

Established in 1984, the nationally recognized Welding Engineering Technology program is the largest of its kind in the United States. The program is designed to produce plant-level welding engineering technology graduates who are involved in the concept, design and engineering of weldments and implementation of welding processes. This overall knowledge of weldments and the ability to engineer welding and joining systems produces graduates who are in great demand and highly compensated. As recognition of academic excellence and program quality, in August 2008 the Welding Engineering Technology program was granted TAC-ABET Accreditation from the Technology Accreditation Committee (TAC) of ABET.

Ferris provides several welding instructional areas including laboratories dedicated to inspection, mechanical testing, robotics, laser processing, resistance welding and material preparation/fabrication. In addition to core welding classes, courses in material science, computer aided design, electronics and machine tool disciplines are required and are taught by faculty specialists in those departments.

### Ferris General Admissions Criteria for Transfer Students

#### **Welding Engineering Technology Admission Requirements Transfer Students**

- Application for admission submitted by January 15 prior to Fall term requested
- Associate degree in Welding Technology
- A minimum 3.0 honor point average overall
- Satisfy all pre-requisites to enter MATH 130
- Satisfy all pre-requisites to enter EEET 301
- FSU PHYS 211 or equivalent transfer course
- FSU ETEC 140 or equivalent transfer course
- FSU MATL 240 or equivalent transfer course
- Welding Engineering Technology applicants are required to achieve a minimum score of 70 on the NOCTI Job Readiness Assessment for Welding (Test Code 4172) in order to be admitted to welding engineering technology or pre-welding engineering technology bachelor degree.
- \*Required for admission to the Welding Engineering Technology Bachelor of Science program.

#### **Communication Competency Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
ENGL 150	English 1	3	ENG 111	English 1	4
ENGL 250	English 2	3	ENG 208 or ENG 122	Industrial & Career Writing English 2	3 3
ENGL 311	Advanced Technical Writing	3	ENG 218	Technical Writing for eLearning	3
COMM 121	Fundamentals of Public Speaking	3	COM 101	Fundamentals Of Speaking	3

#### **Quantitative Literacy Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
MATH 115	Intermediate Algebra	3	MTH 169	Intermediate Algebra	4
MATH 120*	Trigonometry	3	MTH 107	Triangle Trigonometry	3

#### **Natural Sciences Competency Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
CHEM 114	Intro. to General Chemistry	4	CEM 105	Fun/Chemistry	4
PHYS 211*	Introductory Physics	4	PHY 111	Introductory Physics 1	4

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

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
Varies	FSU General Education – Self and Society Electives	9	Varies	Varies	9

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

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
Varies	FSU General Education - Culture Electives	9	Varies	Varies	9

#### **Additional General Education Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
MATH 130	Adv. Algebra – Analytical Trigonometry	4	MTH 176 MTH 178	College Algebra General Trigonometry	4 3
MATH 220	Analytical Geometry-Calculus	4	MTH 191	Calculus 1	5

**Ferris State University General Education Program** Students are encouraged to work with an advisor to select appropriate general education courses

**Major Requirements - 35 credits required**

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
Varies	AAS Welding Technology*	Varies	Varies	AAS in Welding Fabrication & Robotics	Varies
WELD 212	Quality Testing	4	No Equivalent	No Equivalent	No Equivalent
WELD 311	Welding Automation & Robotics 1	4	No Equivalent	No Equivalent	No Equivalent
WELD 312	Design of Weldments	3	No Equivalent	No Equivalent	No Equivalent
WELD 321	Welding Automation & Robotics 2	4	No Equivalent	No Equivalent	No Equivalent
WELD 322	Advanced Resistance Welding	3	No Equivalent	No Equivalent	No Equivalent
WELD 393	Internship	4	No Equivalent	No Equivalent	No Equivalent
WELD 411	Advanced Welding Processes	3	No Equivalent	No Equivalent	No Equivalent
WELD 412	Computer Aided Weldment Design	4	No Equivalent	No Equivalent	No Equivalent
WELD 422	Material Science	3	No Equivalent	No Equivalent	No Equivalent
WELD 499	Project Engineering and Management	3	No Equivalent	No Equivalent	No Equivalent

**Technical Related**

FSU Course	FSU Course Title	FSU Cr. Hrs.	WCC Equiv.	WCC Course Title	WCC Cr. Hrs.
EEET 201*	Electrical Fundamentals	3	ELE 111	Electrical Fundamentals	4
MATL 240*	Introduction to Material Science	4	WAF 210	Material Science	4
MFGT 150	Manufacturing Processes	2	MTT 105	Machine Tool Skills Laboratory	2
ETEC 140*	Engr.Graphics Comprehensive	3	No Equivalent	No Equivalent	No Equivalent
EEET 301	Controls for Automation	3	No Equivalent	No Equivalent	No Equivalent
MECH 250	Fluid Power with Controls	2	FLP 101	Fluid Power Fundamentals - 1	2
MFGE 353	Statistical Quality Control	3	No Equivalent	No Equivalent	No Equivalent
<b>Total Credits Required for Degree</b>					<b>129</b>

**Program Contact Information:****Main Campus, Big Rapids****College of Engineering Technology**

(231) 591-2511 | [Welding Degrees Email](#) | [Welding Degrees Website](#) | [College of Engineering Technology Website](#)  
[Transfer Partnerships Website](#)

**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).

**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.