

ARTICULATION AGREEMENT

Between

MIDDLESEX COMMUNITY COLLEGE

**Liberal Arts & Sciences Physical Science Concentration
Associate in Arts**

and the

UNIVERSITY OF MASSACHUSETTS LOWELL

College of Arts & Science

Physics

Bachelor of Science

Fall 2008

This articulation agreement has been established between Middlesex Community College's Liberal Arts and Sciences Physical Sciences Concentration Associate in Arts program and the University of Massachusetts Lowell, College Arts and Sciences, Physics: Bachelor of Science degree. This agreement was developed with the intent of facilitating the transfer process from Middlesex Community College to the University of Massachusetts Lowell. These agreements will serve as a guideline for those who desire to transfer into the Physics program at the University of Massachusetts Lowell.

Students completing the Liberal Arts and Sciences Physical Science Concentration at Middlesex Community College, in accordance with the minimum standards as set by the Physics department at the University of Massachusetts Lowell, will be admitted to that department at the University of Massachusetts Lowell as juniors. 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.

OBJECTIVES:

1. To encourage the transfer of qualified students from Middlesex Community College to the University of Massachusetts Lowell.
2. To award academic credit for courses completed at Middlesex Community College that meet the terms of the Liberal Arts and Sciences Physical Science Concentration Associate Degree as stated in this agreement for application toward the requirements for the Physics: Bachelor's Degree at the University of Massachusetts Lowell.
3. To provide effective and concise guidelines for students seeking to transfer to the University of Massachusetts Lowell. Students will have accurate and clear information regarding the transfer of their coursework and credits toward the Physics Bachelor's Degree at the University of Massachusetts Lowell.

TERMS OF THE TRANSFER ARTICULATION AGREEMENT:

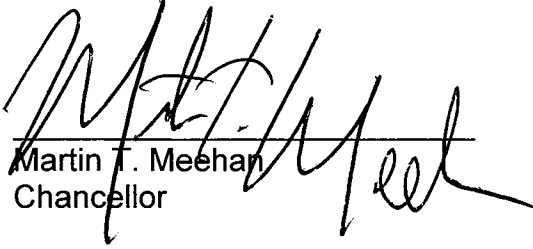
1. The University of Massachusetts Lowell guarantees the acceptance of students who completed the Liberal Arts and Sciences Physical Science Concentration Associate Degree program at Middlesex Community College with an overall GPA of 2.5 or better to the Physics Bachelor's Degree.
2. The University of Massachusetts Lowell guarantees the transfer of credit as stipulated in the attached Program of Studies. This agreement assumes the completion of the Associate Degree and completion of the courses listed on the attached Program of Studies. The University of Massachusetts Lowell may require that 50% of the major is completed in residence; a minimum total of 120 credits must be completed to earn a Physics Bachelor's Degree. The University of Massachusetts Lowell may accept courses taken beyond the Associate Degree (60 credits); however, students are encouraged to contact the transfer advisor at the University of Massachusetts Lowell for approval.
3. Middlesex 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. Students meeting the requirement of the Commonwealth Transfer Compact will be exempt from University general education requirements, but will be required to meet any specific Physics department general education requirements.
4. This document is based upon the evaluation of course descriptions presented to the University of Massachusetts Lowell. Courses as listed in this agreement will transfer to the University of Massachusetts Lowell provided a grade of "C-" or better has been earned. When appropriate, the requirements of the Commonwealth Transfer Compact will be honored.

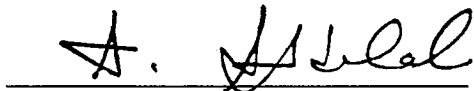
5. Middlesex Community College students interested in participating in this agreement should be advised to take the suggested liberal arts courses. These courses are required at the University of Massachusetts Lowell and students are advised to complete them as part of their Associate Degree.


This agreement shall remain in effect for a period of three years from the date listed below, with the provision that the terms specified herein will continue to apply to students admitted from Middlesex Community College's Liberal Arts & Sciences Physical Science Associate Degree 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, without notice, if curriculum requirements change at either institution. Students admitted to the Middlesex Community College's Liberal Arts and Sciences Physical Science Associate Degree program prior to such notification shall be admitted to the University of Massachusetts Lowell on the basis of this agreement.

