

HARFORD COMMUNITY COLLEGE

and

UNIVERSITY OF DELAWARE

PROGRAM ARTICULATION AGREEMENT

**Associate of Sciences Degree
Engineering**

**Bachelor of
Civil Engineering Degree**

2021 through 2026

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2026.docx**

Associate-Baccalaureate Program Articulation Agreement

between

Harford Community College

and

University of Delaware

for

Engineering

and

Civil Engineering

AGREEMENT

WHEREAS Harford Community College (HCC) and University of Delaware (UD) are committed to expanding educational opportunities for the citizens of the State of Maryland and beyond, 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 articulated degree curricula delineated in this document for the transfer of HCC's Associate of Sciences Degree, Engineering and UD's Bachelor of Civil Engineering.
2. Both educational institutions will cooperate toward developing, disseminating, and presenting the articulated program information to students.
3. Graduates of the HCC program who have completed the Associate degree with a cumulative grade point average of 3.0 or higher will automatically be accepted into the Bachelor degree program at UD. Those with a cumulative grade point average less than 3.0 but greater than or equal to 2.75 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. HCC 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the degree program as outlined in the agreement may have admission based upon the articulation agreement criteria rescinded; however, they still may be considered for regular transfer admission based on the totality of their academic record.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 HCC cumulative grade point average to account for HCC's Repeating Courses 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 HCC portion of the agreement at HCC. Students who have attended a college or university other than HCC and transferred credits to HCC 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 but not 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 HCC 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.
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 Civil Engineering degree program.

8. This articulation agreement is based on the present curricula contained in this document and it is effective for a five-year period 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 Harford Community College student who enrolls in the Engineering 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 Associate of Sciences, Engineering HARFORD COMMUNITY COLLEGE		BACHELOR DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR DEGREE COMPLETION BACHELOR OF CIVIL ENGINEERING UNIVERSITY OF DELAWARE	
Course No./Name First Semester (Fall)	CR	Course No./Name	CR	Course No./Name Fifth Semester (Fall)	CR
ENGR 103 Introduction to Engineering Design	4	CIEG 161 Intro to Civil EG Design CIEG 166DE Departmental Elective	3 1	CIEG 301 Structural Analysis and Design	4
CHEM 111 General Chemistry I	4	CHEM 103 General Chemistry CHEM 133 General Chemistry Lab	3 1	CIEG 305 Fluid Mechanics	3
ENG 101 English Composition	3	ENGL 166DE Departmental Elective*	3	CIEG 306 Fluid Mechanics Lab	1
MATH 203 Calculus I	4	MATH 241 Analytic Geometry and Calculus A	4	CIEG 320 Soil Mechanics and Foundation Engineering	3
Physical Education Elective	1	BHAN 166DE Department Elective	1	CIEG 323 Soil Mechanics and Foundation Engineering Lab	1
				CIEG 331 Environmental Engineering	3
	16		16		15
Recommended - Winter Semester					
GB (Choose from PSY 101 or SOC 101)	3	PSYC 100 General Psychology or SOCI 201 Introduction to Sociology, respectively; Breadth Requirement Elective 1 (Social & Behavioral Science, Breadth Elective #1)	3		
Second Semester (Spring)		CR		Sixth Semester (Spring)	
ENGR 104 Statics	3	CIEG 211 Statics	3	CIEG 213 CIEG Materials Lab	1
PHYS 200 General Physics I Lab	1	PHYS 207 Fundamentals of Physics I	4	CIEG 321 Geotechnical Engineering	3

PHYS 203 General Physics: Mechanics and Particle Dynamics	3				
MATH 204 Calculus II	4	MATH 242 Analytic Geometry and Calculus B	4	Technical Elective #2	3
CMST 210 Group Communication & Leadership (GH)	3	COMM 166DE Department Elective (Will substitute for COMM212 Public Speaking and Professional Presentation)	3	CIEG 351 Transportation Engineering	3
ANTH 102 Intro to Cultural Anthropology	3	ANTH 101 Intro to Social and Cultural Anthropology (History & Cultural Change, Breadth Elective #3, Multicultural)	3	CIEG 411 Communicating w/ Stakeholders in Engineering	3
				CIEG 451 Transportation Engineering Lab	1
				CIEG 486 Engineering Project Management	3
	17		17		17

* Students who have completed ENG 101 on Harford Community College's campus with a college instructor (not via a high school dual enrollment program) and earn the Associate degree will be exempted from ENGL 110: Seminar in Composition, upon receipt of an official transcript documenting both.

