### ELECTRONIC ENGINEERING TECHNOLOGY ARTICULATION AGREEMENT GUIDE

Monroe County Community College – AAS in Electrical Engineering Technology Eastern Michigan University – BS in Electronic Engineering Technology

#### **Monroe County 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 MCCC. Students who started before fall semester 2014 may continue to follow the MACRAO Agreement until the end of summer semester 2019. MCCC approved MTA Courses. 1. A course in English Composition **WRTG 120** 2. A course in English Composition or Communication **WRTG 121** Composition II (pre-requisite for SET 300W)..... 3 3. A course in Mathematics MATH 171 Calculus 1 ......4 Calculus I sub for MATH 140.....4 MATH 120 4. Two courses in Natural Sciences from different disciplines (one lab required) \* CHEM 151 General College Chemistry I ......4 PHY 221 Mechanics, Sound and Heat.....4 5. Two courses in Humanities and Fine Arts from different disciplines 6. Two courses in Social Sciences from different disciplines 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: 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 Electrical Engineering Technology Program Requirements (49 credits)** \* ELEC 129 AC/DC Motors and Controls......4 sub for ELEC 218 Motors and Controls (3)+1.....4 University Elective ......3 **CET 000** \* ELEC 133 Circuit Analysis......4 ELEC 210 Circuit Analysis II (3)+1......4 ELEC 214 Digital Circuit Analysis I (3)+1......4 \*ELEC 135 Digital Electronics......4 ELEC 137 Microprocessors......4 ELEC 141 Industrial Automation and Process Control......3 ELEC 145 Data Acquisition and Insnetrumentation ......4 ELEC 000 University Elective ......4 ELEC 200 Electronic and Electrical Troubleshooting......4 ELEC 000 University Elective .......4 ELEC 214 National Electric Code – NEC ......2 MDTC 160 Mechanical Drafting and CAD I......4 PDD 122 MECH 131 Introduction to Automated Manufacturing .......3 PDD 000 EMU Requirements and Electives that May be Taken at MCCC or EMU (18 credits) COSC 246 Programming in C++ (3)+1......4 Computer Science I......4 <sup>2</sup> CIS 150 \* MATH 251 Introduction to Linear Algebra......3 \*METC 100 Introduction to Engineering and Technology......3 ET 100 **sub for MET 211 Statics** (3)+1......4 \* METC 220 Statics and Strength of Materials ......4 PDD 325 \*PHY 152 General Physics II......4 **PHY 222** Electricity and Light ......4 Credits at MCCC: ......97 Credits that apply to EMU program: ........ 79

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.

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

<sup>&</sup>lt;sup>1</sup> WRTG 121 is a pre-requisite for SET 300W. If ENGL 152 is not transferred to EMU, WRTG 121 must be completed at EMU.

<sup>2</sup> If CIS 150 (COSC 246) is not taken at MCCC, additional options are available for the requirement at EMU.

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# Completion of the Electronic Engineering Technology Program at EMU

Major Requ	uirements (45 c	credits)
CET 151	Intro to Computing in Engineering Te	ch3
CET 427	Programmable Logic Controller	3
ELEC 300	Analog Circuit Analysis I	3
<b>ELEC 310</b>	Analog Circuit Analysis II	
<b>ELEC 314</b>	Digital Circuit Analysis II	
<b>ELEC 320</b>	Microcomputer Circuits	
<b>ELEC 326</b>	Transform Circuit Analysis with Calcu	
<sup>1</sup> ELEC 387L	4Co-op in Electronic Technology	3
<b>ELEC 415</b>	Communication Circuits	3
<b>ELEC 420</b>	Advanced Microprocessors	3
<b>ELEC 426</b>	Control Systems Engineering	3
ELEC 450	Senior Design Project	3
MATH 141	Applied Calculus II for Technology	3
QUAL 320	Industrial Quality Control	3
<sup>2</sup> SET 350W	Engineering Communication	3
Credits at EMU:		45
	Credits	
Credits t	o Graduate:	124

# Suggested Sequence for completing the program:

Courses may not be offered every semester. Consult with the program coordinator to develop a program of study.

MATH 120 (MATH 171 at MCCC) is pre or co-requisite to ELEC 210.

Fall Semest CET 151	`	
ELEC 300	F, pre-req: ELEC 210	3
ELEC 314	F, pre-req: ELEC 214	
ELEC 320	F, pre-reqs: ELEC 214, co-req: CET 151	3
Winter Sem		
<b>ELEC 310</b>	W, pre-req: ELEC 300	3
<b>ELEC 420</b>	W, pre-req: ELEC 320	3
MATH 141		
Fall Semest	er (12 cred	dits)
<b>ELEC 326</b>	F, pre-regs: ELEC 210 and MATH 120	Ś
<b>ELEC 326</b>	F, pre-regs: ELEC 210 and MATH 120	Ś
ELEC 326 ELEC 415	F, pre-reqs: ELEC 210 and MATH 120 F, pre-req: ELEC 310	3 3
ELEC 326 ELEC 415	F, pre-reqs: ELEC 210 and MATH 120 F, pre-req: ELEC 310 F,W,pre-req: ELEC 218	3 3
ELEC 326 ELEC 415 CET 427 <sup>2</sup> SET 350W Winter Sem	F, pre-reqs: ELEC 210 and MATH 120 F, pre-req: ELEC 310 F,W,pre-req: ELEC 218 F, W, pre-req: WRTG 121  ester (12 cred	3 3 3
ELEC 326 ELEC 415 CET 427 <sup>2</sup> SET 350W Winter Sem <sup>1</sup> ELEC 387L	F, pre-reqs: ELEC 210 and MATH 120 F, pre-req: ELEC 310 F,W,pre-req: ELEC 218 F, W, pre-req: WRTG 121  ester 4F,W	3 3 3 dits)
ELEC 326 ELEC 415 CET 427 <sup>2</sup> SET 350W Winter Sem <sup>1</sup> ELEC 387L ELEC 426	F, pre-reqs: ELEC 210 and MATH 120 F, pre-req: ELEC 310 F,W,pre-req: ELEC 218 F, W, pre-req: WRTG 121  ester 4F,W W, pre-reqs: ELEC 326 and MATH 121	3 3 3 <b>dits)</b> 3
ELEC 326 ELEC 415 CET 427 <sup>2</sup> SET 350W Winter Sem <sup>1</sup> ELEC 387L ELEC 426 ELEC 450	F, pre-reqs: ELEC 210 and MATH 120 F, pre-req: ELEC 310 F,W,pre-req: ELEC 218 F, W, pre-req: WRTG 121  ester 4F,W	3 3 3 dits) 3

<sup>&</sup>lt;sup>1</sup> Fulfills the Learning Beyond the Classroom requirement.

<sup>&</sup>lt;sup>2</sup> Fulfills the 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. MCCC 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. Students who enrolled in college prior to fall semester 2014 will have until the end of summer semester 2019 to complete the MACRAO agreement. 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. Students are encouraged to contact EMU's Electronic Engineering Technology program coordinator before applying to EMU. To facilitate advising and the evaluation of transcripts, <u>sign up for this articulation</u> <u>agreement</u> and bring a copy of this articulation guide to all advising sessions.

# Effective Date: September 1, 2018 until August 31, 2021.

This agreement is consistent with the 2018-2019 catalog. Students have until summer 2026 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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