The online Master of Science in Biotechnology is a **one-year degree program** is a **STEM-designated program** empowers students with the theory and practices of biomanufacturing medicines, biologics, vaccines, and cell and gene therapy products, with hands-on training on industry-standard equipment.

You'll also have the flexibility to **customize the program to your professional and academic interests and goals** and offer multiple modalities, start dates, and flexible tracks:

- **Modalities:** Online and in-person
- **Start Dates:** Spring and Fall
- **Tracks:** Full-time Accelerated Track and Part-Time Track (where students take one or more courses/semester)

The **33-credit curriculum** features coursework designed to lay the foundations for understanding the science and regulatory landscape of the biotech industry. The following courses are mandatory:

Fall Semester Courses

- BIO 631G — Mammalian Cell Culture
- BIO 655G — Biopharmaceutical Microbiology
- PSC 610 — Technical Writing for Biopharmaceutical Industry
- BIO 625G—Advanced Molecular Biology
- MAT 610G—Statistical Inference and Modeling

Spring Semester Courses

- BIO648G — Microbial Fermentation
- PSC620G — Downstream Processing of
- PSC648G — Regulatory Science
- BIO 630 G—Advanced Cell Biology
- PSC 625G—Clinical Biochemistry

Summer Semester Courses

- BIO 675G—Capstone Experience

For your capstone project in the online master's in biotechnology degree program, you will produce a **peer-reviewed, written document** ranging from 25 to 40 pages. This document can either be a comprehensive literature review on a scientific topic relevant to your field of study, or it can stem from a no-credit experiential learning experience, such as a co-op, internship or lab research.