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

PROGRAM ARTICULATION AGREEMENT

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

**Baccalaureate Degree
B.S. Applied Molecular Biology and Biotechnology**

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. Applied Molecular
Biology and Biotechnology**

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 Applied Molecular Biology and Biotechnology.
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 2.80 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the degree program as outlined in the agreement may have admission based on the articulation agreement criteria rescinded, however still may be considered for regular transfer admission based on the totality of their academic record.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 Applied Molecular Biology and Biotechnology 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 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		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION	
A.A.S. BIOTECHNOLOGY: BIOLOGICAL SCIENCES DELAWARE TECHNICAL & COMMUNITY COLLEGE				B.S APPLIED MOLECULAR BIOLOGY AND BIOTECHNOLOGY UNIVERSITY OF DELAWARE	
Course No./Name (Summer)	CR	Course No./Name	CR	Course No./Name Fifth Semester (fall)	CR
CHM 110 General Chemistry	4	CHEM 101 General Chemistry	4	MEDT 301 Introduction to Biotechnology	2
	4		4		
Course No./Name First Semester (fall)	CR	Course No./Name	CR	Course No./Name	CR
SSC 100 First Year Seminar	1	UNIV 166DE Department Elective	1	MEDT 408 Molecular Prep Techniques	2
BIO 150 Biology I	4	BISC 207 Introductory Biology I	4	MEDT 425 Basic Molecular Techniques	4
CHM 150 Chemical Principles I	5	CHEM 103 General Chemistry CHEM 166DE Department Elective	4 1	XXXX XXXX Second Writing Course / Breadth (Second writing course must be taken after 45 credits are completed)	3
MAT 190 Pre-Calculus*	4	MATH 166DE Department Elective	4	MEDT 200 Medical Terminology	3
ENG 101 Critical Thinking and Academic Writing	3	ENGL 166DE Transfer Elective**	3		
	17		17		14
Second Semester (spring)				Sixth Semester (spring)	
BIO 151 Biology II	4	BISC 208 Introductory Biology II	4	MEDT426 Protein Purification & Characterization	3
BIO 250 Principles of Microbiology	4	BISC 300 Introduction to Microbiology (substitutes for MEDT 360)	4	MEDT 451 Cell & Tissue Culture Techniques	4
CHM 151 Chemical Principles II	5	CHEM 104 General Chemistry CHEM 166DE Department Elective	4 1	MEDT 491 Molecular Diagnostics	3
ENG 102 Composition and Research	3	ENGL 166DE Department Elective** Students who successfully complete both ENG 101/102 and earn an associate degree from DTCC will be granted an exemption for ENGL 110.	3	MEDT 492 Applications of Molecular Diagnostics Techniques	3
	16		16	MEDT 450 Medical Biochemistry	4
					17

Sub-Total		37		33		31
-----------	--	----	--	----	--	----

ASSOCIATE DEGREE PROGRAM A.A.S. BIOTECHNOLOGY: BIOLOGICAL SCIENCES DELAWARE TECHNICAL & COMMUNITY COLLEGE		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION B.S. APPLIED MOLECULAR BIOLOGY AND BIOTECHNOLOGY 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+ BIO 263 = BISC 401 MUST complete both courses to receive credit BIO 262 without BIO 263 = BISC 366DE 4 cr.	4	MEDT 435 Introduction to Genomics, Proteomics and Bioinformatics	3
XXX XXX Science Elective TAKE CHM 265 FOR TRANSFER TO UD	4	CHEM 214 Elementary Organic Chemistry CHEM 216 Elementary Organic Chemistry Lab	3 1	MEDT 441 Biotech Practicum I	3
CHM 240 Organic Chemistry I	4	CHEM 321 Organic Chemistry I CHEM 325 Organic Chemistry I Lab	4	MEDT442 Biotech Practicum II	3
PHY 205 General Physics I	4	PHYS 201 Introductory Physics I	4	MEDT 461 Lab Practice & Leadership I	1
XXX XXX Social Science Elective HIS 111 FOR TRANSFER TO UD	3	HIST 105 US History Pre Civil War	3	ANFS 449 Food Biotechnology	4
	19		19		14
Fourth Semester (spring)					
BIO 263 Molecular Biology	4	BIO 262 + BIO 263 = BISC 401 + BISC 366DE elective credits to total 8cr MUST complete both courses to receive credit for BISC 401; BISC 401 substitutes for MEDT 490 BIO 263 without BIO 262 = BISC 366DE 4 cr.	4	HLTH 241 Ethical Aspects of Healthcare	3
CHM 241 Organic Chemistry II	4	CHEM 322 Organic Chemistry II CHEM 326 Organic Chemistry II Lab	4	MEDT 427 Flow Cytometry I	2
XXX XXX Science Elective: PHY 206 FOR TRANSFER TO UD	4	PHYS 202 Introductory Physics II	4	MEDT 443 Biotech Practicum III	3
XXX XXX Social Science Elective Choose from: ECO 122, POL 111, PSY 121 or SOC 111	3	XXXX XXX Social & Behavioral Sciences University Breadth requirement	3	MEDT 444 Biotech Practicum IV	3
	15		14	MEDT 471 Lab Practice & Leadership II	1
				MEDT 375 Stats & Research for MLS	2
				XXXX XXX Multicultural Course	3
* If MAT 180					17



