

APPROVAL

This program articulation agreement is between DTCC's Associate of Applied Science Degree in Biotechnology: Biological Sciences and UD's Bachelor of Science Degree in Biological Sciences.

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

 5/22/19


Dr. Mark T. Brainard
President
Delaware Technical and Community College

Date

 7/9/2019

Dr. Robin Morgan
Provost
University of Delaware

Date

 5/22/19

Ms. Justina M. Sapna
Vice President for Academic Affairs
Delaware Technical and Community College

Date

 6/2/19

Dr. John Pelesko
Interim Dean
College of Arts and Sciences
University of Delaware

Date

 3/12/19

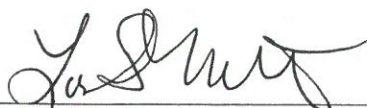
Dr. Lakshmi Cyr
Instructional Director/Chair
Biology/Chemistry/CPO
Stanton Campus
Delaware Technical and Community College

Date

 6/14/2019

Dr. Velia Fowler
Chairperson
Department of Biological Sciences
University of Delaware

Date

 3/6/19

Dr. Lori S. Maramante
Chair, Science Department
Owens Campus
Delaware Technical and Community College

Date

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

PROGRAM ARTICULATION AGREEMENT

**Associate Degree
A.A.S. Biotechnology: Biological Sciences**

**Baccalaureate Degree
B.S. Biological Sciences
Concentration in Cell & Molecular Biology and Genetics**

2018 through 2023

Associate-Baccalaureate Program Articulation Agreement

between

Delaware Technical and Community College

and

University of Delaware

for

**A.A.S. Biotechnology: Biological Sciences/B.S. Biological Sciences,
CMG 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 Biotechnology: Biological Sciences and UD's Bachelor of Science Degree Program in Biological Sciences.
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 2.5 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 Biological Sciences 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 (5) 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 Biotechnology: Biological Sciences 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. BIOTECHNOLOGY: BIOLOGICAL SCIENCES DELAWARE TECHNICAL & COMMUNITY COLLEGE		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH UNIVERSITY OF DELAWARE		BACHELOR'S DEGREE COMPLETION B.S. BIOLOGICAL SCIENCES UNIVERSITY OF DELAWARE	
Course No./Name (Summer)	CR	Course No./Name	CR		CR
CHM 110 General Chemistry	4	CHEM 101 General Chemistry	4		
	4		4		
First Semester (Fall)				Course No./Name Fifth Semester (Fall)	
SSC 100 First Year Seminar	1	UNIV 166DE Department Elective	1	MATH 221 Calculus I OR MATH 241 Analytic Geometry & Calculus A	3-4
BIO 150 Biology I	4	BISC 207 Introductory Biology I	4	BISC 305 Cell Biology	3
CHM 150 Chemical Principles I	5	CHEM 103 General Chemistry (4) and CHEM 166DE Department Elective (1)	5	BISC 3xx or higher elective	3-4
MAT 190 Pre-Calculus	4	MATH 166DE Department Elective	4	University/College Breadth in Group A	3
ENG 101 Critical Thinking and Academic Writing	3	ENGL 166DE Department Elective*	3	Foreign Language I or Free elective	3-4
	17		17		
Second Semester (Spring)				Sixth Semester (Spring)	
BIO 151 Biology II	4	BISC 208 Introductory Biology II	4	BISC 403 Genetics	3
BIO 250 Principles of Microbiology	4	BISC 300 Introduction to Microbiology	4	BISC 3XX or higher elective	3
CHM 151 Chemical Principles II	5	CHEM 104 General Chemistry (4) and CHEM 166DE Department Elective (1)	5	STAT 200 Statistics	3
ENG 102 Composition and Research	3	ENGL 166DE – Department Elective*	3	University/College Breadth in B (also multicultural course)	3
		*Students who successfully complete and transfer credit for both ENG 101/102 and earn an associate degree from DTCC will be granted an exemption for ENGL 110.		Foreign Language II or Free elective	3-4

