



Individual Program Transfer Articulation Agreement

Between the Maine Community College System acting by and through

Southern Maine Community College

And the University of Maine System acting by and through

The University of Maine

For Transfer From

Associate in Applied Science in Pre-Engineering

To

Bachelor of Science in Electrical Engineering

This Transfer Articulation Agreement is governed by the general Transfer Articulation Agreement Memorandum of Understanding between Southern Maine Community College (SMCC) and the University of Maine (UMaine). Current students and graduates who have been enrolled in or earned the identified degree from SMCC and are admissible to the University shall be eligible for credit evaluation under the terms of this agreement.

Admissions requirements: Successful Completion of the Associate in Applied Science in Pre-Engineering and a complete UMaine application for admission.

Scholarships and Financial Aid dates: Applying before June 1<sup>st</sup> for a fall entry allows students to be considered for transfer merit awards, June 1<sup>st</sup> is also the on-time FAFSA filing date for fall transfers.

**Side by Side Course Equivalency Table as July 2025**

Identifies how courses in the Associate in Applied Science in Pre-Engineering, Electrical Engineering Option at SMCC transfer to UMaine when the required grade is earned in each course, minimum C- (C for English Composition).

<b>SMCC General Education Requirements:</b>		<b>Cr</b>	<b>UMaine Transfer Equivalent:</b>		<b>Cr</b>
ENGL 100	English Composition@	3	ENG 101	English Composition – meets degree & Gen Ed requirement	3
ENGL 115	Introduction to Literature@	3	ENG 100X	English Elective - meets West Cult Trad Gen Ed requirement	3
MATH 140	College Algebra <sup>1</sup>	3	MAT 111	Math for College Algebra - free elective – pre-req for higher math requirements	3



SMCC General Education Requirements:		Cr	UMaine Transfer Equivalent:		Cr
MATH 146	Introduction to Trigonometry	1	Combine with MATH 190	Combine with MATH 190 to transfer as UMaine's 4-credit MAT 122 Pre-Calculus – pre req for higher math requirements	0
MATH 190 Or Fine Arts /Humanities Elective	Pre-Calculus <sup>2,@</sup> - must be taken with MATH 146 Or Fine Arts /Humanities Elective <sup>@</sup> If you test out of MATH 190 per the placement exam, select a course that also meets UM Gen Ed requirement	3  Or 3	MAT 122  Or <b>Gen Ed</b>	Pre-Calculus - When taken with MATH 146, meets Quant Reasoning Gen Ed – free elective – pre-req for higher math requirements Or <b>Artistic &amp; Creative Exp</b> Pick one that meets UM Gen Ed requirement	4  Or 3
CHEM 131	Chemistry for Engineers with Lab	4	CHY 131 & CHY 133	Chemistry for CIE, EEE, & MEE & Chemistry for CIE, EEE, & MEE Lab - Meets Lab Science Gen Education requirement.	4
ENGL 110	Oral Communications @	3	CMJ 103	Speech Communications – meets degree & <b>Social Contexts Gen Ed</b> req.	3
Social Science	Select a course that also meets one of UMaine's HVSC Cultural Diversity Gen Ed Requirement@	3	<b>Gen Ed</b>	Select an SMCC course that meets UM <b>Cultural Diversity</b> Gen Ed requirement	3
<b>Credits</b>		<b>23</b>	<b>Credits</b>		<b>23</b>

A minimum grade of C- (or C for English Composition) is required for transfer credit to be awarded.

1 – MAT 140 College Algebra is a pre-requisite for Pre-calculus at UMaine, it is not included in the Electrical Engineering program. SMCC Electrical/Mechanical Engineering students starting at a more advanced level in math based on placement testing can substitute CSCI 100 Principles of Computer Science for MATH 140 and MATH 146

2 – MATH 146 Trigonometry is a pre-requisite to MATH 190 Pre-Calculus, neither course is included in the Electrical Engineering program but are required as a pre-requisite for MATH 260. Students placing into MATH 260 Calculus I at SMCC may substitute MAT 190 Pre-Calculus with a Fine Arts/Humanities elective that can be used to meet UM's Artistic & Creative Expression General Education requirement.

