# ARTICULATION AGREEMENT BETWEEN Northwest State Community College

AAS in Electrical Engineering Technology and

## Eastern Michigan University

BS in Electronic Engineering Technology

## Article I Agreement on Principle

Eastern Michigan University (EMU) and Northwest State Community College (NSCC) agree that students who choose to begin their studies at a community college and transfer to a university to earn a bachelor's degree should be provided with a smooth curriculum transition that minimizes loss of credit and duplication of coursework. Therefore, EMU and NSCC agree to enter into this articulation agreement to facilitate the completion of the associate degree in Electrical Engineering Technology at NSCC and the Bachelor of Science in Electronic Engineering Technology at EMU. Both institutions enter into this agreement as cooperating, equal partners who shall maintain the integrity of their separate programs.

# Article II Agreement on Program Specifics

EMU and NSCC agree that any student who has satisfied the minimum requirements on the attached articulation guide may transfer the course credits indicated toward a Bachelor of Science in Electronic Engineering Technology at EMU. Under this agreement, EMU will waive the 60-hour rule and require students to complete a minimum of 45 credit hours at EMU, of which 15 hours are program requirements at the 300-level or above. A minimum of 124 total credits is required to graduate.

EMU agrees that students who have completed the Ohio Transfer Module 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. Students may complete the OTM before or after admission to EMU. Students who have not satisfied the OTM must complete the General Education Program (both the Core and Application requirements) as applied to transfer students. Contact the Director of Community College Relations for assistance in transferring the OTM at <a href="mailto:ckibin@emich.edu">ckibin@emich.edu</a>. All other EMU graduation and program requirements must be satisfied whether by transferred courses, EMU courses, or approved substitutions or waivers.

For the purpose of this articulation agreement, both NSCC and EMU agree to accept transferrable courses from each other and from other regionally accredited institutions. Articulation guides will be provided to assist students in completing the articulated program of study. Each institution will determine the satisfaction of their individual program and degree requirements. NSCC courses indicated with an \* on the articulation guide are required for EMU's program. Any substitutions for these courses must be approved by the EMU program coordinator if not already stated in the agreement. In the case of a student who has accumulated credits before declaring this program, every effort will be made to maximize the use of credits already completed. Students will be encouraged to complete an associate degree.

Students using this agreement must apply and be admitted to EMU. NSCC students will receive equal consideration with other students seeking admission and financial aid. Ohio undergraduate students will receive EMU's in-state tuition rate.

# Article III Agreement on Communication

NSCC and EMU agree to cooperate in communicating with each other and with their common and respective publics concerning the established relationship between the two institutions. Communication may include the development of various kinds of publications to inform those who might benefit personally or professionally from the opportunities provided by this agreement. Faculty and staff at both institutions will share the information in this agreement with interested and qualified students and both institutions will provide counseling and advising to students and prospective students.

# Article IV Maintenance and Review Procedures

At least one administrative or faculty member from each institution will be appointed to act as agents for the implementation of this agreement, to speak for the institutions and to communicate changes to respective faculty members, advisors, counselors, and others to whom the information is pertinent. Responsibility for oversight of this agreement rests with the Dean of Science, Technology, Engineering Technology and Math at NSCC and the Director of the School of Engineering at EMU. Both parties agree to communicate annually any changes in their respective programs that may affect this articulation agreement.

### Effective Dates: September 1, 2020 until August 31, 2023

This agreement is consistent with the 2020-2021 catalog. Students have until summer 2028 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.

### ARTICULATION AGREEMENT BETWEEN

### Northwest State Community College Associate Degree in Electrical Engineering Technology and

# Eastern Michigan University Bachelor of Science in Electronic Engineering Technology

Northwest State Community College and Eastern Michigan University agree to the terms of this agreement, which will be in effect from September 1, 2020 until August 31, 2023

Signatures
Northwest State Community College Eastern Michigan University

Michae Thomas	8/11/20	farm of Since	6/10/2020
Michael Thomson, PhD	Date	James M. Smith, PhD	Date
President		President	
Van Bentho	_ 8/6 kas	Glunda Panguarth	6/3/20
Dan Burklo, MSE, PhD	Date	Rhonda Kinney Longworth, PhD	Date
Vice President for Academics		Provost and Executive Vice President	
		Academic and Student Affairs	
Bille	816/20	Ms Oat	6/2/2020
Ryan Hamilton	Date	Mohamad Qatu, PhD	Date
Dean of Science, Technology, Engine	eering	Dean, College of Engineering & Techn	ology
Technology & Math		Bob Lakidji.	5/27/2020
		Bob Lahidji, PhD, Interim Director	Date
		School of Engineering	

### ELECTRONIC ENGINEERING ARTICULATION AGREEMENT GUIDE

Northwest State Community College – AAS in Electrical Engineering Technology Eastern Michigan University – BS in Electronic Engineering Technology

### Northwest State Community College Courses: Transfer to Eastern Michigan University as:

#### Ohio Transfer Module + EMU General Education Core Requirements (41 credits)

The courses below were selected to satisfy both the OTM and EMU's General Education Core Requirements. If students complete the OTM, then EMU's General Education Core is also satisfied and only the General Education Applied requirements of one Perspectives on a Diverse World course, one Writing Intensive course, and one Learning beyond the Classroom course or experience must be completed. All three Applied requirements are included in this guide. Contact Community College Relations <a href="mailto:cccr\_office@emich.edu">cccr\_office@emich.edu</a> to have this agreement and the OTM applied to your EMU record.