CONNECTED DEGREE CURRICULUM

Suggested Course Sequence

ASSOCIATE DEGREE A.A.S. Biotechnology: Biological Sciences DELAWARE TECHNICAL AND COMMUNITY COLLEGE				BACHELOR'S DEGREE B.S. Applied Molecular Biology & Biotechnology UNIVERSITY OF DELAWARE			
Summer			CR	Semester 5 (Fall)			CR
CHM	110	General Chemistry	4	MEDT	301	Introduction to Biotechnology	2
Semester 1 (Fall)				MEDT	408	Molecular Prep Techniques	2
SSC	100	First Year Seminar	1	MEDT	425	Basic Molecular Techniques	4
BIO	150	Biology I	4	XXXX	XXX	Second Writing Course/Breadth (Must be taken after 45 credits are completed)	3
CHM	150	Chemical Principles I	5	MEDT	200	Medical Terminology	3
MAT	190	Pre-Calculus	4				
ENG	101	Critical Thinking and Academic Writing	3				
			17				14
Semester 2 (Spring)				Semester 6 (Spring)			
BIO	151	Biology II	4	MEDT	426	Protein Purification and Characterization	3
BIO	250	Principles of Microbiology	4	MEDT	451	Cell and Tissue Culture Techniques	4
CHM	151	Chemical Principles II	5	MEDT	491	Molecular Diagnostics	3
ENG	102	Composition and Research	3	MEDT	492	Applications of Molecular Diagnostics Technique	3
				MEDT	450	Medical Biochemistry	4
			16				17
Semester 3 (Fall)				Semester 7 (Fall)			
BIO	262	Genetics	4	MEDT	435	Practical Genomics, Proteomics and Bioinformatics	3
CHM	265	Science Elective Take CHM 265 for transfer to UD	4	MEDT	441	Biotech Practicum I	3
CHM	240	Organic Chemistry I	4	MEDT	442	Biotech Practicum II	3
PHY	205	General Physics I	4	MEDT	461	Lab Practice and Leadership I	1
HIS	111	Social Science Elective TAKE HIS 111 for transfer to UD	3	ANFS	449	Food Biotechnology	4
			19				14
Semester 4 (Spring)				Semester 8 (Spring)			
BIO	263	Molecular Biology	4	HLTH	241	Ethical Aspects of Healthcare	3
CHM	241	Organic Chemistry II	4	MEDT	427	Flow Cytometry	2
PHY	206	Science Elective Take PHY 206 for transfer to UD	4	MEDT	443	Biotech Practicum III	3
XXX	XXX	Social Science Elective Take ECO 122, POL 111, PSY 121, or SOC 111 for Transfer to UD	3	MEDT	444	Biotech Practicum IV	3
				MEDT	471	Lab Practice and Leadership II	1
				MEDT	375	Stats and Research for MLS	2
				XXXX	XXX	Multicultural Course	3
			15				17
Total Credits			71				62
REQUIRED FOR TRANSFER TO UD TAKE IN SUMMER OR AFTER GRADUATION MAT 180 College Algebra (must take MAT 180 + MAT 190 to earn credit for UD's MATH 117 + MAT 166T) or MAT 153 College Mathematics and Statistics (equivalent to UD's MATH 114)			4	MEDT 444 satisfies the DLE and Capstone requirement DTCC's BIO 250 (UD BISC 300) substitutes for MEDT 360			
<ul style="list-style-type: none"> The Bachelor of Science program in Applied Molecular Biology & Biotechnology requires a minimum of 122 credits. Course sequencing may vary by semester. See your advisor. 							
For more information contact:							
Delaware Tech Dover, DE: (302) 857-1303 Georgetown, DE: (302) 259-6546 Newark, DE: (302) 454-3188				University of Delaware Dr. Esther Biswas-Fiss Chair, Department of Medical Laboratory Sciences 305 Willard Hall Education Building ebiswas@udel.edu 302/831-2912			
The articulation agreement is subject to change based on Delaware Tech and senior institution curriculum changes							04/2018

TOTAL	68/73	70	62
REQUIRED FOR TRANSFER TO UD TAKE IN SUMMER, DURING SEMESTER OR AFTER GRADUATION			
MAT 180 College Algebra or MAT 153 College Math and Statistics	4	3/1	

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 Applied Molecular Biology and Biotechnology.

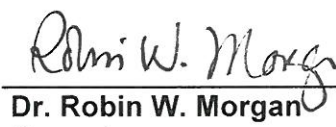
Approval is granted for a period of five years effective on the date both parties have signed this agreement.

DELAWARE TECHNICAL AND COMMUNITY COLLEGE

UNIVERSITY OF DELAWARE



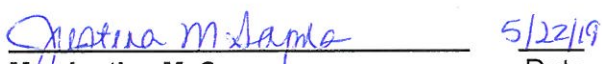
Dr. Mark T. Brainard Date
President
Delaware Technical & Community College



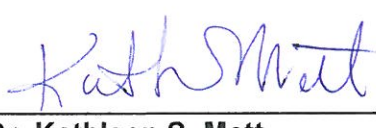
Dr. Robin W. Morgan Date
Provost

June 25, 2019

Date



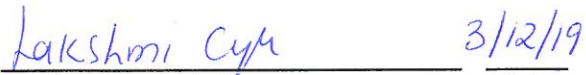
Ms. Justina M. Sapna Date
Vice President for Academic Affairs



Dr. Kathleen S. Matt Date
Dean
College of Health Sciences

6/19/19

Date



Dr. Lakshmi V. Cyr Date
Instructional Director/Chair
Biology/Chemistry/Chemical
Process Operator Department



Dr. Esther Biswas Fiss Date
Chair
Department of Medical and Molecular
Sciences

6-12-2019

Date



Dr. Lori S. Maramante Date
Chair, Science Department
Owens Campus