Suggested Transfer Pathway
Montgomery College A.A. in Computer Science to UMBC's B.S. in Computer Science

Year One – Montgomery College

(Courses may be taken in any order)

	Fall Semester	Cr
	CHEM131 or BIOL150 (first course in sequence)	4
	CMSC140 Introduction to Programming	3
	ENGL101 Intro to College Writing or CMSC elective	3
	Arts or Humanities Distribution*	3
	CMSC110 Computer Concepts	3
	Total Credits	**16**

	Spring Semester	Cr
	CHEM132 or BIOL151 (second course in sequence)	4
	ENGL102 or ENGL103, English Foundation	3
	MATH181 Calculus I	4
	CMSC203 Computer Science I	4
	Total Credits	**15**

Year Two – Montgomery College

	Fall Semester	Cr
	CMSC204 Computer Science II	4
	MATH182 Calculus II	4
	Humanities Distribution	3
	Behavioral and Social Sciences Distribution †	3
	HLTH100 Principles of Healthier Living	1
	Total Credits	**15**

	Spring Semester	Cr
	CMSC207 Introduction to Discrete Structures	6
	MATH284 Linear Algebra	4
	COMM108 or COMM112, Speech Foundation	3
	Behavioral and Social Sciences Distribution †	3
	Arts Distribution	3
	Total Credits	**17**

Apply to graduate from Montgomery College with an Associate of Art in Computer Science

Students who wish to pursue the Computer Science-Game development track must take PH161 prior to transfer

* All students must meet UMBC's culture requirement and MC's global and cultural perspectives requirement. Students should consult ARTSYS artweb.usmd.edu and the MC catalog to select an art or humanities that meets both requirements.

† Select from two different disciplines

Notes: Unless exempt, all UMBC students are required to meet a language requirement (language course at 201 level) students may begin language prior to transfer www.umbc.edu/mll/gfrs.html.

Students will need to complete the Gateway courses CMSC203 and CMSC204 with a grade of B or better and CMSC207 with a grade of C or better. Students are only permitted two attempts in courses for their major; a withdrawal is considered an attempt.

Upon enrollment, UMBC will determine the transferability of any courses not taken at MC. Students should be prepared to provide syllabi, course descriptions, exams and homework as requested.

Year Three – UMBC

	Fall Semester	Cr
	CMSC 341 Data Structures	3
	CMSC 331 Programming Languages	3
	STAT 355 Probability and Statistics	4
	Language 101	4
	PHED course Ω	0
	Total Credits	**14**

	Spring Semester	Cr
	CMSC 313 Comp Org & Assembly	3
	CMSC 441 Algorithms	3
	CMSC 4XX	3
	Science III	4
	Language 102	4
	CMSC 313 Comp Org & Assembly	3
	Total Credits	**17**

Year Four - UMBC

	Fall Semester	Cr
	CMSC 304 Social & Ethical Issues	3
	CMSC 411 Computer Architecture	3
	CMSC 421 Operating Systems Social	3
	CMSC 4XX	3
	Language 201	4
	Total Credits	**16**

	Spring Semester	Cr
	CMSC 447 Software Engineering I	3
	CMSC 4XX	3
	CMSC 4XX	3
	CMSC 4XX	3
	PHED course Ω	0
	3 credits UPLE Elective	3
	Total Credits	**15**

Ω 2 activity courses required by UMBC prior to graduation (unless 30 or older, exempted based on physical disability or a military veteran)

MC COMPUTER SCIENCE A.A. to UMBC Computer Science B.S.
Total Credits: 63, Catalog Edition 13-14

Name:	Date:	ID#	
Foundation Courses	**COURSE**	**HRS**	**GRADE**
English Foundation (ENGL102 or ENGL103)	ENGL	3	
Math Foundation	MATH181	4	
Speech Foundation (COMM108 or COMM112)	COMM	3	
Health Foundation	HLTH100	1	
Distribution Courses	**COURSE**	**HRS**	**GRADE**
Arts Distribution		3	
Humanities Distribution		3	
Arts or Humanities Distribution *		3	
Behavioral / Social Sciences Distribution †		3	
Behavioral / Social Sciences Distribution †		3	
Natural Sciences Distribution with Lab (BIOL150 or CHEM131)		4	
Natural Sciences Distribution without Lab (BIOL151 or CHEM132)		4	
Curriculum Requirements	**COURSE**	**HRS**	**GRADE**
Computer Science I	CMSC203	4	
Intro to Programming	CMSC140	3	
Computer Science II	CMSC204	4	
Intro to Discrete Structures	CMSC207	4	
Calculus II	MATH182	4	
Intro to College Writing or CMSC elective	ENGL101	3	
Computer Concepts	CMSC110	3	
Linear Algebra	MATH284	4	
Global & Cultural Perspectives Requirement: *			

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† Select from two different disciplines

Notes: Unless exempt, all UMBC students are required to meet a language requirement (language course at 201 level) some students may want to begin language study prior to transfer www.umbc.edu/mll/gfrs.html**.**

Students will need to complete the Gateway courses CMSC203 and CMSC204 with a grade of B or better and CMSC207 with a grade of C or better. Students are only permitted two attempts in courses for their major, a withdrawal is considered an attempt.

