

The field of laboratory medicine is advancing towards the use of molecular techniques and molecular diagnostics for the detection of genetic disorders, pre-implantation screening, infectious disease and cancer. With the introduction of personalized medicine which allows an individual to have a panel of genetic tests performed to determine predisposition to disease there will be a rise in genetic testing. Molecular diagnostics can also aid in the decision about therapy to be used for genetic disorders.

Genetic companies are demanding certified, professionally educated, technically competent individuals to work in this growing facet of laboratory medicine. There is a demand nationally in hospitals, reference laboratories, private genetic laboratories and pharmaceutical industries.

The program combines classroom instruction and laboratory practice on-campus with internships in various laboratories to prepare graduates.

The program is fully accredited as a DMS training program by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) in accordance with their regulations. www.NAACLS.org

Communication Competency Course Requirements

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
COMM 105 or COMM 121 or COMM 221	Interpersonal Communication or Fundamentals of Public Speaking or Small Group Decision Making	3	COMM 131 or COMM 121	Interpersonal Communication or Fundamentals of Public Speaking	3
ENGL 150	English 1	3	EN 100 or EN 101	English 1	3
ENGL 250 or ENGL 211	English 2 or Industrial and Career Writing	3	EN 102	English 2	3
ENGL 311 or ENGL 321 or ENGL 323 or ENGL 325	Advanced Technical Writing or Advanced Composition or Proposal Writing or Advanced Business Writing	3	EN 249	Advanced Technical Writing	3

Quantitative Literacy Course Requirements

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
MATH 115	Intermediate Algebra	3	MA 107	Intermediate Algebra	4

Natural Sciences Competency Course Requirements – This requirement is met in the program major

Self and Society Competency Course Requirements – Minimum 9 credits from 2 different disciplines with 1 at 200 level or higher

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
Varies	FSU General Education – Self and Society Competency	9	Varies	Varies	9

Culture Competency Course Requirements - Minimum 9 credits from 2 different disciplines with 1 at 200 level or higher

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
Varies	FSU General Education - Culture Electives	6	Varies	Varies	6
PHIL 220 or PHIL 320	Ethics In Healthcare or Biomedical Ethics	3	PL 206	Biomedical Ethics	3

Ferris State University General Education Courses

Students are encouraged to work with an advisor to select appropriate general education courses

Qualifying Courses for Entry Into The DMOL Program - 27 Credits Required

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
BIOL 108 or BIOL 286	Medical Microbiology or General Microbiology	3	BI 126 or BI 127	Microbiology/Infect Dis. Or Gen Microbiology	4
BIOL 121	General Biology 1	4	BI 151	Intro- Cells/Molecule/Genes	4
BIOL 122	General Biology 2	4	BI 152	Biological Diversity	4
BIOL 205	Human Anatomy and Physiology	5	BI 121	Human Anatomy/ Physiology	5
CHEM 114	Introduction to General Chemistry	4	No Equivalent	No Equivalent	No Equivalent
CHEM 214	Fundamentals of Organic Chemistry	4	CHM 240 or CHM 231	Fund of organic chemistry	4

Major Requirements - 36 Credits Required

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
DMOL 101	Molecular Diagnostics Orientation	1	No Equivalent	No Equivalent	No Equivalent
DMOL 110	Lab Techniques in Molecular Diagnostics	2	No Equivalent	No Equivalent	No Equivalent
DMOL 210	Advanced lab Techniques in Molecular	2	No Equivalent	No Equivalent	No Equivalent
DMOL 236	Techniques in Microbiology	2	No Equivalent	No Equivalent	No Equivalent
DMOL 410	Principles of Molecular Diagnostics	2	No Equivalent	No Equivalent	No Equivalent
DMOL 411	Principles of Molecular Diagnostics Lab	2	No Equivalent	No Equivalent	No Equivalent
DMOL 420	Molecular Diagnosis of infectious Disease	2	No Equivalent	No Equivalent	No Equivalent
DMOL 421	Molecular Diagnosis of infectious Disease Lab	1	No Equivalent	No Equivalent	No Equivalent
DMOL 430	Molecular Hematology / Oncology	2	No Equivalent	No Equivalent	No Equivalent
DMOL 431	Molecular Hematology/ Oncology lab	1	No Equivalent	No Equivalent	No Equivalent
DMOL 440	Molecular Genetics	2	No Equivalent	No Equivalent	No Equivalent
DMOL 441	Molecular Genetics lab	1	No Equivalent	No Equivalent	No Equivalent
DMOL 450	Molecular Forensics /Identity Based Testing	2	No Equivalent	No Equivalent	No Equivalent
DMOL 451	Molecular Forensics /Identity Based Testing Lab	1	No Equivalent	No Equivalent	No Equivalent
DMOL 460	Management and Regulation in Molecular Diagnostics	2	No Equivalent	No Equivalent	No Equivalent
DMOL 470	Molecular Diagnostics Research	4	No Equivalent	No Equivalent	No Equivalent
DMOL 491	Molecular Diagnostics Internship	6	No Equivalent	No Equivalent	No Equivalent
DMOL 499	Molecular Diagnostics Seminar	1	No Equivalent	No Equivalent	No Equivalent

Professional Support Courses – 4 Credits Required

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
CLLS 231	Hematology	2	No Equivalent	No Equivalent	No Equivalent
CLLS 252	Introduction to Clinical Immunology	2	No Equivalent	No Equivalent	No Equivalent

Biology And Chemistry Courses – 15 Credits Required

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
CHEM 324	Fundamentals of Biochemistry	3	No Equivalent	No Equivalent	No Equivalent
BIOL 300	Pathophysiology	3	BI 240	Pathophysiology	3
BIOL 373	Cell Biology	3	No Equivalent	No Equivalent	No Equivalent
BIOL 375	Principles of Genetics	3	No Equivalent	No Equivalent	No Equivalent
BIOL 475	Bioinformatics	3	No Equivalent	No Equivalent	No Equivalent

Core Curriculum Requirements – 8 Credits Required

FSU Course	FSU Course Title	FSU Cr. Hrs.	GRCC Equiv.	GRCC Course Title	GRCC Cr. Hrs.
COHP 100	Orientation to Medical Vocabulary	1	No Equivalent	No Equivalent	No Equivalent
COHP 101	The U.S. Health Care Systems	3	No Equivalent	No Equivalent	No Equivalent
COHP 102	Safety Issues in Health Care	1	No Equivalent	No Equivalent	No Equivalent
COHP 350	Statistics in Healthcare	3	No Equivalent	No Equivalent	No Equivalent

Total Credits Required for Degree**120****Program Contact Information:****Main Campus, Big Rapids****College of Health Professions**(800) 462-8553 | (231) 591-2270 | chp@ferris.eduwww.ferris.edu/transfer**Delivery Locations**

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

- Ferris State University, Main Campus, Big Rapids
- 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).

General Admission Criteria
Admission Requirements To The University
Transfer Student

- Must have a 2.0 GPA

Admission Requirements To The Professional Sequence

Transfer Students

- Students must be admitted to the University.
- Students must have earned a grade of “ C” or higher in BIOL 121, BIOL 122, BIOL 205, BIOL 108 or 286, CHEM 114 , CHEM 214, and MATH 115.
- Students must have a cumulative GPA of 2.5
- ALL MATH, BIOL, and CHEM courses must meet the above requirements within two attempts . A withdrawal, W grade counts as an attempt.

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.

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 work with their Ferris advisor to declare a Minor or Concentration and for selection of Directed Electives.

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 effective and/or revised date on the bottom of this guide.