

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

PROGRAM ARTICULATION AGREEMENT

**Associate Degree
Chemistry: Math Concentration**

**Baccalaureate Degree
B.S. Biochemistry**

2016 through 2021

Associate-Baccalaureate Program Articulation Agreement

between

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

for

Chemistry: Math Concentration/B.S. Biochemistry

AGREEMENT

WHEREAS Delaware Technical and Community College and University of Delaware 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 Delaware Tech's Associate Degree Program in Chemistry: Math Concentration and University of Delaware's Bachelor of Science Degree Program in Biochemistry.
2. Both educational institutions will cooperate toward developing, disseminating, and presenting the articulated program information to students.
3. Graduates of the Delaware Tech 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 University of Delaware.
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.
5. Students intending to transfer should complete the admissions application for University of Delaware following the third semester of their associate degree program.
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 Biochemistry 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. The senior institution will make a good faith effort to honor the articulation agreement in effect at the time a student is admitted to the Chemistry: Math Concentration Associate Degree Program.

CONNECTED DEGREE ANALYSIS

Matching Worksheet/Suggested Course Sequence/Bachelor's Completion

ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION	
A.A.S. CHEMISTRY: MATH CONCENTRATION DELAWARE TECHNICAL & COMMUNITY COLLEGE				B.S. BIOCHEMISTRY UNIVERSITY OF DELAWARE	
Course No./Name First Semester (fall)	CR	Course No./Name	CR	Course No./Name Fifth Semester (fall)	CR
BIO 150 Biology I	4	BISC 207 Introductory Biology I	4	CHEM 333 Organic Chemistry (Lec & Lab)	2
CHM 150 Chemical Principles I	5	CHEM 103 General Chemistry CHEM 166T Transfer Elective	4 1	CHEM 418 Physical Chemistry	3
CIS 107 Intro to Computers/Applications	3	CISC 101 Principles of Computing	3	CHEM 342 Intro to Biochemistry	3
MAT 281 Calculus I	4	MATH 241 Analytic Geometry and Calculus A	4	CHEM 641 Biochemistry	3
ENG 101 Critical Thinking & Academic Writing	3	ENGL 166T Transfer Elective (ENG 101+ENG 102= ENGL 110)	3	XXXX XXX Multicultural Course XXXX XXX Group A Course	3 3
	19		19		17
Second Semester (spring)					
CHM 151 Chemical Principles II	5	CHEM 104 General Chemistry CHEM 166T Transfer Elective	4 1	CHEM 419 Physical Chemistry CHEM 445 Physical Chemistry Lab	3 1
ENG 102 Composition & Research	3	ENGL 110 Critical Reading and Writing (ENG 101 + ENG 102 =ENGL 110)	3	CHEM 437 Instrumental Methods CHEM 438 Instrumental Methods Lab	3 1
SCI 130 Introduction to Research	2	CHEM 166T Transfer Elective	2	CHEM 642 Biochemistry	3
PSY 121 General Psychology or Choose from ECO111, ECO122,POL111, SOC111	3	PSYC 100 General Psychology or ECON 103, ECON 101, POSC 150, SOCI 201	3	XXXX XXX Group A Course	3
Bio 151 Biology II	4	BISC 208 Introductory Biology II	4		
Sub-Total	17		17		14

ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION	
A.S. CHEMISTRY: MATH CONCENTRATION DELAWARE TECHNICAL & COMMUNITY COLLEGE		B.S. BIOCHEMISTRY 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	3	CHEM 643 Intermediary Metabolism	3
CHM 250 Analytical Chemistry I	5	CHEM 325 Organic Chemistry I Lab	1	CHEM 6xx Advanced Chemistry	3
PHY 205 General Physics I or PHY 281 Physics I with Calculus	4	CHEM 120 Quantitative Chemistry	3	CHEM 465 Senior Seminar	1
SOC 111 Sociology or Choose from ECO111, ECO122, POL111, PSY121	3	CHEM 166T Transfer Elective	2	XXXX XXX Group B Course	3
		PHYS 201 Introductory Physics I or PHYS 207 Fundamentals of Physics I	4	XXXX XXX Group A, B or C Course	3
		SOCI 201 Introduction to Sociology or ECON 103, ECON 101, POSC 150, PSYC 100	3		
	16		16		13
Fourth Semester (Spring)					
CHM 241 Organic Chemistry II	4	CHEM 322 Organic Chemistry II	3	CHEM 6xx Advanced Chemistry	3
CHM 251 Analytical Chemistry II	4	CHEM 326 Organic Chemistry II Lab	1	CHEM 468 Undergrad Research (DLE)	3
PHY 282 Physics II with Calculus OR PHY 206 General Physics II	4	CHEM 220 Quantitative Analysis	3	CHEM 465 Senior Seminar	1
ENG 122 Technical Writing & Communication OR ENG 130 Honors Technical Writing & Communication	3	CHEM 221 Quantitative Analysis Lab	1	XXXX XXX Group B Course	3
		PHYS 208 Fundamentals of Physics II or PHYS 202 Introductory Physics II	4	XXXX XXX Free Elective	3
	15	ENGL 410 Technical Writing	3		
TOTAL	67		67		57



