

**DELAWARE TECHNICAL AND COMMUNITY COLLEGE**

**and**

**UNIVERSITY OF DELAWARE**

**PROGRAM ARTICULATION AGREEMENT**

**Associate Degree**

**A.A.S. Computing and Information Science**

**Bachelor of Science Degree in Information Systems**

**Minor in Cybersecurity**

**2021 through 2026**

# **Associate-Bachelor Program Articulation Agreement**

**between**

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

**for**

**A.A.S. Computing and Information Science  
and  
B.S. Information Systems  
Cybersecurity Minor**

## **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 Bachelor 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 curricula delineated in this document for the transfer of DTCC's Associate in Applied Science degree program in Computing and Information Science and UD's Bachelor of Science in Information Systems and Cybersecurity Minor degree programs.
2. Both educational 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 3.2 or higher, a grade point average of 3.2 or higher in the CSC and CIS courses combined, and a B or better in all MAT courses will be automatically accepted into the Bachelor's degree program at UD. Those with a cumulative grade point average equal to or greater than 2.8 and less than 3.2 will be considered for admission on a space available basis. Students will be considered for admission based on the completed work at the time of review. DTCC will provide confirmation of degree completion upon student's 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, they 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 may not be admissible via the provisions of this articulation agreement. In such cases, students will be considered based on their entire academic history but will not be guaranteed admission to the Bachelor 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; instead, they 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 Bachelor of Science in Information Systems and Cybersecurity Minor degree programs.
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. At any time, both institutions 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 DTCC student who enrolls in the Computing and Information Science 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 Completion

ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION	
A.A.S. COMPUTING AND INFORMATION SCIENCE DELAWARE TECHNICAL & COMMUNITY COLLEGE		B.S. INFORMATION SYSTEMS W/ CYBERSECURITY MINOR UNIVERSITY OF DELAWARE			
Course No./Name Term 1 (fall)	CR	Course No./Name	CR	Course No./Name Term 6 (fall)	CR
CSC 114 Computer Science I	4	CISC 108 Intro to Computer Science I CISC 166DE Department Elective	3 1	ACCT 207 Accounting I	3
HIS 112 U.S. History Post-Civil War	3	HIST 106 U.S. History Since 1865 (History & Cultural Change Breadth Course)	3	CISC 361 Operating Systems (General Elective)	3
ENG 101 Composition I	3	ENGL 166DE Department Elective (ENG 101 + ENG 102 = ENGL 110 Exemption)	3	COMM 212 Public Speaking & Professional Presentation	3
XXX XXX Social Science Elective Choose 1 from: POL 111 Political Science or ECO 111 Macroeconomics or PSY 121 General Psychology or SOC 111 Sociology I	3	Social & Behavioral Sciences Breadth Course POSC 150 Intro to American Politics or ECON 103 Intro to Macroeconomics or PSYC 100 General Psychology or SOCL 201 Intro to Sociology	3	MATH 205 Statistical Methods	4
SSC 100 First Year Seminar	1	UNIV 166T Transfer Elective	1	CISC 355 Computers, Ethics and Society	3
MAT 180 College Algebra or MAT 183 Reasoning with Functions I	4 or 5	MATH 166DE Department Elective or MATH 166DE Department Elective	4 or 5		
	<b>18/19</b>		<b>18/19</b>		<b>16</b>
<b>Term 2 (spring)</b>				<b>Term 7 (spring)</b>	
CSC 164 Computer Science II	4	CISC 181 Intro to Computer Science II CISC 166DE Department Elective	3 1	ACCT 208 Accounting II	3
CSC 210 Systems Programming	3	CISC 210 Introduction to Systems Programming	3	BUAD 306 Intro to Service and Operations Mgt	3
ENG 102 Composition II	3	ENGL 166DE Department Elective (ENG 101 + ENG 102 = ENGL 110 Exemption)	3	CISC 450 Computer Networks (subs for CISC 250)	3
HIS 111 U.S. History Pre-Civil War	3	HIST 105 U.S. History to 1865	3	PHYS 208 Fundamentals of Physics II or PHYS 202 Introductory Physics II	4
MAT 190 Pre-Calculus	4	MATH 117 Pre-calculus for Scientists and Engineers	4	CISC 437 Database Systems	3
	<b>17</b>		<b>17</b>		<b>16</b>
<b>Sub-Total</b>	<b>35/36</b>		<b>35/36</b>		<b>32</b>

ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION	
A.A.S. COMPUTING AND INFORMATION SCIENCE DELAWARE TECHNICAL & COMMUNITY COLLEGE		B.S. INFORMATION SYSTEMS W/ CYBERSECURITY MINOR UNIVERSITY OF DELAWARE			
Course No./Name	CR	Course No./Name	CR	Course No./Name	CR
MAT 281 Calculus I	4	MATH 241 Analytic Geometry and Calculus A	4		
	4		4		
<b>Term 4 (fall)</b>	<b>CR</b>		<b>CR</b>	<b>Term 8 (fall)</b>	<b>CR</b>
CIS 130 Computer Organization	3	CISC 260 Machine Organization & Assembly Language (IS Elective Course 1)	3	CISC 475 Advanced Software Engineering (DLE/Capstone)	3
MAT 282 Calculus II (Choose as a Support Elective)	4	MATH 242 Analytic Geometry and Calculus B	4	BUAD 301 Introduction to Marketing or FINC 311 Principles of Finance	3
ECO 122 Microeconomics	3	ECON 101 Intro to Microeconomics (General Elective #1)	3	CPEG 494 System Hardening and Protection (General Elective)	3
CIS 211 Data Structures	4	CISC 220 Data Structures	3	MISY 430 Systems Analysis and Implementation	3
		CISC 266DE Department Elective	1	CISC 465 Intro to Cybersecurity (General Elective)	3
				XXXX XXX Choose from Cybersecurity Approved List (General Elective)	3
	14		14		18
<b>Term 5 (spring)</b>				<b>Term 9 (spring)</b>	
ENG 122 Technical Writing and Communication	3	ENGL 410 Technical Writing	3	BUAD 309 Organizational Behavior	3
CSC 214 Computer Science III	4	CISC 275 Introduction to Software Engineering	3	MISY 431 MIS Project Management	3
		CISC 266DE Department Elective	1		
PHY 281 Physics I with Calculus or PHY 205 General Physics I	4	PHYS 207 Fundamentals of Physics I or PHYS 201 Introductory Physics I	4	MISY 432 MIS Projects	3
MAT 263 Principles of Discrete Math	4	MATH 210 Discrete Math I	3	XXXX XXX IS Elective Course 2^	3
		MATH 266DE Department Elective	1	XXXX XXX Choose from Cybersecurity Approved List (General Elective)	3
				XXXX XXX Creative Arts & Humanities Breadth Course*	3
	15		15		18
<b>TOTAL</b>	<b>68/69</b>		<b>68/69</b>		<b>68</b>
				* This course must fulfill the Multicultural Course Requirement. ^ Advisor approved IS Elective course • Minimum grade of C- required for all University and College Breadth Requirements	