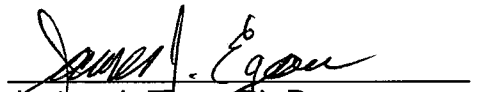
Signatures


University of Massachusetts Lowell

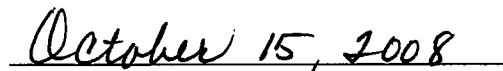

Martin F. Meehan
Chancellor


Ahmed Abdelal, Ph.D.
Provost

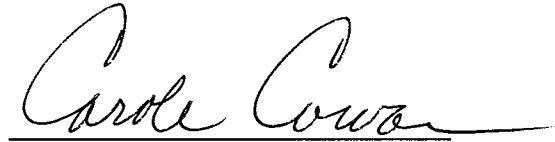

Robert Tamarin, Ph.D.
Dean, Arts and Sciences, Sciences

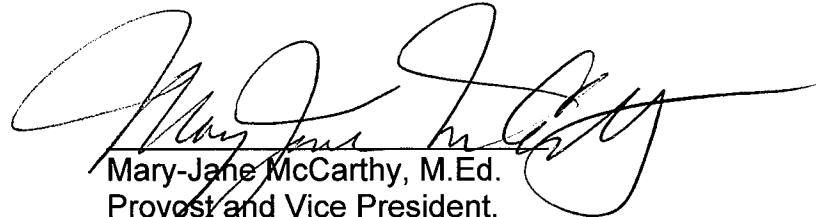

James J. Egan, Ph.D.
Department Chair and Professor,
Physics

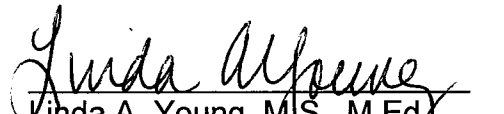

Gerald J. Durkin, M. Ed.
Associate Dean, Enrollment
Director of Transfer Admissions

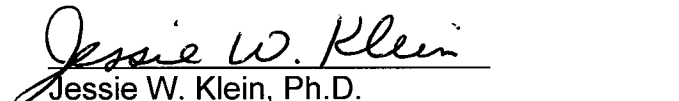

Date

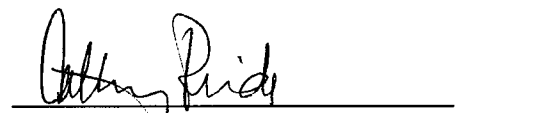
Middlesex Community College


Carole A. Cowan, Ed.D.
President


Mary-Jane McCarthy, M.Ed.
Provost and Vice President,
Academic and Student Affairs


Linda A. Young, M.S., M.Ed.
Dean, Mathematics and Sciences


Jessie W. Klein, Ph.D.
Associate Dean, Mathematics and Sciences


Catherine L. Pride, Ph.D.
Associate Dean, Academic Programs
and Articulation

Transfer Articulation Agreement
Middlesex Community College
 Liberal Arts & Sciences Physical Science Concentration, Associate in Arts
 transferring into
University of Massachusetts Lowell
 College of Arts & Sciences
 Physics, Bachelor of Science

NOTES:

- Minimum 2.5 cumulative GPA is required for admission to this major
- Up to 75 credits may be accepted in transfer (at the discretion of the department)
- Students completing this sequence of Middlesex courses will meet the requirements of the Commonwealth Transfer Compact. As a result, UMass Lowell's General Education requirements will be fully satisfied by students completing this Associate Degree program.

Middlesex Community College LAS Physical Science Concentration and Agreement Requirements			University of Massachusetts Lowell Course Equivalencies		
COURSE #	TITLE	CR	COURSE #	TITLE	CR
ENG 101 (formerly EN 1103)	English Composition I	3	42.101	College Writing I	3
ENG 101 (formerly EN 1105)	English Composition II: An Introduction to Literature	3	42.102	College Writing II	3
CAP 103 (formerly CA 1103)	Computers for Technology	3	90.202	Microsoft Office	3
-or- CSC 101 (formerly CS 1101)	-or- Intro. To Computer Science with Visual Basic	4	-or- 91.199	Computer Science 100 Elective	
-or- CSC 151 (formerly CS 1111)	Programming I	4	-or- 91.199	Computer Science 100 Elective	
CHE 151 (formerly SC 3133)	General Chemistry for Engineering and Science I	4	84.121 -and- 84.123	Chemistry I -and- Chemistry I Laboratory	4
CHE 152 (formerly SC 3134)	General Chemistry for Engineering and Science II	4	84.122 -and- 84.124	Chemistry II -and- Chemistry II Laboratory	4
MAT 185 (formerly MA 1108)	Precalculus for Science I	4		No Credit. Math below Calculus cannot fulfill a requirement in this degree	

