

ARTICULATION AGREEMENT

between the

ASSOCIATE IN LIBERAL ARTS: PHYSICAL SCIENCE – CHEMISTRY/PHYSICS OPTION

of

NORTHERN ESSEX COMMUNITY COLLEGE

and the

**UNIVERSITY OF MASSACHUSETTS LOWELL
College of Science**

**BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE
ATMOSPHERIC SCIENCE OPTION**

Spring 2013

This articulation agreement has been established between Northern Essex Community College (NECC) and the University of Massachusetts Lowell (UML) College of Science Environmental, Earth and Atmospheric Sciences Department. This agreement was developed with the intent of facilitating the success of students at Northern Essex Community College and the University of Massachusetts Lowell as well as the transfer of course credits between the two partner institutions. Furthermore, these agreements are intended to serve as a guideline for those who desire to complete their Associates in Liberal Arts: Physical Science--Chemistry/Physics option at Northern Essex Community College while also transferring into the Bachelor of Science in Environmental Science –Atmospheric Science option at the University of Massachusetts Lowell. Students completing the described course programs, in accordance with the minimum standards as set in this agreement, will be admitted to the corresponding Environmental Science Degree program at the University of Massachusetts Lowell. Furthermore, such students who complete the described series of courses will receive an Associates of Liberal Arts Degree: Physical Science--Chemistry/Physics option at NECC, and may qualify for tuition waiver through UML's Massachusetts Advantage Plus Program as described below. Students who do not meet the minimum standards set forth herein will be considered for admission to UML on a case-by-case basis.

OBJECTIVES:

1. To facilitate the completion of students' Associates in Liberal Arts: Physical Science--Chemistry/Physics option at NECC.
2. To facilitate the completion of students' Bachelor of Science Degree in Environmental Science – Atmospheric Science option at UML.
3. To encourage the transfer of qualified students from Northern Essex Community College to the University of Massachusetts Lowell by providing effective and concise guidelines.
4. To award appropriate academic credit for courses completed at NECC toward UML's Environmental Science-Atmospheric Science option program.

TERMS OF THE TRANSFER ARTICULATION AGREEMENT:

1. This document is based upon the evaluation of course descriptions offered by NECC and UML. NECC courses as listed in this agreement will transfer to UML provided a grade of C or higher has been earned. When appropriate, the requirements of the Mass Transfer Program will be honored. Courses judged below college level by the University of Massachusetts Lowell will not be accepted for transfer credit.
2. UML guarantees the acceptance of all students who complete those NECC courses in the related concentrations as listed in the attached Program of Study with an overall GPA of 2.5 or higher to the Bachelor of Science in Environmental Science Degree Program.
3. UML guarantees the transfer of credit as stipulated in the attached Program of Study. The University of Massachusetts Lowell 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 Environmental Science from UML is 120 credits. The University of Massachusetts Lowell may accept courses beyond the Associates Degree (60 credits); however, students are encouraged to contact the transfer advisor at the University of Massachusetts for approval.
4. Northern Essex Community College transfer students will be subject to all general education requirements of the University of Massachusetts Lowell as set forth in the University of

Massachusetts Lowell catalog. Northern Essex Community College students interested in participating in the agreement should be advised to take liberal arts courses that will transfer as general education electives.

5. Under the UML Massachusetts Advantage Plus Program, Massachusetts state community college students who have earned an Associate's degree in Liberal Arts: Physical Sciences--Chemistry/Physics option from NECC and graduated with a 3.0 or better grade point average will receive a full-tuition waiver at UML. After transferring, students must be continuously enrolled and maintain a 3.0 grade point average at UML to continue the waiver for up to four semesters.

This agreement shall remain in effect for a period of three years from the date of its enactment, with the provision that the terms specified herein will continue to apply to students admitted from Northern Essex Community College's Associate in Liberal Arts: Physical Science--Chemistry/Physics option program 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 Northern Essex Community College's Associate of Liberal Arts Degree: Physical Sciences--Chemistry/Physics program prior to such notification shall be admitted to the University of Massachusetts Lowell on the basis of this agreement. This agreement is conditional upon the Environmental, Earth and Atmospheric Science Department maintaining its' program approval from the Massachusetts Board of Higher Education.

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Northern Essex Community College
 Physical Science – Chemistry/Physics Concentration
 To
University of Massachusetts Lowell
 Bachelor of Science in Environmental Science – Atmospheric Science Option

NECC	NECC credits	UML	Title	UML credits
Required courses for NECC Chemistry/Physics AA				
CHM 121	4	84.121 / 84.123	Chemistry I & Lab	4
CHM 122	4	84.122 / 84.124	Chemistry II & Lab	4
ENG 101	3	42.101	College Writing I	3
ENG 102	3	42.102	College Writing II	3
MAT 251	4	92.131	Calculus I	4
MAT 252	4	92.132	Calculus II	4
NECC General Education Requirements*				
Behavior Science	6	varies - up to 18 credits (9 social science and 9 arts and humanities.)		
Fine & Performing Arts / Foreign Language / Philosophy & Religion	6			
History / Government	6			
Literature	6			
Program elective and concentration courses				
ERS 130*	4	85.141 / 85.143	Weather & Climate	4
MAT 253	4	92.231	Calculus III	4
MAT 254	4	92.236	Eng. Differential Equations	4
PHS 131	4	95.141/96.141	Physics I	4
PHS 132	4	95.144 / 96.144	Physics II	4
ERS 140##	4	89.101 / 89.103	General Geology	4
Courses not required for NECC graduation but can be taken via NECCUM				
	0	85.102	Weather forecasting seminar	1
	0	87.201	Earth & Environmental Systems I and Lab	4
	0	87.202	Earth & Environmental Systems II and Lab	4
	0	85.213	Atmospheric Lab	1
	0	85.214	Meteorological Analysis Lab	1
	0	85.234	Fortran Programming	3
	0	92.386	Probability and Statistics I	3
	0	85.304	Methods in Meteorology I	3
	0	85.305	Methods in Meteorology II	3
	0	85.301	Atmospheric Dynamics	3

* NECC program elective