ELECTRICAL AND COMPUTER ENGINEERING
ARTICULATION AGREEMENT GUIDE – ARCHIVED

Monroe County Community College –Associate of Science
Eastern Michigan University – BS in Electrical and Computer Engineering

Monroe County Community College Courses: Transfer to Eastern Michigan University as:

Michigan Transfer Agreement (MTA) Requirements (30 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 EMU General Education Application Requirements of one Perspectives on a Diverse World course, one Learning Beyond the Classroom experience, and one writing intensive course in the major. Courses listed below for the MTA also satisfy program requirements at EMU and/or MCCC. See the Monroe courses approved for the MTA. Students who do not have the MTA or MACRAO endorsement must complete the EMU general education program.

1. A course in English Composition			
ENGL 151 English Composition I (C3)	3	WRTG 120 University Elective	3
2. A Second course in English Composition or Communication			
* ENGL 152 English Composition II	3	WRTG 121 Comp II (pre-req for SET 350W)	3
3. A course in Mathematics			
[1]* MATH 171 Calculus I (C2)	4	MATH 120 Calculus I	4
4. Two courses in Natural Sciences from different disciplines (one lab required)			
[1]* PHY 251 Engineering Physics I (C1)	5	PHY 223 Mechanics and Sound	5
*CHEM 151 General College Chemistry I (C1)	4	CHEM 121/122 General Chemistry I	4
5. Two courses in Humanities and Fine Arts from different disciplines			
Choose from the approved MTA list	6	University Elective	6
Recommend one course that also satisfies C5 competency			
6. Two courses in Social Sciences from different disciplines			
Choose a from the approved MTA list	6	University Electives	6
Recommend one course that also satisfies C6 competency			

If needed, complete an additional course in 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: **Natural Science**: BIOL 156; **Humanities:** ENGL 240, 255, 266; HUMAN 256, 257; **Social Sciences:** ANTHR 152; GEOG 152; HIST159, 173; POLSC 211, 252; SOC 253.
These courses apply, but do not satisfy the MTA: BMGT 220; IAS 105

MCCC Associate of Science (32-36 credits)

[1]*MATH 172 Calculus II	4	MATH 121 Calculus II	4
* MATH 251 Introduction to Linear Algebra	3	MATH 122 Elementary Linear Algebra	3
* MATH 271 Calculus III	4	MATH 223 Multivariable Calculus	4
* MATH 273 Introduction to Differential Equations	3	MATH 325 Differential Equations	5
* METC 100 Introduction to Engineering & Technology	3	ET 100 Intro to Engineering Tech sub for ME 100	3
* PHY 252 Engineering Physics II	5	PHYS 224 Electricity and Light	5
* CIS 150 Computer Science I	4	COSC 146 Applied Programming sub for COSC 111	4
* CIS 250 Computer Science II (Computer Engr Only)	0-4	COSC 211/212 Programming Data Structures	0-4
Choose 1 course for the C4 Competency	3	University Elective	3
Choose 1 social science course approved for the AS	3	University Elective	3

EMU requirements that may be taken at MCCC or EMU (11-15)

Open Electives (may include pre-requisite courses)	11-15	University Electives	11-15

Courses recommended by MCCC to fulfill these electives include: ELEC 125 (4), ELEC 132 (4), ELEC 135 (4), ELEC 145 (4), ELEC 129 (4), ELEC 130 (3), ELEC 133 (4), ELEC 137 (4)

Credits at MCCC: ..... 77 **Credits that apply to EMU's program 77**

** Required for the Electrical and Computer Engineering program at EMU. Must be taken at EMU if not completed prior to transferring.*
[1] Admission requirement for the Electrical and Computer Engineering program at EMU. See page 3 of guide for all admission requirements.

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Completion of the BS in Electrical and Computer Engineering at EMU

Major Requirements (47 credits)

Foundational Requirements (6 credits)

CET 151	Intro to Computing in Engineering Tech	3
[2] SET 350W	Engineering Communication	3

Electrical & Computer Engineering Courses (29 credits)

[1] EECE 212	Engineering Circuit Analysis (or ELEC 212)	3
EECE 213	Engineering Circuit Analysis II	3
EECE 251	Digital Logic Design	3
EECE 341	Engineering Electronics	3
EECE 351	Microcontrollers	3
EECE 371	Signals and Systems	3
EECE 400	EECE Professional Practice	2
EECE 421	Control Systems Engineering	3
EECE 430	Power Electronics	3
EECE 480	Senior Capstone	3

Concentration (Choose 1 below) (9-12 credits)

Computer Engineering Concentration

COSC 221	Computer Organization I	3
EECE 352	Digital System Designs with HDL	3
EECE 452	Advanced Digital System Designs with FPGA	3

Electrical Engineering Concentration

EECE 342	Engineering Electronics II	3
EECE 365	Engineering Electromagnetics	3
EECE 372	Communication Systems	3
EECE 431	Digital Control Systems	3

LBC Requirement (0-3 credits)

Students must complete one Learning Beyond the Classroom course or noncredit experience offered by EMU. Consult your advisor for options.

University Elective (0-3 credits)

Students must complete a minimum of 47 credits at EMU unless otherwise approved through the department.

Credits at EMU: 47
Transfer Credits: 77
Total Credits: 124

** EMU requires 124 credits to graduate. If sufficient credits are not transferred to EMU, the course credit must be taken at EMU.*
[1] Must complete course with a "C" or higher for program admission.
[2] Satisfies EMU's Writing Intensive in the major requirement.

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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 transferrable courses from each other and from other regionally accredited institutions. MCCC courses indicated with an * are required for EMU's Electrical and Computer Engineering program. 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 30 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 124 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. MCCC students will receive equal consideration with other students for course registration and financial aid.
6. To be considered for admission students must meet the following requirements:
   - A minimum EMU cumulative GPA of a 2.5 or a combined GPA of 2.5 from all other transfer institutions
   - Completion of PHY 224, MATH 120, MATH 121, and EECE 212 with a grade of "C" or above (or equivalent transfer credit)
7. Students are encouraged to contact the College of Engineering and Technology Student Services 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, 2019 through August 31, 2022.

This agreement is consistent with the 2019-2020 catalog. Students have until summer 2027 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:

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