

# ARTICULATION AGREEMENT with GUARANTEED ADMISSION

between

**WAUKESHA COUNTY TECHNICAL COLLEGE**

Associate of Applied Science in Electrical Engineering Technology

and

**MILWAUKEE SCHOOL OF ENGINEERING®**

Bachelor of Science in Electrical Engineering

Effective Fall 2025

This articulation agreement aims to enhance transfer opportunities for Waukesha County Technical College (WCTC) students seeking to continue their education at Milwaukee School of Engineering (MSOE). Through collaboration among faculty, student services, and administration, students will have well-defined course equivalencies to help them achieve their academic goals.

Students who successfully complete the following Waukesha County Technical College degree(s):

**Associate of Applied Science in Electrical Engineering Technology (AAS-EET)**

and who meet the admission requirements of Milwaukee School of Engineering and other conditions specified in this agreement will be admitted into the AAS-EET to BSEE Transfer Pathway of the Electrical Engineering program (BSEE) at MSOE.

## **PROVISIONS OF THIS AGREEMENT:**

### **1. Admissions & Eligibility:**

It is the student's responsibility to meet the current admission requirements of MSOE at the time of entry. Information on transfer admissions requirements may be found at <https://www.msoe.edu/transfer>

The terms of this agreement apply to Waukesha County Technical College (WCTC) students who:

- a) Complete all course requirements in the Electrical Engineering Technology program at WCTC with a grade of C or better (not C-),
- b) Complete all additional specified courses at WCTC, as outlined in this agreement, with a grade of C or better (not C-), and
- c) Achieve a cumulative grade point average (CGPA) of 3.00 or higher, meeting MSOE's CGPA transfer admission requirements for engineering programs.

WCTC students who meet all transfer requirements will be guaranteed admission into the AAS-EET to BSEE Transfer Pathway of the Electrical Engineering program (BSEE) at MSOE and must fulfill the catalog requirements in effect for the year they begin.

### **2. Advising & Recruitment**

MSOE and WCTC will provide academic advising to WCTC students inquiring about MSOE programs. Students will be connected with transfer admission counselors and as needed, with program faculty prior to transfer. MSOE and WCTC will share materials, catalogs, and other information to facilitate their understanding of requirements and programs. WCTC will assist MSOE personnel in arranging recruitment events on its campuses, such as appropriate classroom settings and transfer fairs.

### **3. Marketing**

Each institution must obtain written approval before using the other's name in any promotional or marketing materials related to this agreement. All materials must specify that the transfer is to the specific engineering program at MSOE. Designated contacts in each institution's marketing departments will coordinate and approve these materials. Each institution may link to this agreement and the other's website with prior notice. Guidelines for using MSOE's name and logo are provided in this agreement.

### **4. Accreditation**

WCTC and MSOE will work together to assess student learning outcomes as needed, supporting the effectiveness of this articulation agreement and providing documentation for program accreditation. MSOE may request samples of assessment materials, such as graded assignments and exams, with student names removed to protect privacy. These materials cannot be shared with anyone outside of the program faculty, administrators involved in the program accreditation, and accreditation agency visitors without written permission from the other institution.

This agreement may be terminated by either WCTC or MSOE if either fails to maintain regional accreditation or if the MSOE engineering program accreditation is discontinued or terminated.

### **5. Periodic Review**

An active articulation agreement begins at the commencement of the fall 2025 semester. WCTC and MSOE will collaboratively review the agreement annually to address any issues that may arise in the governance of this agreement. Both institutions recognize the need to coordinate program changes to accommodate the typical two-year progression of students transferring from WCTC to MSOE. Any curriculum changes impacting the articulation pathway will not take effect during an active academic year unless both the MSOE Program Director and the designated representative at WCTC provide explicit consent, or if changes are required by accreditation or institutional mandates. Minor revisions (such as course renumbering) are permitted but must be communicated to the other institution promptly.

## **6. Designated Technology Courses for AAS Agreements**

For the instruction of the following technology courses in this agreement (listed below), WCTC will use faculty with at least a BS degree in electrical engineering, electrical engineering technology, or other related field (as approved by MSOE), and with at least one of the following: (a) an MS degree in the electrical engineering field, or other related field (as approved by MSOE), (b) current registration as a Professional Engineer (PE), or (c) if offered, successful completion of a workshop offered by MSOE on instructional techniques for following course(s)

662-104

662-191

The course(s) will include a lecture format at a level and pace that prepares students for effective learning in a traditional course environment at the university level. Each course will also include a written comprehensive final exam and, if appropriate to the corresponding MSOE course(s), a laboratory component.

