# CIVIL ENGINEERING, BACHELOR OF SCIENCE

## Description

Website: https://cee.unl.edu/

The Department of Civil and Environmental Engineering offers a complete undergraduate program to students on the Lincoln and Omaha campuses of the University of Nebraska. Curriculum requirements are nearly identical on both campuses. The goal is to prepare students for entry into the civil engineering profession immediately after graduation or to pursue graduatelevel studies.

The general educational objectives of the University of Nebraska–Lincoln civil engineering undergraduate program are to prepare our graduates so that, with a University of Nebraska–Lincoln BSCE degree, a few years beyond graduation, alumni will:

- Be employed in civil and environmental engineering or a closely related field; or, graduates will be pursuing an advanced degree in civil and environmental engineering or a closely related field.
- Contribute to society and address societal and environmental needs through engagement in professional, community, or service organizations.
- Agree that the civil engineering program prepared them for success in their careers in terms of knowledge and skillsets as embodied in the program and the Complete Engineer ™ Initiative.

As a professional discipline, civil engineering is closely related to the total human environment. In all professional endeavors, the civil engineer must consider ecological effects as well as the social, economic, and political needs of people. The civil engineer designs systems to control and manage our water resources to provide electric power, agricultural irrigation, flood control, recreation, water supplies, and wastewater treatment systems for our urban and industrial needs.

The civil engineer plans, designs, and constructs our transportation systems—including highways, railroads, waterways, and airports—to connect rural, urban, and industrial areas. The civil engineer also designs and constructs housing and facilities for recreational, industrial, and commercial complexes, which comprise the urban environment. It is the responsibility of civil engineering to minimize air, water, and land pollution and protect the environment.

Instructional emphasis is placed on fundamental engineering principles derived from mathematics, chemistry, physics, and engineering science. These subjects provide a sound background for the subsequent introductory courses in environmental, geotechnical, structural, transportation, and water resources engineering. Students are introduced to design concepts in the freshman year. Design is incorporated throughout the curriculum that culminates in two senior-level courses, CIVE 401 (https:// nextcatalog.unl.edu/search/?P=CIVE%20401) Civil Engineering Design I and CIVE 402 (https://nextcatalog.unl.edu/search/?P=CIVE%20402) Civil Engineering Design II.

Instructional laboratories in environmental engineering, hydraulics, geotechnical engineering, structures, and surveying provide each student with an opportunity to learn, through individual participation, the operation of the testing equipment used to establish engineering design criteria and to monitor and model engineering facilities such as water and wastewater treatment plants, river control systems, and structural systems.

The Department of Civil and Environmental Engineering also offers a major and a minor in Environmental Engineering.

#### **Learning Outcomes**

Graduates of the civil engineering program will have:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. An ability to communicate effectively with a range of audiences.
- 4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- 7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The above student outcomes have been approved by the ABET Engineering Area Delegation for use beginning with the 2019-20 academic year, and have been adopted by the faculty of the Department of Civil and Environmental Engineering.

#### Criteria for Professional Admission to the Civil Engineering Degree Program

Students are expected to meet minimum college entrance requirements. After being admitted to the college as pre-civil engineering students, students wishing to pursue a degree in civil engineering must further be admitted to the degree program. Students who have completed 43 credit hours applicable to their civil engineering degree are considered for formal admission to the civil engineering degree program. Transfer students must have at least 12 credit hours of coursework from the University of Nebraska–Lincoln on record before an application will be considered. Students must receive a grade of C or better in the following classes to be professionally admitted to the civil engineering program:

CHEM 1180 General Chemistry I and CHEM 1184 General Chemistry I Laboratory ;

MATH 1950 Calculus I , MATH 1960 Calculus II , and MATH 2350 Differential Equations ;

CIST 1600 Introduction to Programming Using Practical Scripting;

PHYS 2110 General Physics I; and

MECH 223 Engineering Statics , and MECH 325 Mechanics of Elastic Bodies

#### PLEASE NOTE:

This document represents a SAMPLE 4-year plan for degree completion with this major. Actual course selection and sequence may vary and should be discussed individually with your college or department academic advisor. Advisors also can help you plan other experiences to enrich your undergraduate education such as internships, education abroad, undergraduate research, learning communities, and service learning and community-based learning.

