

Monroe County Community College (MCCC)

Transfer Guide
With Start in MCCC METC Program

Were you a 'Legos kid'? Are you curious about how things work? Do you like to take things apart and fix them? Do you like to use math to solve practical problems?

The Mechanical Engineering Technology program prepares students for a broad range of occupations and challenges. Beginning with foundation courses in math, applied science, CAD, manufacturing processes and communication, students move on to the applied engineering courses that give them a solid technical background for their careers. Students develop strong analytic and problem-solving skills. Their understanding of the principles taught in the classroom is enhanced with many hands-on labs and real-world applications provided by faculty with extensive industrial experience.

The Bachelor of Science in Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET Accreditation (ETAC-ABET), <http://www.abet.org>.

General Admission Criteria

There are several ways to use the community college as a start for the BS in Mechanical Engineering Technology. One option would be to take essential math and science courses, including pre-calculus and Physics 1, at the community college then transfer after 1-3 semesters. A second option, shown below, would include completing at least four semesters at the community college and taking as many math, science, technology, and general education credits as could be applied. To transfer to Ferris State, students must have an over GPA of 2.00. Note that only classes with grades of C or better (not C-) will transfer to Ferris State. Official transcripts from all accredited colleges/universities must be submitted with the Ferris application.

Course requirements that can be completed at MCCC			
MCCC Course	Ferris Equivalency	MCCC Course Title	MCCC Credit Hours
METC 100	MECH 111	MET Seminar	1
MDTC 160	ETEC 140	Engineering Graphics	3
ENGL 151	ENGL 150	English I	3
MATH 160*	MATH 116	Intermediate Algebra	4
MATH 164	MATH 126	Advanced Algebra and Analytical Trigonometry	4
MECH 102	MFGT 150	Manufacturing Processes	2
METC 220	MECH 340	Statics and Strength of Materials	4
ELEC 125	EEET 201	Electrical Fundamentals	3
PHY 151	PHYS 211	Introductory Physics 1	4
PHY 152	PHYS 212	Introductory Physics 2 or CHEM below	4
CHEM 151	CHEM 114	Introduction to Chemistry	4
MATL 101	MATL 240	Intro to Material Science	4
POLSC 151		FSU General Education - Self & Society Elective	3
HUM **	VARIABLES	FSU General Education - Culture Elective	3
Two of the following:	VARIABLES	Technical Electives - ELEC 130, ELEC 141, MDTC 226, MECH 201, QSTC 115, METC 170, or MECH 111	6
Additional Courses:			
CIS 130	MECH 122	Computer Apps 1 for Technology	2
MATH 171	MATH 220	Analytical Geom. and Calculus 1 ^t	4
MATH 172	MATH 230	Analytical Geom. and Calculus 2 ^t	4
ENGL 152	ENGL 250	English 2	3
Total MCCC Credits			65

FSU General Education Requirements can be found at: [Ferris General Education Requirements](#). Students are encouraged to work with an advisor to select appropriate general education courses.

If not met by courses taken for Culture, Self and Society, or MTA, a student must meet the following:

One course with the Global Diversity attribute

One course with the U.S. Diversity attribute

Note: Some courses include both Global Diversity and U.S. Diversity attributes. Courses with both attributes satisfies the entire Diversity competency.

* MATH - There may be several options in math that lead up to calculus. The equivalents shown above are not exact matches. Consultation with a counselor at the community college is recommended.

** MCCC Human Experience Competency General Education Elective

Advising Notes

It is strongly recommended that potential transfer students make contact with the MET program for advising as well as with a community college counselor to be sure all requirements are met in an efficient way. Credits will occasionally vary between colleges for similar or equivalent courses. These discrepancies can be ignored provided the student completes 60 credits towards an AAS degree from FSU and 124 credits (including the internship) for a BS from FSU. There are MCCC alternatives to several courses in the right-hand column as well.

Special Note on Math: For the AAS in MET, math through a Calculus 1 course similar to FSU's MATH 216 or 220 is required. For the BS in MET, math through Calculus 2 with a course similar to FSU's MATH 226 or 230 is required. The path to these classes varies from one college to another. Please keep the end in mind when planning.

Course requirements that will need to be completed at Ferris State University

Ferris Course	Ferris Course Title	Ferris Credit Hours
ENGL 311	Advanced Technical Writing	3
COMM 121	Public Speaking	3
MATL 341	Material Selection – Metals	3
MECH 211	Fluid Mechanics	4
MECH 212	Kinematics of Mechanisms	2
MECH 222	Machine Design	4
MECH 223	Thermodynamics	3
MECH 311	Finite Elem Analysis/Modeling	2
MECH 322	Computer Apps 2 for Technology	2
MECH 330	Heat Transfer	3
MECH 332	Mech.Measurements/Mechatronics	3
MECH 341	Statics and Strength of Mat'ls Lab	1
MECH 360	Dynamics	3
MECH 393	Industrial Internship	4
MECH 421	MET Senior Lab	4
MECH 440	Noise and Vibrations	3
MECH 499	Senior Project	3
MFGE 341	Quality Science Statistics	3
MFGE 423	Engineering Economics	2
	FSU General Education - Self & Society Elective**	6
	FSU General Education - Culture Elective**	6
CHEM 114 or PHYS 212	Whichever remains	4
Total Ferris Credits		71
Total Credits Required for Degree		136

Program Offered at:

Main Campus, Big Rapids
College of Engineering Technology

<http://www.ferris.edu/mech>

mech@ferris.edu

(231) 591-2755

www.ferris.edu/transfer

Transfer Student Orientation

All new students to Ferris State University are required to complete an orientation.

Online Learning

Select courses are 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, submitting 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 are encouraged to work with their Ferris advisor for selection of any electives, to ensure transferability and to minimize credits taken.

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.