

MEMORANDUM OF UNDERSTANDING
HARFORD COMMUNITY COLLEGE & TOWSON UNIVERSITY
December 8, 2017

GEOLOGY B.S. Degree

Harford Community College, Bel Air, Maryland, and Towson University, agree to follow the articulation of courses outlined in the articulation (course equivalency) document, for completion of requirements for the Bachelor of Science degree in Geology (Attachment A), which is attached to, and incorporated by reference into, this Memorandum of Understanding (MOU). The following principles guide the operation of this MOU, with the requirements for transfer in specific curricula set forth in Attachment A.

1. Towson University will accept a maximum number of 64 credits from Harford Community College as outlined in the Attachment A. The number of transferable credits specific to this program is reflected in Attachment A.
2. Students who have completed the Associate of Science Degree in the Environmental Science – Option in Arts & Sciences program at Harford Community College may transfer into Towson University’s Geology program with junior standing provided that the student has completed all courses identified on Attachment A (which is attached to, and incorporated by reference into, this MOU) with a cumulative GPA of 2.00 or higher. Courses completed at Harford Community College with 300 or 400 level Towson University course equivalencies will transfer as lower-level credit but will satisfy course content as indicated.
3. Only courses in which a grade of C (2.00) or better is earned will apply toward the major at Towson University.
4. In accordance with the MHEC transfer policy pertaining to general education requirements, Towson University will accept the completion of Harford Community College’s general education requirements (GenEds) and students will be required to complete courses at Towson University to satisfy the remaining *University Core* requirements as shown in Attachment A.
5. Towson University recognizes college-level experiential learning gained through previous work, military and/or volunteer service or life experience. Credit for prior learning may also be established through course challenge or standardized credit by examination.
6. Harford Community College students transferring to Towson University will be given every consideration for financial aid and will be eligible to compete for academic scholarships upon entrance to Towson University subject to stated scholarship deadlines.
7. Both Harford Community College and Towson University agree to work together to facilitate the transfer of students from Harford Community College to Towson University to work cooperatively to insure the high quality of the programs at the respective

institutions. Transfer of students will be in accordance with policies and procedures of both institutions, as they may be amended from time to time.

8. This MOU will be in effect initially for ten years, beginning *fall 2017*, with a review every two years by both parties. Any revisions the parties deem necessary must be evidenced in writing and signed by the authorized officials of each institution. The MOU may be terminated by either party for due cause and after adequate notice of not less than six months is given to the other party.
9. Towson University will establish procedures to provide information on the academic progress of Harford Community College students enrolled as part of this MOU.
10. This MOU, when signed, constitutes the entire agreement between the parties and supersedes all prior agreements and understandings between the parties respecting the matter hereof.

HARFORD COMMUNITY COLLEGE AND TOWSON UNIVERSITY



Dr. Steven Thomas
Vice President for
Academic Affairs

Date 1.4.2018



Dr. Timothy Chandler
Provost and Vice-President for
Academic Affairs

Date 1/16/18

HARFORD COMMUNITY COLLEGE - ENVIRONMENTAL SCIENCE - OPTION IN ARTS & SCIENCES A.S. DEGREE
TOWSON UNIVERSITY / GEOLOGY B.S. DEGREE