Course	Title	Credits
First Semester		
CIVE 101	INTRODUCTION TO CIVIL ENGINEERING	3
	(This fulfills the ENGR 10 requirement)	

CUEN4 1100		
CHEM 1180	GENERAL CHEMISTRY I (Students must receive a "C" or better in this course.)	3
CHEM 1184	GENERAL CHEMISTRY I LABORATORY	1
MATH 1950	CALCULUS I (Students must receive a "C" or better in this course.)	5
MATH 1950 becor not completed by compng MATH 19 your degree.	nes critical to your success in the major if the end of the first term of enrollment. Not 50 in the first term can delay completion of	
ACE 2 Communication	on Skills Elective <sup>See note below</sup>	3
	Credits	15
Second Semester		
CIVE 102	GEOMATICS FOR CIVIL ENGINEERING	3
	USING PRACTICAL SCRIPTING (Students must receive a "C" or better in this course.)	3
PHYS 2110	GENERAL PHYSICS I - CALCULUS LEVEL (Students must receive a "C" or better in this course.)	4
PHYS 2110 becom not completed by Not completing Pl completion of you	nes critical to your success in the major if the end of the second term of enrollment. HYS 2110 in the second term can delay r degree.	
MATH 1960	CALCULUS II (Students must receive a "C" or better in this course.)	4
MATH 1960 becor not completed by Not completing M completion of you	nes critical to your success in the major if the end of the second term of enrollment. ATH 1960 in the second term can delay r degree.	
ACE 1 Writing Electiv	e	3
Third Compositor	Credits	17
Third Semeseter		<b>17</b>
Third Semeseter CIVE 201 MECH 223	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must	17 2 3
Third Semeseter CIVE 201 MECH 223	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.)	<b>17</b> 2 3
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree.	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion	<b>17</b> 2 3
Third Semeseter CIVE 201 MECH 223 MECH 223 become not completed by completing MECH of your degree. PHYS 2120	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194)	<b>17</b> 2 3 4
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) es critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III	<b>17</b> 2 3 4 4
Third Semeseter CIVE 201 MECH 223 MECH 223 become not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Elector	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below	<b>17</b> 2 3 4 4 3
Third Semeseter CIVE 201 MECH 223 MECH 223 become not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR	17 2 3 4 4 3 0
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits	17 2 3 4 4 3 0 16
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits CIVIL ENCINEERING ANALYSIS II	17 2 3 4 4 3 0 16
Third Semeseter CIVE 201 MECH 223 MECH 223 become not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20 Fourth Semester CIVE 202 CIVE 371	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits CIVIL ENGINEERING ANALYSIS II Materials of Construction	17 2 3 4 4 3 0 16 2 2 3
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20 Fourth Semester CIVE 202 CIVE 371 MECH 325	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) res critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits CIVIL ENGINEERING ANALYSIS II Materials of Construction MECHANICS OF ELASTIC BODIES	17 2 3 4 4 3 0 16 2 3 3
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20 Fourth Semester CIVE 202 CIVE 371 MECH 325	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) rescritical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits CIVIL ENGINEERING ANALYSIS II Materials of Construction MECHANICS OF ELASTIC BODIES (Students must receive a "C" or better in this course.)	17 2 3 4 4 3 0 16 2 3 3 3
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20 Fourth Semester CIVE 202 CIVE 371 MECH 325 MECH 325 becom not completed by Not completing M completion of you	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) es critical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits CIVIL ENGINEERING ANALYSIS II Materials of Construction MECHANICS OF ELASTIC BODIES (Students must receive a "C" or better in this course.) es critical to your success in the major if the end of the fourth term of enrollment. IECH 325 in the fourth term can delay r degree.	17 2 3 4 4 3 0 16 2 3 3 3
Third Semeseter CIVE 201 MECH 223 MECH 223 becom not completed by completing MECH of your degree. PHYS 2120 MATH 1970 ACE 5 Humanities Ele ENGR 20 Fourth Semester CIVE 202 CIVE 371 MECH 325 becom not completed by Not completing M completion of you	Credits CIVIL ENGINEERING ANALYSIS I ENGINEERING STATICS (Students must receive a "C" or better in this course.) rescritical to your success in the major if the end of the third term of enrollment. Not 223 in the third term can delay completion GENERAL PHYSICS-CALCULUS LEVEL (or CHEM 1190 and CHEM 1194) CALCULUS III ective See note below SOPHOMORE ENGINEERING SEMINAR Credits CIVIL ENGINEERING ANALYSIS II Materials of Construction MECHANICS OF ELASTIC BODIES (Students must receive a "C" or better in this course.) rescritical to your success in the major if the end of the fourth term of enrollment. ECH 325 in the fourth term can delay r degree. ENGINEERING DYNAMICS	17 2 3 4 4 3 0 16 2 3 3 3 3 3

