# ARTICULATION AGREEMENT GUIDE

## Schoolcraft College – AE Associate in Engineering Transfer Eastern Michigan University – BS in Mechanical Engineering

Schoolcraft College Courses:	Eastern Michigan University Courses:			
Michigan Transfer Agreement (MTA) Requirements Students with the MTA endorsement on their community college tran Requirements and will be required to complete only the General Edu Diverse World course, one Learning Beyond the Classroom experie below for the MTA also satisfy program requirements at EMU and/o college's website. Students without an MTA or MACRAO endorsements	nscript have satisfied EMU's General Education Core ucation Application Requirements of one Perspectives on a nce, and a Writing Intensive course in the major. <u>Courses listed</u> <u>SC.</u> For SC approved MTA courses go to the community			
1. A course in English Composition				
ENG 101 English Composition 1	WRTG 120 Composition I3			
2. A Second course in English Composition or Communication				
* ENG 102 English Composition 2	WRTG 121 Comp II (pre-req for SET 350W)3			
3. A course in Mathematics				
<sup>1*</sup> MATH 150 Calculus with Analytic Geometry I	MATH 120 Calculus I (4)+1 (GEQR)			
4. Two courses in Natural Sciences from different disciplines ( <sup>1*</sup> PHYS 211 Physics for Scientists and Engineers I	PHY 223 Mechanics and Sound5			
*CHEM 111 General Chemistry I	CHEM 121/122 General Chemistry I			
5. Two courses in Humanities and Fine Arts from different disc				
Choose from the approved MTA list	General Transfer Credit			
6. Two courses in Social Sciences from different discipline				
Choose one from: ECON 201 or 202	ECON 201 or 202 (3)+1 (GEKS)4			
Choose a from the approved MTA list	General Transfer Credit			
If needed, complete additional credits in any of the above categories	ories to meet the 30 credit minimum for the MTA.			
<i>EMU's Perspectives on a Diverse World requirement: Complete one</i> <i>These courses also satisfy an MTA area:</i> <u>Natural Science</u> : BIOL 10 HUM 201, 202, 203, 204; <u>Social Sciences</u> : ANTH 112, 201, 214; GE <i>These courses apply, but do <u>not</u> satisfy the MTA:</i> BUS 240; EDUC	04; GEOG 212; <u>Humanities</u> : COMA 240; ENG 170; HIST 138; DG 133; HIST 138; POLS 207, 209; SOC 210, 211			
SC Associate in Engineering Program Requirements	s (29 credits)			
* ENGR 100 Introduction to Engineering and Technology3	ME 100 Intro to Engineering Design & Manufacturing 3			
* ENGR 201 Statics	ME 211 Statics			
* ENGR 202 Mechanics of Materials	ME 313 Mechanics of Materials			
<sup>1*</sup> MATH 151 Calculus with Analytic Geometry II5	MATH 121 Calculus II (4)+15			
* MATH 240 Calculus with Analytic Geometry III5	MATH 223 Multivariable Calculus (4)+15			
* MATH 252 Differential Equations	MATH 325 Differential Equations (3)+2			
* PHYS 212 Physics for Scientists and Engineers II	PHY 224 Electricity and Light5			
EMU Requirements and Electives that may be Taker	n at SC or EMU (15 credits)			
* ENGR 203 Dynamics4	ME 312 Dynamics (3)+1 4			
* MATH 230 Linear Algebra (Elective)4	MATH 122 Elementary Linear Algebra (3)+14			
Course prerequisites/electives7	General Transfer Credit7			
Students wishing to enroll full time at EMU may consider taking courses at EMU.				
Credits at SC:75	Credits that transfer to EMU75			

\*Required for EMU's BS in Mechanical Engineering program. If not transferred, must be completed at EMU.

