 

# ARTICULATION AGREEMENT

**Between**

**Northern Essex Community College**

**Engineering Science, Associate in Science Degree**

**and**

**Merrimack College**

**Electrical Engineering, Bachelor of Science Degree**

PURPOSE:

This Articulation Agreement has been established between Northern Essex Community College (NECC) and Merrimack College (MC). This Agreement was developed with the intent of facilitating the success of students at NECC and MC, as well as the transfer of course credits between the two partner institutions. Furthermore, this agreement is intended to serve as a guideline for those who desire to complete their Associates of Engineering Science (Electrical/Computer Engineering Concentration) at NECC with the intent of transfer into the Bachelor of Science in Electrical Engineering at MC.

Students completing their Associates of Engineering Science (Electrical/Computer Engineering Concentration) at NECC in accordance with the minimum standards as set forth in this agreement will be admitted to the Bachelor of Science in Electrical Engineering at MC, contingent upon completion of MC’s transfer application process. Furthermore, such students who complete the described series of courses will receive an Associates of Engineering Science (Electrical/Computer Engineering Concentration) at NECC, and may qualify for a scholarship through MC. Students who do not meet the minimum standards and terms set forth herein will be considered for admission to MC on a case-by-case basis.

OBJECTIVES:

1. To facilitate the completion of students’ Associates of Engineering Science (Electrical/Computer Engineering Concentration) at NECC.
2. Upon successful transfer, to facilitate the completion of students’ Bachelor of Science in Electrical Engineering at MC.
3. To encourage the transfer of qualified students from NECC to MC by providing effective and concise guidelines.
4. To award appropriate academic credit for courses completed at NECC towards MC’s Electrical Engineering Bachelor of Science program.
5. Increased presence and visibility of MC on NECC’s campuses and website, including marketing of this agreement and other transfer opportunities, advising, and articulation of clear transfer pathways between institutions.
6. Increased awareness of MC as a compatible institution and assisting with understanding of fit based on credit, cost, and completion.

TERMS OF THE TRANSFER ARTICULATION AGREEMENT:

1. This Agreement is based upon the evaluation of course descriptions offered by NECC and MC. NECC courses as listed in this agreement will transfer to MC provided a grade of “C-” or higher has been earned. Developmental courses or any courses that are not college level will not be accepted for transfer credit.
2. MC guarantees the acceptance of all students who complete those NECC courses in the related concentration as listed in the included Graduation Plan with a minimum cumulative GPA of 2.5 or higher to the Bachelor of Science in Electrical Engineering program. \*In an effort to alleviate the stress from COVID-19 and the potential negative impacts on students’ GPAs, and in the acknowledgement that many institutions have adopted pass/fail policies, courses in which a student has received a grade of Pass (P) during the impacted academic 2020-2021 academic school terms shall count toward program requirements.
3. Courses completed at other regionally accredited institutions may be accepted for transfer credit under MC’s transfer guidelines, however courses may not count towards articulated Graduation Plan. MC reserves the right to review all courses that have been accepted by NECC from other institutions, including but not limited to those courses that are detailed in the Gradation Plan.
4. MC guarantees the transfer of credit as stipulated in the attached Graduation Plan. MC requires that at least 50% of the major be completed in residence; the total number of credits required to earn a Bachelor of Science in Electrical Engineering from MC is at least 128 credits. MC may accept up to 90 transfer credits, however, not all courses may apply to the student’s degree program.
5. NECC students will be subject to all general education requirements of MC as set forth in MC’s Undergraduate Catalog. NECC students interested in participating in this agreement should work closely with NECC and MC counselors/advisors to ensure completion of courses as noted in the attached Graduation Plan.
6. All NECC students who have earned an Associate's degree in Engineering Science (Electrical/Computer Engineering Concentration) are encouraged to apply for financial aid. Transfer students are automatically considered for scholarships. After transferring, students must be continuously enrolled in the Bachelor of Science in Electrical Engineering degree program as full-time students (12 credits minimum per semester) and maintain a 2.0 grade point average at MC to continue the scholarship for up to four years.

1. Students must satisfy MC admission standards for academic standing and disciplinary standing at their previous institution as communicated through the transfer college report.

1. Designated individuals will confer as necessary to ensure courses and equivalencies are up-to-date, based on curriculum changes. Articulated courses may be added or removed from Graduation Plan at any time.

The Agreement is effective January 1, 2021 (the “Effective Date”). This Agreement supersedes any prior agreements and shall remain in effect for a period of three years from the Effective Date (until December 31, 2024), with the provision that the terms specified herein will continue to apply to students admitted from NECC’s Associate in Engineering Science (Electrical/Computer Engineering Concentration) within one year of the expiration of the Agreement. Each institution agrees to provide timely notice to the other in the event of any modification to the curriculum that might affect compatibility for admission and transfer of coursework. This agreement may be subject to change, with notification, if curriculum requirements change at either institution. Students admitted to the NECC’s Associate in Engineering Science (Electrical/Computer Engineering Concentration) prior to such notification shall be admitted to MC on the basis of this Agreement. This agreement is conditional upon both institutions maintaining its’ program approval from the Massachusetts Board of Higher Education and regional accreditation status.