# CONNECTED DEGREE CURRICULUM

## Suggested Course Sequence

ASSOCIATE DEGREE A.A.S. COMPUTING AND INFORMATION SCIENCE DELAWARE TECHNICAL AND COMMUNITY COLLEGE				BACHELOR'S DEGREE B.S. Information Systems w/ Cybersecurity Minor UNIVERSITY OF DELAWARE			
Term 1 (Fall)			CR	Term 6 (Fall)			CR
CSC	114	Computer Science I	4	ACCT	207	Accounting I	3
HIS	112	U.S. History Post Civil War	3	CISC	361	Operating Systems (General Elective)	3
ENG	101	Composition I	3	COMM	212	Public Speaking & Professional Presentation	3
XXX	XXX	Social Science Elective (Choose 1: POL 111, ECO 111, PSY 121, SOC 111)	3	MATH	205	Statistical Methods	4
SSC	100	First Year Seminar	1	CISC	355	Computers, Ethics and Society	3
MAT	180 or	College Algebra or	4 or				
MAT	183	Reasoning with Functions I	5				
			<b>18/19</b>				<b>16</b>
Term 2 (Spring)				Term 7 (Spring)			
CSC	164	Computer Science II	4	ACCT	208	Accounting II	3
CSC	210	Systems Programming	3	BUAD	306	Intro to Service and Operations Management	3
ENG	102	Composition II	3	CISC	450	Computer Networks (subs for CISC 250)	3
HIS	111	U.S. History Pre-Civil War	3	PHYS or PHYS	208 or 202	Fundamentals of Physics II or Introductory Physics II	4
MAT	190	Pre-Calculus	4	CISC	437	Database Systems	3
			<b>17</b>				<b>16</b>
Term 3 (Summer)							
MAT	281	Calculus I	4				
Term 4 (Fall)				Term 8 (Fall)			
CIS	130	Computer Organization	3	CISC	475	Advanced Software Engineering (DLE/Capstone)	3
MAT	282	Calculus II (Choose as Support Elective)	4	BUAD or FINC	301 or 311	Introduction to Marketing or Principles of Finance	3
ECO	122	Microeconomics	3	CPEG	494	System Hardening and Protection (Gen Elective)	3
CIS	211	Data Structures	4	MISY	430	Systems Analysis and Implementation	3
				CISC	465	Intro to Cybersecurity (General Elective)	3
				XXXX	XXX	Choose from Cybersecurity Approved List (Gen Elective)	3
			<b>14</b>				<b>18</b>
Term 5 (Spring)				Term 9 (Spring)			
ENG	122	Technical Writing and Communication	3	BUAD	309	Organizational Behavior	3
CSC	214	Computer Science III	4	MISY	431	MIS Project Management	3
PHY	281 or 205	Physics I with Calculus or General Physics I	4	MISY	432	MIS Projects	3
MAT	263	Principles of Discrete Math	4	XXXX	XXX	IS Elective Course 2^	3
				XXXX	XXX	Choose from Cybersecurity Approved List (Gen Elective)	3
				XXXX	XXX	Creative Arts & Humanities Breadth Course*	3
			<b>15</b>				<b>18</b>
<b>Total Credits</b>			<b>68/69</b>				<b>68</b>
				* This course must fulfill the Multicultural Course Requirement. ^ Advisor approved IS Elective course • Minimum grade of C- required for all University and College Breadth Requirements.			

- The Bachelor of Science degree program in Information Systems (including Cybersecurity Minor courses) requires a minimum of 124 credits. Additional free elective credit may be needed to reach this minimum.
- Course sequencing may vary by semester. See your advisor.

<b>For more information, contact:</b>	
<b>Delaware Technical Community College</b>  Dover, DE: (302) 857-1767 Georgetown, DE: (302) 259-6489 Stanton/Wilmington, DE: (302) 434-5564	<b>University of Delaware</b>  F. Charles Shermeyer: (302) 831-8659 Dr. Adarsh Sethi: (302) 831-1945



# APPROVAL

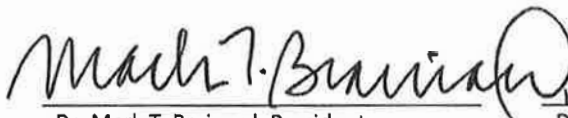
This program articulation agreement is between Delaware Technical and Community College's Associate of Applied Science Degree in Computing and Information Science and the University of Delaware's Bachelor of Science in Information Systems and Cybersecurity Minor.

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 electronically through the use of any program that meets the requirements of the Delaware Uniform Electronic Transactions Act, or other applicable law, or 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.

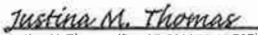
## DELAWARE TECHNICAL AND COMMUNITY COLLEGE

## UNIVERSITY OF DELAWARE

  
Date: 1/4/2022

Dr. Mark T. Brainard, President

Date

  
Justina M. Thomas (Dec 17, 2021 12:40 EST)

Dec 17, 2021

Justina M. Thomas, Vice President for Academic Affairs

Date

  
Frank Sciallo (Dec 16, 2021 14:22 EST)

Dec 16, 2021

Frank Sciallo, Department Chair, Information Technologies

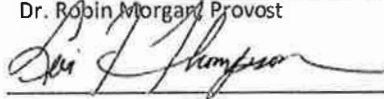
Date



Dr. Robin Morgan, Provost

3/7/2022

Date



Dr. Levi T. Thompson, Dean, College of Engineering, and Elizabeth Inez Kelley Professor, Chemical & Biomolecular Engineering

1/28/2022

Date



Dr. Rudolph Eigenmann, Chair Computer and Information Sciences

1/27/2022

Date