## **7. Cancellation**

Both parties agree to give a minimum of one hundred eighty (180) days' written notice in advance if they intend to cancel this agreement. WCTC students who apply to MSOE before the cancellation date will still be allowed to transfer credits according to the terms of this agreement.

## **8. Course Guides**

MSOE and WCTC have collaborated to create guides to serve as a resource for students, with every effort made to ensure the information is accurate.

## **9. Transfer Scholarships**

MSOE is committed to supporting transfer students and offers a substantial merit-based scholarship. This scholarship is awarded based on cumulative GPA and is available to eligible students transferring from WCTC. Transfer students are automatically considered for this scholarship upon admission, with no separate application required.

The transfer scholarship is renewable each year for students who continue to meet MSOE's Satisfactory Academic Progress requirements, provided they remain enrolled full-time (up to a maximum of six years). For the most up-to-date information on scholarship opportunities and eligibility criteria, students are encouraged to visit our scholarship webpage or contact the MSOE Financial Aid Office.

**Transfer Requirements and Equivalencies  
into the MSOE AAS-EET to BSEE Transfer Pathway**

MSOE: AAS-EET to BSEE Transfer Pathway in the BS in Electrical Engineering program  
WCTC: AAS-EET Associate of Applied Science in Electrical Engineering Technology

| <b>MSOE Course Numbers and Names</b>                                     | <b>WCTC Course Numbers <sup>a</sup></b>                              |
|--|--|
| 1. COM 1001 College Writing  | 801-136  |
| 2. COM 2001 Writing for STEM Disciplines                                 | 801-197 <sup>d</sup>   |
| 3. MTH 1110 Calculus I   | 804-198  |
| 4. MTH 1120 Calculus II  | 804-156  |
| 5. General Education elective <sup>b</sup> (for PSY3004; Curiosity CLO)  | 809-199  |
| 6. General Education elective <sup>b</sup> (for SOC 1001; Diversity CLO) | 809-196  |
| 7. PHY 1110 Physics I Mechanics and Thermodynamics                       | 806-187  |
| 8. ELE 1000 Introduction to EE   | 662-102  |
| 9. ELE 2001 Electric Circuits I  | 662-102<br>662-104 <sup>c</sup>                                      |
| 10. ELE 3141* Transfer Electronics                                       | 662-104 <sup>c</sup><br>662-190 <sup>c</sup><br>662-191 <sup>c</sup> |
| 11. ELE 1801 Transfer Digital Logic and Embedded Systems                 | 605-118<br>605-119<br>605-182<br>663-104                             |
| 12. ELE 3401 Electric Power and Machines                                 | 605-126<br>662-104 <sup>c</sup>                                      |
| 13. Technical Elective <sup>b</sup>                                      | 605-187 (taken Spring 2014 or after)                                 |
| 14. Free Elective <sup>b</sup>   | 605-148  |

a All courses in each category must be satisfied for transfer credit of the designated MSOE course. All Two-year College EET program course titles are stated on the next page.

b Listed Two-year College course(s) is approved in this elective category. Any other Two-year College course requires approval by MSOE in advance of the student taking the course. Retroactive approval is not guaranteed.

c 10-662-104 and -190, prerequisites to 10-662-191, must be taken and passed with a grade of C (not C-) or better prior to when 10-662-191 is taken in order for 10-662-191 to be eligible for transfer consideration to MSOE.

d This course(s) is an elective or is not in the EET program at the Two-year College. If not fulfilled, additional course(s) must be taken at MSOE to fulfill BSEE degree requirements. Consult with an EE transfer advisor at MSOE.