Credits that may be taken at NSCC:91	Credits that transfer to EMU91
<sup>3</sup> MET 235 Statics3	MET 211 Statics3
*MTH 214 Calculus II5	MATH 121 Calculus II (4)+15
EMU Requirements that may be taken at NSCC or EM	U (8 credits)
Choose one: EET 282 or PLC 230 or CET 1153	University Elective3
PLC 200 Programmable Controller I	CET 000 University Elective3
EET 277 Industrial Electronics3	ELEC 000 University Elective3
EET 272 Networking I3	ELEC 000 University Elective3
EET 240 Engineering Programming3	ELEC 000 University Elective3
EET 231 Microprocessors4	ELEC 000 University Elective4
*EET 221 Digital Circuits4	ELEC 214 Digital Circuit Analysis I (3)+14
*EET 122 AC Circuits	ELEC 210 Circuit Analysis II
*EET 121 DC Circuits	ELEC 200 Circuit Analysis I
*MET 100 Introduction to Engineering Technology2	ET 100 Introduction to Engineering Technology (3)-12
ENG 210 Technical Communication	PHY 222 Electricity and Light
*CAD 112 CAD II4 ENG 210 Technical Communication	PDET 000 <u>sub for CET 120</u> 4 ENG 000 University Elective3
NSCC Electrical Engineering Technology (42 credits)	PDET 000 sub for CET 1204
<sup>2</sup> Choose one: GEO 110; HIS 210; SSC 130, or SSC 210 3	EMU's Perspectives on a Diverse World (GEUS/GEGA)3
Choose two: ECO 211, 212, HIS 101, 102, 203, SSC 101, 1206	EMU's Knowledge of the Social Sciences (GEKS)6
5. Social & Behavioral Sciences: Three courses from at least 2 d.	
ENG 223, 230, 240, 241, 250, 251, 260. 261; PHI 110, 201, 21	
HUM 221, HUM 230, ENG 240 Choose two courses:6	EMU's Knowledge of the Humanities (GEKH)6
Choose two courses:	EMU's Knowledge of the Arts (GEKA)6
4. Arts & Humanities: Three courses required	CALL Park no villadas af the Arta (CEKA)
*PHY 251 Physics: Mechanics and Heat4	PHY 221 Mechanics, Sound and Heat (GEKN)4
*CHM 201 General Chemistry I5	CHEM 121/122 General Chemistry & Lab (GEKN) (4)+1 5
3. Natural & Physical Sciences: Two courses from different disci	
*MTH 213 Calculus I5	MATH 120 Calculus I (GEQR) (4)+1 <u>sub for MATH 140</u> 5
2. Mathematics Electives:	, , , , , , , , , , , , , , , , , , , ,
ENG 113 Speech3	COMM 124 Found of Speech Communication (GEEC) 3
<sup>1</sup> ENG 111 Composition I or (ENG 112 Comp II)3	WRTG 120 Comp I or (WRTG 121 Comp II GEEC)
1. English/Oral Communication	
agreement and the OTM applied to your EMU record.	

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

<sup>&</sup>lt;sup>1</sup> ENG 112 is required for EMU's General Education Core, if the OTM is **not** satisfied. Contact the Director of Community College Relations at <a href="mailto:ccr">ccr</a> office@emich.edu for assistance in transferring the OTM and signing up for this agreement.

<sup>&</sup>lt;sup>2</sup> Satisfies EMU's Perspectives on a Diverse World requirement

<sup>&</sup>lt;sup>3</sup> Satisfies a restricted elective at EMU. If MET 235 is not transferred, students will take either MET 211 or MET 314 at EMU.

<sup>&</sup>lt;u>Sign up with us:</u> 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.