### **ARTICULATION AGREEMENT GUIDE**

Schoolcraft College - AE Associate in Engineering Transfer Eastern Michigan University - BS in Mechanical Engineering

### **Completion of the BS in Mechanical** Engineering

#### **Major Requirements**

(45 credits)

#### Additional Requirements (9 credits)

CEET 151	Intro to Computing in Engineering Tech
ELEC 212	Engineering Circuit Analysis (or EECE 212)3
<sup>1</sup> SET 350W	Engineering Communication3

#### **Technical Requirements (32 credits)**

ME 316	Thermodynamics (or PHY 360)	3
ME 317	Fluid Mechanics (or PHY 485)	3
ME 325	Mechanics of Composite Materials	2
ME 326	Composite Design and Processes	1
ME 330	Machine Design	3
ME 418	Heat Transfer	3
ME 420	Thermo/Fluids Lab	2
ME 431	Mechanical Design and Analysis	3
ME 432	Machine Dynamics	3
ME 435	Computational Solid Mechanics	3
ME 492	Senior Capstone I	3
ME 493	Senior Capstone II	3

#### **Technical Electives (4 credits)**

Complete enough credit to meet a minimum of 45 credits at EMU.

#### LBC Requirement

Students must complete one Learning Beyond the Classroom course or noncredit experience offered by EMU. Consult your advisor for options, ME 387L4 will apply to this requirement

Credits at EMU:	45
Transfer Credits:	75
Total Credits:	120

#### Sample course sequence

Students should set up an appointment with a faculty advisor to assure correct sequencing and courses offerings.

Winter Sen	nester	(9 credits)
CEET 151	F,W	
ELEC 212	W, pre-req PHY 224	3
SET 350W	pre-req WRTG 121	3
Fall Semester (7 credits)		
ME 316	F, pre-req PHY 223, MATH 120	, 1213
Open Electi	ve Credit	4
Winter Semester (9 credits		(9 credits)
ME 317	W, pre-req (ME 316 or PHY 260	), ME 211 3
ME 325	W, pre-req ME312 or PHY 230)	, ME 211, 3132
ME 326	W, pre-req ME 325	1
ME 330	W, pre-req ME 313	3

#### **Fall Semester**

#### (14 credits) ME 432 F, pre-reqs (ME 312 or PHY 230) & ME 431.3 ME 492 F, pre-reg SET 350W (concur ME 431, 432) .. 3 ME 418 F, pre-reqs ME 316, ME 317; MATH 223, 3253 ME 420 F, pre-regs ME 316, 317 and MATH 325 ......2 ME 431 F, pre-regs ME 100 and ME 313......3

#### Winter Semester

Winter Semester		(6 credits)
ME 435	W, pre-reqs ME 431, MATH 122, 3	3253
ME 493	W, pre-req ME 492	3

\* EMU requires 120 credits to graduate. If sufficient credits are not transferred to EMU, the course credit must be taken at EMU. <sup>1</sup> Satisfies EMU's Writing Intensive in the major requirement.

# ARTICULATION AGREEMENT GUIDE

#### Schoolcraft College – AE Associate in Engineering Transfer Eastern Michigan University – BS in Mechanical Engineering

#### Additional Information:

- 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.
  SC courses indicated with an \* are required for EMU's BS in Mechanical Engineering. 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 45 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. SC students will receive equal consideration with other students for course registration and financial aid.
- 6. Admission requirements for the BS in Mechanical Engineering:
  - A minimum EMU cumulative GPA of 2.7. (A combined GPA of 2.7 from all transfer institutions will be accepted).
  - Completion of PHY 223 with a grade of C or higher (or equivalent transfer credit)
  - Completion of MATH 120 and MATH 121, with a grade of C or higher (or equivalent transfer credit)
- 7. 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 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: Schoolcraft College Academic Advising McDowell Center Room 105 734.462.4429 eadvise@schoolcraft.edu

Eastern Michigan University Undergraduate Admissions Student Center Suite 220 734.487.6453; <u>transfer\_admissions@emich.edu</u> <u>Schedule an appointment</u>