DELAWARE TECHNICAL AND COMMUNITY COLLEGE

And

UNIVERSITY OF DELAWARE

PROGRAM ARTICULATION AGREEMENT

Associate Degree
A.A.S. Electrical and Computer Engineering
Transfer Option

Baccalaureate Degree
Bachelor of Computer Engineering

2021 through 2026

Associate-Baccalaureate Program Articulation Agreement
between
Delaware Technical and Community College
and
University of Delaware
for
A.A.S. Electrical and Computer Engineering Transfer Option
and
Bachelor of Computer Engineering

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's degree and a bachelor's 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.

Electrical and Computer Engineering/Computer Engineering

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 Electrical and Computer Engineering Transfer Option and UD's Bachelor of Computer Engineering.

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 2.5 or higher will automatically be accepted into the Bachelor degree program at UD. Those with a cumulative grade point average between 2.0 and 2.5 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 still may be consider 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 Bachelor of Computer Engineering 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. 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 Delaware Technical and Community College student who enrolls in the Electrical and Computer Engineering Transfer Option 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.

10. This Agreement shall apply to DTCC students who enroll in the Electrical and Computer Engineering Transfer Option degree program after January 1, 2020.

CONNECTED DEGREE ANALYSIS
Matching Worksheet/Suggested Course Sequence/Bachelor's Completion

ASSOCIATE DEGREE PROGRAM A.A.S. ELECTRICAL AND COMPUTER ENGINEERING DELAWARE TECHNICAL & COMMUNITY COLLEGE		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION BACHELOR OF COMPUTER ENGINEERING UNIVERSITY OF DELAWARE	
Course No./Name **First Semester (Fall)**	**CR**	**Course No./Name**	**CR**	**Course No./Name** **Sixth Semester (Summer)**	**CR**
CHM 150 Chemical Principles I	5	CHEM 103 General Chemistry	3	CPEG 298 ECE Design Challenges	3
		CHEM 133 General Chemistry Lab	1		
		CHEM 166DE Departmental Elective	1		
CEN 100 Intro to Electrical and Computer Engineering Technology	3	EGGG 101 Introduction to Engineering	2		3
		EGGG 166DE Departmental Elective	1		
MAT 281 Calculus I	4	MATH 241 Analytic Geometry and Calculus A	4	**Seventh Semester (Fall)**	
CSC 114 Computer Science I	4	CISC 108 Introduction to Computer Science I (CSC 114 + CEN 200 subs for CISC 106 in the major)	3	CISC 220 Data Structures	3
		CISC 166DE Departmental Elective	1		
ENG 101 Critical Thinking and Academic Writing*	3	ENGL 166DE Departmental Elective (ENG 101 + ENG 102 = ENGL 110 Exemption)	3	CPEG 323 Intro to Computer Systems EG	3
SSC 100 First Year Seminar	1	UNIV 166DE Departmental Elective	1	MATH 342 Differential Equations with Linear Algebra II	3
	20		20	ENGL XXX Written Communication Elective	3
Second Semester (Spring)				XXXX XXX Breadth Requirement Elective #3	3
PHY 281 Physics I with Calculus	4	PHYS 207 Fundamentals of Physics I	4		15
MAT 282 Calculus II	4	MATH 242 Analytic Geometry and Calculus B	4	**Eighth Semester (Spring)**	
CSC 164 Computer Science II	4	CISC 181 Introduction to Computer Science II	3	ELEG 310 Random Signals and Noise	3
		CISC 166DE Departmental Elective (which counts as Technical Elective #1)	1		
ELC 265 Introduction to Digital Systems	3	CPEG 202 Introduction to Digital Systems	3	CPEG 324 Computer Systems Design I	3
ENG 102 Composition and Research*	3	ENGL 166DE Departmental Elective (ENG 101 + ENG 102 = ENGL 110 Exemption)	3	CISC 361 Operating Systems	3
				ELEG Foundation Elective I	3
				CPEG 398 ECE Design Challenge & Entrepreneurship	3
	18		18		15

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

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ASSOCIATE DEGREE PROGRAM A.A.S. ELECTRICAL AND COMPUTER ENGINEERING DELAWARE TECHNICAL AND COMMUNITY COLLEGE		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR'S DEGREE COMPLETION BACHELOR OF COMPUTER ENGINEERING UNIVERSITY OF DELAWARE	
Course No./Name Third Semester (Summer)	CR	Course No./Name	CR	Course No./Name Ninth Semester (Fall)	CR
XXX XXX Social Science Elective	3	XXXX XXX Breadth Requirement Elective #1	3	CPEG 498 Senior Design I (DLE & Capstone)	3
				CPEG 419 Computer Communications Networks	3
				ELEG/CPEG 4XX Technical Elective #1	3
				XXXX XXX Technical Elective #2	3
				XXXX XXX Breadth Requirement Elective #4	3
	3		3		15
Fourth Semester (Fall)				**Tenth Semester (Spring)**	
PHY 282 Physics II with Calculus	4	PHYS 208 Fundamentals of Physics II	4	CPEG 499 Senior Design II	3
ELC 266 Analog Circuits I	4	ELEG 205 Analog Circuits	4	ELEG 491 Ethics and Impacts of Engineering	3
MAT 283 Calculus III	4	MATH 243 Analytic Geometry and Calculus C	4	ELEG/CPEG 4XX Technical Elective #2	3
CSC 210 Systems Programming	3	CISC 210 Introduction to Systems Programming	3	XXXX XXX Breadth Requirement Elective #5	3
CEN 200 Introduction to MATLAB	2	CISC 166DE Departmental Elective (CSC 114 + CEN 200 subs for CISC 106 in the major.)	2		12
	17		17		
Fifth Semester (Spring)					
ELC 272 Electronic Circuit Analysis I	4	ELEG 309 Electronic Circuit Analysis I	4		
MAT 292 Engineering Math I	3	MATH 351 Engineering Math I	3		
ELC 282 Signals and Systems	4	ELEG 305 Signals and Systems ELEG 366DE Departmental Elective	3 1		
ELC 275 Microprocessor Systems	4	CPEG 222 Microprocessor Systems	4		
XXX XXX Social Science Elective	3	XXXX XXX Breadth Requirement Elective #2	3		
	18		18		
GRAND TOTAL	76		76		60