ASSOCIATE DEGREE PROGRAM Associate of Sciences, Engineering HARFORD COMMUNITY COLLEGE		BACHELOR DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH		BACHELOR DEGREE COMPLETION BACHELOR OF CIVIL ENGINEERING UNIVERSITY OF DELAWARE	
Course No./Name Third Semester (Fall)	CR	Course No./Name	CR	Course No./Name Seventh Semester (Fall)	CR
ENGR 201 Dynamics	3	CIEG 311 Dynamics (Counts as Technical Elective #1)	3	CIEG 402 Introduction to Sustainability Principles in Civil Engineering	3
MATH 206 Calculus III	4	MATH 243 Analytic Geometry and Calculus C	4	CIEG 461 Senior Design (DLE/Capstone)	2
PHYS 204 General Physics: Vibration, Waves, Electricity and Magnetism	4	PHYS 208 Fundamentals of Physics II	4	Technical Elective #3	3
CSI 131 Computer Science I	4	CISC 106 General Computer Science for Engineers CISC 166DE Departmental Elective	3 1	Breadth Requirement Elective #4 (PCP)	3
				Technical Elective #4	3
				ENGL 410 Technical Writing	3
	15		15		17
Recommended - Winter Semester					
GH Elective (Choose from ART 201, ART 202, ENG 102, MUS 201)	3	ARTH 153 Introduction to Art History: Pyramids to Cathedrals; ARTH 154 Introduction to Art History: Renaissance to Modern; ENGL 280 Approaches to Literature for Non-Majors; MUSC 101 Appreciation of Music; respectively; (Creative Arts & Humanities, Breadth Elective #2)	3		
Fourth Semester (Spring)		CR		Eighth Semester (Spring)	
ENGR 202 Mechanics of Materials	3	CIEG 212 Solid Mechanics	3	CIEG 214 Construction Materials	3
ENGR 213 EG Design with 3D CAD	3	MEEG 102 Mechanical Engineering Computer-Aided Design (Will substitute for EGGG 101 Introduction to Engineering, 2 cr)	3	CIEG 315 Probability and Statistics for Engineers	3

MATH 217 Linear Algebra	4	MATH 349 Elementary Linear Algebra MATH 366DE Departmental Elective (MATH 302 + MATH 349 subs for MATH 351)	3 1	CIEG 461 Senior Design (DLE/Capstone)	2
MATH 208 Elementary Differential Equations	3	MATH 302 Ordinary Differential Equations (MATH 302 + MATH 349 subs for MATH 351)	3	Breadth Requirement Elective #5 (PCP, UL)	3
BIO 120 General Biology I OR BIO 121 General Biology II	4	BISC 207 Introductory Biology I OR BISC 208 Introductory Biology II (Satisfies Science Elective with Lab)	4	Technical Elective #5	3
				Technical Elective #6	3
	17		17		17
GRAND TOTAL	71		71		66

CONNECTED DEGREE CURRICULUM

Suggested Course Sequence

Associate of Sciences Degree Program – Engineering
Bachelor Degree Program: Civil Engineering

