

Electronics, automation, and computers are the lifeblood of today's high tech societies. The Bachelor of Science in Electrical/Electronics Engineering Technology (BS EET) program graduates professionals that develop, design, apply, manage and direct the future of these technologies.

Graduates are prepared for careers in Industrial Automation and Controls, Digital and Embedded Systems Design, Instrumentation, Programming, or Control Networks. Our graduates often obtain positions with titles such as Control System Integrator, Product Designer, Embedded Systems Developer, Control and Network Specialist, Technical Sales Specialist, Electrical/Electronics Product Specialist, etc.

The BS at Ferris State University in Electrical/Electronics Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012; Phone 410-374-7700.

**Communication Competency Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
COMM 121	Fundamentals of Public Speaking	3	SPEE 102	Fund. of Public Speaking	3
ENGL 150	English 1	3	ENGL 103	Freshman English 1	3
ENGL 250	English 2	3	ENGL 104	Freshman English 2	3
ENGL 311	Adv. Technical Writing	3	No Equivalent	No Equivalent	No Equivalent

**Quantitative Literacy Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
MATH 115	Intermediate Algebra	3	MATH 102 or MATH 127	Mathematical Literacy or College Algebra	4

**Natural Sciences Competency Requirements - 1 course with lab**

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
PHYS 211	Physics 1	4	PHYS 101	Introductory Physics 1	5
PHYS 212	Physics 2	4	PHYS 102	Introductory Physics 2	5

**Self and Society Competency Requirements – Minimum 9 credits from 2 different disciplines with 1 at 200 level or higher**
**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.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
Varies	FSU General Education - Culture Electives	9	Varies	Varies	6

**Additional General Education Course Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
MATH 130	Adv. Algebra – Analytical Trig.	4	MATH 130	Pre-Calculus Math	5
MATH 220	Analytical Geometry –Calculus 1	4	MATH 141	Analytical Geometry & Calculus 1	4
MATH 230	Analytical Geometry – Calculus 2	4	MATH 142	Analytical Geometry & Calculus 2	4

[Ferris State University General Education Program](#) Students are encouraged to work with an advisor to select appropriate general education courses

**Major Requirements - 56 Credits Required**

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
EEET 114	Electric Circuits	4	ELEC 118	Fundamentals of Electricity 1	4
EEET 122	Digital 1	4	ELEC 131	Digital Electronics	3
EEET 124	Electric Curcuits 2	4	ELEC 119	Fundamentals of Electricity 2	4
EEET 210	Communication Circuits	3	ELEC 208	Electronic Communication	4
EEET 212	Digital 2	4	No Equivalent	No Equivalent	No Equivalent
EEET 216	Electronics 1	3	No Equivalent	No Equivalent	No Equivalent
EEET 221	Troubleshooting	3	No Equivalent	No Equivalent	No Equivalent
EEET 222	Microprocessor Applications	4	ELEC 212	Microprocessors	4
EEET 224	Industrial Automation & Motors	4	ELEC 233	Programmable Logic Controllers	3
EEET 226	Electronics 2	3	No Equivalent	No Equivalent	No Equivalent
EETEC 140 + EETEC 1--	Engineering Graphics Comprehensive	6	CADD 101 + INTE 140	Introduction to CAD / Auto Cad + Blueprint Reading	6

**Major Requirements continued on page 2**

## Major Requirements continued

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
ECNS 311	High Level Programming	3	No Equivalent	No Equivalent	No Equivalent
EEET 321	Network Analysis	3	No Equivalent	No Equivalent	No Equivalent
EEET 325	PC Data Acquisition & Control	3	No Equivalent	No Equivalent	No Equivalent
EEET 393	Internship	4	No Equivalent	No Equivalent	No Equivalent
EEET 418	Project Management	2	No Equivalent	No Equivalent	No Equivalent
EEET 428	Senior Projects	2	No Equivalent	No Equivalent	No Equivalent
MFGE 423	Engineering Economics	2	No Equivalent	No Equivalent	No Equivalent

## Technical Science Electives - 3 credits required

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
MECH 211	Fluid Mechanics	4	No Equivalent	No Equivalent	No Equivalent
MECH 223	Thermodynamics	2	No Equivalent	No Equivalent	No Equivalent
MECH 250 + 2--	Fluid Power	4	INTE 159	Hydraulics & Pneumatic	4
MECH 340	Statics/Strengths – Materials	4	No Equivalent	No Equivalent	No Equivalent
MFGE 341	Quality Science Stats	3	No Equivalent	No Equivalent	No Equivalent
MFGE 342	Statistical Process Engr	3	No Equivalent	No Equivalent	No Equivalent
MFGE 353	Statistical Quality Control	3	No Equivalent	No Equivalent	No Equivalent
PDET 413	Appl Fluid – Thermo	3	No Equivalent	No Equivalent	No Equivalent

## Concentration Courses - 14 Credits Required

FSU Course	FSU Course Title	FSU Cr. Hrs.	SMC Equiv.	SMC Course Title	SMC Cr. Hrs.
ECNS 315	Network Theory & Test	4	No Equivalent	No Equivalent	No Equivalent
ECNS 323	Real Time Operating Systems	4	No Equivalent	No Equivalent	No Equivalent
ECNS 414	Adv. Digital Systems	4	No Equivalent	No Equivalent	No Equivalent
ECNS 424	Advanced Digital Design	4	No Equivalent	No Equivalent	No Equivalent
EEET 313	Electrical Power & Machines	4	No Equivalent	No Equivalent	No Equivalent
EEET 323	Ind. Automation Controls	4	No Equivalent	No Equivalent	No Equivalent
EEET 357	Advanced Electronics	3	No Equivalent	No Equivalent	No Equivalent
EEET 414	Ind. Process Comm.	4	No Equivalent	No Equivalent	No Equivalent
EEET 424	Ind. Motion Control	3	No Equivalent	No Equivalent	No Equivalent

## Total Credits Required for Degree

131

## Program Contact Information:

### Main Campus, Big Rapids

### College of Engineering Technology

(231) 591-2388 | [College of Engineering Technology Webpage](#) | [Electrical Electronics Email](#)

[Transfer Partnerships Webpage](#)

## 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

### Transfer students

- Students entering the program must have completed an associate degree (or equivalent) in a related program and have transferable courses in mathematics through pre-calculus with a minimum 2.35 GPA in the associate degree work.
- MATH 220 placement.

## 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.

## 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.

## Ferris State University and Southwestern Michigan College –Electrical / Electronics Engineering Technology - Transfer Guide

Effective Spring 2019

Ferris State University is an equal opportunity institution. For information on the University's Policy on Non-Discrimination, visit [ferris.edu/non-discrimination](http://ferris.edu/non-discrimination).

**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.