# **CECIL COLLEGE**

and

# **UNIVERSITY OF DELAWARE**

## PROGRAM ARTICULATION AGREEMENT

Associate of Science Degree Civil Engineering Option

Bachelor of Civil Engineering Degree

2020 through 2025

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### Associate-Baccalaureate Program Articulation Agreement

### between

Cecil College and University of Delaware

for
Engineering: Civil Engineering Option
and
Civil Engineering

### **AGREEMENT**

WHEREAS Cecil College (CC) 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'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.

### PROVISIONS OF THE AGREEMENT

- 1. The institutions agree to follow the articulated degree curricula delineated in this document for the transfer of CC's Associate of Science Degree Civil Engineering Option 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 CC 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's 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. CC 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the degree program as outlined in the agreement may have admission based upon the articulation agreement criteria rescinded; however, they still may be consider for regular transfer admission based on the totality of their academic record. UD reserves the right to recalculate the CC cumulative grade point average to account for CC's Waiver of Prior Failing Grades 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 CC portion of the agreement at CC. Students who have attended a college or university other than CC and transferred credits to CC in pursuit of the Associate's 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's degree program or the course equivalencies detailed within the provisions of this agreement. Coursework taken at an institution other than CC 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 Cecil College student who enrolls in the Civil Engineering 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.

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

ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL COURSE MATCH	IAL	BACHELOR'S DEGREE COMPLETION	
Associate of Science – Civil Engineering Option CECIL COLLEGE				BACHELOR OF CIVIL ENGINEERING UNIVERSITY OF DELAWARE	
Course No./Name First Semester (Fall)	క	Course No./Name	8	Course No./Name Fifth Semester (Fall)	8
MAT 201 Calculus I w/Analytic Geometry	4	MATH 241 Analytic Geometry and Calculus A	4	CIEG 301 Structural Analysis	4
PHY 217 General Physics I w/ Lab	4	PHYS 207 Fundamentals of Physics I	4	CIEG 305 Fluid Mechanics	3
EGL 101 Freshman Composition	3	ENGL 166T (See ENGL 110 Exemption note*)	3	CIEG 306 Fluid Mechanics Lab	+
PHE 101 Introduction to Engineering Design	က	CIEG 161 Introduction to Civil Engineering Design	8	CIEG 320 Soil Mechanics	0
SPH 141 Public Speaking (Arts & Humanities Elective)	3	COMM 212 Public Speaking and Professional Presentation (See addendum for approved change)	3	CIEG 323 Soil Mechanics Lab	1
				CIEG 331 Environmental Engineering	8
	17		17	112	15
Second Semester (Spring)	S		8	Sixth Semester (Spring)	8
MAT 202 Calculus II w/Analytic Geometry	4	MATH 242 Analytic Geometry and Calculus B	4	CIEG 213 CIEG Materials Lab	1
PHE 211 Statics	3	CIEG 211 Statics	ю	CIEG 321 Geotechnical Engineering	m
BIO 130 Biological Principles I + BIO 131 Biological Principles I Lab	3	BISC 207 Introductory Biology I	4		
Or BIO 132 Biological Principles II +	m	Or BISC 208 Introductory Biology II	4	Technical Elective #2	ю
BIO 133 Biological Principles II Lab Or	1	Or			

PSC 120 Physical Geology	4	GEOL 107 Geology of Dynamic Earth	4		
CHM 103 General Chemistry I CHM 113 General Chemistry I Lab	1 3	CHEM 103 General Chemistry CHEM 133 General Chemistry Lab	3	CIEG 351 Transportation Engineering	3
XXX XXX Social Science Elective	С	XXXX XXX Social and Behavioral Sciences Breadth Requirement Elective #1	ю	CIEG 411 Communicating w/ Stakeholders in Engineering	3
				CIEG 451 Transportation Engineering Lab	1
				CIEG 486 Engineering Project Management	3
	18		18		17

\*Students who have completed EGL 101 and earn the Associate Degree will be awarded an exemption of ENGL 110: Seminar in Composition, a required course for all UD degrees.

ASSOCIATE DEGREE PROGRAM		BACHELOR'S DEGREE COURSE MATCH OR POTENTIAL	IIAL	BACHELOR'S DEGREE COMPLETION	
Associate of Science – Civil Engineering Option CECIL COLLEGE		COURSE MAICH		BACHELOR OF CIVIL ENGINEERING UNIVERSITY OF DELAWARE	
Course No./Name Third Semester (Fall)	క	Course No./Name	æ	Course No./Name Seventh Semester (Fall)	8
MAT 203 Multivariable Calculus	4	MATH 243 Analytic Geometry and Calculus C	4	CIEG 402 Introduction to Sustainability Principles in Civil Engineering	m
PHE 213 Mechanics of Materials	3	CIEG 212 Solid Mechanics	3	CIEG 461 Senior Design (DLE/Capstone)	2
CHM 104 General Chemistry II CHM 114 General Chemistry II Lab	1 3	CHEM 104 General Chemistry CHEM 134 General Chemistry Lab (subs for EGGG 101 Introduction to Engineering)	3	Technical Elective #3	м
EGL 102 Composition and Literature	ъ	ENGL 101 Tools of Textual Analysis (Creative Arts and Humanities Breadth Requirement Elective #2	3	Breadth Requirement Elective #3	м
XXX XXX Social Science Elective. Choose from: <i>EGL</i> 204, <i>EGL</i> 205, HST 101, HST 102, HST 110, HST 111, HST 201, HST 202, PHI 203	ю	XXXX XXX History & Cultural Change Breadth Requirement Elective #3	က	Breadth Requirement Elective #4	ж
				Technical Elective #4	3
	17		17		17
Fourth Semester (Spring)	8		8	Eighth Semester (Spring)	8
MAT 246 Introduction to Differential Equations	е	MATH 302 Ordinary Differential Equations (MAT 246+240, when transferred together = MATH351 Engineering Math I + 366DE Dept. Elective)	8	CIEG 214 Construction Materials	33
MAT 240 Introduction to Linear Algebra	4	MATH 349 Elementary Linear Algebra MATH 366DE Departmental Elective (MAT 246+240, when transferred together = MATH351 Engineering Math I + 366DE Dept. Elective)	m ⊣	CIEG 315 Probability and Statistics for Engineers	8
PHE 212 Dynamics	3	CIEG 311 Dynamics (Counts as Technical Elective #1)	m	CIEG 461 Senior Design (DLE/Capstone)	2

