## **ARTICULATION AGREEMENT**

### Between the

# ASSOCIATE IN SCIENCE DEGREE – Computer Science: Computer Science Transfer

**PROGRAM** 

Of

**Quinsigamond Community College** 

And the

UNIVERSITY OF MASSACHUSETTS LOWELL
College of Science

**Spring 2019** 

This articulation agreement has been established between Quinsigamond Community College (QCC) and the University of Massachusetts Lowell's College of Science (UML). This agreement was developed with the intent of facilitating the success of students at Quinsigamond Community College (QCC) 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 of Science Degree in Computer Science Transfer at Quinsigamond Community College while also transferring into Bachelor of Science in Computer Science Degree Program 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 Computer Science Degree program at the University of Massachusetts Lowell. Furthermore, such students who complete the described series of courses will receive an Associates of Science Degree in Computer Science Transfer at QCC, and may qualify for a 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 of Science Degree in Computer Science Transfer at QCC.
- 2. To facilitate the completion of students' Bachelor of Science Degrees in various Computer Science Program at UML.
- 3. To encourage the transfer of qualified students from Quinsigamond Community College to the University of Massachusetts Lowell by providing effective and concise guidelines.
- 4. To award appropriate academic credit for courses completed at QCC towards UML's Computer Science degree program.

#### TERMS OF THE TRANSFER ARTICULATION AGREEMENT:

- This document is based upon the evaluation of course descriptions offered by QCC and UML. QCC 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.
- UML guarantees the acceptance of all students who complete those QCC courses in the related concentrations as listed in the attached Program of Study with an overall GPA of 2.5 or higher to the appropriate Bachelor of Science in Computer Science Degree Program.

- 3. UML guarantees the transfer of credit as stipulated in the attached Program of Study. The University of Massachusetts Lowell may accept courses taken beyond the Associates Degree (60 credits); however, students are encouraged to contact the transfer advisor at the University of Massachusetts Lowell for approval.
- 4. Quinsigamond 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. Quinsigamond Community College students interested in participating in this agreement are advised to take liberal arts courses that are recommended in this agreement for the best possible transfer experience.
- 5. Under the UML Massachusetts Advantage Plus Program, Massachusetts state community college students who have earned an Associate's degree in Computer Science Transfer from QCC 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 Quinsigamond Community College's Associate in Science Degree: Computer Science: Computer Science Transfer 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 Quinsigamond Community College's Associate in Science Degree: Computer Science Transfer 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 Computer Science Department maintaining its' program approval from the Massachusetts Board of Higher Education.

Quinsigamond Community College					UMass Lowell			
Course number		Course name	Credits	Course	Course number Course name		Credits	
		Semester 1						
CSC	108	Computer Science I	4	COMP	1990	1000 level Elective	3	
ENG	101	Composition I	3	ENGL	1010	College Writing I	3	
MAT	233	Calculus I	4	MATH	1310	Calculus I	4	
ххх	XXX	*Lab Science Elective	4	ххх	XXX	*Lab Science Elective	*4	
*Lab Sc	ience reco	ommendations: PHY 105, BIO 107 or CHM 10	5. Students	who take	a Lab Scie	nce Elective that is not listed as a		
recomm	ended co	urse may not receive full credit at Umass Lov	vell.					
		Total:	15			Tota	: 14	
		Semester 2						
CSC	109	Computer Science II	4	COMP	1010	Computing I	3	
			7	COMP	1030L	Computing   Lab	1	
ENG	102	Composition II	3	ENGL	1020	College Writing II	3	
MAT	234	Calculus II	4	MATH	1320	Calculus II	4	
xxx	XXX	*Lab Science Elective	4	xxx	XXX	*Lab Science Elective	*4	
		ommendations: PHY 105, BIO 107 or CHM 10:		who take	a Lab Scie	nce Elective that is not listed as a		
recomn	ended co	urse may not receive full credit at Umass Lov	vell.					
		Total:	15			Tota	: 15	
		Semester 3						
CSC	208	Intro to Architecture and Assembly		COMP	2030	Assembly Language	3	
		Language	4			Programming		
				COMP	2030L	Assembly Language Prog. Lab	1	
MAT	125	Discrete Mathematics	3	MATH	2190	Discrete Structures I	3	
SPH	101	Speech Communication Skills	3	ENGL	2220	Oral Communication	3	
xxx	XXX	Humanities Elective	3	xxx	XXX	Humanities Elective	3	
xxx	XXX	Social Science Elective	3	xxx	xxx	Social Science Elective	3	
		Total:	16			Tota	: 16	
		Semester 4						
CSC	211	Programming with Data Structures	4	COMP	1020	Computing II	3	
			4	COMP	1040L	Computing II Lab	1	
CSC	212	Introduction to Software Engineering	4	COMP	2010	Computing III	3	
			4	COMP	2010L	Computing III Lab	1	
MAT	237	Probability & Statistics for Engineers		MATH	2990	Mathematics 2000 level	3	
		and Scientists				elective *This credit will be		
			3			applied as a Technical Elective in	1	
						the Computer Science		
						curriculum.		
ххх	XXX	Social Science Elective	3	ххх	XXX	Social Science Elective	3	
		Total:	14			Tota		
		Grand total:	60			Grand tota	: 59	

UMass-Lowell will allow QCC students to complete additional coursework, beyond the Computer Science-Transfer Associate degree curriculum, to maximize transferability. The following Natural Science w/ Lab courses are recommended as additional courses:

Quinsigamond Community College

UMass Lowell

Course number		Course name	<b>Credits</b>	Course number		Course name	<u>Credits</u>
BIO	108	Principles of Biology II	4	BIOL	1120	Principles of Biology II	3
					1180L	Experimental Biology II	1
CHM	106	General Chemistry II	4	CHEM	1220	Chemistry II	3
					1240L	Chemistry II Lab	1
PHY	106	General Physics II	4	PHYS	2450	Physical Properties of Matter	3
				PHYS	2450L	Physics III Lab	1

# Signature Page

Luis Pedraja Date President Quinsigamond Community College	Jacqueline Moloney Date Chancellor University of Massachusetts Lowell
Nancy Schoenfeld Date Interim Vice President of Academic Affairs Quinsigamond Community College	Michael Vayda Date Provost and Vice Chancellor for Academic Affairs University of Massachusetts Lowell
Betty Lauer 3-28-19 Betty Lauer Date Dean, School of Business, Engineering & Technology Quinsigamond Community College	Noureddine Melikechi Date Dean, Kennedy College of Sciences University of Massachusetts Lowell
Hao Loi Date Coordinator of Computer Science Quinsigamond Community College	David B (Idams 4/8/19) David Adams Date Computer Science Undergraduate Coordinator University of Massachusetts Lowell
Ogniel de la Torre Date Coordinator of Transfer & Articulation Quinsigamond Community College	Gerald Durkin Date Associate Dean of Enrollment and Director of Transfer Admissions

University of Massachusetts Lowell