

Bachelor of Science in Civil Engineering

Required 128 credits (36 of which must be numbered 300 or above) including:

I. Essential Studies Requirements (see University ES listing).

II. Civil Engineering required courses

Code	Title	Credits
CE 101	Introduction to Civil Engineering	1
CE 103	Graphical Communication ***	3
CE 306	Fluid Mechanics	3
CE 313 & 313L	General Surveying and General Surveying Laboratory †	3
CE 351	Structural Mechanics	4
CE 411	Civil Engineering Materials Laboratory †	1
CE 412	Soil Mechanics	3
CE 412L	Soil Mechanics Lab †	1
CE 414	Foundation Engineering	3
CE 416	Transportation Engineering	3
CE 421	Hydrology	3
CE 423	Hydraulic Engineering	3
CE 423L	Hydraulic Engineering Laboratory †	1
CE 431	Principles of Water and Wastewater Treatment	3
CE 431L	Environmental Engineering Laboratory †	1
CE 432	Environmental Engineering Design	3
CE 444	Contracts and Specifications	3
CE 451	Steel Design	3
CE 453	Reinforced Concrete	3
CE 482	Civil Engineering Design I	3
CE 483	Civil Engineering Design II	3
Total Credits		54

III. Program Required Electives

Code	Title	Credits
Technical Electives		6
Total Credits		6

All Civil Engineering students must take at least one technical elective in Civil Engineering from UND except those who transfer both technical elective requirements. Approved courses can be found in the CE student handbook or campus connection. For any other technical elective courses, they must be approved by the CE chair.

IV. College of Engineering and Mines Requirements

Code	Title	Credits
ENGR 200	Computer Applications in Engineering †	2
ENGR 201	Statics ***	3
ENGR 202	Dynamics †	3
ENGR 203	Mechanics of Materials ***	3
ENGR 340	Professional Integrity in Engineering	3
ENGR 460	Engineering Economy	3
GEOE 203	Earth Dynamics *	3
or GEOL 101	Introduction to Geology	
Total Credits		20

V. Requirements outside of the College of Engineering and Mines

Code	Title	Credits
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory ***	4
MATH 165	Calculus I ***	4
MATH 166	Calculus II ***	4
MATH 265	Calculus III ***	4
MATH 266	Elementary Differential Equations	3
MATH 321	Applied Statistical Methods **	3
or ECON 210	Introduction to Business and Economic Statistics	
or CHE 315	Engineering Statistics and Design of Experiments	
PHYS 251	University Physics I ***	4
or PHYS 251C & 251CL	University Physics I and University Physics I Lab	
Basic Science Requirement (choose one)		4
BIOL 150 & 150L	General Biology I and General Biology I Laboratory	
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	
PHYS 252	University Physics II	
or PHYS 252C & 252CL	University Physics II and University Physics II Lab	
Total Credits		30

* Students are encouraged to take GEOE 203.

** Students can take MATH 321 or CHE 315 or ECON 210 as a statistics course. If students take MATH 321 as their statistics elective and MATH 421 as their technical elective, they will earn a minor in Math, without adding extra courses to their degree plan.

***UND Civil Engineering Degree Program requires courses as well as ENGL 110 and ENGL 130 to be completed with at least a "C" grade in each of the courses.

****Students must ensure all appropriate pre-requisites are met prior to registering for all courses in the curriculum.

† Both ENGR 200 and ENGR 202 must be completed for the degree, and at least one must be completed with a C or higher.

‡ Labs must be completed on campus, through CE 102 or from a pre-approved transfer institution. For more information on labs, please visit here (<https://engineering.und.edu/current-students/summer-lab-req.html>).

Students have the opportunity to take CE 102 where they can petition to waive a program specific requirement, not university or essential studies requirements, for the following courses: CE 101, CE 103, CE 313, CE 313L, CE 397 (up to 3 crs), CE 411, CE 412L, CE 423L, CE 431L, CE 444, ENGR 200, ENGR 340.

All engineering, science, and math transfer courses must earn a grade of "C" or higher to be applied to the program.

Students must complete a minimum of 21 credit hours of 300-level or higher coursework in Civil Engineering at UND, including CE 482 and CE 483.