ARTICULATION AGREEMENT with GUARANTEED ADMISSION

between

WESTERN TECHNICAL COLLEGE Associate of Science

and

MILWAUKEE SCHOOL OF ENGINEERING[®]

Bachelor of Science in Electrical Engineering

Effective Fall 2025

This articulation agreement aims to enhance transfer opportunities for Western Technical College (Western) 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 Western Technical College degree(s):

Associate of Science Transfer (AS)

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

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 <u>https://www.msoe.edu/transfer</u>

The terms of this agreement apply to Western Technical College (Western) students who:

- a) Complete all course requirements in the Associate of Science program at Western with a grade of C or better (not C-),
- b) Complete all additional specified courses at Western, as outlined in this agreement, including those specific to the intended engineering major, 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.

Western students who meet all transfer requirements will be guaranteed admission into the Associate Engineering 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 Western will provide academic advising to Western students inquiring about MSOE programs. Students will be connected with transfer admission counselors and as needed, with program faculty prior to transfer. MSOE and Western will share materials, catalogs, and other information to facilitate their understanding of requirements and programs. Western 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

Western 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 articulation courses, and accreditation agency visitors without written permission from the other institution.

This agreement may be terminated by either Western 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. Western 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 Western 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 Western 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. Technology Courses for AS Agreements

For the instruction of the following technology courses in this agreement (listed below), Western will use faculty with at least a BS degree in the named engineering field, or other related field (as approved by MSOE), and with at least one of the following: (a) an MS degree in in the named 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)

10-662-105

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. Western 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 Western 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 Western. 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.

WESTERN COURSES FOR BSEE

Satisfaction of the following Western courses is assumed upon entry into the Associate Engineering Transfer Pathway of the BSEE program at MSOE. Any course requirement that is not met must be satisfied at Western or with approved transfer credit.

Western Course Number	Western Course Name	Equivalent MSOE Course Number
Communication & General Education		
10-801-136 OR	English Composition 1	COM 1001
20-801-201	English 1	
10-801-198 OR	Speech	COM 3001
20-810-201	Public Speaking	
20-809-217 (suggested)	Race, Class, Gender -	SSC 0104
Diversity CLO	See appendix for more options	
20-809-212(suggested)	Principles of Microeconomics	BUS 2221
Curiosity CLO	See appendix for more options	
20-809-231 (suggested)	Introduction to Psychology -	PSY 1001
Choice CLO	See appendix for more options	
Mathematics & Natural Caises		
Mathematics & Natural Science		
20-804-231	Calculus & Analytic Geometry 1	MTH 1110
20-804-232	Calculus & Analytic Geometry 2	MTH 1120
20-806-209	College Chemistry 1	CHM 1010
20-806-223 OR	University Physics 1 – Calc Based	PHY 1110
10-806-154 AND 10-806-158*	General Physics 1 AND	
*806-158 available throughout the WTCS	Calc Physics 1 Enhancement	
20-806-224	University Physics 2 – Calc Based	PHY 1120
Electrical Engineering Courses		
10-660-115	DC/AC 1	ELE 1000
10-660-115	DC/AC 1	
10-660-116	DC/AC 2	ELE 2001
10-662-105	Advanced Circuits	

ADDITIONAL RECOMMENDED ELECTIVES AVAILABLE THROUGH WESTERN

The following Western courses are recommended electives that can fulfill corresponding MSOE course requirements if completed.

Western Course Number	Western Course Name	Equivalent MSOE Course Number
Communication & General Education	1	
10-801-197	Technical Reporting	COM 2001
Mathematics & Natural Science		
20-804-233	Calculus 3	MTH 2130
20-804-255	Techniques in Ordinary Differential	MTH 2140
	Equations	
Free Elective (only 1 free elective ree	quired)	
Other courses may be eligible as free electives; the options listed as examples based on degree requirements at Western		

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20-802-211	Spanish 1	SPN 1001	

MSOE COURSES FOR BSEE DEGREE COMPLETION

Courses remaining in the Associate Engineering Transfer Pathway of the Electrical Engineering program (BSEE) at MSOE.

MSOE Course Number	MSOE Course Name	Semester Credits
Communication & General Education	on	
COM 2001	Writing for the STEM Disciplines	3
PHL 3101, 3102, or 3103	[choice of Ethics courses]	3
Mathematics & Natural Science		
MTH 2130	Calculus 3	4
MTH 2140	Differential Equations	3
PHY 3700	Physics of Electronic Materials & Semiconductor	4
	Devices	
BSEE Program		
CPE 1500	Digital Logic	4
ELE 1601	Introduction to Programming for EEs	3
IDS 2020	Career Development	0
ELE 2011	Electric Circuits II	4
ELE 2610	Embedded Systems	4
ELE 3101	Electronics I	4
ELE 3900	Career & Professional Guidance	1
ELE 3201	Electromagnetics & Transmission Lines	4
ELE 3300	Signals & Systems	3
ELE 3401	Electric Power & Machines	4
ELE 3510	Digital Systems	4
ELE 3111	Electronics II	3
ELE 3701	Control Systems	4
ELE 3320	Digital Signal Processing	3
ELE 3310	Introduction to Probability & Random Processes	3
ELE 4901	Electrical Engineering – Senior Design Project I	3
ELE 4902	Electrical Engineering – Senior Design Project II	3
Elective	Free Elective	3
Elective	ECBE or CSSE Technical Elective	3
Elective	ECBE or CSSE Technical Elective	3
Elective	Technical Elective	3