ARTICULATION AGREEMENT

Between NORTHERN ESSEX COMMUNITY COLLEGE

Associate in Science, Engineering Science

And

MERRIMACK COLLEGE

Bachelor of Science, Electrical Engineering

Signature Page

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lane Glenn, PhD Date

President, Northern Essex Community College

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

William Heineman, EdD Date

Vice President of Academic and

Student Affairs

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Carolyn Knoepfler, PhD Date

Dean, STEM

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Paul Chanley Date

Dept. Chair, Engineering Science

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Michelle Sunday Date

Director of Transfer, Articulation, and Academic

Center Advising

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Christopher E. Hopey, Ph.D. Date

President, Merrimack College

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

John (Sean) Condon, PhD Date

Interim Provost and Vice President of Academic

Affairs

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Naira Campbell-Kyureghyan, PhD Date

Dean, School of Science and Engineering

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

John (Jack) Adams, PhD Date

Dept. Chair, Electrical Engineering

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Darren Conine Date

Vice President for Enrollment & Dean of Admission

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Nicole Williams Date

Associate Director of Admission for Transfer Students

Northern Essex Community College - Merrimack College Plan

Associate in Science Engineering Science (Electrical/Computer Engineering Concentration) Degree (A.S.) - Bachelor of Science, Electrical Engineering (B.S.)

Sample Two-Year (2 + 2) Graduation Plan

Freshman Year (CC)

|  |  |
| --- | --- |
| Fall Semester  | Spring Semester |
| CTE 101 Fundamentals Digital Logic [Merrimack’s EEN 1200 Digital Fundamentals] | 3 | CHM 121 General Chemistry I [CHM 1110 General Chemistry I (STEM)] | 4 |
| CTE 103 Digital Design Lab [GEN 0001 Engineering Open Elective Credit] | 1 | CIS 140 Intro to Computer Science [CSC 1610 Problem Solving with Java] | 4 |
| EST 104 Engineering Essentials &Design\* [GEN 1001 Introduction to Engineering] | 3 | ECO 201 Micro Economics [ECO 1203 Principles of Microeconomics(SOSC)] | 3 |
| EST 110 Engineering Design Graphics [GEN 0002 Engineering Open Elective Credit] | 3 | ENG 101 English Composition I [ENG 0001 English Open Elective credit] | 3 |
| MAT 251 Calculus I [MTH 1217 Calculus I STEM & Q)] | 4 | MAT 252 Calculus II [MTH 1218 Calculus II] | 4 |
| TOTAL | 14 | TOTAL | 18 |

(32 credits)

Sophomore Year (CC)

|  |  |
| --- | --- |
| Fall Semester | Spring Semester |
| ECO 202 Macro Economics [ECO 1204 Principles of Macroeconomics(SOSC)] | 3 | ENG 103 Technical Writing\* [(ENG 103 + EST 104 = GEN 1001, both must receive grade of C- or better)] | 3 |
| ENG 102 English Composition II [ENG 1050 Introduction to College Writing (FYW)] | 3 | EST 232-Engineering Circuit Analysis II [EEN 2140 Circuit Theory II] | 5 |
| EST 231 Engineering Circuit Analysis I [EEN 2130 Circuit Theory I] | 5 | MAT 254 Differential Equations [MTH 2220 Differential Equations] | 4 |
| MAT 253 Calculus Ill [MTH 2219 Calculus Ill] | 4 | PHS 132 Engineering Physics II [PHY 2212 Physics II] | 4 |
| PHS 131 Engineering Physics I [PHY 2211 Physics I] | 4 | PHI 101 Introduction to Philosophy [PHL 1000 Introduction to Philosophy (PHL)] | 3 |
|  |  | EEN 2270 Embedded Microprocessors *(NECCUM) Not required for NECC Graduation but can be taken at Merrimack College via NECCUM* (Spring year 2) | 4 |
| TOTAL | 19 | TOTAL | 19 |

(70 credits)

Junior Year (Merrimack College)

|  |  |
| --- | --- |
| Fall Semester | Spring Semester |
| EEN 3210 Electronics I | 4 | EEN 3220 Electronics II | 4 |
| EEN 3270 Energy | 4 | EEN 3430 Engineering Electromagnetics | 4 |
| MTH 1505 Applied P&S for Eng. | 4 | Advanced Elective | 4 |
| Gen Ed | 4 | Gen Ed | 4 |
| TOTAL | 16 | TOTAL | 16 |

Senior Year (Merrimack College)

|  |  |
| --- | --- |
| Fall Semester | Spring Semester |
| EEN 4145 Discrete Time Signals and Systems | 4 | EEN 4270 Feedback Circuits | 4 |
| Advanced Elective | 4 | Advanced Elective | 4 |
| Gen Ed | 4 | Gen Ed | 4 |
| EEN 4960 Senior Design I | 2 | EEN 4970 Senior Design II | 2 |
| TOTAL | 14 | TOTAL | 14 |

(130 credits)