

Articulation Agreement and Memo of Understanding
Between
Michigan Coalition for Advanced Manufacturing (M-CAM) Participating
Community Colleges and Selective Four-Year Institutions

This agreement made this 10 day of May, 2017 is by and between Bay College (BC), Grand Rapids Community College (GRCC), Kellogg Community College (KCC), Lansing Community College (LCC), Lake Michigan College (LMC), Macomb Community College (MACC), Mon Community College (MOCC), Schoolcraft College (SC) and "Eastern Michigan University" (U#1), "Ferris State University" (U#2).

The above-named colleges and universities wish and intend by this Agreement to set forth the terms and conditions of engaging in an educational program, to facilitate the transfer of students who earn a technical studies associate degree (e.g., Associate in Applied Science degree) to complete a bachelor's degree. This agreement is between the 2-year colleges named above and each individual 4-year institution named above. No relationship between the 4-year institutions should be implied by this agreement.

Article I
Agreement on Program Integrity

All named institutions in this agreement will maintain the integrity of their separate programs and enter into this agreement as equal and cooperating partner institutions.

Article II Agreement on Principle

This agreement between all named institutions is intended to provide a smooth and seamless curriculum transition for students participating in an M-CAM sponsored program that transfer to earn a bachelor degree. This agreement is designed for students who follow a prescribed plan of study leading to an associate degree. The credits transferred, as outlined in the appendices to this document, will be included in the total credit hours required for the baccalaureate degree. All other standard admission, curriculum, and graduation requirements of all named institutions must also be met.

Article III
Agreement of Program Articulation

All named institutions agree that any student, who has earned the associate degree in one of the focus areas (Welding/Fabrication, CNC Machining, Multi-Skilled Technology) may transfer the credits from their program to U#1 or U#2 for a bachelor's degree, as outlined in the attached appendices.

This agreement specifically allows the transfer of thirty (30) credits of technical coursework earned in one of the four M-CAM focus areas as part of an Associate's Degree awarded by one of the 2-year participants named above toward a bachelor's degree, as outlined in the attached appendices.

This agreement specifically allows for the transfer of successfully completed applied technology and applied science courses among and between M-CAM community colleges.

Article IV
Agreement on Student Support

All named institutions agree to track the progress and success of articulation participants. A mechanism will be developed to track and report on students' use of this articulation.

Article V
Agreement on Communication

All named institutions agree to cooperate in communication with each other and with common and respective publics concerning the established relationships between the two institutions. Communication will include the development of various kinds of publications to inform those who might benefit from the opportunities provided by this articulation agreement. The appropriate faculty and staff in both institutions will share the information in this agreement with interested and qualified students. Both institutions will provide academic counseling to students and prospective students. Joint efforts in marketing the program and student recruiting will be pursued.

All named institutions further agree to communicate annually concerning curriculum changes that may affect the agreed upon program relationship. Responsibility for communication related to this agreement will rest with the individuals appointed under Article VI.

Article VI
Agreement and Review Body Procedures

Each institution will appoint one or more agents for the implementation of this agreement, and communicate changes to respective faculty members, advisors, and others to whom the information is pertinent. Responsibility for the oversight of this agreement rests with each M-CAM institution designee.

Article VII
Regarding Independent Relationship

In the performance of their respective duties and obligations under this Agreement, each party is an independent contractor and neither is the agent, employee, or servant of the other, and each is responsible only for its own conduct. Each institution is solely responsible for the development and design of its own curriculum. Changes on the part of either party will/may necessitate review of this document.

Article VIII Agreement not to Discriminate

Each party covenants and agrees that it does not discriminate on the basis of race, creed, color, age, sex, or national origin and it complies with the Americans with Disabilities Act of 1990, and that it does not discriminate on the basis of "physical or mental handicap" except where there exists a bona fide academic qualification.

Each party shall be separately responsible for compliance with all federal and state laws, including nondiscrimination laws and all applicable sections of the Michigan Handicapper's Civil Rights Act. Illegal discrimination by either party may be considered a material breach of this Agreement.

Article IX Entire Agreement

This Agreement constitutes the entire agreement between the parties, and all prior discussions, agreements, and understandings, whether verbal or in writing, are hereby merged into this Agreement

Article X Amendment/Modifications/or Terminations Provision

All named institutions agree to the terms of this Agreement. No amendment or modification to this Agreement, including any modification or amendment of this paragraph, shall be effective unless the same is in writing and signed by all parties or their Successors.

This cooperative arrangement will be in effect immediately upon signature and will be subject to review for continuance after a period of three (3) years. If not renewed at the end of the effective period, students who already started the program at a participating school will have an additional three years to be admitted to the university under the terms of this agreement.

