

HARFORD COMMUNITY COLLEGE / TOWSON UNIVERSITY  
2 + 2- BIOLOGY A.S. DEGREE/ B.S. DEGREE in BIOLOGICAL SCIENCES  
 Effective Fall 2007 thru Summer 2010

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
				<b>ID</b>	Advanced Upper-Level Writing Course	
				<b>IE</b>	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
	Arts & Humanities	3		IIB1	Equivalency depends on choice.	
				<b>IIB3</b>	American Experience: Contemporary Issues	
	Arts & Humanities	3		IIC1	Equivalency depends on choice.	
	Behavioral/Social Science	3		IIC2	Equivalency depends on choice.	
	Behavioral/Social Science	3		IIC2	Equivalency depends on choice.	
				<b>IIC3</b>	Cultural Plurality & Diversity	
				<b>IID</b>	Global Awareness	
	<b>TOTAL GenEds</b>	<b>30</b>				
MATH 203 Or BIO	Calculus I Or Biology Elective **	4	MATH 273 Or BIOL Elective		Equivalency depends on choice.	4407
BIO	Biology Elective **	4	BIOL Elective		Equivalency depends on choice.	
BIO 120	General Biology	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</b>	<b>34</b>				
	<b>TOTAL CREDITS IN TRANSFER</b>	<b>64</b>				

- Student must complete MATH 203 Calculus I at Harford Community College.
- 70 credit transfer maximum.
- **GenEds to be completed at Towson (15 Units): I.D, I.E, II.B.3, II.C.3, and II.D.**
- Must take sufficient upper level course units to bring total taken at TU to 32 and total undergraduate credits to 120.

**\*\* Students in the Functional Biology of Animals/Pre-Professional Concentration at Towson should take BIO 103/104 (Anatomy and Physiology I and II); Students in the Organismal Biology and Ecology Concentration should take BIO 107 (Zoology) and BIO 110 (Intro Plant Sciences).**

## Major Requirements to be completed at Towson

### Biological Sciences-Cell and Molecular Biology Track

#### Core

BIOL 309	Genetics	(4)
BIOL 204	Educational and Career Planning	(1)
BIOL 208	Biodiversity	(3) Students can also take BIOL 205 & 207 to fulfill this requirement
BIOL 408	Cell Biology	(4)
BIOL 325	Animal Physiology or	
BIOL 436	Plant Physiology *	(4) *Students can also take BIOL 213/214 to fulfill the physiology requirement
BIOL 409	Molecular Biology	(3)
BIOL 486	Biology Majors Seminar	(1)
BIOL	Free Elective**	(3-4) ** Choose from any BIOL concentration
Lab Requirement ***		(2) ***Choose from BIOL 410, BIOL 312, or CHEM 356
Focused Electives ****		(6-8) **** Choose from BIOL 315, 360, 367, 403, 421, CHEM 351, or MBBB 301
Upper Level Electives +		(5-7) +Must take sufficient upper level course units to bring total taken at TU to 32 and total undergraduate course units to 120.
General Education ID		(3)
General Education IE		(3)
General Education IIB3		(3)
General Education IIC3		(3)
General Education IID		(3)

#### Total Credits to B.S. Degree (120)

Harford Biology A.S. Degree	64
Completion of GenEd at TU	15
Completion of Major Requirements at TU	31-34
Upper level Electives at TU	8-10

## Functional Biology of Animals/Pre-Professional

### Core

BIOL 309	Genetics	(4)
BIOL 204	Educational and Career Planning	(1)
BIOL 208	Biodiversity	(3) Students can also take BIOL 205 & 207 to fulfill this requirement
BIOL 408	Cell Biology or	(4)
BIOL 409	Molecular Biology	(3)
BIOL 465	Mammalian Physiology or	
BIOL 469	Comparative Animal Physiology	(4)
BIOL 486	Biology Majors Seminar	(1)
Focused Elective *		(3-4)
Free Elective		(3-4)
Upper Level Electives +		(16-19) +Must take sufficient upper level course units to bring total taken at TU to 32 and total undergraduate course units to 120.

General Education ID	(3)
General Education IE	(3)
General Education IIB3	(3)
General Education IIC3	(3)
General Education IID	(3)

### Total Credits to B.S. Degree (120)

Harford Biology A.S. Degree	64
Completion of GenEd at TU	15
Completion of Major Requirements at TU	22-25
Electives/Upper Level Electives at TU	16-19

## Biological Sciences-Organismal Biology and Ecology

### Core

BIOL 309	Genetics	(4)
BIOL 204	Educational and Career Planning	(1)
BIOL 325	BIOL 325 Animal Physiology <b>or</b>	(4) *Students can also take BIOL 213/214 to fulfill the physiology requirement
BIOL 436	Plant Physiology	(4)
BIOL 408	Cell Biology <b>or</b>	(4)
BIOL 409	Molecular Biology	(3)
BIOL 486	Biology Majors Seminar	(1)
	Organismal Elective *	(3-4) * Consult Towson University for list of approved electives.
	Ecology Elective	(4) * Consult Towson University for list of approved electives.
	Diversity Elective	(3-4) * Consult Towson University for list of approved electives.
	General Education ID	(3)
	General Education IE	(3)
	General Education IIB3	(3)
	General Education IIC3	(3)
	General Education IID	(3)

Upper Level Electives +

(15-16) +Must take sufficient upper level course units to bring total taken at TU to 32 and total undergraduate credits to 120.

### Total Credits to B.S. Degree (120)

Harford Biology A.S. Degree	64
Completion of GenEd at TU	15
Completion of Major Requirements at TU	23-26
Upper Level Electives	15-16