Biotechnology • *Bachelor of Science*

Why Choose Biotechnology?

The Biotechnology program is designed to prepare students for positions in biological, medical or agricultural research laboratories, for graduate school or for professional school. The program is built on five aspects of modern laboratory science: recombinant DNA, cell culture, immunology, laboratory animal care, and advanced protein isolation techniques.

The first two years of the Biotechnology program are preparatory, structured to complete the biotechnology foundations course work. The professional sequence of biotechnology course work typically begins with the student's junior year. Admission to the professional biotechnology sequence is competitive and based on the foundation coursework. Internships and independent research projects are available to biotechnology students and enable them to gain experience in a laboratory setting.

Get a Great Job

The Ferris Biotechnology program is designed for those who want to enter the workforce in a biotechnology laboratory, or pursue study in a graduate or professional school. Biotechnology is responsible for many of the medical, agricultural and environmental advances that are part of modern society. With a career in biotechnology, you will be able to better understand these advances and apply this knowledge towards the improvement of our world.

Job opportunities exist in most industries that conduct research and development programs. Biotechnology graduates are especially marketable, since the hands-on experiments conducted at Ferris give students real-world experience in a controlled laboratory setting. In fact, over 90 percent of graduates have jobs in the industry or are enrolled in graduate or professional schools.

Admission Requirements

First year student admission is open to high school graduates (or equivalent) who demonstrate academic preparedness, maturity and seriousness of purpose with educational backgrounds appropriate to their chosen program of study. High School courses and grade point average, ACT composite score, and ACT reading and mathematics subscores will be considered in the admission and placement process. Transfer students must have at least 12 credits at the time of application with a minimum 2.0 overall GPA including an English and mathematics course, or they must provide their high school records and ACT scores for admission review.

Graduation Requirements

The Biotechnology program leads to a bachelor of science degree. Graduation requires a minimum 2.0 GPA overall and a minimum of 121 credits including completion of all general education requirements as outlined on the General Education website.

Required Courses — Credit Hours

General Education

This degree requires completion of the General Education requirements for a Bachelor of Science degree. Details of these requirements are delineated on the General Education website. Courses listed below as program/major required courses with the indicators: C, S, Z, R, G, may also be used to satisfy some of these general education requirements.

Required Courses or Program:

Biology classes		
BIOL 121	General Biology 1	4
BIOL 122	General Biology 2	4
BIOL 375	Principles of Genetics	3
BIOL 386	Microbiology and Immunology	5
BIOL 388	Advanced Immunology Lab	2
BIOL 470	Molecular Genetics	4
BIOL 471	Recombinant DNA Lab	3
BIOL 472	Proteins	3
BIOL 473	Proteins Laboratory	3
BIOL 474	Advanced Cell - Molecular Biol	3
BIOL 475	Bioinformatics	3
Choose an Anatomy and Physiology class or sequence:		
BIOL 205	Human Anatomy-Physiology	5
or		
BIOL 321	Human Physiology-Anatomy 1	5
AND		
BIOL 322	Human Physiology-Anatomy 2	5
Choose 1 of the following:		
BIOL 491	Biotechnology Internship	3-6
BIOL 497	Special Studies in BIOL	3-6
CHEM 497	Special Studies in CHEM	3-6
Supporting Sciences:		
MATH 130	Adv Algebra-Analytical Trig	4
MATH 251	Stats for the Life Sciences	3
CHEM 121	General Chemistry 1	5
CHEM 122	General Chemistry 2	5
CHEM 231	Quantitative Analysis	4
CHEM 321	Organic Chemistry 1	5
CHEM 322	Organic Chemistry 2	5
CHEM 332	Biochemistry Lab 1	2
CHEM 333	Biochemistry Lab 2	2
CHEM 364	Biochemistry	4
CHEM 474	Advanced Biochemistry	3
PHYS 211	Introductory Physics 1	4

More Information
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