	16		16		15-17
ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION	
A.A.S. BIOTECHNOLOGY : BIOLOGICAL SCIENCES DELAWARE TECHNICAL & COMMUNITY COLLEGE		UNIVERSITY OF DELAWARE		B.S. BIOLOGICAL SCIENCES UNIVERSITY OF DELAWARE	
Course No./Name Third Semester (fall)	CR	Course No./Name	CR	Course No./Name Seventh Semester (Fall)	CR
BIO 262 Genetics	4	BIO 262 alone = BISC 366T BIO 262 + BIO 263 = BISC 401 (3cr) + BISC 366DE (5cr)	4	BISC literature-based course	3-4
		MUST complete both courses to receive credit for BISC 401. *			
XXXX XXX Science Elective	2-5	Choose any except PHY 206 which will be taken in 4 th semester.	2-5	BISC Experimental Laboratory course	3-4
Choose from: CHM 250, CHM 251, CHM 265, PHY 206, SCI 130, RES 150 and RES 200, and RES 250.		CHM 250 = CHEM 120 CHM 251 = CHEM 220 +221 SCI 130 = CHEM 166DE RES 150/200/250 = UNIV 166DE			
CHM 240 Organic Chemistry I	4	CHEM 321 Organic Chemistry I (3cr) CHEM 325 Organic Chemistry I Lab (1cr)	4	XXXX XXX University/College Breadth course in Group A (also A&S 2 nd Writing course)	3
PHY 205 General Physics I	4	PHYS 201 Introductory Physics I	4	CHEM 527 Introduction to Biochemistry	3
XXXX XXX Social Science Elective	3	Choose any except CLT 110	3	XXXX XXX Foreign Language III or Free elective	3-4
Choose from : ECO 111, ECO 122, POL111, PSY 121, SOC 111, CLT 110		ECO 111 = ECON 103 ECO 122 – ECON 101 POL 111 = POSC 150 PSY 121 = PSYC 100 SOC 111 – SOCI 201			
	17/20		14-17		15-18

Fourth Semester (spring)		Eighth Semester (Spring)	
<p>BIO 263 Molecular Biology</p>	<p>4</p> <p>BIO 263 alone = BISC 366T BIO 262 + BIO 263 = BISC 401 (3cr) + BISC 366DE (5cr) MUST complete both courses to receive credit for BISC 401.*</p>	<p>4</p>	<p>BISC XXX Experimental Laboratory</p> <p>3-4</p>
<p>CHM 241 Organic Chemistry II</p>	<p>4</p> <p>CHEM 322 Organic Chemistry II (3cr) CHEM 326 Organic Chemistry II Lab (1cr)</p>	<p>4</p>	<p>University/College Breadth in Group B</p> <p>3</p>
<p>XXXX XXX Science Elective:</p> <p>Choose from: CHM 250, CHM 251, CHM 265, PHY 206, SCI 130, RES 150+RES 200+ RES 250</p>	<p>3-5</p> <p>Choose PHY 206 PHY 206 = PHYS 202 Introductory Physics II</p>	<p>4</p>	<p>University/College Breadth in Group A, B, or C</p> <p>3</p>
<p>XXXX XXX Social Science Elective</p> <p>Choose from: ECO 111, ECO 122, POL 111, PSY 121, SOC 111, CLT 110</p>	<p>3</p> <p>Choose any except CLT 110 ECO 111 = ECON 103 ECO 122 – ECON 101 POL 111 = POSC 150 PSY 121 = PSYC 100 SOC 111 – SOCI 201</p>	<p>3</p>	<p>Capstone course (may be in BISC or another department)</p> <p>3</p>
			<p>BISC XXX elective, as needed, to reach 43cr in BISC</p> <p>0-2</p>
	<p>14/16</p>	<p>15</p>	<p>12-15</p>
<p>TOTAL</p>	<p>68/73</p>	<p>69-72</p>	<p>57-67</p>