ACE 6 Social Science Elective See note below 3		
	Credits	17
Fifth Semester		
CIVE 301	CIVIL ENGINEERING SYNTHESIS I	1
CIVE 310	FLUID MECHANICS	3
CIVE 310L	HYDRAULICS LAB	1
CIVE 341	STRUCTURAL ANALYSIS FUNDAMENTALS	3
CIVE 342	STRUCTURAL DESIGN FUNDAMENTALS	1
CIVE 361	PRINCIPLES OF TRANSPORTATION ENGINEERING	3
STAT 3800	APPLIED ENGINEERING PROBABILITY AND STATISTICS	3
CIVE 310, CIVE 310	DL, CIVE 341, CIVE 342, and CIVE 361	
become critical to y by the end of the fit CIVE 310, CIVE 310	your success in the major if not completed fth term of enrollment. Not completing DL, CIVE 341, and CIVE 361 in the fifth	
term can delay con	npletion of your degree.	
	Credits	15
Sixth Semester		
CIVE 302	CIVIL ENGINEERING SYNTHESIS II	1
CIVE 321	PRINCIPLES OF ENVIRONMENTAL ENGINEERING	3
CIVE 321L	ENVIRONMENTAL ENGINEERING LABORATORY	1
CIVE 331	INTRODUCTION TO GEOTECHNICAL ENGINEERING	4
CIVE 351	INTRODUCTION TO WATER RESOURCES ENGINEERING	3
ACE 7 Arts Elective See	e note below	3
CIVE 321, CIVE 32 critical to your succ the end of the sixth CIVE 321, CIVE 32 term can delay con	IL, CIVE 331, and CIVE 351 become cess in the major if not completed by term of enrollment. Not completing IL, CIVE 331, and CIVE 351 in the sixth npletion of your degree.	
	Credits	15
Seventh Semester		
CIVE 401	CIVIL ENGINEERING DESIGN I	3
CIVE Depth Elective (E	nvironmental and Water)	3
Choose 1 from CIV CIVE 452	E 420, CIVE 425, CIVE 427, CIVE 419,	
Science Elective		4
BIOL 1020 or BIOL PHYS 1354) or (GEC and CHEM 2214)	1450 or GEOL 1170 or (PHYS 1350 and DG 3510 and GEOG 3514) or (CHEM 2210	
Technical Elective		3
Work with your adv	visor to correctly select this elective.	
ACE 8 Ethics Elective	See note below	3
	Credits	16
Eighth Semester		
CIVE 402	CIVIL ENGINEERING DESIGN II	3
CIVE Depth Elective (C Transportation)	Seotech/Materials, Structures, and	3
Choose 1 from CIV CIVE 463	E 436, CIVE 440, CIVE 441, CIVE 462,	
CIVE Depth Elective (C another requirement	Choose one that was not used to fulfill	3
CIVE 419, CIVE 420 CIVE 440, CIVE 44	D, CIVE 425, CIVE 427, CIVE 436, 1, CIVE 462, CIVE 463	
Technical Elective		3

Work with your advisor to correctly select this elective	
ACE 9 Global Awareness and Human Diversity Elective See note below	3
Credits	15

