

**DELAWARE TECHNICAL AND COMMUNITY COLLEGE
and
UNIVERSITY OF DELAWARE**

PROGRAM ARTICULATION AGREEMENT

**Associate Degree
A.A.S. Chemistry: Math Concentration**

**Baccalaureate Degree
B.S. Marine Science: Oceanography Concentration**

2021 through 2026

Associate-Baccalaureate Program Articulation Agreement

between

**Delaware Technical and Community College
and
University of Delaware
for**

**A.A.S. Chemistry: Math Concentration and/B.S. Marine Science:
Oceanography Concentration**

AGREEMENT

WHEREAS Delaware Technical and Community College (DTCC) and University of Delaware (UD) are committed to expanding educational opportunities for the citizens of the State of Delaware, and

WHEREAS the two institutions are committed to providing a smooth transition for students wishing to earn an associate degree and a baccalaureate degree, and

WHEREAS the intent of the two institutions is to avoid duplication of curricula where appropriate within articulated programs of studies, and

WHEREAS the two institutions better serve the educational growth of students and the economic development of the community through cooperative educational planning and optimal utilization of community resources,

BE IT HEREWITH RESOLVED that this agreement commits the partners to full support of an articulation process between similar academic programs offered by the two institutions.

PROVISIONS OF THE AGREEMENT

1. The institutions agree to follow the connected degree curriculums delineated in this document for the transfer of DTCC's Associate Degree Program in Chemistry with a Math Concentration and UD's Bachelor of Science Degree Program in Marine Science with an Oceanography Concentration.
2. Both institutions will cooperate toward developing, disseminating, and presenting the articulated program information to students.
3. Graduates of the DTCC program who have completed the associate degree with a cumulative grade point average of 2.0 or higher will automatically be accepted into the baccalaureate program at UD. Students will be considered for admission based on the completed work at the time of the review. DTCC will provide confirmation of degree completion upon students' final semester of coursework. Students who do not complete the degree program as outlined in the agreement may have admission based on the articulation agreement criteria rescinded, however still may be considered for regular transfer admission based on the totality of their academic record. UD reserves the right to recalculate the DTCC cumulative grade point average to account for DTCC's grade forgiveness policy when making admission decisions.
4. Students must complete the courses in the specified associate degree program herein with a grade of C or better to receive the credits for transfer. Students are expected to complete all courses outlined in the DTCC portion of the agreement at DTCC. Students who have attended a college or university other than DTCC and transferred credits to DTCC in pursuit of the associate degree program may not be admissible via the provisions of this articulation agreement. In such cases, students will be considered based on their entire academic history and not guaranteed admission to the bachelor's degree program or the course equivalencies detailed within the provisions of this agreement. Coursework taken at an institution other than DTCC may not transfer to UD as noted in the agreement. It is expected that students will complete all coursework in the UD portion of the agreement at UD. Students who previously attended UD are not eligible for admission via an articulation agreement and instead should apply for readmission consideration if wishing to re-enroll at UD.
5. Students intending to transfer should complete the UD admissions application following the third semester of their associate degree program. Students should note on their application that they are applying as part of an articulation agreement/connected degree.
6. Students are subject to all the policies and procedures of both institutions.

7. Students are subject to all specific policies pertaining to students admitted to the Marine Science Bachelor's Degree Program.
8. This articulation agreement is based on the present curricula contained in this document and it is effective for a period of five years from the date of signing by both parties.
9. Both institutions at any time may initiate changes to this articulation agreement. Both institutions reserve the right to modify the programs as deemed necessary and agree to inform the appropriate individuals of said changes. Departments will review agreements and notify the appropriate individuals at each institution of any changes by July 1 of each year the agreement is in effect. The University of Delaware will make a good faith effort to honor this articulation agreement for any Delaware Technical and Community College student who enrolls in the Chemistry: Math Concentration Associate Degree program during the five year period specified for this agreement, and graduates with the required associate degree within eight (8) years of the signing of this agreement by both parties. A student who meets these conditions must apply to the University of Delaware and be accepted in order to receive the benefits of this agreement.

