

Ferris Program: Mechanical Engineering Technology

Degree Type: Bachelor of Applied Science

Ferris College: College of Engineering Technology

Transfer School: Macomb Community College (MACOCC)

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.

Communication Competency

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
COMM 121	Fundamentals of Public Speaking	3	SPCH 1060
ENGL 150	English 1	3	ENGL 1181 or ENGL 1210
ENGL 250	English 2	3	ENGL 1190 or ENGL 1220
ENGL 311	Advanced Technical Writing	3	No Equivalent

Quantitative Literacy Competency

Requirements for Quantitative Literary Competency can be met with the following:

- Official Pre-2016 Math SAT Score of 560 or Higher
- Official Post-2016 Math SAT Score of 580 or Higher
- Official Math ACT Score of 24 or Higher

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MATH 116	Intermediate Algebra and Numerical Trigonometry	4	ATAM 2150
MATH 120	Trigonometry	3	MATH 1435

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	PHYS 1160 or PHYS 1180

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
PHYS 212	Introductory Physics 2	4	PHYS 1170 or PHYS 1190

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	CHEM 1050
MATH 126 or MATH 130	Algebra and Analytic Trigonometry or Advanced Algebra Analytical Trigonometry	4	No Equivalent or MATH 1415 or MATH 1465
MATH 216 or MATH 220	Applied Calculus or Analytical Geometry and Calculus 1	4	No Equivalent or MATH 1760
MATH 226 or MATH 230	Fourier Series and Applied Differential Equations or Analytical Geometry and Calculus 2	4	No Equivalent or MATH 1770

COLLEGE REQUIREMENTS – 74 Credits Required

Major Courses

48 Credits Required.

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MECH 111	Mechanical Engineering Technology Seminar	1	No Equivalent
MECH 122	Computer Apps 1 for Technology	2	No Equivalent
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	No Equivalent
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	No Equivalent
MFGT 150	Manufacturing Processes	2	No Equivalent

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
EAET 201	Electrical Fundamentals	3	No Equivalent
MATL 240	Introduction to Material Science	4	No Equivalent
MATL 341	Material Selection Metals	3	No Equivalent
MFGE 341	Quality Science Statistics	3	No Equivalent
MFGE 423	Engineering Economics	2	No Equivalent
Varies	Approved Technical Elective	6	Varies

PROGRAM CONTACT INFORMATION

Mechanical Engineering Technology Programs
(231) 591-2755
mech@ferris.edu
Ferris Statewide - Macomb Community College
(586) 445-7150
FerrisSE@Ferris.edu

ADMISSION REQUIREMENTS

New Student Admission Requirements

- The Mechanical Engineering Technology, BS degree is only open to students who meet the Transfer Student Admission Requirements below.
- High school students interested in this program may apply to the Mechanical Engineering Technology, AAS program.

Transfer Student Admission Requirements

- Must have completed an Associate of Applied Science degree in Mechanical Engineering Technology or 64 semester hours of college coursework satisfying specified prerequisites
- 2.0 College GPA (on a 4.00 scale)
- Competency in MATH 216/220
- Competency in PHYS 211/241

MORE INFORMATION

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
 - Or mail to:
Ferris State University Admissions Office
1201 S. State St., CSS 201
Big Rapids, MI 49307

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- Submit test scores (if required)
 - ACT Scores; go to the [ACT website](#) - Ferris State University School Code: 1994
 - SAT, CLEP and AP Scores; 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 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.

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.