

HARFORD COMMUNITY COLLEGE- Biology A.S. Degree
TOWSON UNIVERSITY- Biological Sciences B.S. Degree - Cell & Molecular Biology Concentration

HARFORD COMMUNITY COLLEGE			TOWSON UNIVERSITY			
COURSE #	COURSE TITLE	CRS.	TU EQUIVALENCY	GenEd	COMMENTS	COURSE ID#
ENG 101	College Composition	3	ENGL 102	IA		2348
CIS 102	Intro. Information Sciences	3	CIS 115	IB		11642
MATH 109 Or MATH 203	Precalculus Mathematics Or Calculus I	4	MATH 119 Or MATH 273	IC		4381 4407
				ID	Advanced Upper-Level Writing Course	
				IE	Creativity and Creative Development	
CHEM 111	General Chemistry I	4	CHEM 110	IIA		1041
CHEM 112	General Chemistry II A	4	CHEM 111	IIA		1042
GH	Arts & Humanities	3	Depends on choice.	IIB1	Equivalency depends on choice.	
				IIB3	American Experience: Contemporary Issues	
GH	Arts & Humanities	3	Depends on choice.	IIC1		
GB	Behavioral/Social Science	3	Depends on choice.	IIC2		
GB	Behavioral/Social Science	3	Depends on choice.	IIC2		
				IIC3	Cultural Plurality & Diversity	
				IID	Global Awareness	
	TOTAL GenEds	30				
MATH 203 Or BIO 202	Calculus I Or Biodiversity (<i>BIO elective at HCC</i>)	3-4	MATH 273 Or BIOL 208			4407 11369
BIO 208	Genetics (<i>BIO elective at HCC</i>)	4	BIOL 309		Transfers as lower level credit.	11379
BIO 120	General Biology I	4	BIOL 201			666
BIO 121	General Biology II	4	BIOL 202			667
PHYS 101	Introductory Physics I	4	PHYS 211			6800
PHYS 102	Introductory Physics II	4	PHYS 212			6801
CHEM 207	Organic Chemistry I	4	CHEM 331		Transfers as lower level credit.	10134
CHEM 208	Organic Chemistry II	4	CHEM 332		Transfers as lower level credit.	10135
	Physical Education Elective	1	PHEA TLL			10564
	Physical Education/Fitness Elective	1	PHEA TLL			10564
	PROGRAM REQUIREMENTS	33-34				
	TOTAL CREDITS IN TRANSFER	63-64				

- Student must complete MATH 203 Calculus I at Harford Community College.
- **64** credit transfer maximum.
- 15 GenEd credits to be completed at Towson: I.D, I.E, II.B.3, II.C.3, and II.D.

Major Requirements to be completed at Towson for the Cell & Molecular Biology Concentration

- BIOL 204 Educational and Career Planning (1)

Breadth Courses (12-24)

- BIOL 208 Biodiversity *OR*
- BIOL 205 General Botany *AND* (3 or 8)
- BIOL 207 General Zoology

(If BIO 202 Biodiversity is not completed at HCC)

- BIOL 408 Cell Biology (4)
- BIOL 409 Molecular Biology (4)
- BIOL 213-214 Human Anatomy *AND* Physiology I, II *OR*
- BIOL 325 Animal Physiology *OR* (4-8)
- BIOL 436 Plant Physiology

Elective Courses (11-14)

- Choose one from:
BIOL 410, BIOL 312, or CHEM 356 (2)
- Choose two from:
BIOL 315, 360, 367, 403, 421, 428, CHEM 351 or MBBB 301 (6-8)
- Choose any biology elective from the list of electives in any
Biology concentration (3-4)
(If BIOL 213 completed, may be used here.)

Ancillary Courses (5-10)

- CHEM 330 Essentials of Organic Chemistry *OR* (5-10)
- CHEM 331 & CHEM 332 Organic Chemistry I, II

Total Credits to B.S. Degree (120 - 124)

Harford Biology A.S. Degree	63-64
Completion of GenEd at TU	15
Completion of Major Requirements at TU	29-45
Elective Credits at TU	0-13