

**An Articulation Agreement Between:
University of Wisconsin Oshkosh (UW Oshkosh)
Northeast Wisconsin Technical College (NWTC)**

WTCS Degree Type and Program: A.A.S. in Automation Engineering Technology
UW System Degree Type and Major: B.S. with a major in Electrical Engineering Technology

Effective Date: July 1, 2024

Next Review Date: May 1, 2026

New Agreement

Revised Agreement – original agreement signed Dec 2014
– first revision signed July 2017
– second revision signed June 2019

Agreement Description and Rationale:

This articulation agreement has been established to expand educational opportunities for students enrolled in engineering technology programs in Northeast Wisconsin. Students enrolling at any higher educational institution in Northeast Wisconsin can start their studies at any campus and finish a B.S. degree with a major in engineering technology at UW Oshkosh. The B.S. degree with a major in Electrical Engineering Technology will be conferred by UW Oshkosh after the successful completion of the specified UW Oshkosh courses in residence at UW Oshkosh in addition to the courses transferred from a partner institution. This allows current associate degree holders, new students, and returning students to maximize their educational experiences and decrease redundancy in courses taken, thereby reducing time to degree.

An articulation agreement between the A.A.S. degree in Automation Engineering Technology offered at NWTC and the B.S. degree with a major in Electrical Engineering Technology at UW Oshkosh is justified by the close alignment of the curriculums, which leads to efficient transfer of credits and a natural extension of student learning in the transition from a two-year to a four-year degree program.

This articulation agreement is entered into with the understanding that both parties shall remain properly accredited with their respective accrediting bodies:

- University of Wisconsin Oshkosh: The Higher Learning Commission
- Northeast Wisconsin Technical College: The Higher Learning Commission

Here follows the curriculum agreed upon in this Articulation between UW Oshkosh and Northeast Wisconsin Technical College:

Admission Requirements/Conditions Specific to this Agreement:

Requirements are identical to those required for general admission to UW Oshkosh.

Articulation Transfer Agreement Terms:

The terms of this agreement apply to Northeast Wisconsin Technical College students who successfully complete the A.A.S. degree in Automation Engineering Technology; meet the admission requirements for UW Oshkosh; and enroll in the B.S. degree with a major in Electrical Engineering Technology.

Appendix A is a transfer course/credit articulation table illustrating the list of courses the student must complete to earn the B.S. degree with a major in Electrical Engineering Technology at UW Oshkosh, including requirements fulfilled at Northeast Wisconsin Technical College and courses the student must take at UW Oshkosh.

Students must meet the following requirements to earn the B.S. degree with a major in Electrical Engineering Technology at UW Oshkosh:

- The minimum number of credits is 120.
- The minimum cumulative Grade Point Average is 2.000.
- Upper-level course work: A minimum of 35 credits must be completed at 300-level or above.
- Credits from four-year institutions: A minimum of 48 credits must be earned from four-year institutions. This does not limit the number of credits that can be transferred from WTCS institutions to UW Oshkosh.
- Credits from UW Oshkosh: A minimum of 30 credits must be earned from UW Oshkosh.
- Residency requirement: Completion of 15 of the last 30 credits earned toward the degree must be from UW Oshkosh.
- Satisfactory completion of the major and degree requirements listed in Appendix A.

Additional courses completed at Northeast Wisconsin Technical College may be transferrable to satisfy UW Oshkosh general education and breadth requirements. These courses are searchable via the UW Oshkosh link to the Transferology website: <https://www.transferology.com/school/uwosh> Transfer students are encouraged to consult with the UW Oshkosh Transfer Admissions Counselor (transfer@uwosh.edu) for advising regarding course selection and the transfer process.