@ - meets a UMaine General Education Requirement

SMCC Major Required Courses:		Cr	UMaine Transfer Equivalent:		Cr
COMM 201	Technical Writing@	3	ENG 317	Business & Technical Writing	3
ENGR 100	Introduction to Engineering	2	GEE 100X	General Engineering Elective	2
ENGR 216	Circuits I: Steady State Analysis	3	ECE 210	Electric Circuits I	3
MATH 260	Calculus I@	4	MAT 126	Calculus I meets degree & Quantitative Reasoning Gen Ed requirement	4
MATH 270	Calculus II@	4	MAT 127	Calculus II meets degree & Quantitative Reasoning Gen Ed requirement	4
MATH 275	Differential Equations	4	MAT 258	Intro to Differential Equations with Linear Algebra	4
PHYS 200	Physics for Engineers I with Lab@	4	PHY 121	Physics for Engineer & Physical Science I meets Lab Science Gen Ed	4
PHYS 250	Physics for Engineers II with Lab@	4	PHY122	Physics for Engineer & Physical Science II meets Lab Science Gen Ed	4



Electrical Engineering Option		Cr	UMaine Transfer Equivalent:		Cr
ENGR 172	Digital Logic	4	ECE 275	Sequential Logic Systems	4
ENGR 217	Circuits II System Dynamics with Lab	4	ECE 214	Electric Circuits II - Meets Writing Intensive gen ed requirement	4
Math 225	Discrete Mathematics@	3	MAT 200X	Math Elective - meets Quantitative Reasoning Gen Ed requirement – free elective	3
<b>Credits</b>		<b>39</b>	<b>Credits</b>		<b>39</b>

A minimum grade of C- (or C for English Composition) is required for transfer credit to be awarded.

Students must maintain a GPA of 2.0 or higher in all ECE courses. @ - meets a UMaine General Education Requirement

#### Special Notes:

For an up to date list of how SMCC courses transfer to UMaine and which courses at SMCC can be used to meet UM General Education Requirements, please consult the [UMS Online Transfer Equivalency Tool](#).

The Electrical Engineering curriculum at UMaine has students start with Calculus I. SMCC students may need to take mathematics courses prior to Calculus I to meet the pre-requisite for Calculus I.

Courses taken at SMCC in which the student did not earn the required grade to satisfy either transfer credit or degree requirements would need to be retaken at either UMaine or SMCC in order to earn the grade needed to count toward the degree at UMaine. Once enrolled at UMaine, the student would need to seek permission from his or her advisor and complete a domestic study away form to alert Student Records if the student plans to take any subsequent courses at SMCC.

#### Black Bear Advantage Program:

UMaine offers a concurrent enrollment program for SMCC students who have previously been offered admission to UMaine and are pursuing SMCC degrees that have articulation agreements with UMaine programs, such as this one for Pre-Engineering with Electrical Engineering. Students complete a Black Bear Advantage Participation Form, and if approved, agree to co-enroll in a UMaine course (often online) each semester while attending SMCC full-time. Students in the program will be assigned a UMaine academic advisor to assist them with academic planning while attending SMCC. Black Bear Advantage students can participate in UMaine student life activities, attend UMaine athletic events and take advantage of UMaine support services. They may qualify for up to a \$2,000 one-time merit scholarship when they officially transfer to UMaine (depending on how many semesters they were co-enrolled at UMaine while attending SMCC). Additional details and the participation form are available on UMaine's Black Bear Advantage web page: <https://go.umaine.edu/transfer-to-umaine/black-bear-advantage/>.

UMaine courses suggested for Black Bear Advantage students in the Pre-Engineering program planning to transfer to UMaine's Electrical Engineering program are:

- CMJ 103 (UMaine) to be substituted for ENGL 110 (SMCC)
- ENG 101 (UMaine) to be substituted for ENGL 100 (SMCC)
- Gen Ed-Artistic & Creative Expression (UMaine) to be substituted for Fine Arts Elective (SMCC)
- Gen Ed-Cultural Diversity (UMaine) to be substituted for Social Science Elective (SMCC)



## Electrical Engineering Suggested Course Sequence to be taken at UMaine as of July 2025

For those who have earned their associate degree in SMCC's Associate in Applied Science in Pre-Engineering following the Electrical Engineering option transferring into the UMaine BS in Electrical Engineering degree. Courses may vary for students who followed another option or transfer before earning their associate degree or transfer in the spring semester.

### Option 1: includes summer course work

Summer before transferring to UMaine – taken at UM or SMCC		Cr.
Gen Ed	Artistic Expression (if not already taken in place of Pre-Calculus at SMCC) (Note – Student may be taking ENGR 217 Circuits II in summer to finish SMCC degree)	3
	<b>Credits</b>	<b>3</b>

Semester 5			Cr	Semester 6			Cr
ECE 342	Electronics I		4	ECE 177	Intro to Programming for Enginrs		4
ECE 314	Signals & Systems		3	ECE 351	Fields & Waves		3
MAT 228	Calculus III		4	ECE 343	Electronics II		4
ECE 316 or STS 332	Random Signal Analysis Or Statistics for Engineers		3	ECE 401	Design Project		2
Gen Ed	Population and the Environment		3	Elective	ECE Technical Elective (1)		3
	<b>Credits</b>		<b>17</b>		<b>Credits</b>		<b>16</b>

