

### Mid Michigan College Transfer Guide

The Bachelor of Science in Biotechnology is designed to prepare students for a research-based career in the biological, medical, or agricultural sciences. The biotechnology program is heavily focused on the study of the interactions between biological molecules and how these interactions influence basic biological processes in bacteria, plants, and animals. The program, which is both challenging and rewarding, focuses on five aspects of the biomolecular sciences: molecular and cell biology, protein isolation and characterization, applied immunology, laboratory animal care and handling, and genomics and bioinformatics.

Approximately half of biotechnology graduates enter directly into the workforce and half enter directly into graduate or professional school. For those graduates that enter directly into the workforce, job opportunities exist in companies with research and development programs such as those involved in pharmaceutical, medical, or agricultural research. Graduates of the biotechnology program at Ferris are especially marketable because of the extensive hands-on lab experience included in upper-level laboratories that gives students real-world experience in a controlled laboratory setting.

#### General Admission Criteria

The first two years of the biotechnology program are preparatory and structured to provide a foundation for upper-level biotechnology courses. The core sequence of biotechnology coursework typically begins at the start of the student's junior year. This core sequence includes advanced courses that are designed to maximize a student's hands-on involvement in laboratory activities via small class sizes and a low student: faculty ratio. Admission to the core biotechnology sequence is based on performance in foundation courses. Official transcripts from all accredited colleges/universities must be submitted with the Ferris application.

#### Course Requirements

Mid Michigan College				Ferris State University		
Course	Ferris Equiv.	Ferris Course Title	Cr. Hrs.	Course	Ferris Course Title	Cr. Hrs.
ENG 111	ENGL 150	English 1	3	ENGL 311 or	Advanced Technical Writing	3
ENG 222	ENGL 250	English 2	3	ENGL 321	or	
SPE 257	COMM 121	Fundamentals of Public Speaking	3	or	Advanced Composition	
or	or	or		ENGL 323	or	
SPE 261	COMM 105	Interpersonal Communication		or	Proposal Writing	
MAT 124	MATH 130	Advanced Algebra/Analytical Trigonometry	4	ENGL 325	or	
					Advanced Business Writing	
MAT 212	MATH 251	Statistics for the Life Sciences	3	BIOL 375	Principles of Genetics	4
BIO 101	BIOL 121	General Biology 1	8	BIOL 386	Microbiology	5
and	and	and		BIOL 470	Molecular Genetics	4
BIO 201	BIOL 122	General Biology 2		BIOL 471	Recombinant Lab	3
and				BIOL 472	Proteins	3
BIO 203				BIOL 473	Proteins Lab	3
BIO 141	BIOL 205	Human Anatomy and Physiology	5	BIOL 474	Advanced Cell	3
and				BIOL 475	Bioinformatics	3
BIO 142				BIOL 476	Advanced Techniques	2
CHM 111	CHEM 121	General Chemistry 1	4	BIOL 491	Internship	3-6
CHM 112	CHEM 122	General Chemistry 2	4	CHEM 231	Quantitative Analysis	4
CHM 241	CHEM 321	Organic Chemistry 1	5	CHEM 332	Biochemistry Lab 1	2
CHM 242	CHEM 322	Organic Chemistry 2	5	CHEM 333	Biochemistry Lab 2	2
PHY 105	PHYS 211	Introductory Physics 1	4	CHEM 364	Biochemistry	4
Mid Michigan CC	VARIES	FSU General Education - Culture Electives (one must be at FSU 200+ level)	9	CHEM 474	Advanced Biochemistry	3
Mid Michigan CC	VARIES	FSU General Education – Self and Society Electives (one must be at FSU 200+ level) (must be from 2 different subject areas)	9	<b>Total Ferris Credits</b>		<b>51-54</b>
<b>Total Mid Michigan College Credits</b>			<b>69</b>	<b>Credits Required for Degree</b>		<b>121</b>

Students transferring to Ferris with the Michigan Transfer Agreement (MTA) and entering a degree program will have met a 30-hour block of lower-level general education courses. However, this does not exempt students from completing program specific prerequisites or higher-level general education course requirements. Students should contact their advisor regarding classes that meet the MTA.

Students are encouraged to work with their Ferris advisor for selection of any electives, to ensure transferability and to minimize credits taken.

Effective Fall 2017

Ferris State University is an equal opportunity institution. For information on the University's Policy on Non-Discrimination, visit [ferris.edu/non-discrimination](http://www.ferris.edu/non-discrimination).

Program Offered at:  
**Main Campus, Big Rapids**  
College of Arts & Sciences

<http://www.ferris.edu/HTMLS/colleges/>

[www.ferris.edu/transfer](http://www.ferris.edu/transfer)

**Advising Notes**

It is recommended that potential applicants meet with an advisor to review the degree, course schedule, and have any questions answered prior to completing an application. Students who are completing the MTA may have different general education course requirements for the particular degree selected. Meeting with a Ferris advisor prior to the selection of general education or elective course work may reduce the chance of completing a course that will not apply toward the selected degree. Once admitted, students must continue to meet with an advisor as they work toward graduation.

**Transfer Student Orientation**

All new students to Ferris State University are required to complete an orientation.

**Online Learning**

Select courses delivered online and/or in a mixed delivery format (i.e. a mix of online and face-to-face instruction at the Ferris Main Campus or at an off-campus location). The "Online Readiness Tutorial" is required for students who register for an online *course* or are completing an online *degree*. Students must demonstrate competency in Blackboard skills. This may be done by taking a tutorial and quiz, or, for students who have already taken and passed online courses, they can submit a waiver request. Students should check with the department that offers the class to determine its particular needs and/or the Ferris advisor regarding registration for online course work.

**Reverse Transfer Agreement**

The Community College and Ferris have entered into a partnership in order to work collaboratively and creatively to increase student completion of associate and bachelor degrees. The partners work together to provide a seamless transfer experience and increase student retention and completion at both the community college and Ferris.

**Michigan Transfer Agreement (MTA)**

Ferris participates in the Michigan Transfer Agreement (MTA). This agreement will facilitate the transfer of general education requirements from one Michigan institution to another. Students may complete the MTA as part of a degree program or as a stand-alone package. The MTA consists of a minimum of 30 general education credit hours as identified by the college or university.

**Disclaimer**

This is a guide for students who plan to transfer to Ferris State University. This guide is not intended to be a contract with Ferris. The information on this guide is subject to change. Students should contact their community college or Ferris to keep informed of changes. Final responsibility for verifying all transfer information lies with the student. Please refer to the effective and/or revised date on the bottom of the guide.