

University of Nebraska-Lincoln

Requirements for the Degree of Bachelor of Science in Civil Engineering

The Department of Civil 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 graduate-level work. The general educational objectives of the University of Nebraska civil engineering undergraduate program are to prepare our graduates to:

- successfully obtain employment in their areas of expertise in the public or private sectors;
- understand the ethical and professional demands of contemporary civil engineering practice;
- successfully enroll in graduate engineering or other professional programs;
- understand the necessity of team work in engineering practice;
- be able to communicate effectively in professional settings;
- understand and be able to account for the effects of their professional decisions on the quality of life and the environment;
- successfully pursue professional licensure; and
- continue to seek further education in a process of life-long learning.

While the Civil Engineering Department has designed the Civil Engineering curriculum to be essentially the same for both campuses, students should work with their academic advisor to make sure that all courses will transfer between campuses if the student desires to take classes on both campuses. Below is a semester by semester listing of the requirements for the degree of Bachelor of Science in Civil Engineering for students on the Omaha campus. Below is a semester by semester listing of the requirements for the degree of Bachelor of Science in Civil Engineering for students on the Lincoln campus.

Semester 1	Credits	Semester 2	Credits
Chemistry ¹	4	CIVE 130 Computer-Aided Design ²	2
CIVE 112 Intro to Civil Engineering	1	CIVE 221 Geometric Control Systems	3
ENGR 010 Freshman Engineering Seminar	0	MATH 107 Analytic Geometry & Calculus II	5
MATH 106 Analytic Geometry & Calculus I	5	PHYS/ASTR 211 General Physics	4
CSCE 150 Computer Programming	3	PHYS/ASTR 221 Physics Lab I ³	1
Humanity/Social Science Elective	3		15
	16		
Semester 3	Credits	Semester 4	Credits
ENGM 223 Engineering Statics	3	CIVE 361 Highway Engineering	4
ENGR 020 Sophomore Engineering Seminar	0	ENGM 325 Mechanics of Elastic Bodies	3
JGEN 200 or 300 Technical Communications I or II	3	ENGM 373 Engineering Dynamics	3
MATH 208 Analytic Geometry & Calculus III	4	MATH 221 Differential Equation for Engineers	3
PHYS/ASTR 212 General Physics ⁴	4	COMM 311 Business & Prof. Communications	3
Humanity/Social Science Elective	3		16
	17		
Semester 5	Credits	Semester 6	Credits
CIVE 310 Fluid Mechanics	3	CIVE 334 Intro to Geotechnical Engineering	4
CIVE 319 Hydraulics Lab	1	CIVE 352 Intro to Water Resources Engineering	4
CIVE 326 Intro to Environmental Engineering	3	CIVE 378 Materials of Construction	3
CIVE 327 Environmental Engineering Lab	1	Computer Methods ⁵	3
CIVE 341 Intro to Structural Engineering	4	Humanity/Social Science Elective	3
MATH 380 or IMSE 321 Statistics & Applications	3		17
	15		
Semester 7	Credits	Semester 8	Credits
CIVE 490 Intro to Civil Engineering Practice	1	CIVE 495 Senior Design	3
Technical Electives ⁶	6	Technical Electives ⁶	6
Design Electives ⁷	6	Design Elective ⁷	3
Humanity/Social Science Elective	3	Humanity/Social Science Electives	6
	16		18
		Minimum Credit Hours	130

1. Chemistry requirement must be CHEM 111, 113, or both CHEM 109 and 110 (8 hrs).
2. MECH 130 is an acceptable substitute.
3. PHYS 222 is an acceptable if taken parallel with PHYS/ASTR 212.
4. Either CHEM 114 and 116, or 221 are acceptable substitutes.
5. Computer Methods must be selected from CSCE 340, IMSE 328, or ENGM 480.
6. A description of allowable Technical Elective courses is provided in this packet.
7. A full list of approved Design Elective courses is provided in this packet.