Summer between 5 & 6 <sup>th</sup> Semesters		Cr.
Gen Ed	Ethics	3
Gen Ed	Human Values & Social Context Elective (if needed, check with advisor)	3
	<b>Credits</b>	<b>3</b>

Semester 7			Cr	Semester 8			Cr
ECE 271	Microcomputer Arch & Applications		4	Elective	Electrical Focus (2)		3
ECE 402	Design Project II		4	ECE 403	Design Project III		2
Elective	Electrical Focus (1)		3	ECE 486	Digital Signal Processing		3
Elective	Generic Elective (1)		3	ECE 414	Feedback Control Systems		3
Elective	ECE Technical Elective (2)		3	Elective	Electrical Focus (3)		3
				Elective	Generic Elective (2)		3
	<b>Credits</b>		<b>17</b>		<b>Credits</b>		<b>17</b>
	<b>Total UMaine credits</b>		<b>76</b>				

General Education and Technical Elective courses do not have to be taken in the order shown. Students must have advisor approval for all Technical Electives. Students should check with their advisor regarding Gen Ed requirements. A minimum GPA of 2.0 or higher is required in all ECE courses.



### Option 2: includes 5 semesters at UMaine

Semester 5		Cr	Semester 6		Cr
ECE 342	Electronics I	4	ECE 177	Intro to Programming for Egrs	4
ECE 314	Signals & Systems	3	ECE 351	Fields & Waves	3
MAT 228	Calculus III	4	ECE 343	Electronics II	4
ECE 316 or STS 332	Random Signal Analysis Or Statistics for Engineers	3	ECE 401	Design Project	2
			Elective	Generic Elective (1)	3
	<b>Credits</b>	<b>14</b>		<b>Credits</b>	<b>16</b>

Semester 7		Cr	Semester 8		Cr
ECE 271	Microcomputer Arch & Applications	4	Elective	Electrical Focus (3)	3
ECE 402	Design Project II	4	ECE 403	Design Project III	2
Elective	Electrical Focus (1)	3	ECE 486	Digital Signal Processing	3
Elective	Generic Elective (2)	3	ECE 414	Feedback Control Systems	3
			Elective	Electrical Focus (2)	3
			Gen Ed	Artistic Expression (if not taken at SMCC in place of Pre-Calculus)	3
	<b>Credits</b>	<b>14</b>		<b>Credits</b>	<b>17</b>

Semester 9		Cr
Elective	ECE Technical Elective (1)	3
Elective	ECE Technical Elective (2)	3
Gen Ed	Population and the Environment	3
Gen Ed	Ethics	3
Gen Ed	Human Values Soc Context Elective (if needed, check with advisor)	3
	<b>Credits</b>	<b>12</b>
	<b>Total UMaine credits</b>	<b>76</b>

General Education and Technical Elective courses do not have to be taken in the order shown. Students must have advisor approval for all Technical Electives. Students should check with their advisor regarding Gen Ed requirements. A minimum GPA of 2.0 or higher is required in all ECE courses.



### Degree Requirement Notes:

Total minimum degree credit hours required for the Bachelor of Science in Electrical Engineering is **124 credits** consisting of specific degree requirements, specific elective requirements, and general education requirements. Electrical Engineering majors must maintain a GPA of 2.0 or higher in all ECE courses.

*Transfer students will be accorded the same standards and criteria for admission to a major degree sequence as UMaine students. All applicants accepted to UMaine's baccalaureate programs must fulfill the graduation requirements as identified in UMaine's academic catalog. For up-to-date degree information please check UMaine's online catalog at <http://catalog.umaine.edu/>. The most recent transfer credit equivalency information is available online through the transfer course equivalency Quick Link located at [UMS Online Transfer Equivalency Tool](#). See appendix A for complete degree requirements.*

### **Contacts/designee at each campus for more information:**

Southern Maine Community College:

Matthew J. Goodman  
Acting Vice President/Academic Dean  
Dean of Academic Excellence and Strategic Initiatives  
[mgoodman@mainecc.edu](mailto:mgoodman@mainecc.edu)  
207-741-5507

University of Maine:

Sharon Oliver  
Director of Admissions Operations  
[smoliver@maine.edu](mailto:smoliver@maine.edu)  
207.581.1561

Holly Smart  
Interim Assoc Dir of Transfer Admissions  
[holly.smart@maine.edu](mailto:holly.smart@maine.edu)  
207. 581.1601

### **Articulation Implementation and Agreement Review**

The Chief Academic Officer designee of the collaborating institutions shall be responsible for implementing this agreement, for identifying and incorporating any changes into subsequent agreements, and for conducting a periodic review of this agreement.



