

**Ferris Program:** Mechanical Engineering Technology

**Degree Type:** Bachelor of Applied Science

**Ferris College:** College of Engineering Technology

**Transfer School:** Northwestern Michigan College (NMC)

**Consortium Eligible:** No

**Total Credits Required:** 130-131

**Catalog Year:** 2024-2025

**GENERAL EDUCATION REQUIREMENTS – 56-57 Credits Required**

Students are encouraged to work with an advisor to select appropriate general education courses. Diversity Competency -2 Courses Required. If not met by courses taken for Culture, Self and Society, or MTA, a student must meet the following: 1 course with the Global Diversity attribute and 1 course with the U.S. Diversity attribute. Ferris State University General Education [www.ferris.edu/gened](http://www.ferris.edu/gened).

**Communication Competency**

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
COMM 121	Fundamentals of Public Speaking	3	COM 111
ENGL 150	English 1	3	ENGL 111
ENGL 250	English 2	3	ENGL 112
ENGL 311	Advanced Technical Writing	3	No Equivalent

**Quantitative Literacy Competency**

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MATH 116	Intermediate Algebra and Numerical Trigonometry	4	No Equivalent
MATH 120	Trigonometry	3	MTH 122

**Natural Sciences Competency**

Two courses are required with a minimum of 6 credits: must have at least one lab course.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
PHYS 211	Introductory Physics 1	4	PHY 121 and PHY 121L
PHYS 212	Introductory Physics 2	4	PHY 122 and PHY 122L

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## Culture Competency

Three courses are required with a minimum of 9 credits: must be from two different disciplines and have at least one 200 level or higher course.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
Varies	Culture Electives	9	Varies

## Self and Society Competency

Three courses are required with a minimum of 9 credits: must be from two different disciplines, have at least one 200 level or higher course, and at least one Self and Society Foundation course.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
Varies	Self and Society Electives	9	Varies

## Additional General Education Requirements

These courses are additional General Education courses to meet the requirements for this specific program.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
CHEM 103	Preparatory Chemistry	3	CHM 101 and CHM 101L
MATH 126 or MATH 130	Algebra and Analytic Trigonometry or Advanced Algebra Analytical Trigonometry	4	No Equivalent or MTH 121 and MTH 122
MATH 216 or MATH 220	Applied Calculus or Analytical Geometry and Calculus 1	4	No Equivalent or MTH 141
MATH 226 or MATH 230	Fourier Series and Applied Differential Equations or Analytical Geometry and Calculus 2	4	No Equivalent or MTH 142

## COLLEGE REQUIREMENTS – 74 Credits Required

### Major Courses

48 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MECH 111	Mechanical Engineering Technology Seminar	1	EGR 101
MECH 122	Computer Apps 1 for Technology	2	No Equivalent

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MECH 211	Fluid Mechanics	4	No Equivalent
MECH 212	Kinematics of Mechanisms	2	No Equivalent
MECH 222	Machine Design	4	No Equivalent
MECH 223	Thermodynamics	3	No Equivalent
MECH 311	Finite Element Analysis and Modeling	2	No Equivalent
MECH 322	Computer Apps for Technology	2	No Equivalent
MECH 330	Heat Transfer	3	No Equivalent
MECH 332	Mechanical Measurements and Mechatronics	3	No Equivalent
MECH 340	Statics and Strengths of Materials	4	No Equivalent
MECH 341	Lab for Statics and Strengths of Materials	1	No Equivalent
MECH 360	Dynamics	3	ERG 203
MECH 393	Industrial Internship	4	No Equivalent
MECH 421	Mechanical Engineering Technology Senior Lab	4	No Equivalent
MECH 440	Noise and Vibrations	3	No Equivalent
MECH 498	Senior Project 1	1	No Equivalent
MECH 499	Senior Project 2	2	No Equivalent