Electrical and Computer Engineering/Computer Engineering

CONNECTED DEGREE CURRICULUM
Suggested Course Sequence

ASSOCIATE DEGREE A.A.S. ELECTRICAL AND COMPUTER ENGINEERING DELAWARE TECHNICAL AND COMMUNITY COLLEGE				BACHELOR'S DEGREE BACHELOR OF COMPUTER ENGINEERING UNIVERSITY OF DELAWARE			
Semester 1 (Fall)			**CR**	**Semester 6 (Summer)**			**CR**
CHM	150	Chemical Principles I	5	CPEG	298	ECE Design Challenges	3
CEN	100	Intro to Electrical and Computer Engineering Tech	3				3
MAT	281	Calculus I	4				
CSC	114	Computer Science I	4	**Semester 7 (Fall)**			
ENG	101	Critical Thinking and Academic Writing	3	CISC	220	Data Structures	3
SSC	100	First Year Seminar	1	CPEG	323	Intro to Computer Systems EG	3
			20	MATH	342	Differential Equations with Linear Algebra II	3
Semester 2 (Spring)				ENGL	XXX	Written Communication Elective	3
PHY	281	Physics I with Calculus	4	XXXX	XXX	Breadth Requirement Elective #3	3
MAT	282	Calculus II	4				15
CSC	164	Computer Science II	4	**Semester 8 (Spring)**			
ELC	265	Introduction to Digital Systems	3	ELEG	310	Random Signals & Noise	3
ENG	102	Composition and Research	3	CPEG	324	Computer Systems Design I	3
			18	CISC	361	Operating Systems	3
Semester 3 (Summer)				ELEG	XXX	Foundation Elective	3
XXX	XXX	Social Science Elective	3	CPEG	398	ECE Design & Entrepreneurship	3
			3				15
Semester 4 (Fall)				**Semester 9 (Fall)**			
PHY	282	Physics II with Calculus	4	CPEG	498	Senior Design I (DLE & Capstone)	3
ELC	266	Analog Circuits I	4	CPEG	419	Computer Communications Networks	3
MAT	283	Calculus III	4	XXXX	XXX	Technical Elective #2	3
CSC	210	Systems Programming	3	ELEG/CPEG	4XX	Technical Elective #1	3
CEN	200	Introduction to MATLAB	2	XXXX	XXX	Breadth Requirement Elective #4	3
			17				15
Semester 5 (Spring)				**Semester 10 (Spring)**			
ELC	272	Electronic Circuit Analysis I	4	CPEG	499	Senior Design II	3
MAT	292	Engineering Math I	3	ELEG	491	Ethics and Impacts of Engineering	3
ELC	282	Signals and Systems	4	ELEG/CPEG	4XX	Technical Elective #2	3
ELC	275	Microprocessor Systems	4	XXXX	XXX	Breadth Requirement Elective #5	3
XXX	XXX	Social Science Elective	3				12
			18				
		GRAND TOTAL	76				60

- The Bachelor of Computer Engineering requires a minimum of 126 credits.
- Course sequencing may vary by semester. See your advisor.
- One of the Breadth Requirement Electives must be used to satisfy the UD 3-credit Multicultural Course requirement.

For more information, contact:

Delaware Technical and Community College Electrical & Computer Engineering Dept. Terry Campus, Dover, DE: (302) 857-1303 Owens Campus, Georgetown, DE: (302) 259-6555 Stanton Campus, Newark, DE: (302) 454-3795	**University of Delaware** F. Charles Shermeyer: (302) 831-8659 Dr. Jamie Phillips: (302) 831-6699

This articulation agreement is subject to change based on Delaware Technical and Community College and University of Delaware curricula changes.

Electrical and Computer Engineering/Computer Engineering

APPROVAL

This program articulation agreement is between Delaware Technical and Community College's Associate of Applied Science Degree in Electrical and Computer Engineering Transfer Option and the University of Delaware's Bachelor of Computer Engineering.

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

Mark T Brainard 9/14/2021

Dr. Mark T. Brainard,
President
Date

Robin W. Morgan 9/27/21

Dr. Robin Morgan, Provost
Date

Justina M. Thomas
Justina M. Thomas (Sep 17, 2021 13:27 EDT)

Sep 17, 2021
Date

Justina M. Thomas, Vice President for Academic Affairs

Levi T. Thompson

9/24/2021
Date

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

Jeff Hall
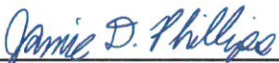Jeff Hall (Sep 14, 2021 16:32 EDT)

Sep 14, 2021
Date

Jeffrey Hall, Department Chair
Engineering Technologies
Terry Campus

Jamie D. Phillips

Sep 23, 2021
Date

Dr. Jamie D. Phillips, Chair
Electrical and Computer Engineering