

ARTICULATION AGREEMENT

Between the

**ASSOCIATE IN SCIENCE DEGREE – ENGINEERING
PROGRAM**

Of

Northern Essex Community College

And the

**UNIVERSITY OF MASSACHUSETTS LOWELL
James B. Francis College of Engineering**

Fall 2005

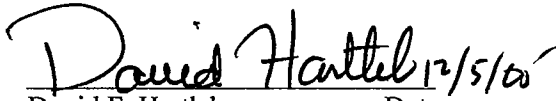
This articulation agreement has been established between Northern Essex Community College and the University of Massachusetts Lowell Engineering Department. This agreement was developed with the intent of facilitating the transfer process from Northern Essex Community College to the University of Massachusetts Lowell. This agreement will serve as a guideline for those who desire transfer into the Engineering major at the University of Massachusetts Lowell.

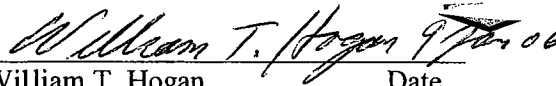
Northern Essex Community College and University of Massachusetts Lowell agree to the following:

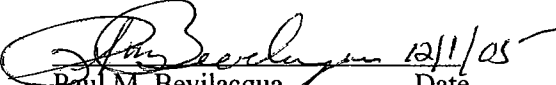
1. Northern Essex Community College students who complete the Engineering Program, and who have earned the Associate of Science with a cumulative 2.5 GPA or better, will be guaranteed acceptance into the University of Massachusetts Lowell, College of Engineering, Engineering major. Students who do not meet the aforementioned minimum standards will be considered for admission to the University of Massachusetts Lowell on a case-by-case basis.
2. Northern Essex Community College students completing the Associate in Science – Engineering Program will receive academic credit for courses graded “C-“ or better, subject to the transfer credit policy of the University of Massachusetts Lowell. The “UMASS LOWELL TRANSFER AGREEMENT” attached to this document outlines those courses which transfer directly into the Engineering major at the University of Massachusetts Lowell.
3. Courses judged below college level by the University of Massachusetts Lowell will not be accepted for transfer credit.

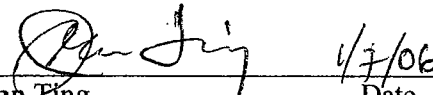
This agreement shall remain in effect for a period of two years from the date indicated below with the provision that the terms specified herein will continue to apply to students who transferred from Northern Essex Community College within one year of the expiration of this agreement. Each institution agrees to provide timely notice to the other in the event of any modification to the curriculum that might affect compatibility for transfer.

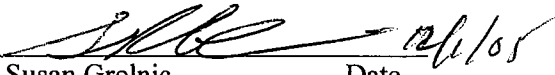
Signatures



David F. Hartleb, Date
President, Northern Essex Community College
Lowell

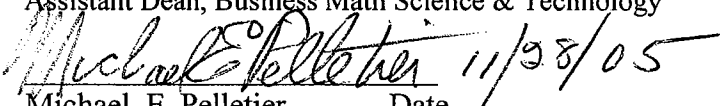

William T. Hogan, Date
Chancellor, University of Massachusetts

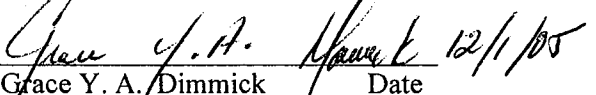

Paul M. Bevilacqua, Date
VP and Dean Academic Affairs


John Ting, Date
Dean, James B. Francis, College of
Engineering Science


Susan Grolnic, Date
Dean, Business Math Science & Technology


Kathy E. Proietti, Date
Assistant Dean, Business Math Science & Technology


Michael E. Pelletier, Date
Chairperson, Computer Technology & Engineering


Grace Y. A. Dimmick, Date
Associate Dean, Transfer Articulation and Advising

**Engineering Articulation Agreement
Between
UMass Lowell and Northern Essex Community College**

NECC Course	Credits	UML Course Equivalent
Requirements		
ENG 101 English Composition I	3	42. 101 College Writing I
ENG 102 English Composition II	3	42. 102 College Writing II
EST 110 Engineering Design Graphics	3	25. 107 Intro to Engineering I
MAT 251 Calculus I	4	92. 131 Calculus I
MAT 252 Calculus II	4	92. 132 Calculus II
MAT 253 Calculus III	4	92. 231 Calculus III
MAT 254 Differential Equations	4	92. 234 Differential Equations
PHS 131 Engineering Physics I	4	95/96. 141 Physics I/lab
Computer/Electrical Engineering		
CTE 101 Fund of Digital Logic	3	16. 265 Logic Design I
CTE 103 Digital Design Lab	2	16. 100 Intro to Elec & Comp Engin
CTE 210 Microcomputers	4	16. 317 Microprocessor Systems Design I
EST 231 Engineering Circuit Anal I	5	16. 201 Circuit Theory I
EST 232 Engineering Circuit Anal II	5	16. 202 Circuit Theory II
PHS 133 Engineering Physics III	4	95/96. 144 Physics II/lab
CIS 140 Intro to Computer Science	4	25. 108 Intro to Engineering II
CIS 240 C++ Programming Lang	4	16. 216 ECE Application Programming (with override)
Mechanical Engineering		
CHM 121 General Chemistry I	4	84. 121/123 Chemistry I/lab
CHM 122 General Chemistry II	4	84. 122/124 Chemistry II/lab
PHS 132 Engineering Physics II	4	95. 245/246 Phys.Prop of Mat/lab
EST 211 Statics	3	22. 211 Statics
EST 212 Dynamics	3	22. 213 Dynamics
EST 122 Comp Aided Drafting II	3	22. 201 Design Lab I (CAD)
PHS 133 Physics III	4	16.211/212 Fund of Electricity/lab (with override)
ECO 201 Microeconomics	3	49. 201 Economics I
Chemical Engineering		
CHM 121 General Chemistry I	4	84. 121/123 Chemistry I/Lab
CHM 122 General Chemistry II	4	84. 122/124 Chemistry II/Lab
ECO 201 Microeconomics	3	49. 201 Economics I
Civil & Environmental Engineering		
CHM 121 General Chemistry I	4	84.121/123 Chemistry I/lab
CHM 122 General Chemistry II	4	84. 122/124 Chemistry II/Lab
EST 211 Statics	3	14. 203 Statics (w/override)
EST 212_ Dynamics	3	14. 205 Dynamics (w/override)
ECO 201 Microeconomics	3	49. 201 Economics I
EST 111 Intro to CAD/CAM	4	25. 108 Intro to Engineering II (w/override)
PHS 133 Physics III	4	16. 213 Physics III or 16. 211/212 Fund of Electricity/lab (w/override)

Revised June 30, 2005

CHM 121 General Chemistry I	4
CHM 122 General Chemistry II	4
PHS 133 Engineering Physics III	4
EST 211 Statics	3
EST 212 Dynamics	3
ECO 201 Microeconomics	3
EST 111 Intro to CAD/CAM	4
EST 112 Computer Aided Drafting	4

Recommended Electives	
Humanities Electives	6
Social Science Electives	6

Plastics Engineering

84.121/123 Chemistry I/lab
84.122/124 Chemistry II/Lab
95/96.144 Physics II/lab
22.211 Statics
26.212 Dynamics
49.201 Economics I
25.108 Introduction to Engineering II
26.218 Intro to Design

LIT required for UML