This Agreement is effective immediately upon approval by all named institutions and shall remain in effect for three years unless terminated by any of the parties providing six months advance written notice. In the event that this Agreement must be terminated, all students currently enrolled in the program shall be allowed to complete the program as described.

This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

The eight community colleges and M-CAM is an equal opportunity employer/program provider. Auxiliary aids and services are available upon request to individuals with disabilities. TTY users please call 1-877-878-8464 or visit www.michigan.gov/mdcr.

This work is licensed under a Creative Commons Attribution 4.0 International License. [HTTPS://creativecommons.org/licenses/by/4.0/](https://creativecommons.org/licenses/by/4.0/)



Community College Coursework – Before Transfer:

Michigan Transfer Agreement (MTA)*		30 Hrs
English Composition	1 course required; A second course in composition or 1 course in Communication	2 courses
Mathematics	Choose 1: Quantitative Reasoning, College Algebra or Statistics	1 course
Social Sciences**	From 2 difference disciplines	2 courses
Humanities & Fine Arts**	From 2 different disciplines excluding studio and performance classes	2 courses
Natural Sciences**	From 2 different disciplines – one must be a laboratory course Recommended lab course: Introduction to General Chemistry	2 courses
<p>* Consult with the specific M-CAM community college for list of approved courses; for additional information about the agreement, visit www.macrao.org/MTA</p> <p>** "Perspectives on a Diverse World" course is an EMU requirement and can be completed at either the community college or EMU; consult with the specific M-CAM community college for a list of approved courses.</p>		

Technical Concentration	30 Hrs
Technical courses from an approved program or discipline may be transferred as a block for the technical concentration. If the program has less than 30 technical credits, related courses may be taken at the community college or EMU.	30

EMU Program Requirements*	34 Hrs
EMU Course: MATH 118 Linear Models & Probability (or COT 224)	3
EMU Course: ECON 201 Macroeconomics	3
EMU Course: ECON 202 Microeconomics	3
EMU Course: BMMT 101 Computers and Technology	3
Electives: Complete enough credits to bring the total transferred credits to 94 and total credits to 124. MATH and one ECON may be used to satisfy MTA, which may increase electives to 28 credits.	22
* Consult with the specific M-CAM community college for the equivalent course; Total transfer credits not to exceed 94 credits	

EMU Coursework – After Transfer:

Major Requirements – Core Courses:	18 Hrs
TM 130 Introduction to Technology Management	3
TM 212 The Management of Technological Change	3
TM 311 Information Technology Management and Organizations	3
TM 314W A Socio-Technical Systems Approach to Process Improvement	3
TM 402 Technology Project Management	3
TM 415 Senior Seminar in Technology Management	3

Electives:	12 Hrs
At least 3 credits must be at the 300/400 level	
ACC 130, 240, 241, 358 ;FIN 350, LAW 293, 403; MGMT 384, 386, 388, 480W; MKTG 360, 369, 473; TM 306, 308, 387L, 420, 495 or any TM Special Topics	12

Maximum M-CAM Community College Credits = 94 Minimum EMU Credits = 30
Minimum Credits for Bachelor's Degree = 124

Michigan Coalition for Advanced Manufacturing (M-CAM)

Articulation Agreement & Transfer Guide

The Product Design Engineering Technology BS degree 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

Course Requirements

M-CAM Community Colleges		
Course	Course Titles	Cr. Hrs.
FSU General Education Requirements		
COMM 121	Public Speaking	3
ENGL 150	English Composition I	3
ENGL 250	English Composition II	3
MATH 130	Pre-calculus - *preferred	5-6
MATH 216	Applied Calculus	4
CHEM 103	Preparatory Chemistry	3
PHYS 211	General Physics I	4
ARTS 101	Drawing I (Culture Elective 100-Level GE)	3
GEOG 100	World Regional Geography (Diversity Elective GE)	3
Varies	FSU Culture Elective (must transfer to Ferris at 100-Level or Higher)	3
Varies	FSU Culture Elective (must transfer to Ferris at 200-Level or Higher)	
Varies	FSU Self and Society Elective (must transfer to Ferris at 100-Level or Higher)	3
Varies	FSU Self and Society Elective (must transfer to Ferris at 200-Level or Higher)	3
Technical Concentration		
Any Associates Degree for Product Design (must have completed MATH and CHEMISTRY program requirements to be admitted to the program)		Varies
Total Transferable M-CAM Community College Credits		Varies

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 as early as possible to ensure transferrability of credits, selection of FSU electives, understanding of Ferris general education, admittance, and graduation requirements.

