

**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	CORE	COMMENTS	COURSE ID#
				1.	Towson Seminar	
ENG 101	College Composition	3	ENGL 102	2.	English Composition	2348
MATH 109 Or *MATH 203	Precalculus Mathematics Or Calculus I	4	MATH 119 MATH 273	3.	Mathematics	4381 4407
CIS 102	Intro. Information Sciences	3	CIS 115***	4.	Creativity & Creative Development	1184***
GH	Arts & Humanities (GH)	3	Depends on choice.	5.	Arts & Humanities	
GB	Behavioral/Social Science (GB)	3	Depends on choice.	6.	Social & Behavioral Sciences	
CHEM 111	General Chemistry I	4	CHEM 110 OR CHEM 131 AND CHEM 131L	7.	Biological & Physical Science w/Lab	1041 13097 13098
CHEM 112	General Chemistry II A	4	CHEM 111 OR CHEM 132 AND CHEM 132L	8.	Biological & Physical Science	1042 13099 13100
				9.	Advanced Writing Seminar	
				10.	Metropolitan Perspectives	
**GB	Behavioral/Social Science (GB)	3	Depends on choice.	11.	The United States as a Nation	
				12.	Global Perspectives	
**GH	Arts & Humanities (GH)	3	Depends on choice.	13.	Diversity & Difference	
				14.	Ethical Issues & Perspectives	
<b>Total CORE in Transfer</b>		<b>30</b>				
*MATH 203 Or BIO 202	Calculus I Or Biodiversity (BIO elective at HCC)	3-4	MATH 273 Or BIOL 208			4407 11369
BIO 208	Genetics (BIO elective at HCC)	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
<b>Program Requirements at Harford</b>		<b>33-34</b>				
<b>Total Program Requirements at Harford</b>		<b>63-64</b>				
<b>Total Credits in Transfer</b>		<b>63-64</b>				

- 64 credit transfer maximum.
- 15 Core Curriculum units must be completed at Towson University: 1, 9, 10, 12 and 14.

\*Students must complete MATH 203 Calculus I at Harford Community College.

\*\*HCC students must complete one 3-credit diversity course which appears on the "Approved List" in the HCC catalog.

\*\*\*Requires Course Directive for Core placement.

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***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*  
 BIOL 207 General Zoology (0, 3, 8)
- BIOL 408 Cell Biology (4)  
 BIOL 409 Molecular Biology (4)
- BIOL 213-214 Human Anatomy *AND* Physiology I, II  
*OR*  
 BIOL 325 Animal Physiology (4-8)  
*OR*  
 BIOL 436 Plant Physiology

*(If BIO 202 Biodiversity is completed at HCC, this requirement is satisfied.)*

**Elective Courses (11-14)**

- Choose one of the following: (2)  
 BIOL 410 or CHEM 356
- Choose two from: (6-8)  
 BIOL 315 or 318, 360, 420, 421, 428, 463,  
 CHEM 351, MBBB 301, MBBB 315
- Choose any biology elective from the list of electives in any (3-4)  
 Biology concentration  
 (If BIOL 213 and 214 completed, may use BIOL 213 here.)

<b><u>Total Credits to B.S. Degree</u></b>	<b>(120)</b>
Harford Biology A.S. Degree	63-64
Completion of Core at TU	15
Completion of Major Requirements at TU	24-29
Elective Credits at TU	2-18