**Special Note:** Required courses in the EET program that also transfer to MSOE:

662-104, 108, and 191 collectively transfer for ELE 2011 Electric Circuits II: Theory and Applications

\*662-104, 190, and 191 collectively transfer for ELE 3101 Electronics I (ELE 3141 is a subset of ELE 3101)

801-198 Speech (Approved Substitute for 801-196) transfers for COM 3001 Professional Presentations to MSOE (801-196 does not transfer for COM 3001 Professional Presentations)

(In effect at WCTC in Fall 2025 for transfer to MSOE in Fall 2027)

**WCTC Electrical Engineering Technology – 10-662-1**

|                                 |                        | Course Name                   | Course #      | Credits   |
|---------------------------------|------------------------|-------------------------------|---------------|-----------|
| Year 1                          | Fall Term 1            | Digital Electronics I         | 605-118       | 2         |
|                                 |                        | DC Circuit Analysis           | 662-102       | 4         |
|                                 |                        | Calculus 1 (16 week)          | 804-198**     | 4         |
|                                 |                        |                               | <b>Total:</b> | <b>10</b> |
|                                 | Fall Term 2            | AC Circuit Analysis           | 662-104       | 4         |
|                                 |                        | Electronic Fabrication I      | 663-106*      | 1         |
|                                 |                        |                               | <b>Total:</b> | <b>5</b>  |
|                                 | Spring Term 1          | Electronic Circuits I         | 662-190       | 4         |
|                                 |                        | Oral/Interpersonal Comm       | 801-196***    | 3         |
|                                 |                        | Calculus 2 (16 week)          | 804-156**     | 4         |
|                                 |                        |                               | <b>Total:</b> | <b>11</b> |
| Spring Term 2                   | Digital Electronics II | 605-119                       | 2             |           |
|                                 | Intro to Sociology     | 809-196                       | 3             |           |
|                                 |                        |                               | <b>Total:</b> | <b>5</b>  |
| Year 2                          | Summer Term            | Programming for Electronics   | 663-104       | 1         |
|                                 |                        | English Composition 1         | 801-136       | 3         |
|                                 |                        |                               | <b>Total:</b> | <b>4</b>  |
|                                 | Fall Term 1            | Electronic Circuits II        | 662-191       | 4         |
|                                 |                        | Calculus Based Physics 1      | 806-187       | 3         |
|                                 |                        |                               | <b>Total:</b> | <b>7</b>  |
|                                 | Fall Term 2            | Microcontrollers              | 605-182       | 3         |
|                                 |                        | Psychology of Human Relations | 809-199       | 3         |
|                                 |                        |                               | <b>Total:</b> | <b>6</b>  |
|                                 | Spring Term 1          | Industrial Systems            | 605-126       | 3         |
|                                 |                        | Electronic Data Comm          | 605-187       | 3         |
|                                 |                        |                               | <b>Total:</b> | <b>6</b>  |
|                                 | Spring Term 2          | Data Acquisition              | 605-148       | 3         |
| Linear Circuit Analysis         |                        | 662-108                       | 3             |           |
| <b>Program Total Credits 60</b> |                        |                               | <b>Total:</b> | <b>6</b>  |

\* This course is required in the WCTC EET program to earn the AAS EET degree but does not count toward transfer requirements into the MSOE AAS-EET to BSEE Transfer Pathway program.

\*\* This course is continued over entire 16-week semester.

\*\*\* 801-198 Speech (transferrable to MSOE) is recommended as a WCTC Approved Substitute for 801-196 (801-196 does not transfer for COM 3001 Professional Presentations).

## INSTITUTION-SPECIFIC INFORMATION

For more information about Waukesha County Technical College (WCTC) and the Associate of Applied Science:

Administrative person(s) responsible for coordinating curricular matters and articulation agreements and renewals:

**Mike Shiels**

Dean of School of Applied Technologies

262-691-7823

[mshiels@wctc.edu](mailto:mshiels@wctc.edu)

Person(s) designated for coordination and signoff of public relations/marketing and other promotional materials:

**Andy Palen**

Marketing & Communication

262-695-6247

[apalen@wctc.edu](mailto:apalen@wctc.edu)

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For more information about Milwaukee School of Engineering (MSOE) and the BSEE Degree:

Administrative person(s) responsible for coordinating curricular matters and articulation agreements and renewals:

**Dr. Robert Strangeway**

Professor, AAS-EET to BSEE Transfer Pathway Coordinator

414-277-7311

[strangew@msoe.edu](mailto:strangew@msoe.edu)

**Kelsey Johnson**

Associate Director of Academic Partnerships

414-277-7194

[johnsonkd@msoe.edu](mailto:johnsonkd@msoe.edu)