## ELECTRONIC ENGINEERING ARTICULATION AGREEMENT GUIDE

Northwest State Community College – AAS in Electrical Engineering Technology Eastern Michigan University – BS in Electronic Engineering Technology

# Completion of Electronic Engineering Technology Major

Major Re	quirements	(48 credits)
Core Cou	rses (48 credits)	
CET 151	Introduction to Computing in Engir	eering Tech 3
CET 427		
<b>ELEC 218</b>	Motors and Controls	3
ELEC 300	Analog Circuit Analysis I	
ELEC 310	Analog Circuit Analysis II	3
ELEC 314	Digital Circuit Analysis II	3
ELEC 320		3
ELEC 326	Transform Circuit Analysis w/Calcu	ılus 3
<sup>1</sup> ELEC 3871	-4 Cooperative Education in EET	3
ELEC 415	Communication Circuits	3
ELEC 420	Advanced Microprocessors	3
ELEC 426		3
ELEC 450	Senior Design Project	3
MATH 122	Elementary Linear Algebra	3
QUAL 320	Industrial Quality Control	3
<sup>2</sup> SET 350W	Engineering Communication	3
O	4 =====	
Credits a	t EMU:	48
	Credits:	
Credits to	o Graduate:	139

<sup>1</sup> Satisfies EMU's "Learning Beyond the Classroom" requirement

**Note:** Students who do not transfer MET 211 from NSCC will choose from MET 211 or MET 314 at EMU.

#### Substitutions

A substitution for CET 120 (CAD 112 from NSCC) must be submitted by your advisor to be added to your EMU transcript. Contact your program advisor at EMU to submit the substitution form for you.

Sample sequence for completing program.

Courses may not be offered every semester. See the EET advisor to create a personal program of study and keep it up to date.

	, ,	to date.
Semester 1 SET 350W	Winter FWS prereq: WRTG 121	(12 credits)
CET 151		3
<b>ELEC 218</b>	FW prereq: ELEC 200	3
QUAL 320	FWS prereq: MATH 105	3
Semester 2	Fall	(12 credits)
<b>ELEC 300</b>	F prereq: ELEC 210	
<b>ELEC 314</b>	F prereq: ELEC 214	3
ELEC 320	F prereq: ELEC 214 & CET 151	3
MATH 122	FWS prereq: MATH 105	3
Semester 3		(9 credits)
<b>CET 427</b>	FW prereq: ELEC 218	ີ່ ຊໍ
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ELEC 310	W prereq: ELEC 300	3
ELEC 310 ELEC 420	W prereq: ELEC 300	3
ELEC 310	W prereq: ELEC 300 W prereq: ELEC 320	3 3
ELEC 310 ELEC 420 Semester 4	W prereq: ELEC 300 W prereq: ELEC 320	3 3 (9 credits)
ELEC 310 ELEC 420 Semester 4 ELEC 326	W prereq: ELEC 300 W prereq: ELEC 320 Fall prereq: ELEC 210 & MATH 120	3 3 (9 credits)
ELEC 310 ELEC 420 Semester 4 ELEC 326 ELEC 387L	W prereq: ELEC 300 W prereq: ELEC 320	3 3 (9 credits) 3
ELEC 310 ELEC 420 Semester 4 ELEC 326 ELEC 387L	W prereq: ELEC 300	3 (9 credits) 3 3
ELEC 310 ELEC 420 Semester 4 ELEC 326 ELEC 387L ELEC 415 Semester 5	W prereq: ELEC 300	3 (9 credits) 3 3 (6 credits)
ELEC 310 ELEC 420 Semester 4 ELEC 326 ELEC 387L ELEC 415 Semester 5 ELEC 426	W prereq: ELEC 300 W prereq: ELEC 320  Fall prereq: ELEC 210 & MATH 120 4 FWS F prereq: ELEC 310 Winter	3 (9 credits) 3 3 (6 credits) 213

<sup>&</sup>lt;sup>2</sup> Satisfies EMU's Writing Intensive Requirement

### ELECTRONIC ENGINEERING ARTICULATION AGREEMENT GUIDE

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#### Additional Information:

- 1. Each institution will determine the satisfaction of their individual program and degree requirements. Both Northwest State Community College and EMU agree to accept transferable courses from each other and from other regionally accredited institutions. Northwest State Community College 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 who complete the Ohio Transfer Module "OTM" 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. Contact the Director of Community College Relations at <a href="major.com/creativecommons.c
- 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 be completed in EMU courses, of which 15 hours is in program requirements, at the 300-level or above. Of the last 30 hours completed before graduating, at least 10 hours must be in courses offered by EMU. A minimum of 124 total 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 to EMU, including submitting transcripts from all previously attended colleges. NSCC students will receive equal consideration with other students for course registration and financial aid. Ohio undergraduate students will receive EMU's in-state tuition rate.
- 6. Students are encouraged to contact the College of Engineering and Technology Student Service Office before applying to EMU. To facilitate advising and the evaluation of transcripts, sign up for this articulation agreement, and bring a copy of the articulation guide to all advising sessions.

#### Effective dates: September 1, 2020 until August 31, 2023

This agreement is consistent with the 2020-21 catalog. Students have until summer 2028 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 a more recent articulation guide.

#### Contacts:

Northwest State Community College Ryan Hamilton, Dean Science, Technology, Engineering Technology & Math <a href="mailton@northweststate.edu">rhamilton@northweststate.edu</a>

#### **Eastern Michigan University**

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CET Student Services Office 734.487.8659, cot\_advising@emich.edu