

ARTICULATION AGREEMENT GUIDE

Macomb Community College – **AAS in Product Development**

Eastern Michigan University – **BS in Product Design Engineering Technology**

Macomb Community College Courses:

Eastern Michigan University Courses:

Michigan Transfer Agreement (MTA) Requirements (32 credits)

Students with the MTA endorsement on their community college transcript have satisfied EMU's General Education Core Requirements and will be required to complete only the General Education Application Requirements of one Perspectives on a Diverse World course, one Learning Beyond the Classroom experience, and a Writing Intensive course in the major. Courses listed below for the MTA also satisfy program requirements at EMU and/or MCC. For MCC approved MTA courses go to the community college's website. Students without an MTA or MACRAO endorsement must complete EMU's general education program.

1. A course in English Composition

ENGL 1180 Communications 1 (or ENGL 1210)3-4 WRTG 120 Composition I..... 3-4

2. A course in English Composition or Communication

* ENGL 1190 Communications 2 (or ENGL 1220)3-4 WRTG 121 Composition II (prereq for SET 350W) 3-4

3. A course in Mathematics

* MATH 1760 Analytic Geometry & Calculus I.....4 MATH 120 Calculus I 4

4. Two courses in Natural Sciences from different disciplines (one lab required)

* Choose one from: CHEM 1050 or CHEM 11704 CHEM 117/118 or CHEM 121/122 4

* PHYS 1180 College Physics I.....4 PHY 221 Mechanics, Sound and Heat 4

5. Two courses in Humanities and Fine Arts from different disciplines

Choose two from the approved MTA list.....6 General Transfer Credit..... 6

6. Two courses in Social Sciences from different disciplines

Choose two from the approved MTA list.....6 General Transfer Credit..... 6

If needed, complete additional credits in any of the above categories to meet the 30 credit minimum for the MTA.

EMU's Perspectives on a Diverse World requirement: Complete one course from the following list:

These courses also satisfy an MTA area: **Communication:** SPCH 2300; **Natural Science:** BIOL 1310; ENVS 1050; **Humanities:** ENGL 2740, 2800, 2810; HUMN 2100; INTL 2000, 2300, 2800; MUSC 1040, **Social Sciences:** ANTH 1000, 1100; GEOG 2000; HIST 1260, 1700, 2375, 2520, 2650; POLS 1600; or SOCY 2550.

These courses apply, but do not satisfy the MTA: BUSN 2100

EMU Requirements and Electives that may be Taken at MCC or EMU (50 credits)

PRDE 1010 Design Principles4	PDET 000 General Transfer Credit..... 4
* PRDE 1200 Theory of Sheet Metal Fabrication3	PDET 310 Formed Product Design..... 3
PRDE 1260 Intro to AutoDesk Fusion 360 & Gen Design4	PDET 000 General Transfer Credit..... 4
* PRDE 1300 Industrial and Materials Processes (4) and	
* ATMT 1150 Machine Theory-Machine Tool Laboratory I (3)7	PDET 111 (3) and PDET 123 (4) 7
* PRDE 1400 Intro to SolidWorks & 3D Parametric Solid Model...3	PDET 122 Engineering Graphics 3
* PRDE 1520 NX Fundamentals4	PDET 432 3D Surface Modeling Techniques 4
* PRDE 1620 CATIA Essentials4	PDET 433 3D Assembly Modeling..... 4
PRDE 1920 CATIA-Generative Shape Design4	PDET 000 General Transfer Credit..... 4
* PRDE 2100 Design Intent and Analysis.....3	PDET 350 Prototyping 3
PRDE 2200 Jig and Fixture Detailing and Design3	PDET 000 General Transfer Credit..... 3
* PRDE 2400 Plastics Design and Manufacturing.....3	PDET 309 Molded Product Design 3
PRDE 2430 Student Capstone Project4	PDET 000 General Transfer Credit..... 4
PRDE 2520 NX Advanced4	PDET 000 General Transfer Credit..... 4

EMU Requirements and Electives that may be Taken at MCC or EMU (4 credits)

* ATDD 1920 Geometric Dimensioning & Tolerancing Fund2	PDET 220 Geometric Dimensioning & Tolerancing (3)-1 2
* ATQT 1030 Applied Statistical Process Control2	QUAL 320 Industrial Quality Control (3)-1..... 2

Credits at MCC:.....86 Credits that transfer to EMU..... 86

*Required for EMU's BS in Product Design Engineering Technology program. If not transferred, must be completed at EMU.