## Technical Related Courses

26 Credits Required. In addition to the required courses within this section, 6 credits are required in Approved Technical Electives. Any combination of 6 credits or more can be taken between the two electives.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
ETEC 140	Engineering Graphics Comprehensive	3	ETEC 140 or DD 170
MFGT 150	Manufacturing Processes	2	MNG 260
EAET 201	Electrical Fundamentals	3	EET 221
MATL 240	Introduction to Material Science	4	No Equivalent
MATL 341	Material Selection Metals	3	No Equivalent

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MFGE 341	Quality Science Statistics	3	No Equivalent
MFGE 423	Engineering Economics	2	No Equivalent
Varies	Approved Technical Elective	6	Varies

## PROGRAM CONTACT INFORMATION

College of Engineering Technology  
Survey Engineering Technology Programs  
(231) 591-2633  
[Surveying@Ferris.edu](mailto:Surveying@Ferris.edu)

Ferris Statewide - Northwestern Michigan College  
(231) 995-1734  
[FerrisNorth@Ferris.edu](mailto:FerrisNorth@Ferris.edu)

## ADMISSION REQUIREMENTS

### New Student Admission Requirements

- 2.75 High School GPA (on a 4.00 scale) (2.50 -2.74 with college approval)
- Minimum Composite Score of ACT 18/SAT 950, Math Score of ACT 26/SAT 620,
- Placement into MATH 220

### Transfer Student Admission Requirements

- 2.50 College GPA (on a 4.00 scale)
- Placement into MATH 120 or higher

## MORE INFORMATION

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 a statewide location).

To fulfill the residency requirement for a bachelor's degree a student must earn a minimum of 30 credits from Ferris State University.

## Steps to Apply

- Complete your [free application](#).
- Submit official transcripts
  - Submit official transcripts from every school attended to [Transfer@Ferris.edu](mailto:Transfer@Ferris.edu)
  - Or mail to:  
Ferris State University Admissions Office  
1201 S. State St., CSS 201  
Big Rapids, MI 49307
- Submit test scores (if required)
  - ACT Scores; go to the [ACT website](#) - Ferris State University School Code: 1994
  - SAT, CLEP and AP Sores; go to the [College Board website](#) - Ferris State University School Code: 1222

## Advising Notes

It is recommended that potential applicants meet with an advisor to review the degree, course schedule, transfer policies and have any questions answered prior to completing an application. Ferris accepts transfer courses in which the student earned a letter grade of "C" or better. Additional policies such as the Ferris Sunset

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and Residency Requirement should be discussed with a Ferris advisor. 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 coursework may reduce the chance of completing a course that will not apply toward the selected degree. Students must work with their Ferris advisor to declare a Minor or Concentration and for the selection of Directed Electives.

Once admitted, students are required to complete an orientation and should continue to meet with an advisor as they work toward graduation.

To schedule an appointment or for additional transfer resources and policies see our [Transfer Resource page](#).

\*Indicates an approved Ferris course substitution

### **Reverse Transfer Agreement**

Ferris has reverse transfer agreements with several Michigan Community Colleges. Under such agreement, Ferris will provide your official University transcript to a partner school you have attended, so that they may grant you an associate or bachelor's degree upon completion of sufficient and appropriate credit hours from both institutions. In turn, the degree-granting institution will provide Ferris with an updated transcript reflecting the newly earned credential.

### **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.

### **Transfer Equivalencies Tools**

The transfer equivalencies link is located in the Transfer Resources section at [transfer.ferris.edu](https://transfer.ferris.edu).

### **Disclaimer**

Transfer guides are not intended to be a contract with Ferris. The information in this guide is subject to change and is aligned with the catalog year listed above. Students should contact their community college and/or Ferris to keep informed of changes. Students' final responsibility for verifying all transfer information lies with the student. Please refer to the [Ferris catalog](#) for the most current curriculum.

Partners may contact the Office of Transfer and Secondary School Partnerships with questions or updates at [TransferGuidesArticulations@Ferris.edu](mailto:TransferGuidesArticulations@Ferris.edu).