

CIVIL ENGINEERING PROGRAM – University of Connecticut, Storrs, CT
(Catalog of 2025-2026)

SEMESTER BY SEMESTER COURSE SEQUENCE (128 credits)

FIRST YEAR - First Semester		Cr.	Second Semester		Cr.
CHEM 1127Q or 1147Q General Chemistry		4	CHEM 1128Q or 1148Q General Chemistry		4
MATH 1131Q Calculus I		4	MATH 1132Q Calculus II		4
ENGR 1000 Orientation to Engineering		1	ENGR 1166 Foundations of Engineering		3
CSE 1010 Intro to Computing for Engineers		3	(1, 2)CC TOI-1: (_____)		3
ENGL 1007 Seminar and Studio in Writing and Multimodal Composition		4	(1, 2)CC TOI-2: (_____)		3
TOTAL		16	TOTAL		17

SECOND YEAR - First Semester			Second Semester		
CE 2110 Applied Mechanics I		3	MATH 2410Q Elem. Differential Equations		3
(7)CE 2411 Intro to Computer Aided Design		1	(7)CE 2211 Engineering Economics		1
MATH 2110Q Multivariable Calculus		4	(2, 3)CC TOI-3 (_____)		3
(3)CE 2251 Probability and Statistics in CEE		3	(7)CE 2710 Transportation Engineering		3
PHYS 1501Q Physics for Engineers I		4	CE 3110 Mechanics of Materials		3
			(3)ENVE 2310E Environ. Engr. Fundamentals		3
TOTAL		15	TOTAL		16

THIRD YEAR - First Semester			Second Semester		
(7)CE 3220 Principles of Construction I		3	(4)CE 3520 Civil Engineering Materials		3
(7)CE 3510 Soil Mechanics		3	(4)ENVE 3120 Fluid Mechanics		4
(7)CE 3610 Basic Structural Analysis		3	(4)PHYS 1502Q Physics for Engineers II		4
(4, 5)Science Elective (_____)		3	(4, 5)Civil Proficiency Area Req.(_____)		3
(2, 4)CC TOI-5 (_____)		3	(4, 5)Civil Proficiency Area Req.(_____)		3
TOTAL		15⁽⁶⁾	TOTAL		17⁽⁶⁾

FOURTH YEAR – First Semester			Second Semester		
(7)CE 4910W Civil Engineering Projects I		2	(7)CE 4920W Civil Engineering Projects II		2
(5)Civil Proficiency Area Req. (_____)		3	(5)Civil Proficiency Area Req. (_____)		4
(5)Professional Requirement (_____)		3	(5)Professional Requirement (_____)		3
(5)Professional Requirement (_____)		3	(6)Elective (_____)		3
(6)Elective (_____)		3	(6)Elective (_____)		3
(6)Elective (_____)		3			
TOTAL		17⁽⁶⁾	TOTAL		15⁽⁶⁾

- (1) These courses may be taken either semester in the first year.
- (2) CC TOI = Common Curriculum Topics of Inquiry. TOIs can be taken in any order, the example above is for illustration of a feasible plan. For details on courses satisfying each TOI see:
<https://catalog.uconn.edu/undergraduate/common-curriculum/>
- (3) These courses may be taken either semester in the second year.
- (4) These courses may be taken either semester in the third year.
- (5) See details on the next page.
- (6) The credit totals for the last four semesters and the elective credits depend on the courses chosen for professional requirements and the science elective. If 4-credit courses are selected for the professional requirements or the science elective, the number of free elective credits is reduced accordingly.
- (7) These courses are offered only once per year.

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CIVIL PROFESSIONAL REQUIREMENTS

All CE students must take all required courses listed in the second column of the table below.

Beyond the required courses, professional requirements are satisfied by **21** additional credits that meet the following conditions: 1) At least **4 Proficiency Courses** from the list below (third column, shaded) in at least 4 different technical areas, and 2) Any remaining credits fulfilled with 2000-level or higher courses in engineering, science, mathematics, or statistics that were not used to meet another requirement in the curriculum.

(F) and (S) indicate if the course is typically offered in the Fall or Spring semester. Some are offered in alternate years as indicated.

Technical Areas	Required Courses (ALL required)	Proficiency Courses (4 required @ 1 each from 4 Different Areas)
Construction Engineering & Management	CE 3220 Principles of Construction I (F)	CE 4210 Operations Research in CEE (F) or CE 4220 Principles of Construction II (S)
Environmental	ENVE 2310 Environmental Engr. Fundamentals (F, S)	ENVE 3220 Water Quality Engineering (S) or ENVE 4310 Environmental Modeling (S)
Geotechnical	CE 3510 Soil Mechanics (F)	CE 4510 Foundation Design (F) or CE 4530 Geoenvironmental Engr (S – odd) or ENVE 4540 Design of Groundwater Systems (S – even) or CE 4560 Coastal Hazard Engineering
Hydraulic/ Water Resources	ENVE 3120 Fluid Mechanics (F, S)	ENVE 4810 Engineering Hydrology (F) or ENVE 4820 Hydraulic Engineering (S)
Structural	CE 3610 Basic Structural Analysis (F)	CE 3630 Design of Steel Structures (S) or CE 3640 Design of Reinforced Concrete Structures (F)
Surveying / Geodetic	CE 2411 Intro. to Computer Aided Design (F)	CE 2500 Intro. to Geographic Info. Systems (S) or CE 4410 Computer Aided Site Design (S)
Transportation	CE 2710 Transportation Engineering (S)	CE 4710 Case Studies in Transp. Engr. (F) or CE 4720 Street and Highway Design (S) or CE 4730 Transportation Planning (F – odd) or CE 4740 Traffic Engineering I (F – even)

PROFESSIONAL REQUIREMENT RESTRICTIONS

The following are specific restrictions to fulfill additional professional requirement courses:

- No more than one science course at the 2000 level may be used.
- “Science” course means any course with one of the following subject designations: BIOL, CHEM, EEB, GEOG, GSCI, LAND, MARN, MCB, NRE, PHYS, SOIL, TURF, STAT
- Approved courses include MGMT 5335, OPIM 3801, BADM 3801, and ART 3670.

SCIENCE ELECTIVE

One of the following (or an approved substitution) must be taken:

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| • BIOL 1107: Principles of Biology (4 Credits) | • GEOG 1300E: Climate, Weather and the Environment (3) |
| • CHEM 2241: Organic Chemistry (3) | • GEOG 1302: GIS Modeling of Envr. Change (4) |
| • CHEM 2443: Organic Chemistry (3) | • GEOG 2300E: Intro to Physical Geography (3) |
| • CSE 2050: Data Structures and Object-Oriented Design (3) | • MARN 1002E: Intro to Oceanography (3) |
| • CSE 2600: Intro to Data Science & Engr (3) | • NRE 1000E: Environmental Science (3) |
| • EEB 2208E: Intro to Conservation Biology (3) | • NRE 1235E: Environmental Conservation (3) |
| • EARTH 1050: Earth’s Dynamic Envr. (4) | • NRE 2215E: Intro to Water Resources (3) |
| • EARTH 1051: Earth’s Dynamic Envr. (lecture only) (3) | • NRE 3105: Wetlands Bio. and Conservation (3) |
| | • NRE 3145: Meteorology (3) |