### Signatures to this Agreement

This agreement becomes effective on July 1, 2025 and will be reviewed in 2030 for renewal discussion.

#### Southern Maine Community College:

Kristen Miller  
President

Signed by:  
Kristen Miller 8/4/2025  
F976F2877C80492...  
Signature date

Matthew J Goodman  
Vice President & Academic Dean

Signed by:  
Matthew J. Goodman 8/1/2025  
DD355D8B4E1E4A2...  
Signature date

Adam Tambone  
Co-Chair, Engineering Technology

Signed by:  
Adam Tambone 7/31/2025  
931DD57977D549A...  
Signature date

#### University of Maine:

Gabe Pacquette  
Interim Executive Vice President for Academic Affairs and  
Provost

Signed by:  
Gabe Pacquette 7/28/2025  
4508069C14134F0...  
Signature date

Kevin Coughlin  
Vice President of Enrollment Management

Signed by:  
Kevin Coughlin 7/7/2025  
EB981CBAC66D412...  
Signature date

Giovanna Guidoboni  
Dean, Maine College of Engineering and Computing

Signed by:  
Giovanna Guidoboni 7/7/2025  
C7185C6C8E064B6...  
Signature date

Yifeng Zhu  
Professor and Chair of Electrical & Computer Engineering

Signed by:  
Yifeng Zhu 7/3/2025  
1EEDD094727B41E...  
Signature date



## Appendix A

## UMaine Bachelor of Science Degree Electrical Engineering – July 2025

## First Semester

UMaine		Cr.
CHY 131	Chemistry for Civil, Electrical & Mechanical Engineering*	3
CHY 133	Chem Lab for Civil, Electrical & Mechanical Engineering*	1
CMJ 130	Fund Public Communication@	3
ECE 100	Elec. & Comp. Engr Seminar	1
ECE 101	Intro to Elec & Comp Engineering	3
MAT 126	Calculus I@	4
<b>Semester Credits</b>		<b>15</b>

## Second Semester

		Cr.
ECE 177	Intro to Program for Engineers	4
ENG 101	College Composition@	3
MAT 127	Calculus II@	4
PHY 121	Physics for Engineers I@	4
<b>Semester Credits</b>		<b>15</b>

## Third Semester

UMaine		Cr.
ECE 210	Electric Circuits I	3
ECE 271	Micro Arch & Applications	4
Gen Ed	Cultural Div & Intn'l Persp.@	3
MAT 228	Calculus III	4
PHY 122	Physics for Engineers@	4
<b>Semester Credits</b>		<b>18</b>

## Fourth Semester

		Cr.
ECE 214	Electrical Circuits II	4
ECE 275	Sequential Logic Systems	3
ECE 351	Fields & Waves	3
MAT 258	Diff Equations & Linear Algebra	4
Gen Ed	Western Cultural Traditions@	3
<b>Semester Credits</b>		<b>17</b>

## Fifth Semester

UMaine		Cr.
ECE 316 or STS 332	Random Signal Analysis or Statistics for Engineers	3
ECE 342	Electronics I	4
ECE 314	Signals & Systems	3
Elective	ECE Technical Elective (1)	3
<b>Semester Credits</b>		<b>13</b>

## Sixth Semester

		Cr.
ECE 343	Electronics II	
ECE 401	Design Project	
ECE 486	Digital Signal Processing	
Elective	Electrical Focus Elective (1)	
Elective	ECE Technical Elective (2)	
<b>Semester Credits</b>		<b>16</b>

## Seventh Semester

UMaine		Cr.
ECE 402	Design Project II	4
Elective	Electrical Focus Elective (2)	3
Elective	General Focus (1)	3
Elective	General Focus (2)	3
Gen Ed	Population & Environment@	3
<b>Semester Credits</b>		<b>16</b>

## Eighth Semester

		Cr.
ECE 403	Design Project III	2
ECE 414	Feedback Control Systems	3
Elective	Electrical Focus Elective (3)	3
Gen Ed	Artistic & Creative Expression@	3
Gen Ed	Ethics@	3
<b>Semester Credits</b>		<b>14</b>

Minimum Program Credits required for the degree: 124 credits. Students must see their advisor for approval of all Technical Electives. A minimum GPA of 2.0 or higher is required in all ECE courses. Gen Ed courses and Technical Electives do not have to be taken in the order presented. \*Can substitute CHY 121/123 @meets Gen Ed Requirement