126

NOTE: List of approved ACE courses offered on the Omaha campus (https://tes.collegesource.com/publicview/ TES\_publicview03\_group\_report.aspx?sid=12214&rid=1d4a5187e01b-4f1f-aaa6-b0040e957167&aid=e4ff42df-9ddc-4416a5dd-18e971d1c0e4&cgrid=5508)

**Total Credits** 

For more information, call 402-554-2462 or visit www.engineering.unl.edu/ civil/ (http://www.engineering.unl.edu/civil/)

### **Major Requirements** Requirements for the Degree of Bachelor of Science in Civil Engineering

The BS degree in civil engineering is offered on both the Lincoln and Omaha campuses. Degree Requirements - 126 hours

Code	Title	Credits
CIVIL ENGINEERING	CORE	
CIVE 101	INTRODUCTION TO CIVIL ENGINEERING	3
	(This fulfills the ENGR 10 requirement.)	
CIVE 102	GEOMATICS FOR CIVIL ENGINEERING	3
CIVE 201	CIVIL ENGINEERING ANALYSIS I	2
CIVE 202	CIVIL ENGINEERING ANALYSIS II	2
CIVE 301	CIVIL ENGINEERING SYNTHESIS I	1
CIVE 302	CIVIL ENGINEERING SYNTHESIS II	1
CIVE 401	CIVIL ENGINEERING DESIGN I	3
CIVE 402	CIVIL ENGINEERING DESIGN II	3
Credit Hours Subtotal		18
CIVIL ENGINEERING	BREADTH	
CIVE 310	FLUID MECHANICS	3
CIVE 310L	HYDRAULICS LAB	1
CIVE 321	PRINCIPLES OF ENVIRONMENTAL ENGINEERING	3
CIVE 321L	ENVIRONMENTAL ENGINEERING LABORATORY	1
CIVE 331	INTRODUCTION TO GEOTECHNICAL ENGINEERING	4
CIVE 341	STRUCTURAL ANALYSIS FUNDAMENTALS	3
CIVE 342	STRUCTURAL DESIGN FUNDAMENTALS	1
CIVE 351	INTRODUCTION TO WATER RESOURCES ENGINEERING	3
CIVE 361	PRINCIPLES OF TRANSPORTATION ENGINEERING	3
CIVE 371	MATERIALS OF CONSTRUCTION	3
Credit Hours Subtotal		25
CIVIL ENGINEERING	DEPTH ELECTIVES	
Depth Electives in Envi Engineering	ronmental and Water Resources	3
Choose one from:		
CIVE 420	ENVIRONMENTAL ENGINEERING PROCESS DESIGN	
CIVE 425	DESIGN OF WATER TREATMENT FACILITIES	
CIVE 419	FLOW SYSTEMS DESIGN	