Semester 1 (Fall)			CR	Semester 5 (Fall)			CR
ENGR	103	Intro to Engineering Design	4	CIEG	301	Structural Analysis and Design	4
CHEM	111	General Chemistry I	4	CIEG	305	Fluid Mechanics	3
ENG	101	English Composition	3	CIEG	306	Fluid Mechanics Lab	1
MATH	203	Calculus I	4	CIEG	320	Soil Mechanics and Foundation Engineering	3
XXX	XXX	Physical Education Elective	1	CIEG	323	Soil Mechanics and Foundation Engineering Lab	1
Winter Semester				CIEG	331	Environmental Engineering	3
XXX	XXX	GB (Choose from PSY 101 or SOC 101)	3				
Semester 2 (Spring)				Semester 6 (Spring)			
ENGR	104	Statics	3	CIEG	213	CIEG Materials Lab	1
PHYS	200	General Physics I Lab	1	CIEG	321	Geotechnical Engineering	3
PHYS	203	General Physics: Mechanics & Particle Dynamics	3	XXXX	XXX	Technical Elective #2	3
MATH	204	Calculus II	4	CIEG	351	Transportation Engineering	3
ANTH	102	Intro to Cultural Anthropology	3	CIEG	411	Communicating w/ Stakeholders in Engineering	3
CMST	210	Group Communication & Leadership	3	CIEG	451	Transportation Engineering Lab	1
				CIEG	486	Engineering Project Management	3
Semester 3 (Fall)				Semester 7 (Fall)			
ENGR	201	Dynamics	3	CIEG	402	Introduction to Sustainability Principles in CIEG	3
MATH	206	Calculus III	4	CIEG	461	Senior Design (DLE/Capstone)	2
CSI	131	Computer Science I	4	XXXX	XXX	Technical Elective #3	3
PHYS	204	General Physics: Vibrations, Waves, Electricity	4	XXXX	XXX	Breadth Requirement Elective #4	3
Winter Semester				XXXX	XXX	Technical Elective #4	3
XXX	XXX	GH Elective (Choose from ART 201, ART 202, ENGL 102, MUS 201)	3	ENGL	410	Technical Writing	3
Semester 4 (Spring)				Semester 8 (Spring)			
ENGR	202	Mechanics of Materials	3	CIEG	214	Construction Materials	3
ENGR	213	EG Design with 3D CAD	3	CIEG	315	Probability and Statistics for Engineers	3
MATH	217	Linear Algebra	4	CIEG	461	Senior Design (DLE/Capstone)	2
MATH	208	Elementary Differential Equations	3	XXXX	XXX	Breadth Requirement Elective #5	3
BIO	12X	General Biology I or II	4	XXXX	XXX	Technical Elective #5	3
				XXXX	XXX	Technical Elective #6	3
GRAND TOTAL			71				66

- The Bachelor of Civil Engineering requires a minimum of 125 credits.
- Course sequencing may vary by semester. See your advisor.
- HCC's ANTH 102 satisfies the UD 3-credit Multicultural Course requirement as well as a Breadth Requirement.

For more information, contact:

Harford Community College

Lisa Ovelman, Assistant Professor
 Program Coordinator for Engineering/STEM
 4443-412-2227

University of Delaware

F. Charles Shermeyer: (302) 831-8659
 Dr. Jack Puleo: (302) 831-2440

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

APPROVAL

This program articulation agreement is between Harford Community College's Associate of Sciences - Engineering and the University of Delaware's Bachelor of Civil Engineering.

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

HARFORD COMMUNITY COLLEGE

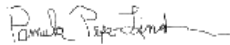


Dr. Theresa Felder, President

T. A. Sherwood

[T. A. Sherwood \(Mar 19, 2021 09:13 EDT\)](#)

Dr. Timothy Sherwood, Vice President for Academic Affairs and Chief Academic Officer



Dr. Pamela Pape-Lindstrom,
Dean for STEM

Mar 19, 2021

Date

Mar 19, 2021

Date

Mar 19, 2021

Date

UNIVERSITY OF DELAWARE



Dr. Robin Morgan, Provost

8/4/21

Date

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

Date

Dr. Jack Puleo, Chair
Civil and Environmental
Engineering

Date

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UNIVERSITY OF DELAWARE



Mar 19, 2021

Dr. Theresa Felder, President

Date

Dr. Robin Morgan, Provost

Date



Mar 19, 2021

T. A. Sherwood (Mar 19, 2021 09:13 EDT)

Dr. Timothy Sherwood, Vice President for Academic Affairs and Chief Academic Officer

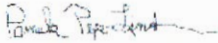
Date



July 12, 2021

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

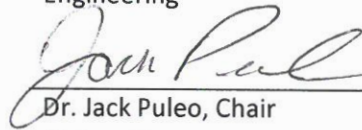
Date



Mar 19, 2021

Dr. Pamela Pape-Lindstrom, Dean for STEM

Date



Dr. Jack Puleo, Chair Civil and Environmental Engineering

7/6/2021

Date