Total

APPENDIX: GENERAL EDUCATION HUMANITIES & SOCIAL SCIENCE EQUIVALENCIES

MSOE requires courses that fulfill Common Learning Outcome (CLO) categories. The following three CLO categories can be satisfied with Western courses:

- Exhibit Curiosity CLO
- Embrace Diversity CLO
- Choice of CLO Select any course listed from the table below

Note: Each course counts towards only one CLO and the same course cannot fulfill multiple CLO categories.

General Education Humanities & Social Science

CLO	Western Courses	Equivalent MSOE Courses
		-
Exhibit Curiosity	10-809-122 Intro to American Gov.	PSC 2011 American Government
	10-809-159 Abnormal Psychology	PSY 3002 Psych Disorders & Mental
	10-809-188 Developmental Psyc.	PSY 3003 Developmental Psychology
	10-809-196 Sociology, Introduction to	SOC 1001 Foundations of Sociology
	10-809-198 Psychology, Introduction	PSY 1001 Foundations of Psychology
	10-809-199 Psych of Human Relations	PSY 3004 Social Psychology
	20-801-204 Intro to Lit.	LIT 2010 Literary Genres
	20-801-217 American Lit: Beg-1865	LIT 1010 American Literature I
	20-801-218 American Lit: 1865-Pres.	LIT 1020 American Literature II
	20-801-240 Creative Writing	FNA 3001 Creative Writing
	20-802-211 Spanish I	SPN 1001 Elementary Spanish
	20-802-212 Spanish II	SPN 1001 Elementary Spanish
	20-803-211 American Hist. 1607-1865	HST 1013 US History I
	20-803-212 American Hist. 1865-Pres.	HST 1014 US History II
	20-803-214 Native American Hist.	ANT 2020 Native American Culture
	20-805-227 Music Appreciation	HST 2053 Music History
	20-809-203 Principles of Sociology	SOC 1001 Foundations of Sociology
	20-809-211 Macroeconomics	BUS 2222 Macroeconomics
	20-809-212 Microeconomics	BUS 2221 Microeconomics
	20-809-221 Am. National Govern.	PSC 2011 American Government
	20-809-231 General Psychology	PSY 1001 Foundations of Psyc.
	20-809-237 Abnormal Psychology	PSY 3002 Psychological Disorders
	20-809-260 Intro to Philosophy	PHL 3201 Intro to Philosophy
	20-809-265 Philosophy of Art	PHL 3208 Philosophy of Art
mbrace Diversity	10-809-172 Diversity Studies, Intro to	SSC 0104 Embrace Diversity
	10-809-196 Sociology, Introduction to	SOC 1001 Foundations of Sociology
	20-801-212 Ethnic Literature	HUM 0104 Embrace Diversity
	20-801-218 Amer. Lit: 1865-Present	LIT 1020 American Literature II
	20-802-211 Spanish I	SPN 1001 Elementary Spanish
	20-802-212 Spanish II	SPN 1001 Elementary Spanish
	20-803-214 Native American Hist.	ANT 2020 Native American Culture
	20-809-203 Principles of Sociology	SOC 1001 Foundations of Sociology
	20-809-217 Race, Class, Gender	SSC 0104 Embrace Diversity
	20-809-237 Abnormal Psychology	PSY 3002 Psychological Disorders
Dther	10-809-166 Intro to Ethics:	HUM 0103 Demonstrate

INSTITUTE-SPECIFIC INFORMATION

For more information about Western Technical College (Western) and the Associate of Science:

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

Delaney Servais Transfer & Articulation Coordinator 608-789-6181 servaisd@westerntc.edu

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

Julie Lemon

Director of Marketing, Communications, & Legislative Advocacy 608-785-9890 lemonj@westerntc.edu

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:

Kelsey Johnson Associate Director of Academic Partnerships 414-277-7194 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

JoEllen Burdue Senior Director of Communications & Media Relations 414-277-7117 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 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.

Apr 21, 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

Western Technical College

John Y. Walz

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Dr. John Y. Walz President

GelA **box** sign 46Z3LQ79-4YJW9Q5Y

Dr. Roger Stanford President

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Dr. Eric T. Baumgartner Executive Vice President of Academics

Rebecca I. Hopkins, Ed.D. **box** sign 13LXY6J9-4YJW9Q5Y

Dr. Rebecca Hopkins Vice President of Learning

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Elizabeth Nesius Dean of General Studies