

ARTICULATION AGREEMENT

Between the

Associate in Science Degree:
Biotechnology Technician

of

Middlesex Community College

and the

UNIVERSITY OF MASSACHUSETTS LOWELL
Bachelor of Science Clinical Laboratory and
Nutritional Sciences

Fall 2012

This articulation agreement has been established between Middlesex Community College and the University of Massachusetts Lowell, School of Health & Environment. This agreement was developed with the intent of facilitating the transfer process from Middlesex Community College (MCC) to the University of Massachusetts Lowell. These agreements will serve as a guideline for those who desire to transfer from MCC into the Clinical Laboratory Sciences: Clinical Sciences Option at the University of Massachusetts Lowell.

Up to 5 students per year completing the AS in Biotechnology Technician program at Middlesex Community College, following the described course curricula in the agreement and in accordance with the minimum standards as set in this agreement by the Clinical and Laboratory Sciences department at the University of Massachusetts Lowell, will be guaranteed admittance to that department at the University of Massachusetts Lowell as juniors in the Clinical Sciences option of the Clinical Laboratory Sciences Program. 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 AAS Biotechnology Technician degree as stated in this agreement for transfer to the Bachelor of Science Clinical Laboratory Sciences 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 from MCC to the 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 complete the AS Biotechnology Technician program at Middlesex Community College with an overall GPA of 3.5 or higher to the Bachelor of Science Laboratory Sciences: Clinical Sciences Option.
2. The University of Massachusetts Lowell guarantees the transfer of credit as stipulated in the attached Programs of Studies. This agreement assumes the completion of the Associate Degree and completion of the courses listed on the attached Program of Study. The University of Massachusetts Lowell may require that 50% of the major is completed in residence. 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 MASS Transfer Block will be exempt from 35 credits of University general education requirements, but will be required to meet any specific School of Health and Environment general education requirements, not to exceed two courses.

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 B or higher has been earned. When appropriate, the requirements of the MASS Transfer Block 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 AAS Biotechnology Technician degree 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 Middlesex Community College's AS Biotechnology Technician degree program prior to such notification shall be admitted to the University of Massachusetts Lowell on the basis of this agreement.

Any student interested in joining the Clinical Lab Science: Clinical Science program through this agreement should contact the Articulation Pre-advisor, Dr. Arlee Dulak, at arlee_dulak@uml.edu or 978-934-4543 to set up an appointment.

Middlesex Community College Biotechnology Technician Program Course Comparison - MCC/UML

MCC Course Requirements

UMass Lowell Equivalent

BIT 150 Methods of Biotechnology	4	81.199 Free Elective	3
BIT 155 Quality Control & GMP	3	81.199 Free Elective	3
BIT 200 Biotechnology Internship	3	36.493 Directed Studies	3
BIT 225 Special Topics/Biotechnology	3	81.299 Free Elective	3
BIT 250 Advanced Techniques/Biotech	4	81.299 Science Specialization	3
CHE 131 College Chemistry I OR CHE 151 Gen Chem for Engineering and Science 1	4	84.111 General Chemistry I 84.113 Gen Chem I Lab	3 1
CHE 132 College Chemistry II OR CHE 152 Gen Chem for Engineering and Science 2	4	84.112 General Chemistry I 84.114 Gen Chem I Lab	3 1
BIO 131 General Biology I	4	81.111 Free Elective	3
BIO 240 Microbiology for Industrial Applications	4	81.201 General Microbiology 81.203 General Microbiology Lab	3 1
BIO 250 Immunology	4	81.299 Free Elective	3
BIO 255 Molecular Biology	4	81.299 Science Specialization	3
ECO 120 Economics & Mgmt High Tech Indus.	3	-----	3
ENG 101 English Composition I	3	42.101 College Writing I	3
ENG 102 English Composition II	3	42.102 College Writing II	3
ETH 105 Intro to Bioethics	3	45.199 Philosophy elective	3
TMA 100 Mathematics for Technology	4	92.127 Preparation for Calculus	3
MAT 177 Statistics	3	92.283 Statistics	3
CSC 101 Intro to Computer Science	3	-----	3
PSY 101 Psychology OR SOC 101 Sociology	3	47.101 General Psychology 48.101 Intro to Sociology	3 3
Required Courses outside of major:			
*BIO 231 Anatomy & Physiology I	4	35.101 Human A&P I 35.103 Human A&P I Lab	3 1
*BIO 232 Anatomy & Physiology II	4	35.102 Human A&P II 35.104 Human A&P I Lab	3 1
Organic Chemistry + Lab (UML course numbers: 36.341 & 36.343 or equivalent)	4		4

* Anatomy & Physiology courses must be taken before matriculating into the Clinical Sciences option of the BS in Clinical Laboratory Sciences degree program at UMass Lowell.

UML Clinical Laboratory Sciences Curriculum with MCC course comparison

Fall Semester

Spring Semester

Freshman Year

MCC	UML		Cr.		MCC	UML		Cr.
BIO231	35.101	A&P I	3		BIO232	35.102	A&P II	3
BIO231	35.103	A&P I Lab	1		BIO232	35.104	A&P II Lab	1
ENG101	42.101	Col. Writing I	3			31.201	Com Health	3
PSY101	47.101	Psychology	3		ENG102	42.101	Col. Writing II	3
SOC101	48.101	Sociology	3		TMA100	92.127	Manag. Calc	3
MAT177	92.283	Statistics	3				Arts/Humanities	3

Sophomore Year

MCC	UML		Cr.		MCC	UML		Cr.
BIO240	81.201	Basic Microbio	3		<i>At UML</i>	36.341	Organic Chem	3
BIO240	81.203	Micro Lab	1		<i>At UML</i>	36.343	Org. Chem Lab	1
CHE131	84.111	Phy Chem	3		CHE132	84.112	Phy Chem II	3
CHE131	84.113	Phy Chem Lab	1		CHE132	84.114	Phy Chem II Lab	1
BIT150	81.199	Free Elective	3		BIT155	81.199	Free Elective	3
		Arts/Humanities	3		ETH105	45.199	Soc. Sci. Gen Ed	3

Junior Year

MCC	UML		Cr.		MCC	UML		Cr.
	36.321	Clin Hematology	3			36.311	Med. Bacteriology	3
BIT225	81.299	Free Elective	3		BI0131	81.199	Free Elective	3
	36.350	Human Biochem	3			36.331	Clin Immunology	3
	36.361	Instrumentation	3			36.351	Clin Chemistry	3
	36.363	Instrument. Lab	2			36.353	Clin Chemistry Lab	2
		Arts/Humanities	3		BIT200	36.493	Directed Studies	3

Senior Year

MCC	UML		Cr.		MCC	UML		Cr.
	36.483	Sr Research	2			36.484	Sr Research II	2
	36.452	Clin Chemistry II	3			35.435	Genetics	3
BIT250	81.299	Science Spec.	3		BIO250	81.299	Free Elective	3
BIO255	81.299	Science Spec.	3				Science Spec.	3
		Science Spec.	3				Science Spec.	3

Color Key:

Direct transfer of credits from MCC to UML

Courses to be taken prior to coming to UML

Courses to be taken at UML