HARFORD COMMUNITY COLLEGE		TOWSON UNIVERSITY				
COURSE #	COURSE TITLE	CRS	TU EQUIVALENCY	CORE	COMMENTS	COURSE ID
	WAIVED					
ENG 101	ENGLISH COMPOSITION (GE) (grade of C or better)	3	TSEM (waived) ENGL 102	1.	Towson Seminar	13192
MATH 109 OR MATH 203 *	PRECALCULUS MATHEMATICS (GM) CALCULUS I (GM)	4	MATH 119 MATH 273	2. 3.	English Composition Mathematics	2348 4381 4407
ENV 111	HUMAN ECOLOGY (GS)	3	BIOL T1L	4.	Creativity & Creative Development	10117****
GH**	ARTS & HUMANITIES (GH)	3	Depends on Choice	5.	Arts & Humanities	
GEOG 101	PHYSICAL GEOGRAPHY (GB)	3	GEOG 101	6.	Social & Behavioral Sciences	2885****
CHEM 111	GENERAL CHEMISTRY I (GL)	4	CHEM 131/L	7.	Biological & Physical Science w/Lab	13097/13098
BIO 120	GENERAL BIOLOGY I (GL)	4	BIOL 201	8. 9.	Biological & Physical Science Advanced Writing Seminar	666
GB**	BEHAVIORAL/SOCIAL SCI ELECT (GB)	3	Depends on Choice	10.	Metropolitan Perspectives	
GB**	BEHAVIORAL/SOCIAL SCI ELECT (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	
Total CORE in Transfer		33				
BIO 121	GENERAL BIOLOGY II	4	BIOL 202			667
PHYS 101 OR PHYS 203 and PHYS 200	INTRODUCTORY PHYSICS I GEN PHYS: MECHANICS & PARTICLE DYNAMICS (GS) and GENERAL PHYSICS I LAB	4	PHYS 211 PHYS 241		Satisfies required course for major at TU. Satisfies required course for major at TU. Both PHYS 203 and 200 are required to receive credit for PHYS 241 and to satisfy major requirement at TU.	6800 6805
ES 105 and ES 106***	EARTH SCIENCE & LAB (Core Elective***)	4	GEOG 121		Satisfies required course for major at TU.	3086
CHEM 112***	GENERAL CHEMISTRY II (Core Elective ***)	4	CHEM 132/132L		Satisfies required course for major at TU.	13099/13100
PHYS 102 OR PHYS 204 ***	INTRODUCTORY PHYSICS II (Core Elective***) GEN PHYS: VIBRATIONS, WAVES, HEAT, ELECTRICITY & MAGNETISM (Core Elective***)	4	PHYS 212 PHYS 242		Satisfies required course for major at TU. Satisfies required course for major at TU.	6801 6806
ENV 122***	INTR TO SOIL SCIENCE (Core Elective***)	3	GEOG T19 (319)		Satisfies elective course for major at TU; transfers as lower level credit	11706
ELECTIVE*	PROGRAM CORE ELECTIVE	3-4	Depends on Choice			
PE ELECT	PHYSICAL EDUCATION ELECTIVE	1	Depends on Choice			
Program Requirements at HCC		28				
Total Program Requirements at HCC		60-61				
Maximum Credits in Transfer		64				

64 credit transfer maximum. 9 Core Curriculum units needed at Towson University: 9. Advanced Writing Seminar 12. Global Perspectives and 14. Ethical Issues and Perspectives.

*Calculus is required for major at TU. Students who require MATH 109 (Pre-Calculus) should take MATH 203 (Calculus) as a program core elective at HCC. Students who do not require pre-calculus are recommended to take ENV 220 (Principles of Environmental Analysis I) or GEOG 204 (Intro to Geographic Information Systems) as a program core elective at HCC to satisfy an additional program elective at TU.

**One General Education course must be a diversity course (D) at HCC.

***Students should take ES 105 and ES 106; CHEM 112; ENV 122 and PHYS 102 (or PHYS 204) as program core electives at HCC to satisfy required courses and a major elective at TU.

****Requires Course Directive for Core Placement.

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CORE Requirements to be completed at Towson University (9 units):

Core 9:	Advanced Writing Seminar	3
Core 12:	Global Perspectives	3
Core 14:	Ethical Issues	3

Program Requirements to be completed at Towson University (35-54 units):

Required Geology Courses (26-31 units):

GEOL 123	Historical Geology	4
GEOL 305	Environmental Geology	4
GEOL 321	Structural Geology	4
GEOL 331	Mineralogy	4
GEOL 333	Petrology of Igneous and Metamorphic Rocks	4
GEOL 443	Sedimentology and Stratigraphy	4
GEOL 489	Introduction to Research	1
GEOL 495	Research Problems in Geology	1-2

GEOL121 *Physical Geology* 4

If student did not complete ES 105 & ES 106 as program core electives at HCC

Additional Required Courses (0-8 units):

PHYS 212	General Physics II	4
<i>If student did not take PHYS 102 or PHYS 204 as program core elective at HCC</i>		
CHEM 132	General Chemistry II	3
CHEM 132L	General Chemistry II Lab	1
<i>If student did not take CHEM 112 as program core elective at HCC</i>		

Program Electives (9-15 units)

Three additional courses are required. Students must choose from a list of electives (see current TU catalog). Two courses must be Geology courses (GEOL). Students who do not complete ENV 122 and either ENV 220 or GEOG 204 as electives at HCC may require up to five courses, of which two must be Geology courses (GEOL).

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TOTAL UNITS TO B.S. Degree	120-124
Harford A.S. Degree	60-61
Completion of Core Requirements at TU	9
Completion of Program Requirements at TU	35-54
Electives	0-16