

HARFORD COMMUNITY COLLEGE - CHEMISTRY A.S. DEGREE  
TOWSON UNIVERSITY 2 + 2 CHEMISTRY (GENERAL TRACK)

HARFORD COMMUNITY COLLEGE			TOWSON UNIVERSITY			
COURSE #	COURSE TITLE	CRS.	TU EQUIVALENCY	GenEd	COMMENTS	COURSE ID#
ENG 101	College Composition	3	ENGL 102	IA		2348
ENG 109	Research Writing	3	ENGL 152	IB		2352
MATH 109 or MATH 203	Precalculus Mathematics or Calculus I	4	MATH 119	IC		4381 or 4408
				<b>ID</b>	<b>Advanced Upper-Level Writing Course</b>	
CMST 101	Speech Fundamentals	3	COMM 131	IE		11624
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.	
PHIL 205 Or PHIL 221	Ethics Or Business Ethics	3	PHIL 253 Or PHIL TLL	IIB3	Transfers as IIB-10T	6548 10434
				<b>IIC1</b>	<b>Arts and Humanities</b>	
PSY 101 Or SOC 101	Introduction to Psychology Or Introduction to Sociology	3	PSYC 101 Or SOCI 101	IIC2		7117 7715
PS 106	Behavioral/Social Sciences Elective	3		IIC2	Equivalency depends on choice.	6924
				<b>IIC3</b>	<b>Cultural Plurality &amp; Diversity</b>	
				<b>IID</b>	<b>Global Awareness</b>	
	<b>TOTAL GenEds</b>	<b>33</b>				
MATH 203 Or MATH 204 Or GenEd	Calculus I Or Calculus II * Or General Education Elective	3-4	MATH 273 Or MATH 274 Or GenEd Elective		GenEd placement and/or equivalency depends on choice.	4407 4408
PHYS 203 Or CIS 102	General Physics: Mech/Part Dynamics Or Intro. Information Sciences	3	PHYS 241 Or CIS 115			6805 1184
MATH 216	Statistics	4	MATH 231			4393
PHYS 101 Or PHYS 204	Introductory Physics I Or General Physics: Vib/Wave/Heat/Elec	4	PHYS 211 Or PHYS 242			6800 6806
PHYS 102 Or CIS 102	Introductory Physics II Or Intro. Information Sciences	3-4	PHYS 212 Or CIS 115			6801 1184
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
BIO 120	General Biology	4	BIOL 201			666
	Physical Education Elective	1	PHEA TLL			10564
	Physical Education/Fitness Elective	1	PHEA TLL			10564
	<b>PROGRAM REQUIREMENTS</b>	<b>31-33</b>				
	<b>TOTAL CREDITS IN TRANSFER</b>	<b>64-66</b>				

- CIS 102 must be completed at Harford Community College
- MATH 203 must be completed at Harford Community College
- \*MATH 204 is required for PHYS 203 and PHYS 204 sequence at Harford Community College
- PHYS 101/102 SEQUENCE or PHYS 203/204 sequence must be completed AT Harford Community College.
- 70 credit transfer maximum.
- GenEds to be completed at Towson (12 Units): I.D, II.C.1, II.C.3, and II.D.

**Major Requirements to be completed at Towson (44-45 Units)**

CHEM 210	Introduction to Analytical Chemistry	(4)
	2 - Science Electives	(8)
	3 - Approved 300/400 FCSM electives	(9)
CHEM 323	Inorganic Chemistry (4)	
Or		(3-4)
CHEM 351	Biochemistry I (3)	
CHEM 345	Principles of Physical Chemistry	(3)
CHEM 372	Intermediate Laboratory I	(1)
	General Electives	(16)

- **Total Credits to B.S. Degree (120-123)**

Harford Chemistry A.S. Degree	<b>64-66</b>
Completion of GenEd at TU	12
Completion of Major Requirements/General Electives	44-45