Middlesex Community College LAS Physical Science Concentration and Agreement Requirements			University of Massachusetts Lowell Course Equivalencies		
COURSE #	TITLE	CR	COURSE #	TITLE	CR
MAT 190 (formerly MA 1110)	Precalculus for Science II	3		No Credit. Math below Calculus cannot fulfill a requirement in this degree	
MAT 290 (formerly MA 1125)	Calculus I for Science	4	92.131	Calculus I	4
MAT 291 (formerly MA 1126)	Calculus II for Science	4	92.132	Calculus II	4
PHY 171 (formerly SC 3201)	Physics for Engineering & Science I	4	95.141 -and- 96.141	Physics I -and- Physics I Laboratory	4
PHY 172 (formerly SC 3202)	Physics for Engineering & Science II	4	95.144 -and- 96.144	Physics II -and- Physics II Laboratory	4
Literature Elective	<u>Choose 1 of the following courses:</u> ENG 112 (formerly HU 6116) ENG 113 (formerly HU 6102) ENG 115 (formerly HU 6156) ENG 117 (formerly HU 4102) ENG 118 (formerly HU 4103) ENG 119 (formerly HU 4106) ENG 120 (formerly HU 6416) ENG 121 (formerly HU 6115) ENG 125 (formerly HU 6143) ENG 130 (formerly HU 6149) ENG 135 (formerly HU 6107) ENG 140 (formerly HU 6108) ENG 141 (formerly HU 6109) ENG 160 (formerly HU 6104) ENG 161 (formerly HU 6105) ENG 170 (formerly HU 6125) ENG 175 (formerly HU 6113) ENG 180 (formerly HU 6145) ENG 185 (formerly HU 6135) HUM 135 (formerly HU 5155) HUM 902 (formerly HU 9111)	3		Transfer Compact Course; transfers as fulfilling a UML general education requirement or as a free elective	3
Humanities Elective 3 courses required	<u>Choose 3 courses from any of the following departments:</u> ART, COM, DAN, ENG (Eng 110 and above only), ETH, HUM, LAN, MUS, PHL, PSY (PSY 135 only), REL, THE (formerly HU courses)	9		Transfer Compact Courses; transfer a fulfilling a UML general education requirement or as a free elective	9

Middlesex Community College LAS Physical Science Concentration and Agreement Requirements			University of Massachusetts Lowell Course Equivalencies		
COURSE #	TITLE	CR	COURSE #	TITLE	CR
Science Elective 1 course required	<u>Choose 1 of the following courses:</u> BIO 100 (formerly SC 2163) BIO 105 (formerly SC 2110) BIO 108 (formerly SC 2150) BIO 112 (formerly SC 2122) BIO 115 (formerly SC 2145) BIO 131 (formerly SC 2101) BIO 132 (formerly SC 2102) BIO 140 (formerly SC 2125) BIO 145 (formerly SC 2130) BIO 231 (formerly SC 2115) BIO 232 (formerly SC 2116) BIO 235 (formerly SC 2123) ENV 105 (formerly SC 1108) ENV 108 ENV 110 (formerly SC 1128) ENV 115 (formerly SC 1106) ENV 120 ENV 131 ENV 141 ENV 917 (formerly SC 9117) ENV 920 (formerly SC 9208) PHY 105 (formerly SC 2117) SCI 122 (formerly SC 2106) SCI 130 (formerly SC 2129) SCI 175 (formerly SC 1119)	3-4		Transfer Compact Course; transfers as fulfilling a UML general education requirement or as a free elective	3-4
Behavioral Science Elective	<u>Choose 1 of the following courses:</u> ANT 101 (formerly SO 1101) ANT 102 (formerly SO 6163) CRJ 156 (formerly SO 6124) Any PSY course Any SOC course	3		Transfer Compact Course; transfers as fulfilling a UML general education requirement or as a free elective	3
Social Science Elective	<u>2-semester History sequence required for graduation. Choose either:</u> HST 121 US History before 1865 (formerly SO 3111) -or- HST 130 History of World Civ. before 1500 (formerly SO 3134)	3		Transfer Compact Course; transfers as fulfilling a UML general education requirement or as a free elective	3

Middlesex Community College LAS Physical Science Concentration and Agreement Requirements			University of Massachusetts Lowell Course Equivalencies		
COURSE #	TITLE	CR	COURSE #	TITLE	CR
Behavioral or Social Science Elective	<u>2-semester History sequence required for graduation. Select 2nd History sequence course here:</u> HST 122 US History after 1865 (formerly SO 3112) -or- HST 131 History of World Civ. after 1865 (formerly SO 3135)	3		Transfer Compact Course; transfers as fulfilling a UML general education requirement or as a free elective	3
Behavioral or Social Science	<u>Choose 1 of the following courses:</u> ANT 101 (formerly SO 1101) ANT 102 (formerly SO 6163) CRJ 153 (formerly SO 3137) CRJ 156 (formerly SO 6124) Any ECO course EDU 150 (formerly SO 7100) Any GOV course Any HST course Any LGL course Any PSY course Any SOC course	3		Transfer Compact Course; transfers as fulfilling a UML general education requirement or as a free elective	3
TOTAL CREDITS		67-69	TOTAL CREDITS		66-68