Person(s) designated for coordination and signoff of public relations/marketing and other promotional materials:

**Sebastian Thachenkary** (for sign-off)

Vice-President Marketing & Community Engagement

414-277-7141

[thachenkary@msoe.edu](mailto:thachenkary@msoe.edu)

**JoEllen Burdue**

Senior Director of Communications & Media Relations

414-277-7117

[burdue@msoe.edu](mailto:burdue@msoe.edu)

## **GUIDELINES FOR USE OF THE MILWAUKEE SCHOOL OF ENGINEERING® NAME AND/OR LOGO**

In an effort to meet standards set by our accreditation agencies, to minimize any confusion on the part of prospective or current students, and to protect the use of MSOE's name and logo, it is imperative that use of or reference to our name or programs be limited to those deemed appropriate by MSOE. As specified in the articulation agreement, MSOE's Vice President of Marketing and Community Engagement or his/her designee will approve any and all narrative and graphic representation containing MSOE's name, logo or reference to our programs before it is published or distributed in any way.

To expedite the process of developing content for use in promotional literature or digital platforms, the following minimum guidelines should be followed. Noncompliance will result in disapproval.

Any promotional literature or digital media content will clearly indicate that the transfer, upon which this articulation agreement is based, is into the Associate Engineering Transfer Pathway of the named engineering program, not the traditional pathway of the B.S. program, at MSOE. All people involved with the promotion of this transfer arrangement will clearly maintain this distinction to all audiences at all times.

Our preferred reference is MSOE, however, for clarity purposes it is sometimes appropriate to use Milwaukee School of Engineering (MSOE), then use MSOE in later references of the same communication. Furthermore, MSOE will be referred to as a university. In no instance shall MSOE be referred to as a college or a school. Although MSOE refers to itself as a university and the word is present in the logo, the word "university" is not part of its name.

The official MSOE logo appears as below and should be used on all materials and on all digital platforms unless it would be so small that "UNIVERSITY" would be illegible. If that is the case, contact MSOE's Marketing Communications Department for an alternative solution.

In materials where color is used, MSOE's logo will always be red and black. MSOE red is PMS 200. This can be created in CMYK by using the formula C-3, M-100, Y70, K-12. For screens, RGB is used which is R-197, G-5, B-12. Finally, for the web the HEX code is #C5050C.

**Official logos:**



When possible, the two-color logo should be used. For materials with a dark background there is a "reversed" version of this two-color logo. For black and white materials, the black logo should be used. If the background is dark, there is a "reversed" version of the black logo as well. Finally, for materials with a red background there is a special version of the logo in white. Reach out to MSOE's Marketing Communications to request any of these options.

The name Milwaukee School of Engineering®, the acronym MSOE® and the MSOE logo are all registered trademarks. The first time the name or acronym appear in any document they must have the ® mark. It is not necessary to include the ® mark with subsequent mentions in the same document or page. The logos have the ® mark embedded.

Given the need to provide clarity as to the limitations of the articulation agreement and avoid potential misunderstandings, any use of the MSOE logo in related marketing communications in print or digital form (brochures, catalogs, Web pages, blogs, letters, e-mail, social media, posters, etc.) must comply with the MSOE Brand standards and be reviewed and approved by MSOE. Visit <https://www.msoe.edu/faculty-staff/marketing> to obtain the brand standards.


Contact the Vice President of Marketing & Community Engagement or Senior Director of Communications & Media Relations indicated on the Institution-Specific Information section in this articulation agreement with any questions you may have and for needed approvals.

## SIGNATORIES

Apr 17, 2025

This agreement signed and dated this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, has been thoroughly reviewed and approved by both institutions. The agreement is in effect for the 2025–2026 academic year.

### Milwaukee School of Engineering

  
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Dr. John Y. Walz  
President

### Waukesha County Technical College

*Richard G. Barnhouse, Ph.D.*  
box SIGN 1R68PVRX-1XJRRXWZ

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Dr. Richard Barnhouse  
President

  
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Dr. Eric T. Baumgartner  
Executive Vice President of Academics

  
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Dr. Brad Piazza  
Vice President of Learning

  
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Dr. Sheila Ross  
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Michael Shiels  
Dean, School of Applied Technologies