CONNECTED DEGREE CURRICULUM

Suggested Course Sequence

ASSOCIATE DEGREE A.A.S. BIOTECHNOLOGY: BIOLOGICAL SCIENCES DELAWARE TECHNICAL AND COMMUNITY COLLEGE				BACHELOR'S DEGREE B.S. BIOLOGICAL SCIENCES UNIVERSITY OF DELAWARE			
SUMMER			CR	Semester 5 (Fall)			CR
CHM	110	General Chemistry	4	BISC	XXX	BISC 300-level or higher elective	3-4
			4	XXXX	XXX	University/College Breadth in Group A	3
Semester 1 (Fall)				BISC	305	Cell Biology	3
SSC	100	First Year Seminar	1	XXXX	XXX	Foreign language I or Free elective	3-4
BIO	150	Biology I	4	MATH	221 or 241	Calculus I or Analytic Geometry A& Calculus A	3-4
CHM	150	Chemical Principles I	5				
MAT	190	Pre-Calculus	4				
ENG	101	Critical Thinking and Academic Writing***	3				
			17				15-18
Semester 2 (Spring)				Semester 6 (Spring)			
BIO	151	Biology II	4	BISC	403	Genetics	3
BIO	250	Principles of Microbiology	4	XXXX	XXX	Foreign language II or Free elective	3-4
CHM	151	Chemical Principles II	5	STAT	200	Statistics	3
ENG	102	Composition and Research***	3	XXXX	XXX	University/College Breadth in Group B (also multicultural requirement)	3
			16	BISC	XXX	Biology 300-level or higher elective	3
							15-16
Semester 3 (Fall)				Semester 7 (Fall)			
BIO	262	Genetics	4	BISC	XXX	Biology literature-based course	3-4
XXX	XXX	Science Elective* FOR TRANSFER TO UD: Do not choose PHY 206	2-5	BISC		Biology Experimental laboratory	3-4
CHM	240	Organic Chemistry I	4			Breadth course (second writing) A	3
PHY	205	General Physics I	4	CHEM	527	Intro Biochemistry	3
XXX	XXX	Social Science Elective** FOR TRANSFER TO UD: Do not choose CLT 110	3			Foreign language II (if necessary)	4
			17/20				16-17
Semester 4 (Spring)				Semester 8 (Spring)			
BIO	263	Molecular Biology	4			Biology Experimental laboratory	3-4
CHM	241	Organic Chemistry II	4			Biology elective (depending on progress to BISC 43 credits)	3
XXX	XXX	Science Elective* FOR TRANSFER TO UD: Choose PHY 206	4			Breadth course B	3
XXX	XXX	Social Science Elective** FOR TRANSFER TO UD: Do not choose CLT 110	3			Breadth course A, B, or C	3
			14/16			capstone course (can be BISC)	3
			68/73				15-16
							61-67
Total Credits							129/140

- The Bachelor of Science program in Biological Sciences requires a minimum of 124 credits with 43 credits in the Biological Sciences. Electives must come from a minimum of 2 of the following groups: A) Genetics, B) Molecular Biology and Biochemistry, C) Cell Biology, D) Physiology, E) Bioinformatics. Requires 5 University/College Breadth courses upon transfer to UD: 2 Group A, 2 Group B, 1 Group A, B, or C. Of these breadth courses, one from each group must be from the University Breadth lists and the remaining from the College Breadth lists. Additionally, one course must have multicultural content selected from the approved list, as well as a 2nd Writing course selected from the approved list.
- Course sequencing may vary by semester. See your advisor.
- * Choose from the following Science electives: CHM 250, CHM 251, CHM 265, SCI 130, RES 150+RES 200+RES 250
- ** Choose from the following Social Science Electives: ECO 111, ECO 122, POL 111, PSY 121, SOC 111.
- *** Students who successfully complete and transfer credit for both ENGL 101/102 and earn an associate degree from DTCC will be granted an exemption for ENGL 110. This exemption will be posted to the student record upon receipt of a final, official transcript. Note: grades of C or better are required to transfer credit to the University of Delaware.

For more information contact:

Delaware Tech

Dover, DE: (302) 857-1303
Georgetown, DE: (302) 259-6546
Newark, DE: (302) 454-3188

University of Delaware

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The articulation agreement is subject to change based on Delaware Tech and senior institution curriculum changes 12/2018