Ferris State University		
Course	Course Titles	Cr. Hrs.
FSU General Education Requirements		
COMM 336	Technical & Professional Presentations	3
ENGL 321	Advanced Composition	3
Technical Related Courses		
EEET 201	Electrical Fundamentals	3
MFGT 150	Manufacturing Processes	2
ETEC 140	Engineering Graphics Comprehensive	3
or	or	or
PDET 122	Parametric Modeling	4
MATL 240	Material Science	3
MATL 341	Material Selection Metals	4
MECH 340	Statics & Strengths of Materials	4
MFGE 352	Design for Manufacturing	2
PLTS 342	Material Selection Plastics	3
Major Courses		
PDET 100	PDET Orientation & Degree Planning	1
PDET 210	Design Career Preparation	1
PDET 311	Seminar in Product Design	1
PDET 312	Advance Tolerancing	2
PDET 321	Applied Mechanics & Kinematics	3
PDET 322	Model and Prototype	2
PDET 411	Machine Design	3
PDET 412	Statistics/Ergonomics	2
PDET 413	Applied Fluids & Thermodynamics	3
PDET 415	Advanced Solid Modeling CAD	2
PDET 422	Advanced Machine Design	4
PDET 499	Product Design Project (Capstone Assessment)	3
Total Ferris Credits		Varies
Credits Required for Degree		125-127

Program Offered at:
Ferris Statewide, Grand Rapids (Part time nights)
 (616) 451-4777 or (800) 998-3425
 or ferrisgr@ferris.edu
www.ferris.edu/grandrapids

Main Campus, Big Rapids (Full time days)
 College of Engineering Technology
 Product Design Engineering Technology
 (231) 591-2755
 or pdet@ferris.edu
www.ferris.edu/pdet

www.ferris.edu/transfer

Michigan Coalition for Advanced Manufacturing (M-CAM)

Articulation Agreement & Transfer Guide

General Admission Criteria

- To be admitted to this degree program, students must have completed an associate degree or at least 60 transferable semester credit hours ("C" or better on 4.0 scale) from an accredited college or university with a 2.5 overall GPA. We do not require the completion of an A.A.S. degree for entry.
- Included in the 60 semester hours "Prior to FSU Admission" courses are specific speech, English, math, science, general education, and technical courses details below. These typically can be completed within an A.A.S. degree.

One course in mechanical based computer aided drafting (CAD) and one course in basic material science (MAT-L)

- Official transcripts from all accredited colleges and universities must be submitted with the Ferris application. At the time of application, if a student is transferring without the completion of an Associate's degree or has less than 60 transferable credits, high school transcripts will also be required.

Application Dates

Grand Rapids Campus

- If applying to the Grand Rapids Campus, the time to apply is best determined thru meeting with an advisor. The Grand Rapids campus admittance occurs year round, however, the Fall semester that a student begins coursework dictates their graduation date.

Big Rapids Main Campus

- It is recommended that students submit applications by January 15th prior for Fall semester entry to the Big Rapids Campus. Entry is on a first come first serve basis and the number of transfer slots available may be limited.

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

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.

Articulation Agreement

Effective Dates: 10/1/16 through 10/1/19

This Articulation Agreement is entered into by Ferris State University and the Michigan Coalition for Advanced Manufacturing (M-CAM). The Michigan community colleges included in the M-CAM are as follows: Macomb Community College, Bay de Noc Community College, Grand Rapids Community College, Kellogg Community College, Lake Michigan College, Lansing Community College, Mott Community College, and Schoolcraft College.

This Agreement shall commence as of October 1, 2016, and shall be for an initial term of three years. This agreement may be renewed at the end of three years and minor updates to the agreement may be made during this time with written notice to all parties. Either party may terminate this agreement by providing the other party with written notice of the intent to terminate the agreement. The agreement shall

Michigan Coalition for Advanced Manufacturing (M-CAM)

Articulation Agreement & Transfer Guide

terminate not less than one hundred eighty (180) days from the date of the termination notice, unless otherwise agreed in writing by both parties.

To the extent permitted by law, Ferris State University, M-CAM and its institutional members agree to indemnify and hold one another harmless from any and all claims initiated by student participants, their parents, survivors, or agents, arising from any negligent acts or omission on the part of either institution or any of their employees.

This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

The original, signed Articulation Agreement is kept on file in the Office of Transfer and Secondary School Partnerships. To obtain a copy of the original, signed document, contact the Office of Transfer and Secondary School Partnerships at 231-591-5983 or email your request to transfercenter@ferris.edu.

Ferris State University

Office of Transfer & Secondary School Partnerships
401 South State Street, SRC 102
Big Rapids, MI 49307
Phone: (231) 591-5983

Michigan Coalition for Advanced Manufacturing

Macomb Community College
14500 E. 12 Mile Rd.
Warren, MI 48088
Phone: (586) 445-7999