CONNECTED DEGREE ANALYSIS

Matching Worksheet/Suggested Course Sequence/Bachelor's Completion

ASSOCIATE DEGREE PROGRAM A.A.S. CHEMISTRY: Math Concentration DELAWARE TECHNICAL & COMMUNITY COLLEGE		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION B.S. MARINE SCIENCE: Oceanography Concentration UNIVERSITY OF DELAWARE	
Course No./Name First Semester (fall)	CR	Course No./Name	CR	Course No./Name Fifth Semester (fall)	CR
SSC 100 First Year Seminar	1	UNIV166DE Department Elective	1	GEOL 107 Geology of Dynamic Earth	4
BIO 150 Biology I	4	BISC 207 Introductory Biology I	4	XXXX 1XX Foreign Language **	4
CHM 150 Chemical Principles I	5	CHEM 103 General Chemistry CHEM 133 General Chemistry Lab CHEM 166DE Department Elective	3 1 1	XXXX XXX Creative Arts and Humanities Breadth***	3
CIS 107 Intro to Computers/ Applications	3	CISC 166DE Department Elective	3	MAST 448 Intro to Biostats in Mar Sci	3
MAT 281 Calculus I	4	MATH 241 Analytical Geometry and Calculus A	4	XXXX XXX History and Cultural Change Breadth	3
ENG 101 Composition I*	3	ENGL 166DE- Department Elective (ENG101 + ENG102 = ENGL110)	3		
	20		20		17
Second Semester (spring)				Sixth Semester (spring)	
CHM 151 Chemical Principles II	5	CHEM 104 General Chemistry CHEM 134 General Chemistry Lab CHEM 166DE Department Elective	3 1 1	MAST 101 Marine Science Colloquium II	1
ENG 102 Composition II*	3	ENGL 166DE Department Elective (Students who successfully transfer ENG101 + ENG102 and earn the associate degree will receive an exemption for ENGL110)	3	GEOG 220 Meteorology	3
SCI 130 Introduction to Research	2	CHEM166DE Department Elective	2	MAST 382 Introduction to Ocean Science	3
PSY 121 General Psychology	3	PSYC 100 General Psychology	3	XXXX 1XX Foreign Language **	4
MAT 282 Calculus II	4	MATH 242 Analytical Geometry and Calculus B	4	MAST 406 Technical Writing for the Mar Sciences	3
				MAST 301 Junior Marine Science Seminar	1
	17		17		15
Sub-Total	37		37		32

*Beginning Fall 2021, ENG 101 will be renamed Composition I and beginning Spring 2022, ENG 102 will be renamed Composition II

A.A.S. Chemistry: Math Conc./B.S. Marine Science: Oceanography Conc.

ASSOCIATE DEGREE PROGRAM A.A.S. CHEMISTRY: Math Concentration DELAWARE TECHNICAL & COMMUNITY COLLEGE		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION B.S. MARINE SCIENCE: Oceanography Concentration UNIVERSITY OF DELAWARE	
Course No./Name Third Semester (fall)	CR	Course No./Name	CR	Course No./Name Seventh Semester (fall)	CR
CHM 240 Organic Chemistry I	4	CHEM 321 Organic Chemistry I CHEM 325 Organic Chemistry I Lab	3 1	XXXX 1XX Foreign Language **	4
CHM 250 Analytical Chemistry I	5	CHEM 120 Quantitative Chemistry CHEM 166DE Department Elective	3 2	MAST 421 Coastal Field Biology	3
PHY 205 General Physics I OR PHY 281 Physics I with Calculus (take either to transfer to UD)	4	PHYS 201 Introductory Physics I PHYS 221 Introductory Physics Lab I; OR PHYS 207 Fundamentals of Physics I PHYS 227 Fundamentals of Physics Lab I	3 1	MAST 427 Marine Biology	3
SOC 111 Sociology	3	SOCI 201 Introduction to Sociology	3	MAST 402 Physical Oceanography	3
				MAST 467 Arctic Oceanography	3
	16		16		16
Fourth Semester (spring)				Eighth Semester (spring)	
CHM 241 Organic Chemistry II	4	CHEM 322 Organic Chemistry II CHEM 326 Organic Chemistry II Lab	3 1	MAST492 Marine Environmental Studies	3
CHM 251 Analytical Chemistry II	4	CHEM 220 Quantitative Analysis CHEM 166DE Department Elective	3 1	XXXX XXX History and Cultural Change Breadth	3
PHY 206 General Physics II OR PHY 282 Physics II with Calculus (Choose based on course taken in 3 rd semester)	4	PHYS 202 Introductory Physics II PHYS 222 Introductory Physics Lab II; OR PHYS 208 Fundamentals of Physics II PHYS 228 Fundamentals of Physics Lab II	3 1	XXXX XXX Creative Arts and Humanities Breadth	3
ENG 122 Technical Writing Comm	3	ENGL410 Technical Writing	3	MAST409 The Ocean and Climate Variation	3
				MAST 646 Chemical Oceanography	3
	15		15		15
TOTAL	68		68		63
POST Associates Degree or Summer (Req'd for transfer to UD)				** If 3 courses of foreign language are not needed, free electives can be substituted	
MAT 283 Calculus III	4	MATH 243 Analytical Geometry and Calculus C	4	*** One of the breadth requirements must satisfy the Multicultural requirement	

A.A.S. Chemistry: Math Conc./B.S. Marine Science: Oceanography Conc.