CONNECTED DEGREE CURRICULUM

Suggested Course Sequence

ASSOCIATE DEGREE				BACHELOR'S DEGREE			
A.A.S. CHEMISTRY: MATH CONCENTRATION				B.S. BIOCHEMISTRY			
DELAWARE TECHNICAL AND COMMUNITY COLLEGE				UNIVERSITY OF DELAWARE			
Semester 1 (Fall)			CR	Semester 5 (Fall)			CR
BIO	150	Biology I	4	CHEM	333	Organic Chemistry (Lec & Lab)	2
CHM	150	Chemical Principles I	5	CHEM	418	Physical Chemistry	3
CIS	107	Intro to Computers/Applications	3	CHEM	342	Intro to Biochemistry	3
MAT	281	Calculus I	4	CHEM	641	Biochemistry	3
ENG	101	Critical Thinking & Academic Writing	3	XXXX	XXX	Multicultural Course	3
				XXXX	XXX	Group A Course	3
			19				17
Semester 2 (Spring)				Semester 6 (Spring)			
CHM	151	Chemical Principles II	5	CHEM	419	Physical Chemistry	3
				CHEM	445	Physical Chemistry Lab	1
ENG	102	Composition & Research	3	CHEM	437	Instrumental Methods	3
				CHEM	438	Instrumental Methods Lab	1
SCI	130	Introduction to Research	2	CHEM	642	Biochemistry	3
PSY	121	General Psychology or Choose from ECO111, ECO122, POL111, SOC111	3	XXXX	XXX	Group A course	3
BIO	151	Biology II	4				
			17				14
Semester 3 (Fall)				Semester 7 (Fall)			
CHM	240	Organic Chemistry I	4	CHEM	643	Intermediary Metabolism	3
CHM	250	Analytical Chemistry I	5	CHEM	6XX	Advanced Chemistry	3
PHY	281	Physics I with Calculus OR	4	CHEM	465	Senior Seminar	1
PHY	205	General Physics I					
SOC	111	Sociology or Choose from ECO111, ECO122, POL111, PSY121	3	XXXX	XXX	Group B Course	3
				XXXX	XXX	Group A, B, C Course	3
			16				13
Semester 4 (Spring)				Semester 8 (Spring)			
CHM	241	Organic Chemistry II	4	CHEM	6XX	Advanced Chemistry	3
CHM	251	Analytical Chemistry II	4	CHEM	468	Undergrad Research (DLE)	3
PHY	282	Physics II with Calculus OR	4	CHEM	465	Senior Seminar	1
PHY	206	General Physics II					
ENG	122	Technical Writing & Communication OR	3	XXXX	XXX	Group B Course	3
ENG	130	Honors Technical Writing & Communication					
				XXXX	XXX	Free Elective	3
							13
Total Credits			67				57
<ul style="list-style-type: none"> The Bachelor of Science degree program in Biochemistry requires a minimum of 124 credits. Course sequencing may vary by semester. See your advisor. 							
Delaware Tech				University of Delaware			
Newark, DE: (302) 454-3965				Newark, DE: (302) 831-2465			
The articulation agreement is subject to change based on Delaware Tech and senior institution curriculum changes							10/2015

APPROVAL

This program articulation agreement is between Delaware Technical and Community College's Associate of Applied Science Degree in Chemistry: Math Concentration and University of Delaware's Bachelor of Science Degree in Biochemistry.

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

DELAWARE TECHNICAL AND COMMUNITY COLLEGE

UNIVERSITY OF DELAWARE



Dr. Mark T. Brainard, President

3/15/16

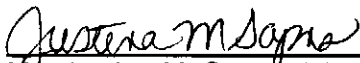
Date



Dr. Domenico Grasso, Provost

11 April 2016

Date



Ms. Justina M. Sapna, Vice President for Academic Affairs

3/11/16

Date

17 March 2016

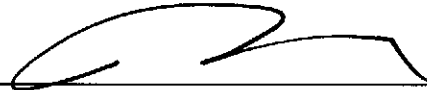
Date



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

03/14/16

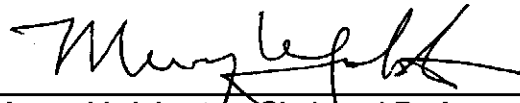
Date



Dr. Doug Doren, Senior Associate Dean for the Natural Sciences, Sam A. Rebo Professor of Chemistry and Biochemistry

3/17/16

Date



Dr. Murray V. Johnston, Chair and Professor Department of Chemistry and Biochemistry

3-16-2016

Date