

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

**WTCS Degree Type and Program:** A.A.S. in Electrical 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 Electrical 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 Electrical 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](mailto:transfer@uwosh.edu)) for advising regarding course selection and the transfer process.

**Approved by:**

University of Wisconsin Oshkosh

Northeast Wisconsin Technical College

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 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 Electrical 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<br>A.A.S. in Electrical Engineering Technology<br>Transferable Courses/Credits |                                  |           | UW Oshkosh<br>B.S. with a major in Electrical Engineering Technology<br>All Program Course/Credit Requirements |                                 |                |           |
|--|----------------------------------|-----------|--|---------------------------------|----------------|-----------|
| <b>Table 1: General Education / Breadth Requirements*</b>  |                                  |           |  |                                 |                |           |
| Course   | Title                            | Xfr<br>Cr | Course   | Title                           | Gen Ed<br>Area | Req<br>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         |
| <b>General Education Transfer Credits</b>  |                                  | <b>12</b> | <b>General Education Total – 49-52 credits<br/>(includes general education credits from Table 2)</b>           |                                 |                | <b>15</b> |

\*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.

| <b>Table 2: Major Program Requirements</b>         |  |           |          |                               |                |           |
|--|--|-----------|----------|-------------------------------|----------------|-----------|
| Course   | Title                                  | Xfr<br>Cr | Course   | Title                         | Gen Ed<br>Area | Req<br>Cr |
| <b>Support Group (all courses required)</b>        |  |           |          |                               |                |           |
| 804 198  | Calculus 1                             | 4         | MATH 171 | Calculus I (5 cr)             | XM             | 0         |
| 804 181  | Calculus 2                             | 4         | MATH 172 | Calculus II (4 cr)            | XM             | 0         |
| 806 154  | General Physics 1                      | 4         | PHYS 171 | College Physics I (5 cr)      | XL             | 0         |
| <b>Fundamentals Group (all courses required)</b>   |  |           |          |                               |                |           |
|  | 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         |
| 660 105  | DC 2: Circuits                         | 1         |          |                               |                |           |
| 660 106  | DC 3: Circuit Theorems                 | 1         |          |                               |                |           |
| 660 108  | AC 2: Reactance                        | 1         | EGRT 131 | Electrical Circuits II (4 cr) | XL             | 0         |
| 660 109  | AC 3: RLC Circuits                     | 1         |          |                               |                |           |
| 662 105  | Advanced Circuits                      | 3         |          |                               |                |           |
| 660 110  | Electronics 1: Diodes – Basic          | 1         | EGRT 232 | Semiconductor Devices (3 cr)  |                | 0         |
| 660 111  | Electronics 2: Transistors – Basic     | 1         |          |                               |                |           |
| 660 112  | Electronics 3: Op-Amps – Basic         | 1         |          |                               |                |           |
| 664 102  | Automation 3                           | 1         | EGRT 240 | Logic & Control (3 cr)        |                | 2         |
|  | Refer to Note 3 for additional credits |           |          |                               |                |           |
|  |  |           | EGRT 246 | Electric Power Systems (3 cr) |                | 3         |
|  |  |           | EGRT 260 | Automation Controllers (3 cr) |                | 3         |
| <b>Advanced Study Group (all courses required)</b> |  |           |          |                               |                |           |

|  |  |           |  |  |    |           |
|--|--|-----------|--|--|----|-----------|
| 620 161<br>620 162                       | Power Electricity 1<br>Power Electricity 2<br>Refer to Note 4 for additional credits | 1<br>1    | EGRT 320   | Motors & Drives (4 cr)                                   | XL | 2         |
|  |  |           | EGRT 325   | Signals & Systems (3 cr)                                 |    | 3         |
|  | Refer to Note 5  |           | EGRT 333   | Linear Circuits (3 cr)                                   |    | 3         |
|  |  |           | EGRT 342   | Measure & Data Acq (3 cr)                                |    | 3         |
|  |  |           | EGRT 350   | Data Comm & Protocols (3 cr)                             |    | 3         |
|  |  |           | EGRT 360   | Project Management (3 cr)                                |    | 3         |
| 605 169                                  | Electronics Design Integration   | 3         | EGRT 390   | Mechatronics (4 cr)                                      |    | 0         |
|  | Refer to Note 5  |           | EGR 400<br>EGR 410   | Internship (1-3 cr) <b>or</b><br>Capstone Project (3 cr) |    | 1         |
| <b>Advanced Elective (3 cr required)</b> |  |           |  |  |    |           |
|  |  |           | 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)                                    |    |           |
| <b>Other NWTC Program Courses</b>        |  |           |  |  |    |           |
| 605 160                                  | Linear Electronics 1: BJT Amps   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 161                                  | Linear Electronics 2: JFET Amps  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 162                                  | Linear Electronics 3: Filters  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 163                                  | Micro 1: Introduction  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 164                                  | Micro 2: Technique   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 165                                  | Micro 3: Interfaces  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 166                                  | Micro 4: Advanced Interfacing  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 170                                  | Datacomm 1: Introduction   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 171                                  | Datacomm 2: Basic Networking   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 605 172                                  | Datacomm 3: Network Protocols  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 620 140                                  | Machine Wiring & Safety  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 660 101                                  | Digital 1: Logic   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 660 102                                  | Digital 2: Sequential  | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 660 103                                  | Digital 3: Registers   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 660 113                                  | Digital 4: ALU   | 1         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 662 106                                  | Advanced Electronics   | 3         | EGRT 1   | Elective – Refer to Note 6                               |    |           |
| 801 197                                  | Technical Reporting  | 3         | ENGL 317   | Technical Writing  |    |           |
| 804 197                                  | College Algebra & Trig w/ Apps   | 5         | MATH 108   | Pre-Calculus   |    |           |
| 806 158                                  | Calc Physics 1 Enhancement   | 0         |  | No degree or transfer credit                             |    |           |
| 890 101                                  | College 101  | 0         |  | No degree or transfer credit                             |    |           |
| <b>Major Program Transfer Credits</b>    |  | <b>55</b> | <b>Major Program Minimum – 66 credits</b>  |  |    | <b>32</b> |
| <b>Total Transfer Credits</b>            |  | <b>67</b> | <b>Minimum Additional Credits to B.S. Degree<br/>(to satisfy gen ed, major &amp; 120 credit minimum)</b> |  |    | <b>53</b> |

**Notes:**

1. Transfer students are strongly encouraged to consult with the UW Oshkosh Transfer Admissions Counselor ([transfer@uwosh.edu](mailto:transfer@uwosh.edu)) for advising regarding course selection and the transfer process well in advance of their transfer term.
2. Transfer students with an Associate of Applied Science degree in Electrical 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 664 100 Automation: Control Logic (1 cr) + 664 101 Automation 2: Motor Control (1 cr) at NWTC to satisfy the EGRT 240 Logic & Control Devices course requirement for the Electrical Engineering Technology major at UW Oshkosh.

4. Transfer students may complete 620 161 Power Electricity 1: Motors (1 cr) + 620 162 Power Electricity 2: Motors (1 cr) at NWTC to satisfy the EGRT 320 Motors & Drives course requirement for the Electrical Engineering Technology major at UW Oshkosh.
5. A UW Oshkosh faculty member will serve as the advisor for the Internship or Capstone Project requirement.
6. 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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