Approved by:

University of Wisconsin Oshkosh

Northeast Wisconsin Technical College

Anne Stevens
Dean of College of Letters & Science Date

Amy Kox
Dean of Trades & Engineering Technologies Date

Edwin Martini
Provost & Vice Chancellor Date

Kathryn Rogalski
Vice President of Learning Date

Andrew Leavitt
Chancellor Date

Kristen Raney
President Date

Appendix A

WTCS Degree Type and Program: A.A.S. in Automation Engineering Technology

UW System Degree Type and Major: B.S. with a major in Electrical Engineering Technology

Effective Date: July 1, 2024

Table accompanies new agreement

Revised table for existing agreement

Transfer Course/Credit Articulation Table:

Northeast Wisconsin Technical College A.A.S. in Automation Engineering Technology Transferable Courses/Credits			UW Oshkosh B.S. with a major in Electrical Engineering Technology All Program Course/Credit Requirements			
Table 1: General Education / Breadth Requirements*						
Course	Title	Xfr Cr	Course	Title	Gen Ed Area	Req Cr
801 136	English Composition 1	3	WRT 188	First-Year Writing (3 cr)	WRT	0
801 196	Oral/Interpersonal Communication	3	COMM 111	Intro to Public Speaking (3 cr)	COMM	0
809 172	Intro to Diversity Studies	3	SOC 13	Ethnic Studies Course (3 cr)	XS, ES	0
809 198	Intro to Psychology	3	PSYCH 101	Psychology Elective (3 cr)	XS	0
				Social Science Course (3 cr)	XS	3
				Humanities Course (3 cr)	XC	3
				Humanities Course (3 cr)	XC	3
				Global Citizen Course (3 cr)	XC, GC	3
			WRT 287	Advanced Writing (3 cr)	XK	3
General Education Transfer Credits		12	General Education Total – 49-52 credits (includes general education credits from Table 2)			15

*Additional courses not listed here may be transferable to satisfy general education or breadth requirements – these are searchable via the UW Oshkosh link to the Transferology website: <https://www.transferology.com/school/uwosh> Refer also to Note 1 below.

Table 2: Major Program Requirements						
Course	Title	Xfr Cr	Course	Title	Gen Ed Area	Req Cr
Support Group (all courses required)						
			MATH 161 MATH 171	Technical Calc I (3 cr) or Calculus I (5 cr)	XM	3 or 5
			MATH 162 MATH 172	Technical Calc II (3 cr) or Calculus II (4 cr)	XM	3 or 4
806 154	General Physics 1	4	PHYS 171	College Physics I (5 cr)	XL	0
Fundamentals Group (all courses required)						
	Waived – Refer to Note 2	0	EGR 105	Engineer Fundamentals (3 cr)		0
606 140	CAD: Electrical Control	2	EGR 110	Engineering Graphics (2 cr)		0
			EGR 242	Program for Engineers (3 cr)		3
660 116	Introduction to AC/DC	2	EGRT 130	Electrical Circuits I (4 cr)	XL	0
660 117	Introduction to AC/DC 2	1				
			EGRT 131	Electrical Circuits II (4 cr)	XL	4
			EGRT 232	Semiconductor Devices (3 cr)		3
664 100	Automation 1: Control Logic	1	EGRT 240	Logic & Control (3 cr)		0
664 101	Automation 2: Motor Control	1				
664 102	Automation 3: PLC	1				
			EGRT 246	Electric Power Systems (3 cr)		3
664 103	Automation 4: PLC	1	EGRT 260	Automation Controllers (3 cr)		0
664 104	Automation 5: PLC	1				
664 105	Automation 6: PLC	1				
Advanced Study Group (all courses required)						