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Completion of the BS in Product Design Engineering Technology

Major Requirements (36 credits)

CEET 200	Circuit Analysis I.....	3
PDET 156	Teamwork in Product Design & Development.....	4
PDET 212	Molding Materials and Processes.....	3
PDET 216	Concept Development.....	4
PDET 224	Solid Modeling.....	3
PDET 325	Applied Statics & Strength of Materials	4
PDET 491	CAD Capstone.....	3
PDET 492	Product Realization Studio	3
¹ SET 350W	Engineering Communication	3
	Choose one PDET course not yet taken	3
	Select one course from the following:	3
	MET 430 Computer Aided Engineering (3)	
	PDET 380 Engineering Cost Estimating (3)	
	² PDET 387L4 Co-op in Product Design (3)	

LBC Requirement

Students must complete one Learning Beyond the Classroom course or noncredit experience offered by EMU. Consult your advisor for options. PDET 387L4 will count toward this requirement.

Credits at EMU: 36

Transfer Credits: 86

Total Credits: 122

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Additional Information:

1. Each institution will determine the satisfaction of their individual program and degree requirements. Both institutions agree to accept transferable courses from each other and from other regionally accredited institutions. MCC courses indicated with an * are required for EMU's BS in Product Design Engineering Technology. Substitutions for these courses must be approved by the EMU program coordinator.
2. Students with the MTA endorsement on their community college transcript have satisfied EMU's General Education Core Requirements and will be required to complete only the General Education Application Requirements of one "Perspectives on a Diverse World" course, one "Learning Beyond the Classroom" experience, and a "Writing Intensive" course in the major. The Perspectives on a Diverse World requirement may be transferred to EMU.
To use the Michigan Transfer Agreement (MTA), students must have an official community college transcript, with the "MTA Satisfied" endorsement sent to EMU's Admissions Office. Students who do not have "MTA Satisfied" on their community college transcript, will be required to satisfy EMU's general education requirements as applied to transfer students. The MTA may be completed after admission to EMU, however, students should inform their advisors or they may be advised to complete additional courses for the general education program. If already on the transcript, the MACRAO designation will be accepted at EMU after August 2019.
3. Only courses with a grade of "C" or better (2.0 on a 4.0 scale) will be accepted for transfer to either institution.
4. Under this agreement, EMU will waive the 60-hour rule and require that a minimum of 36 credit hours must be completed in EMU courses, with at least 15 hours in the program at the 300-level or above. Of the last 30 hours completed before graduating, a minimum of 10 credit hours must be in courses offered by EMU. A minimum of 120 credit hours, completed in-residence or accepted in transfer, is required for graduation.
5. Students must satisfy all admission requirements at the time of application for admission to EMU, including submitting transcripts from all previously attended colleges. MCC students will receive equal consideration with other students for course registration and financial aid.
6. Students are encouraged to contact EMU's Undergraduate Admissions office before applying to EMU. To facilitate advising and the evaluation of transcripts, bring a copy of this articulation guide to all advising sessions.

Effective Date: September 1, 2023 until August 31, 2026.

This is a renewal of an agreement made in September 2011 and renewed in September 2014 and September 2019. This agreement is consistent with the 2023-2024 catalog. Students have until summer 2031 to graduate from Eastern Michigan University following this agreement. In the event that a student does not complete the program within seven years, they may be required to have their credits reevaluated using the requirements of the current articulation guide.

Contacts:

Macomb Community College
Counseling/Academic Advising
586.445.7999

Eastern Michigan University
Undergraduate Admissions
Student Center, Suite 220
734.487.6453; transfer_admissions@emich.edu
[Schedule an appointment](#)