont Colleges Consortium). Exposure to the advanced technical knowledge, hands-on skills and industry-relevant experience enable successful transition to biopharmaceutical industry and lead to an excellent career growth.

Highlights:

Academic excellence:

- Industry-focused curriculum
- Active learning-based education
- Hands-on skills

Student experience:

- Industry-sponsored Team Masters Project (TMP) as a Capstone Project
- Industry networking and professional development skills
- Mentorship by the Amgen Bioprocessing Center Advisory Board (ABCAB) members

Career opportunities:

- Summer internship at industry
- Successful career in top biopharma/biotech companies

Team Masters Project (TMP):

A Capstone Project, where students work in an industry-sponsored project with an interdisciplinary team under the guidance of Industry Liaison and Faculty Advisor. Great opportunity to experience real-life problem solving as a satellite team for a biopharma/biotech company. Some of the recent TMPs include studies on cell culture, protein purification, modeling, facility design, quality/regulatory and supply chain sponsored by companies, such as Amgen, Boehringer Ingelheim, Catalent, Gilead, Pfizer and ThermoFisher Scientific.

About the Program:

Qualified candidates with undergraduate degree in Biomanufacturing/Biochemical Engineering or equivalent, who satisfy the admissions requirements, will be considered for this one-year program. Students in the MSBPE program are required to complete a minimum of 30 Credits over the course of the study as per the table given below.

Description	Credits
Biopharmaceutical Processing	7.5
Biopharmaceutical Processing LAB	7.5
Team Master Project (TMP) - Capstone Project	12
Other courses (Business, Science)	3
Total	30

Students are also required to complete a 400-hour, paid, internship from relevant-industry in the summer before or after their first year, and present an internship poster reviewed by KGI faculty.

Outcomes: Launch your career as a successful bioprocessing professional in biotech/biopharma industry. Following job positions with good salary package are expected.

- Process Development Scientist and Engineer
- Manufacturing Science and Technology Specialist
- Quality and Regulatory Scientist
- Field Application Scientist
- Project Manager
- Process Technology Transfer and Validation Specialist