EGL 211: Technical Writing	8	ENGL 410: Technical Writing	ю	Breadth Requirement Elective #5	က
CSC 205 Committee Science		CISC 106 General Computer Science for	ю	Technical Elective #5	m
	)	Engineers			
				Technical Elective #6	3
	16		16		17
GRAND TOTAL	89		89		99

# CONNECTED DEGREE CURRICULUM Suggested Course Sequence

Associate of Science Degree Program – Civil Engineering Option Bachelor Degree Program: Civil Engineering

		Semester 1 (Fall)	CR			Semester 5 (Fall)	CR
MAT	201	Calculus I w/Analytic Geometric	4	CIEG	301	Structural Analysis	4
PHY	217	General Physics I w/ Lab	4	CIEG	305	Fluid Mechanics	3
EGL	101	Freshman Composition	3	CIEG	306	Fluid Mechanics Lab	1
PHE	101	Introduction to Engineering Design	3	CIEG	320	Soil Mechanics	3
SPH	141	Public Speaking (Arts & Humanities Elective)	3	CIEG	323	Soil Mechanics Lab	1
	-			CIEG	331	Environmental Engineering	3
		Semester 2 (Spring)				Semester 6 (Spring)	
MAT	202	Calculus II w/Analytic Geometry	4	CIEG	213	CIEG Materials Lab	1
PHE	211	Statics	3	CIEG	321	Geotechnical Engineering	3
XXX	XXX	BIO 130/131 or BIO 132/133 or PSC 120	4	XXXX	XXX	Technical Elective #2	3
СНМ	103	General Chemistry I	3	CIEG	351	Transportation Engineering	3
СНМ	113	General Chemistry I Lab	1	CIEG	411	Communicating w/ Stakeholders in Engineering	3
XXX	XXX	Social Science Elective	3	CIEG	451	Transportation Engineering Lab	1
	-			CIEG	486	Engineering Project Management	3
		Semester 3 (Fall)				Semester 7 (Fall)	
MAT	203	Multivariable Calculus	4	CIEG	402	Introduction to Sustainability Principles in CIEG	3
PHE	213	Mechanics of Materials	3	CIEG	461	Senior Design (DLE/Capstone)	2
СНМ	104	General Chemistry II	3	XXXX	XXX	Technical Elective # 3	3
CHM	114	General Chemistry III Lab	1	XXXX	XXX	Breadth Requirement Elective #3	3
GL	102	Composition and Literature	3	XXXX	XXX	Breadth Requirement Elective #4	3
KXX	XXX	Social Science Elective	3	XXXX	XXX	Technical Elective #4	3
		Semester 4 (Spring)				Semester 8 (Spring)	d teamine
MAT	246	Introduction to Differential Equations	3	CIEG	214	Construction Materials	3
ΛAT	240	Introduction to Linear Algebra	4	CIEG	315	Probability and Statistics for Engineers	3
HE	212	Dynamics	3	CIEG	461	Senior Design (DLE/Capstone)	2
GL	211	Technical Writing	3	XXXX	XXX	Breadth Requirement Elective #5	3
SC	205	Computer Science I	3	XXXX	XXX	Technical Elective #5	3
				XXXX	XXX	Technical Elective #6	3
		GRAND TOTAL	68				66

- The Bachelor of Civil Engineering requires a minimum of 125 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.

formation, contact:
University of Delaware
F. Charles Shermeyer: (302) 831-8659 Dr. Jack Puleo: (302) 831-2440

# **APPROVAL**

This program articulation agreement is between Cecil College's Associate of Science Degree – Civil Engineering Option 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.

**CECIL COLLEGE** 

UNIVERSITY OF DELAWARE

Mary Way Bolt		Rdmi W. Morge	9/23/202
Dr. Mary Way Bolt, President	Date	Dr. Robin Morgan, Provost	Date
George Orgen	4/5/2021	Sevi I Thompson	07/26/2021
Dr. Christy Dryer, Vice President of	Date	Dr. Levi T. Thompson, Dean,	Date
Academic Programs		College of Engineering, and	
		Elizabeth Inez Kelley	
		Professor, Chemical &	
		Biomolecular Engineering	
Veronica Dougherty	4/1/21	Jack A Pulso	07/26/2021
Dr. Veronica Dougherty, Dean,	Date	Dr. Jack Puleo, Chair	Date
STEM		Civil and Environmental	
		Engineering	