KGI HENRY E. RIGGS SCHOOL OF APPLIED LIFE SCIENCES

# Master of Science in Biopharmaceutical Process Engineering (MSBPE)

## Class of 2026 Graduation Requirements

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.

| 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, relevant-industry internship in the summer before/after their first year, and present an internship poster reviewed by KGI faculty*

### Program Requirements

| FALL Courses | | |
|---|---|---|
| **Course title** | **Course number** | **Credit** |
| Engineering Fundamentals for Bioprocessing | ENG 5153 | 3 |
| Introduction to Upstream Processing LAB | ENG 5133 | 1.5 |
| Vector and Strain Design LAB | ENG 5151 | 1.5 |
| Team Master Project (TMP) - Capstone | PDEV 6000 | 6 |
| Advanced Bioseparations Engineering | ENG 6140 | 1.5 |
| Advanced Upstream Processing | ENG 6132 | 1.5 |
| **Subtotal** | | **15** |

| SPRING Courses | | |
|---|---|---|
| **Course title** | **New number** | **Credits** |
| Advanced Upstream Processing LAB | ENG 5134 | 1.5 |
| Introduction to Bioseparations Engineering Lab | ENG 5141 | 1.5 |
| Advanced Bioseparations Engineering Lab | ENG 5142 | 1.5 |
| Data Analytics in R | MATH 5220 | 1.5 |
| Team Master Project (TMP) - Capstone | PDEV 6000 | 6 |
| Bioprocessing for Emerging Therapeutics | ENG 6152 | 1.5 |
| Elective (ENG/MATH/SCI/RES/BUS) | TBD | 1.5 |
| **Subtotal** | | **15** |