Upon enrollment, UMBC will determine the transferability of any courses not taken at MC. Students should be prepared to provide syllabi, course descriptions, exams and homework as requested.

PROGRAM ARTICULATION AGREEMENT

The following details a recommended course of study for students earning the Associate of Art degree in Computer Science at MC transferring to UMBC in pursuit of the Bachelor of Science degree in Computer Science. Where noted, course equivalencies, general education and major applicability are indicated.

Montgomery College Course Number	**Montgomery College Course Title**	**MC Credits**	**UMBC Equivalency**	**UMBC General Education Requirement**	**Notes**
General Requirements					
EN101 or CS elective (ENGL101 or CMSC elective)	Introduction to College Writing	3	LLE		EN101, if needed as EN102 pre-requisite. If not then student will take CS elective
EN102 (ENGL102) or EN109 (ENGL103)	Crit. Read/Write/Research Writing for Business and Technology	3	ENGL 100	EN	
Students will choose one of the two sequences below (Chemistry or Biology)					
CH101 (CHEM131) CH102 (CHEM132)	Principles of Chemistry I Principles of Chemistry II	4 4	CHEM101 CHEM102 +L	SL SL	Student must take CH101 and CH102 in order to receive credit for CHEM101 and CHEM 102+L
BI107 (BIOL150) BI108 (BIOL151)	Principles of Bio I Principles of Bio II	4 4	BIOL141 BIOL142	SL SL	
MA181 (MATH181)	Calculus	4	MATH 151	M	
BSSD	Behavioral and Social Sciences Distribution	3	SS	SS[1]	
BSSD	Behavioral and Social Sciences Distribution	3	SS	SS[1]	
ARTD or HUMD	Arts or Humanities				Student will be

	Distribution	3	C	C [1]	prompted to select Culture designated course
ARTD	Arts Distribution	3	AH	AH[1]	
HUMD	Humanities Distribution	3	AH	AH [1]	
SP108 (COMM108) or SP112 (COMM112)	Introduction to Human Comm Business & Professional Speech Communication	3	SPCH100	AH	
HE 100 or Any HE (HLTH100 or any HLTH)	Health Foundation	1	SS	SS [1]	HE100 Principles of Healthier Living Recommended
Total General Requirements		37			
Program Requirements					
MA182 (MATH182)	Calculus II	4	MATH 152		
MA284 (MATH284)	Linear Algebra	4	MATH 221		
CS103 (CMSC203)	Computer Science I	4	CMSC 201		
CS204 (CMSC204)	Computer Science II	4	CMSC 202		
CS256 (CMSC207)	Intro to Discrete Structures	4	CMSC 203		
CS140 (CMSC140)	Intro to Programming	3	CMSC104		
CS110 (CMSC110)	Computer Concepts	3	IS101		
Total Program Requirements		26			
		63			
Total Number of Credits Required for *Computer Science* degree		120			
Maximum Number of Transfer Credits Applied Towards *Computer Science* degree		60			
Minimum Number of		120			

Credits Remaining for Completion of 120 Credits Required for *Computer Science* degree					

Students will need to complete the Gateway courses CS103 (CMSC 201) and CS204 (CMSC 202) with a grade of B or better and CS256 (CMSC 203) with a grade of C or better. Students are only permitted two attempts in courses for their major; a withdrawal is considered an attempt.

Upon admission, UMBC will determine the transferability of any courses not taken at MC. Students should be prepared to provide syllabi, course descriptions, exams and homework as requested.

[1] These courses satisfy the general categories as indicated. To view specific course equivalency, consult ARTSYS (artweb.usmd.edu).
[2] World Language Requirement - A single language through the 201-level; exemptions based on proof of completion of Level 4 of a language in high school or results of a language proficiency exam. Students may demonstrate foreign language proficiency through other methods, see: www.umbc.edu/mll/gfrs.html. If exempt, take general electives in place of language courses, including six credits of UMBC-designated Culture courses as indicated on ARTSYS (artweb.usmd.edu).

Legend

AH	Arts/Humanities	M	Mathematics
C	Culture	PE	Physical Education
EN	English Composition	S	Science
L	Language	SL	Science (plus lab)
LLE	Lower Level Elective	SS	Social Sciences