605 157	Power Electronics 1: Drives	1	EGRT 320	Motors & Drives (4 cr)	XL	0
605 158	Power Electronics 2: Drives	1				
620 161	Power Electricity 1: Motors	1				
620 162	Power Electricity 2: Motors	1				
			EGRT 325	Signals & Systems (3 cr)		3
			EGRT 333	Linear Circuits (3 cr)		3
664 163	Control 4: Servo System Camming	1	EGRT 342	Measure & Data Acq (3 cr)		0
664 164	Control 5: Servo System Regist	1				
664 165	Control 6: Process Control	1				
			EGRT 350	Data Comm & Protocols (3 cr)		3
			EGRT 360	Project Management (3 cr)		3
664 189	Automation Systems Integration	3	EGRT 390	Mechatronics (4 cr)		0
	Refer to Note 4		EGRT 400 EGRT 410	Internship (1-3 cr) or Capstone Project (3 cr)		1
Advanced Elective (3 cr required)						
			EGR 282	Engineering Economics (3 cr)		
			EGRT 352	Communication Systems (3 cr)		
			EGRT 357	Internet of Things (3 cr)		3
			EGRT 365	Special Topics (3 cr)		
Other NWTC Program Courses						
620 100	Fluids 1: Basic Pneumatics	1	EGRT 1	Ele		
620 101	Fluids 2: Basic Hydraulics	1				
620 140	Machine Wiring & Safety	1	EGRT 1	Elective – Refer to Note 5		
620 144	Basic Mechanics	1	EGRT 1	Elective – Refer to Note 5		
620 147	Intro to Predictive Maintenance	1	EGRT 1	Elective – Refer to Note 5		
620 159	Power Electronics 3: Drives	1	EGRT 1	Elective – Refer to Note 5		
620 170	Intro to Robotics	1	EGRT 1	Elective – Refer to Note 5		
664 150	Automation 7: PLC	1				
664 151	Automation 8: HMI	1	EGRT 1	Elective – Refer to Note 5		
664 152	Automation 9: HMI	1				
664 153	Automation 10: Network	1				
664 160	Control 1: Discrete Systems	1	EGRT 1	Elective – Refer to Note 5		
664 161	Control 2: Servo Systems – Intro	1	EGRT 1	Elective – Refer to Note 5		
664 162	Control 3: Servo Motion Program	1	EGRT 1	Elective – Refer to Note 5		
664 170	Safety Devices and Applications	1	EGRT 1	Elective – Refer to Note 5		
801 197	Technical Reporting	3	ENGL 317	Technical Writing		
804 113	College Technical Math 1A	0	MATH 100	No degree or transfer credit – Refer to Note 1		
804 114	College Technical Math 1B	0	MATH 101	No degree or transfer credit – Refer to Note 1		
890 101	College 101	0		No degree or transfer credit		
Major Program Transfer Credits		43	Major Program Minimum – 66 credits			35
Total Transfer Credits		56	Minimum Additional Credits to B.S. Degree (to satisfy gen ed, major & 120 credit minimum)			64

Notes:

- Transfer students are strongly encouraged to consult with the UW Oshkosh Transfer Admissions Counselor (transfer@uwosh.edu) for advising regarding course selection and the transfer process well in advance of their transfer term. For this A.A.S. program UW Oshkosh recommends:
 - In the Mathematics area, take 804 195 College Algebra with Applications and 804 196 Trigonometry with Applications because these transfer as MATH 104 College Algebra and MATH 106 Trigonometry, which are prerequisites for the required calculus courses that are in the Electrical Engineering Technology curriculum.
- Transfer students with an Associate of Applied Science degree in Automation Engineering Technology are not required to complete the EGR 105 Engineering Fundamentals course for the Bachelor of Science degree with a

major in Electrical Engineering Technology. Total UW Oshkosh program and degree credit requirements must still be satisfied.

3. Transfer students may complete 660 105 DC 2: Circuits (1 cr) + 660 106 DC 3: Circuit Theorems (1 cr) at NWTC to satisfy the EGRT 130 Electrical Circuits I course requirement for the Electrical Engineering Technology major at UW Oshkosh.
4. A UW Oshkosh faculty member will serve as the advisor for the Internship or Capstone Project requirement.
5. Elective credits may be used to satisfy total credit requirements for the Electrical Engineering Technology major (66 credits minimum) and the B.S. degree (120 credits minimum).

This articulation agreement may be retrieved from: <https://uwosh.edu/engineeringtech/students/transfer/>

Questions regarding this agreement and the transfer process may be directed to:

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