

Northwestern Michigan College Transfer Guide

The Bachelor of Science in Biology (Forensic Biology) is primarily designed to prepare students for admission into graduate programs in forensic biology or forensic chemistry, as well as entry into the work force. Students in the Forensic Biology program receive extensive training in the collection and analysis of biological evidence, in both laboratory and field settings, and techniques in isolation, purification, and amplification of DNA. Classroom laboratories and field exercises develop skills in documentation, collection and analysis of insects, plants, and other biological evidence associated with an investigation. Students experience the process of determination of the time of death and the ability to answer other forensic questions, as well as skills to identify skeletal remains and evaluate trauma. Graduates with this degree may be eligible for entry-level positions in forensic laboratories, medical examination offices, and law enforcement agencies. It should be stressed, however, that further graduate-level education is often required for students to become employable.

The requirements of the Forensic Biology program are based on the general requirements of the Bachelor of Science in Biology, with specific modifications and additions for forensic biology students. Specific courses such as Forensic Biology, Human Anatomy and Physiology, Microbiology, Genetics, Forensic DNA Analysis, Statistics, Calculus, Inorganic Chemistry, Organic Chemistry, Forensic Chemistry, Biochemistry, Physics, and Criminal Justice are prescribed to fulfill the requirements of the degree and to best prepare students for future work in the field.

General Admission Criteria

To be admitted to this degree program, students must have completed 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 /SAT scores for admission review. Official transcripts from all accredited colleges/universities must be submitted with the Ferris application.

Course Requirements

Northwestern Michigan College

| Course | Ferris Equiv. | Ferris Course Title | Cr. Hrs. |
|------------|---------------|----------------------------------|----------|
| ENG 111 | ENGL 150 | English 1 | 3 |
| ENG 112 | ENGL 250 | English 2 | 3 |
| COM 111 | COMM 121 | Fundamentals of Public Speaking | 3 |
| CJ 101 | CRIM 110 | Introduction to Criminal Justice | 3 |
| MTH 141 | MATH 220 | Analytical Geometry-Calculus 1 | 4 |
| MTH 131 | MATH 251 | Statistics for the Life Sciences | 3 |
| BIO 115 | BIOL 121 | General Biology 1 | 8 |
| and | and | and | |
| BIO 115L | BIOL 122 | General Biology 2 | |
| and | | | |
| BIO 116 | | | |
| and | | | |
| BIO 116L** | | | |
| BIO 227 | BIOL 205 | Human Anatomy and Physiology | 5 |
| and | | | |
| BIO 227L | | | |
| and | | | |
| BIO 228 | | | |
| and | | | |
| BIO 228L | | | |
| CHM 150 | CHEM 121 | General Chemistry 1 | 5 |
| and | | | |
| CHM 150L | | | |
| and | | | |
| CHM 150R | | | |
| CHM 151 | CHEM 122 | General Chemistry 2 | 5 |
| and | | | |
| CHM 151L | | | |
| and | | | |
| CHM 151R | | | |
| CHM 250 | CHEM 321 | Organic Chemistry 1 | 5 |
| and | | | |
| CHM 250L | | | |

Ferris State University

| Course | Ferris Course Title | Cr. Hrs. |
|------------|-------------------------------------|----------|
| ENGL 311 | Advanced Technical Writing | 3 |
| or | or | |
| ENGL 321 | Advanced Composition | |
| or | or | |
| ENGL 323 | Proposal Writing | |
| <i>FSU</i> | Biology Electives (see FSU advisor) | 3-6 |
| BIOL 207 | Forensic Biology | 4 |
| BIOL 286 | Microbiology | 3 |
| BIOL 375 | Principles of Genetics | 3 |
| BIOL 346 | Ecological Assessment | 3 |
| or | or | |
| BIOL 347 | Environmental Conservation | |
| or | or | |
| BIOL 442 | Ecology | |
| BIOL 407 | Forensic DNA Analysis | 3 |
| BIOL 460 | Current Topics in Biology | 2 |
| CHEM 207 | Science and Crime | 3 |
| CHEM 324 | Fundamentals of Biochemistry | 3-4 |
| or | or | |
| CHEM 364 | Biochemistry | |
| CHEM 231 | See FSU advisor | 2-4 |
| or | | |
| CHEM 307 | | |
| or | | |
| CHEM 332 | | |
| CRIM 301 | Investigation Issues | 3 |

Credits Required for Degree 121

| | | | |
|----------------------------|-----------|---|---|
| CHM 251 and CHM 251L | CHEM 322 | Organic Chemistry 2 | 5 |
| PHY 121 and PHY 121L | PHYS 211 | Introductory Physics 1 | 4 |
| PHY 122 and PHY 122L | PHYS 212 | Introductory Physics 2 | 4 |
| NMC | VARIABLES | Cultural Enrichment Electives (one must be at FSU 200+ level) | 9 |
| NMC | VARIABLES | Social Awareness Electives (one must be FSU 200+ level) (must come from 2 different subject areas) | 9 |

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 must take entire sequence at Community College or take the entire sequence at Ferris State University in order to earn course credit.

Delivery Locations

This degree and the Ferris courses are offered at the following locations:

- Ferris State University, Big Rapids Campus, Big Rapids MI
- Select courses may be 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)

Transfer Student Orientation

All new students to Ferris State University are required to complete an orientation. Orientation for incoming freshmen is a one-day session that occurs on campus and includes class registration. Eligible transfer students have the option of completing an online orientation or attending an on campus session.

Advising Notes

It is recommended that potential students 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 any electives or general education classes shown above could 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 towards graduation.

Online Learning

Orientation is required for students who register for an online *course* or are completing an online *degree*. Students must demonstrate competency in FerrisConnect 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.

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.

Effective Fall 2014

Contact Information
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