

Master of Science in Biopharmaceutical Technology

Degree Requirements

A total of 32 credits are required for graduation.

Core Course Requirements - 23 credits

Requirements - 18 credits

- Biopharmaceutical Technology I (3 credits)
- Biopharmaceutical Technology Lab I (1 credit)
- Advanced Therapeutic Medicinal Products (3 credits)
- Scientific Communications (3 credits)
- Design of Experiments (3 credits)
- Biopharmaceutical Technology II (3 credits)
- Biopharmaceutical Technology Lab II (1 credit)
- cGMP & Regulatory Affairs (3 credits)
- Statistical Quality Control (3 credits)

Subtotal: 23

Electives - 9 credits

- Electives selected based on personal goals and consultation with faculty advisor.

Subtotal: 9

Course Sequence

First Year - Fall Semester

PHRSC 570	Biopharmaceutical Technology I	3 cr.
PHRSC 571	Biopharmaceutical Technology Lab I	1 cr.
PHRSC 572	Advanced Therapeutic Medicinal Products	3 cr.
PHRSC 630	Scientific Communications	3 cr.
EMGT 615 or 643	Statistical Quality Control or Design of Experiments	3 cr.
EMGT/PHAR/PHRSC XXX	Electives	3 cr.

Subtotal: 16

First Year - Spring Semester

PHRSC 580	Biopharmaceutical Technology II	3 cr.
PHRSC 581	Biopharmaceutical Technology Lab II	1 cr.
PHRSC 582	cGMP & Regulatory Affairs	3 cr.

EMGT 615 or 643	Statistical Quality Control or Design of Experiments	3 cr.
EMGT/PHAR/PHRSC XXX	Electives	6 cr.
		Subtotal: 16
Subtotal: 32		
Total Credit Hours: 32		

Degree completion requirements:

- 1) All courses passed (“C” or better) with no more than two courses with a grade of “C” or “C+” and
- 2) Attain an overall grade point average of 3.0 or higher.

Elective Course Possibilities

Potential Electives include, but are not limited to:

EMGT 605 - Technology Management	3 cr.
EMGT 607 - Quality Technology	3 cr.
EMGT 619 - Technology Supply Chain	3 cr.
EMGT 620 - Multi-Criteria Dec Analys	3 cr.
EMGT 626 - Discrete Event Simulation	3 cr.
EMGT 627 - Legal & Ethical Issues of Engi	3 cr.
EMGT 644 - Quality Syst/Process Improvement	3 cr.
EMGT 648 - Project Management	3 cr.
EMGT 650 - Systems Integration	3 cr.
PHAR 511 – Drug Information and Informatics	2 cr.
PHAR 512 – Immunology	3 cr.
PHAR 513 – Biochemistry	3 cr.
PHAR 523 - Med Genetics & Pharmacogenomics	2 cr.
PHAR 610 – Principles of Pharmacokinetics	4 cr.
PHAR 612 – Principles of Medicinal Chemistry	3 cr.
PHAR 656 – Drug Design & Delivery	3 cr.
PHRSC 527 - Data Analysis & Biostatistics	3 cr.

PHRSC 551 – Intro Genetics & Genetic Counseling	3 cr.
PHRSC 552 - Advanced Genetics and Genomics	1 cr.
PHRSC 560 – Genetic Research and Bioinformatics	3 cr.
PHRSC 556 – Pharmacokinetic Sciences	2 cr.

Other engineering, pharmacy sciences, or pharmacy courses may be considered as electives after consultation with and approval of the faculty advisor.