

HARFORD COMMUNITY COLLEGE - Computer Science AS DEGREE
TOWSON UNIVERSITY 2 + 2 MB3 Bioinformatics Track

HARFORD COMMUNITY COLLEGE			TOWSON UNIVERSITY			
COURSE #	COURSE TITLE	CRS.	TU EQUIVALENCY	GenEd	COMMENTS	COURSE ID#
ENG 101	English Composition	3	ENGL 102	IA		2348
				IB	Using Information Effectively	
MATH 203	Calculus	4	MATH 273	IC		4407
				ID	Advanced Upper-Level Writing Course	
				IE	Creativity & Creative Development	
CHEM 111	General Chemistry I	4	CHEM 110	IIA		1041
CHEM 112	General Chemistry II	4	CHEM 111	IIA		1042
	Arts & Humanities	3		IIB1	Equivalency depends on choice.	
CMST 101 or EDUC 101 or HLTH 101 or HLTH 103 or HLTH 104	Speech Fundamentals or Introduction to Education or Contemporary Health Issues or Wellness Theory & Applications or Environmental Health	3	COMM 131 or ELED 201 or HLTH 101 or KNES 235 or IIB3-10T	IIB3		1221 2113 3624 4176 10434
	Arts & Humanities	3		IIC1	Arts and Humanities	
	Behavioral and Social Sciences	3		IIC2		
	Behavioral and Social Sciences	3		IIC2		
				IIC3	Cultural Plurality & Diversity	
				IID	Global Awareness	
	TOTAL GenEds	30				
CIS111	Programming Language	4	May substitute for COSC 165			
CIS 115	Fundamentals of Programming	3	COSC 175			1335
MATH 204	Calculus II	4	MATH 274			4408
BIO 120	General Biology I	4	BIOL 201			666
CSI 131	Computer Science I	4	COSC 236			1344
CSI 132	Computer Science II	4	COSC 237			1345
CIS 201	Assembly Programming Language	4	COSC 280			1349
MATH 210	Discrete Structures	3	MATH 263			4401
CIS 221	C++ Programming Language	4	COSC 236			1344
	Physical Education Elective	1	PHEA TLL			10564
	Physical Education/Fitness Elective	1	PHEA TLL			10564
	PROGRAM REQUIREMENTS	36				
	TOTAL CREDITS IN TRANSFER	66				

- 70 credit transfer maximum.
- GenEds to be completed at Towson (15 Units): **I.B, I.D, I.E, II.C.3, IID.**

Major Requirements to be completed at Towson

BIOL 309	Genetics	(4)
BIOL 409	Molecular Biology	(3)
BIOL 485	Seminar in Applied Biotechnology	(1)

CHEM 331	Organic Chemistry I	(5)
CHEM 332	Organic Chemistry II	(5)
CHEM 351	Intro Biochemistry	(3)

CIS 458	Database Management Systems	(4)
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COSC 336	Data Structures and Algorithm Analysis	(3)
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COSC 495	Independent Study in Computer Science *	(3) *Only 3 credits of Independent research are required; however, 6 credits may be counted.
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MATH 330	Intro to Statistical Methods	(4)
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MBBB 301	Bioinformatics	(4)
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MBBB 401	Advanced Bioinformatics	(3)
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MBBB 493	Seminar in Bioethics	(1)
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	General Education I.B	(3)
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	General Education ID	(3)
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	General Education IE	(3)
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	General Education IIC3	(3)
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	General Education IID	(3)
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• **Total Credits to B.S. Degree (124)**

Harford Computer Science A.S. Degree	66
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Completion of GenEd at TU	15
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Completion of Major Requirements at TU	43
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