CIVE 452	WATER RESOURCES DEVELOPMENT	
Depth Electives in Ge Engineering	otechnical, Structural and Transportation	3
Choose one from:		
CIVE 436	FOUNDATION ENGINEERING	
CIVE 440	REINFORCED CONCRETE DESIGN I	
CIVE 441	STEEL DESIGN I	
CIVE 462	HIGHWAY DESIGN	
CIVE 463	TRAFFIC ENGINEERING (General Civil Engineering Depth Electives)	
General Civil Enginee	ering Depth Electives	3
Choose three cred fulfill another requ	lits from the following that were not used to irement:	
CIVE 420, CIVE 42 CIVE 441, CIVE 46	5, CIVE 419, CIVE 436, CIVE 440, 2, CIVE 463	
Credit Hours Subtoto	ıl:	9
GENERAL ENGINE	RING	
CIST 1600	INTRODUCTION TO PROGRAMMING USING PRACTICAL SCRIPTING	3
MECH 223	ENGINEERING STATICS	3
MECH 325	MECHANICS OF ELASTIC BODIES	3
MECH 373	ENGINEERING DYNAMICS	3
ENGR 20	SOPHOMORE ENGINEERING SEMINAR	C
Credit Hours Subtoto	ıl:	12
TECHNICAL ELECTI	VES	
Choose a total of six	credits from:	6
Any 400-level CIVE	course not taken to fulfill another	
Any 200-, 300- or 4	400-level course in any engineering major	
not used to fulfill o	nother requirement	
Public Administrat GEOG 2620, Math fulfill another requ	iematics, Statistics, or Physics not used to iirematic.	
Any course in the ANTH 3920, BIOL 4940, CHEM 1190 (GEOG 3510 and 0 GEOL 1010, MKT requirement.	following list: ACCT 2000, ANTH 3910, 1020, BIOL 1450, BIOL 1750, BIOS ), ECON 2200, ENTR 3710, GEOG 1030, GEOG 3514), GEOL 1170, GEOL 1180, 3310 not used to fulfill another	
Credit Hours Subtota	ıl:	6
SCIENCE		
CHEM 1180 & CHEM 1184	GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LABORATORY	4
PHYS 2110	GENERAL PHYSICS I - CALCULUS LEVEL	4
Select one fo the follo	owing:	4
PHYS 2120	GENERAL PHYSICS-CALCULUS LEVEL	
CHEM 1190 & CHEM 1194	GENERAL CHEMISTRY II and GENERAL CHEMISTRY II LABORATORY	
Science Elective-Selec	ct one of the following:	
BIOL 1020	PRINCIPLES OF BIOLOGY	
CHEM 2210 & CHEM 2214	FUNDAMENTALS OF ORGANIC CHEMISTRY and FUNDAMENTALS OF ORGANIC CHEMISTRY LAPOPATORY	
GEOL 1170		
PHYS 1350	PRINCIPLES OF ASTRONOMY	
& PHYS 1354	and INTRODUCTORY ASTRONOMY LAB	

GEOG 3510 & GEOG 3514	METEOROLOGY and INTRODUCTION TO METEOROLOGY LABORATORY	
BIOL 1450	BIOLOGY I	
Credit Hours Subtotal	:	16
MATHEMATICS		
MATH 1950	CALCULUS I	5
MATH 1960	CALCULUS II	4
MATH 1970	CALCULUS III	4
MATH 2350	DIFFERENTIAL EQUATIONS	3
STAT 3800	APPLIED ENGINEERING PROBABILITY AND STATISTICS	3
<b>Credit Hours Subtotal</b>	:	19
ACE REQUIREMENT	S	
ACE 1: Writing		3
Choose from the lis	t of approved ACE 1 courses <sup>1</sup>	
ACE 2: Communicatio	n Skills	3
Choose from the lis	t of approved ACE 2 courses <sup>1</sup>	
ACE 3: Math/Stat Reasoning		
This requirement is MATH 1970, MATH	satisfied by MATH 1950, MATH 1960, 2350, or STAT 3800	
ACE 4: Science		
This requirement is PHYS 2110, PHYS 2 GEOL 1170	satisfied by CHEM 1180, CHEM 1190, 120, BIOL 1020, PHYS 1350, or	
ACE 5: Humanities		3
Choose from the lis	t of approved ACE 5 courses <sup>1</sup>	
ACE 6: Social Sciences	;	3
Choose from the lis	t of approved ACE 6 courses <sup>1</sup>	
ACE 7: Arts		3
Choose from the lis	t of approved ACE 7 courses <sup>1</sup>	
ACE 8: Ethics		3
Choose from the lis	t of approved ACE 8 courses <sup>1</sup>	
ACE 9: Global Awaren	ess and Human Diversity	3
Choose from the lis	t of approved ACE 9 courses <sup>1</sup>	
ACE 10: Capstone Exp	erience	
This requirement is	satisfied by CIVE 402	
Credit Hours Subtotal		21
<b>Total Credit Hours</b>		126

 List of approved ACE courses offered on the Omaha campus (https://tes.collegesource.com/publicview/ TES\_publicview03\_group\_report.aspx?sid=12214&rid=1d4a5187e01b-4f1f-aaa6-b0040e957167&aid=e4ff42df-9ddc-4416a5dd-18e971d1c0e4&cgrid=5508)