

Ferris Program: Welding Engineering Technology

Degree Type: Bachelor of Applied Science

Ferris College: College of Engineering Technology

Transfer School: Macomb Community College (MACOCC)

Consortium Eligible: Yes

Total Credits Required: 129

Catalog Year: 2024-2025

GENERAL EDUCATION REQUIREMENTS – 46 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.

Visit the Ferris State [general education page](#) for more information.

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 130	Advanced Algebra and Analytical Trigonometry	4	MATH 1415 and MATH 1435 or MATH 1465

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
CHEM 114	Introduction to General Chemistry	4	No Equivalent

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
PHYS 211	Introductory Physics 1	4	PHYS 1180

Culture Competency

Three courses are required with a minimum of 9 credits: must be from two different disciplines and have at least one at FSU 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 and have at least one at FSU 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

4 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
MATH 220	Analytical Geometry and Calculus 1	4	MATH 1760

COLLEGE REQUIREMENTS – 83 Credits Required

Major Courses

35 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
WELD 212	Quality Testing	4	No Equivalent
WELD 311	Welding Automation and Robotics 1	4	No Equivalent
WELD 312	Design of Weldments	3	No Equivalent
WELD 321	Welding Automation and Robotics 2	4	No Equivalent
WELD 322	Advanced Resistance Welding	3	No Equivalent
WELD 393	Internship	4	No Equivalent

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Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
WELD 411	Advanced Welding Processes	3	No Equivalent
WELD 412	Computer Aided Weldment Design	4	No Equivalent
WELD 422	Welding Metallurgy	3	No Equivalent
WELD 499	Project Engineering and Management	3	No Equivalent

Technical Related Courses

8 Credits Required.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
EAET 301	Controls for Automation	3	MECT 2215
MECH 250	Fluid Power with Controls	2	MECT 1310 and MECT 1320
MFGE 353	Statistical Quality Control	3	No Equivalent

Associate Degree Coursework

A total of 40 credits from the Associate of Applied Science (AAS) in Welding Technology (WELT) degree, or an approved associate degree with an emphasis in welding or closely related field, approved by the Ferris State Welding Engineering Technology Department.

Ferris Course	Ferris Course Title	Ferris Credit Hours	Transfer Course
* EAET 201	Electrical Fundamentals	3	ELEC 1161 and ELEC 1171
* ETEC 140	Engr Graphics Comprehensive	3	DRCG 1140
* MATL 240	Introduction to Material Science	4	No Equivalent

* Required for admission to the Welding Engineering Technology Bachelor of Science program.

PROGRAM CONTACT INFORMATION

College of Engineering Technology
 Welding Engineering Technology Programs
 (231) 591-2511
WeldingDegrees@Ferris.edu

Ferris Statewide - Macomb Community College
 (586) 445-7150
FerrisSE@Ferris.edu

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ADMISSION REQUIREMENTS

New Student Admission Requirements

- The Welding 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 Welding Technology, AAS program.

Transfer Student Admission Requirements

- Must have completed an Associate of Applied Science degree in Welding Technology.
- 3.00 College GPA (on a 4.00 scale)
- Placement in MATH 130
- Completed PHYS 211, ETEC 140 and MATL 240 or equivalents

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
- 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.

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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.