

**ARCHIVED ELECTRONIC ENGINEERING TECH ARTICULATION GUIDE**

Macomb Community College – AAS in Electronic Engineering Technology  
 Eastern Michigan University – BS in Electronic Engineering Technology

**Macomb Community College Courses:****Eastern Michigan University Courses:****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 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 Macomb's website. Students without an MTA or MACRAO endorsement must complete EMU's general education program.

**1. A course in English Composition**

Choose one from: ENGL 1180 or 1210 .....3-4      WRTG 120      University Elective (3)+1 .....3-4

**2. A course in English Composition or Communication**

Choose one from the approved MTA list .....3      University Elective .....3

**3. A course in Mathematics**

\* MATH 1760 Analytic Geometry and Calculus 1 .....4      MATH 120 Calculus I sub for MATH 140 .....4

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

\* CHEM 1170 General Chemistry 1 .....4      CHEM 121/122 General Chemistry I .....4

\* PHYS 1180 College Physics 1 .....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      University Elective .....6

**6. Two courses in Social Sciences from different disciplines**

Choose two from the approved MTA list .....6      University Elective .....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:

Courses on this list will satisfy an MTA area above: **Communication:** SPCH 2300; **Natural Science:** BIOL 1310; ENV 1050; **Humanities:** ENGL 2800, 2810; INTL 2000, 2300, 2800; **Social Sciences:** ANTH 1000; ECON 2110; GEOG 2000; HIST 1260, 1700, 2375, 2520, 2650; POLS 1600; or SOCY 2550

**MCC Electronic Engineering Technology Program Requirements (44 credits)**

\* ELEC 1161 Electronic Technology 1 (3) and

\* ELEC 1171 Electronic Technology 2 (3) and

\*TMT 1150 RCL Analysis (4) .....10      ELEC 200 and ELEC 210 (6) +4 .....10

\* CORE 1060 Industrial Computer Technology .....4      ET 100 Introduction to Engineering Technology (3)+1 ....4

ELEC 1182 Semiconductor Theory & Devices .....3      ELEC 000 University Elective .....3

\* ELEC 1211 Digital Electronics Basics .....3      ELEC 214 Digital Circuit Analysis I .....3

\* ELEC 1221 Microcontrollers With Robotic Application (3) and

\* ELEC 2010 Instrumentation 1-Transducer Theory (3)

\* ELEC 2150 LabVIEW Basics 1 (3) .....9      ELEC 218 Motors and Controls (3)+6 .....9

ELEC 2160 LabVIEW Basics 2 .....3      AACR Gen University Elective .....3

ELEC 2490 Instrument 2-Adv Op-Amps & Linear Integr Crts 3      ELEC 000 University Elective .....3

ELEC 2270 Microcontroller Programming .....3      ELEC 000 University Elective .....3

ELEC 2400 Microprocessor Interfacing .....3      ELEC 000 University Elective .....3

ELEC 2005 Discrete Amplifiers & Introduction to Op-Amps...3      ELEC 000 University Elective .....3

**EMU Requirements and Electives that May be Taken at MCC or EMU (15 credits)**

\* ITCS 2530 C++ Programming 1 .....4      COSC 246 Programming in C++ .....3

\* MATH 1770 Analytic Geometry and Calculus 2 .....4      MATH 121 sub for MATH 141 .....4

\* MATH 2000 Introduction to Linear Algebra .....3      MATH 122 Elementary Linear Algebra .....3

\* PHYS 1190 College Physics 2 .....4      PHY 222 Electricity and Light .....4

**Credits at MCC: .....89      Credits that transfer to EMU ..... 89**

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

**Sign up with us:** If you let us know you are using this articulation agreement we can stay in touch with you and provide information and advising to you while you are still at your community college.

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**Completion of the BS in Electronic Engineering Technology at EMU**

<b>Major Requirements</b>	<b>(45 credits)</b>
CET 151 Intro to Computing in Engineering Tech .....	3
CET 427 Programmable Logic Controller .....	3
ELEC 300 Analog Circuit Analysis I .....	3
ELEC 310 Analog Circuit Analysis II .....	3
ELEC 314 Digital Circuit Analysis II .....	3
ELEC 320 Microcomputer Circuits .....	3
ELEC 326 Transform Circuit Analysis with Calculus .....	3
<sup>1</sup> ELEC 387L4Co-op in Electronic Technology .....	3
ELEC 415 Communication Circuits .....	3
ELEC 420 Advanced Microprocessors .....	3
ELEC 426 Control Systems Engineering .....	3
ELEC 450 Senior Design Project .....	3
QUAL 320 Industrial Quality Control .....	3
<sup>2</sup> SET 350W Engineering Communication .....	3
Choose one course from the following: .....	3
MET 211 Statics (3)	
MET 314 Appl Thermodynamics & Heat Transfer (3)	

<b>Credits at EMU:</b> .....	<b>45</b>
<b>Transfer Credits:</b> .....	<b>89</b>
<b>Total Credits:</b> .....	<b>134</b>

<sup>1</sup> Fulfills EMU's Learning Beyond the Classroom requirement.

<sup>2</sup> Fulfills EMU's Writing Intensive 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. MCC courses indicated with an \* are required for EMU's BS in Electronic 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 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 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 BS in Electronic Engineering Technology program coordinator before applying to EMU. To facilitate advising and the evaluation of transcripts, [sign up for this articulation agreement](#) and bring a copy of this articulation guide to all advising sessions.

**Effective Date: September 1, 2019 until August 31, 2022.**

This is a renewal of an agreement made in January 2012. 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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 Counseling/Academic Advising  
 586.445.7999  
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