CONNECTED DEGREE CURRICULUM

Suggested Course Sequence

ASSOCIATE DEGREE A.A.S. CHEMISTRY: MATH CONCENTRATION DELAWARE TECHNICAL AND COMMUNITY COLLEGE				BACHELOR'S DEGREE B.S. MARINE SCIENCE: OCEANOGRAPHY CONCENTRATION UNIVERSITY OF DELAWARE			
Semester 1 (Fall)			CR	Semester 5 (Fall)			CR
SSC	100	First Year Seminar	1	GEOL	107	Geology of Dynamic Earth	4
BIO	150	Biology I	4	XXXX	1XX	Foreign Language **	4
CHM	150	Chemical Principles I	5	XXXX	XXX	Creative Arts and Humanities Breadth***	3
CIS	107	Intro to Computers/ Applications	3	MAST	448	Intro to Biostats in Mar Sci	3
MAT	281	Calculus I	4	XXXX	XXX	History and Cultural Change Breadth	3
ENG	101	Critical Thinking & Academic Writing	3				
Semester 2 (Spring)				Semester 6 (Spring)			
CHM	151	Chemical Principles II	5	MAST	101	Marine Science Colloquium II	1
ENG	102	Composition & Research	3	GEOG	220	Meteorology	3
SCI	130	Introduction to Research	2	MAST	382	Introduction to Ocean Science	3
PSY	121	General Psychology	3	XXXX	1XX	Foreign Language **	4
MAT	282	Calculus II	4	MAST	406	Technical Writing for the Mar Sciences	3
				MAST	301	Junior Marine Science Seminar	1
Semester 3 (Fall)				Semester 7 (Fall)			
CHM	240	CHM 240 Organic Chemistry I	4	XXXX	1XX	Foreign Language **	4
CHM	250	CHM 250 Analytical Chemistry I	5	MAST	421	Coastal Field Biology	3
PHY	205 OR 281	PHY 205 General Physics I or PHY 281 Physics with Calculus (take either to transfer to UD)	4	MAST	427	Marine Biology	3
SOC	111	SOC 111 Sociology	3	MAST	402	Physical Oceanography	3
				MAST	467	Arctic Oceanography	3
Semester 4 (Spring)				Semester 8 (Spring)			
CHM	241	CHM 241 Organic Chemistry II	4	MAST	492	Marine Environmental Studies	3
CHM	251	CHM 251 Analytical Chemistry II	4	XXXX	XXX	History and Cultural Change Breadth	3
PHY	206 OR 282	General Physics II or Physics II with Calculus (Choose based on course taken in 3 rd semester)	4	XXXX	XXX	Creative Arts and Humanities Breadth	3
ENG		ENG 122 Technical Writing Comm	3	MAST	409	The Ocean and Climate Variation	3
				MAST	646	Chemical Oceanography	3
Total Credits			68				63
POST Associate Degree or Summer							
MAT 283 Calculus III			4				
Required for transfer to UD							
<ul style="list-style-type: none"> The Bachelor of Science program in Marine Science requires a minimum of 124 credits. Course sequencing may vary by semester. See your advisor. 							
For more information contact:							
Delaware Tech				University of Delaware			
Dr. Lakshmi Cyr Science Department, Stanton Campus Newark, DE: (302) 453-3791				Dr. Keeley Powell Senior Assistant Dean, College of Earth, Ocean and Environment Newark, DE: (302) 831-8062			
The articulation agreement is subject to change based on Delaware Tech and senior institution curriculum changes							08/2021

APPROVAL

This program articulation agreement is between DTCC's Associate of Applied Science Degree in Chemistry: Math Concentration and UD's Bachelor of Science Degree in Marine Science: Oceanography Concentration.

Approval is granted for a period of five years effective on the date both parties have fully executed this agreement.

This agreement may be executed in any number of counterparts and all of such counterparts shall together constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Agreement in Portable Document Format (PDF) or by facsimile transmission shall be effective as delivery of a manually executed original counterpart of this Agreement.

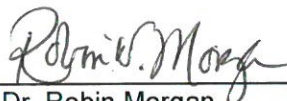
DELAWARE TECHNICAL AND COMMUNITY COLLEGE

UNIVERSITY OF DELAWARE




Dr. Mark T. Brainard
President

9/19/2021
Date




Dr. Robin Morgan
Provost

9/22/21
Date




Justina M. Thomas
Vice President for Academic Affairs

Sep 9, 2021
Date



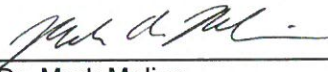
Dr. Fabrice Veron
Interim Dean, College of Earth, Ocean
and Environment

9/16/21
Date



Dr. Lakshmi Cyr
Instructional Director/Department Chair
Science Department, Stanton Campus

Sep 9, 2021
Date



Dr. Mark Moline
Director, School of Marine Science
and Policy

9/16/21
Date