

CIVIL ENGINEERING MAJOR—BA/BS

Four Year Plan for BA in Environmental Science for Pre-Engineering

For students who have been admitted to the joint 3+2 program in Civil Engineering with UC Berkeley.

The order of courses can be modified, and some courses are offered every other year, but this is the recommended plan. Discuss any changes to this plan with your advisor. Students who do not have a second year of foreign language in high school need to plan to complete their Language Other Than English requirement as well, which is not listed here.

Course	Title	Credits
First Year		
Fall		
CHEM 017	General Chemistry I	4
COLL 005	Information Literacy-Information Technology Skills	0
COLL 080	First Year Seminar	3
ENG 001	ENG 001: Rhetoric and Composition for the College Writer	4
MATH 047	Calculus I	3
MATH 047L	Calculus I Workshop	2
Credits		16
Spring		
CHEM 018	General Chemistry II	4
ENVS 050	Environmental Geology	4
MATH 048	Calculus II	3
MATH 048L	Calculus II Workshop	2
NASC 050 or ENVS 071	Community Engaged Teaching and Learning in Science, Technology and Mathematics ¹ or Campus Farm Practicum	2
Credits		15
Total Credits		31

Course	Title	Credits
Second Year		
Fall		
ENVS 107	Climate Change	3
ETHS 051	Introduction to Ethnic Studies	3
MATH 050	Linear Algebra	4
PHYS 061	General Physics I	4
Credits		14
Spring		
PHYS 062	General Physics II	4
MATH 049	Multivariable Calculus	4
PHE 100 or PPOL 150	Theories and Praxis of Health Equity ² or Environmental Policy Analysis	4
At UC Berkeley ³		
COMPSCI C8 (http://guide.berkeley.edu/undergraduate/degree-programs/computer-science/#coursestext)	Foundations of Data Science ³	4
Credits		16
Total Credits		30

Course	Title	Credits
Third Year		
Fall		
CHEM 109	Analytical Chemistry	5

CHEM 191	Senior Seminar	4
MATH 102	Probability and Statistics	4
ETHS 112 or PHE 100 or PPOL 150	Race, Gender, and the Environment ² or Theories and Praxis of Health Equity or Environmental Policy Analysis	3
Credits		16

Spring		
BIO 002	General Biology II with Lab	4
BIO 125	Principles of Ecology	4
CHEM 136	Thermodynamics	3
At UC Berkeley ³		
CE 93 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Engineering Data Analysis ³	3
Credits		14

Summer		
At UC Berkeley ³		
ENGIN 7 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Introduction to Computer Programming for Scientists and Engineers ^{3,4}	4
Credits		4
Total Credits		34

Course	Title	Credits
Fourth Year		
Fall		
At UC Berkeley ³		
CE C30 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Introduction to Solid Mechanics ³	3
CE 100 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Elementary Fluid Mechanics ³	4
CE 167 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Engineering Project Management ³	3
Credits		10

Spring		
At UC Berkeley ³		
CE 11 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Engineered Systems and Sustainability ³	3
CE 175 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Geotechnical and Geoenvironmental Engineering ³	3
CE 60 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Structure and Properties of Civil Engineering Materials ³	3
Credits		9
Total Credits		19

Course	Title	Credits
Fifth Year		
Fall		
At UC Berkeley		
CE 103 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Introduction to Hydrology ³	3
CE 111 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Environmental Engineering ³	3
CE 115 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Water Chemistry ³	3
Credits		9
Spring		
At UC Berkeley		
CE 113 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Ecological Engineering for Water Quality Improvement ³	3
CE C106 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Air Pollution ³	3
CE 112 (http://guide.berkeley.edu/undergraduate/degree-programs/civil-engineering/#coursestext)	Environmental Engineering Design ³	3
Credits		9
Total Credits		18

¹ Or another class meeting the Community Engaged Learning requirement

² Or Upper Division CIE. The Creativity, Innovation, and Experimentation (CIE) course must be an upper division course in Art History, Studio Art, or Philosophy to meet UC Berkeley General Education requirements. If CIE is met via another type of course, students may need to complete another upper division humanities course at UC Berkeley.

³ For descriptions and more information on UCB courses, please visit Berkeley Academic Guide, Civil and Environmental Engineering (http://guide.berkeley.edu/courses/civ_eng). Note: UCB course numbers or curricular requirements subject to change.

⁴ May be taken earlier