

HARFORD COMMUNITY COLLEGE MATHEMATICS A.S. DEGREE
TOWSON UNIVERSITY APPLIED MATHEMATICS CONCENTRATION B.S. DEGREE

HARFORD COMMUNITY COLLEGE			TOWSON UNIVERSITY			
COURSE #	COURSE TITLE	Units	TU EQUIVALENCY	GenEd	COMMENTS	COURSE ID#
ENG 101	English Composition	3	ENGL 102	IA		2348
CIS 102	Intro. Information Sciences	3	COSC 111	IB		1328
MATH 203	Calculus I	4	MATH 273	IC		4407
				ID	Advanced Composition	
				IE	Creativity and Creative Development	
PHYS 203	General Physics: Mech., Part. Dynamics	3	PHYS 241	IIA		6805
PHYS 204	General Physics: Vib., Waves, Heat, Elec.	4	PHYS 242	IIA		6806
				IIA	Additional 3 credit science course is required.	
(GH)	Arts/Humanities Elective	3		IIB1	Equivalency depends on choice.	
GenEd	General Education Electives (not a GH)	3		IIB3	Equivalency depends on choice	
(GH)	Arts/Humanities Elective	3		IIC1	Equivalency depends on choice.	
(GB)	Behavioral/Social Science Elective	3		IIC2	Equivalency depends on choice.	
(GB)	Behavioral/Social Science Elective	3		IIC2	Equivalency depends on choice.	
				IIC3	Cultural Plurality & Diversity	
				IID	Global Awareness	
Total GenEd		32				
MATH 204	Calculus II	4	MATH 274			4408
MATH 210	Discrete Structures	3	MATH 263			4401
MATH 206	Calculus III	4	MATH 275			4409
MATH 217	Linear Algebra	4	MATH 265			4403
MATH 208 or PHYS 205	Elementary Differential Equations or General Physics: Elect., Light, Relativity	3 or 4	MATH 374 or PHYS 243		Content equivalent -transfers as lower-level credit. If taken, this will complete the requirements for GenEd IIA	10493 or 6807
CIS 115	Fundamentals of Programming	3	COSC 175			1335
CIS 111	C Programming Language	4	COSC TLL		Course does not have a TU equivalency.	10186
CSI 131	Computer Science I	4	COSC 236		Equivalency exception for this program.	1344
PE	Physical Education Elective	1	PHEA TLL			10564
PE	Physical Fitness Elective	1	PHEA TLL			10564
Program Requirements		31-32				
Total Harford Program Requirements		63-64				
Total Units in Transfer		63-64				

* 64 credit transfer maximum.

12-15 GenEd credits must be completed at Towson University: I.D, I.E, II.A, II.C.3 and II.D.

HCC students must complete one 3-credit Diversity course. It is recommended students select a course from the approved list on Diversity courses found in the HCC catalog.

Major Requirements to be completed at Towson (41-45 Credits)

MATH 267	Introduction to Abstract Mathematics	(4)
MATH 331	Probability	(4)
MATH 332	Mathematical Statistics	(3)
MATH 369	Introduction to Abstract Algebra	(3)
MATH 374	Differential Equations	(3) <i>(Required if not completed at HCC.)</i>
MATH 377	Mathematical Models	
Or		(3)
MATH 439	Computational Probability Models	
MATH 379	Advanced Calculus	(3)
MATH 435	Numerical Analysis	(3)
MATH 475	Complex Analysis	(3)
MATH 490	Senior Seminar in Mathematics	(3)
MATH	Upper Level Mathematics Elective	(3-4)
ELECTIVES	Application Electives	(6-8)

TOTAL CREDITS TO B.S. DEGREE (120-124)

Harford Mathematics A.S. Degree	63-64
Completion of GenEd at TU	12-15 <i>(If PHYS 205 (IIA) is completed at HCC, 12 GenEd credits are required)</i>
Major Requirements at TU	41-45