

The Product Design Engineering Technology program at Ferris offers instruction and practical experience in all facets of product design. Students are prepared to effectively participate in a design environment, generate conceptual design sketches and drawings, create complex design layouts, perform static and dynamic analysis, create models and prototypes, create and define complex surfaces and shapes, and understand and integrate manufacturing principles into design. Study also emphasizes communication, mathematics and analytical skills. Students also receive hands-on experience through labs that gives them real-world experience.

**General Admission Criteria**

**Transfer Students**

- Minimum completion of 60 credits with 2.5 GPA
- Must complete the following courses with a “C” or higher to transfer:
- English Composition 1 & 2
- Public Speaking
- Mathematics through pre-calculus
- General Physics 1 (with lab)
- Basic Material Science
- Introductory Computer Aided Design
- Cultural – 3 credit hours
- Self and Society – 3 credit hours

**Communication Competency**

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
COMM121	Fundamentals of Public Speaking	3	COMM 207	Public Speaking	3
ENGL 150	English 1	3	ENGL 151	Freshman Composition 1	3
ENGL 250	English 2	3	ENGL 152	Freshman Composition 2	3
ENGL 321	Advanced Composition	3	No Equivalent	No Equivalent	0

**Quantitative Literacy**

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
MATH 126 or MATH 130	Algebra – Analytic Trig. or Adv. Algebra & Analytical Trig.	4 or 4	MATH 125 + MATH 132	College Algebra + Trigonometry	4 + 3

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

FSU Course	FSU Course Title	FSU Cr. Hrs.	CC Equiv.	KCC Course Title	KCC Cr. Hrs.
PHYS 211	General Physics 1	4	PHYS 111 & PHYS 111A	Intro. to Physics 1 & Physics Lab	4
CHEM 114	Intro. to General Chemistry	3	CHEM 100	Introductory Chemistry	4

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

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
Varies	Self & Society Electives	6	Varies	Varies	6
GEOG 100	Geography of World Regions	3	No Equivalent	No Equivalent	0

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

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
Varies	Culture Electives	6	Varies	Varies	6
ARTS 101	Basic Art	3	ART 110	Drawing 1	3

**Additional General Education Requirements**

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
COMM 336	Technical & Professional Presentation	3	No Equivalent	No Equivalent	0
MATH 216 or MATH 220	Applied Calculus or Analytical Geometry-Calculus 1	4	No Equivalent or MATH 141	No Equivalent or Calculus 1	5

Students are encouraged to work with an advisor to select appropriate general education courses or may visit [www.ferris.edu/gened](http://www.ferris.edu/gened).

**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
- 1 course with the U.S. Diversity attribute

**Major Requirements - 52-53 Credits Required**

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
PDET 100	Pdet Orientation & Degree Planning	1	No Equivalent	No Equivalent	0
PDET 210	Design Career Preparation	1	No Equivalent	No Equivalent	0
PDET 311	Seminar in Product Design	1	No Equivalent	No Equivalent	0
PDET 312	Advanced Tolerancing	2	No Equivalent	No Equivalent	0
PDET 321	Applied Mathematics & Kinematics	3	No Equivalent	No Equivalent	0
PDET 322 + PDET 3--	Model & Prototype	2 + 1	DRAF 234	Solidworks	3
PDET 411	Machine Design	3	No Equivalent	No Equivalent	0
PDET 412	Statistics/ Ergonomics	2	No Equivalent	No Equivalent	0
PDET 413	Applied Fluids & Thermodynamics	3	No Equivalent	No Equivalent	0
PDET 415	Advanced Solid Modeling	2	No Equivalent	No Equivalent	0
PDET 422	Advanced Machine Design	4	No Equivalent	No Equivalent	0
PDET 499	Product Design Project	3	No Equivalent	No Equivalent	0

**Technical Related Courses - Students must completed CAD Modules to meet the outcomes of MFGT 150**

FSU Course	FSU Course Title	FSU Cr. Hrs.	KCC Equiv.	KCC Course Title	KCC Cr. Hrs.
EEET 201	Electrical Automation	3	No Equivalent	No Equivalent	0
MFGT 150	Manufacturing Processes	2	No Equivalent	No Equivalent	0
EETC 140	Engineering Graphics	3	No Equivalent	No Equivalent	0
or	Comprehensive or	or	or	or	or
PDET 122 + PDET 1--	Parametric Modeling	3 + 1	DRAF 101	Engineering Graphics	4
MATL 240	Material Science	4	No Equivalent	No Equivalent	0
MECH 340	Statics & Strengths of Materials	4	No Equivalent	No Equivalent	0
MATL 341	Material Selection Metals	4	No Equivalent	No Equivalent	0
MFGE 352	Design for Manufacturing	2	No Equivalent	No Equivalent	0
PLTS 342	Material Selection Plastics	3	No Equivalent	No Equivalent	0

<b>Total Credits Required for Degree</b>	<b>120</b>
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**Program Contact Information:****Main Campus, Big Rapids****College of Engineering Technology****Product Design Engineering Technology**(231) 591-2755 | <http://www.ferris.edu/pdet>

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).

New Student Admission Requirements for incoming freshman refer to the Ferris Catalog. [www.ferris.edu/catalog](http://www.ferris.edu/catalog)

**Steps to Apply**

1. Complete a free application at [www.ferris.edu/apply](http://www.ferris.edu/apply).
2. Submit Official transcripts from every school attended to:
  - Ferris State University Admissions Office, 1201 S. State St, CSS 201, Big Rapids, MI 49307
  - [Transfer@ferris.edu](mailto:Transfer@ferris.edu)
3. Submit Test Scores (if required)
  - ACT Scores; go to [www.act.org](http://www.act.org). Ferris State University School Code: 1994
  - SAT, CLEP and AP Scores; go to [www.collegeboard.org](http://www.collegeboard.org). Ferris State University School Code: 1222

**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's 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 Kellogg Community College – Product Design Engineering Technology - Transfer Guide**

Effective Fall 2019; updated Spring 2021

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 and the Ferris Catalog at [www.ferris.edu/catalog](http://www.ferris.edu/catalog).