

**ENVIRONMENTAL ENGINEERING PROGRAM – University of Connecticut**  
(Catalog of 2018-2019)

**NORMAL SEMESTER BY SEMESTER COURSE SEQUENCE (128 credits)**

<b>FIRST YEAR - First Semester</b>	<b>Cr.</b>	<b>Second Semester</b>	<b>Cr.</b>
<b>CHEM 1127Q</b> General Chemistry	4	<b>CHEM 1128Q</b> General Chemistry	4
<b>MATH 1131Q</b> Calculus I	4	<b>MATH 1132Q</b> Calculus II	4
<b>ENGR 1000</b> Orientation to Engineering	1	<b>ENGR 1166</b> Foundations of Engineering	3
<b>CSE 1010</b> Computing for Engineers (F/S)	3	<b>ENVE 1000</b> Environmental Sustainability (CA2)	3
<b>ENGL 1010</b> Academic Writing or <b>ENGL 1011</b> Writing thru Literature (F/S)	4	(1) CA 1 (_____)	3
<b>TOTAL</b>	<b>16</b>	<b>TOTAL</b>	<b>17</b>

<b>SECOND YEAR - First Semester</b>	<b>Cr.</b>	<b>Second Semester</b>	<b>Cr.</b>
<b>PHYS 1501Q</b> Physics for Engineers I	4	<b>PHYS 1502Q</b> Physics for Engineers II	4
<b>MATH 2110Q</b> Multivariable Calculus	4	<b>MATH 2410Q</b> Elem. Differential Equations	3
<b>CE 2110</b> Applied Mechanics I (F/S)	3	<b>PHIL 1104</b> Philosophy & Ethics (CA1)	3
<b>ENVE 2310</b> Environmental Eng Fundamentals	3	<b>CHEG 2111</b> Chemical Eng Thermodynamics or <b>ME 2233</b> (F/S)	3
<b>CE 2251</b> Probability and Statistics in CEE (F/S)	3	<b>ENVE 3270</b> Environmental Microbiology	3
<b>TOTAL</b>	<b>17</b>	<b>TOTAL</b>	<b>16</b>

<b>THIRD YEAR - First Semester</b>	<b>Cr.</b>	<b>Second Semester</b>	<b>Cr.</b>
<b>ENVE 2411</b> Introduction to CAD	1	<b>ENVE 3200</b> Environmental Engineering Lab	3
<b>ENVE 3120</b> Fluid Mechanics (F/S)	4	<b>ENVE 3230</b> Air Pollution Control	3
<b>ENVE 3220</b> Water Quality Engineering	3	<b>ENVE 3530</b> Engineering and Environmental Geology (2) OR Professional Elective (3)	3
<b>ENVE 4210</b> Environ. Engineering Chemistry	3	(3) Professional Elective	3
<b>NRE 4135</b> Groundwater Hydrology (2) OR Professional Elective (4)	3	(1) GenEd: CA 4(I) (_____)	3
<b>CE 2211</b> Engineering Economics (F/S)	1		
<b>TOTAL</b>	<b>15</b>	<b>TOTAL</b>	<b>15</b>

<b>FOURTH YEAR – First Semester</b>	<b>Cr.</b>	<b>Second Semester</b>	<b>Cr.</b>
<b>ENVE 4910W</b> Environmental Eng’g Design I	2	<b>ENVE 4920W</b> Environmental Eng’g Design II	2
<b>ENVE 4320</b> Ecological Principles & Eng’g	3	<b>ENVE 4310</b> Environmental Modeling	3
<b>ENVE 4810</b> Engineering Hydrology	3	<b>ENVE 4530</b> Geoenvironmental Engineering or <b>ENVE 4540</b> Design of Groundwater Systems	3
(1) GenEd: CA 4 (_____)	3	(4) Professional Elective	3
(3) Professional Elective	3	(1) GenEd: CA 2 (_____)	3
Free Elective	3	Free Elective	1
<b>TOTAL</b>	<b>17</b>	<b>TOTAL</b>	<b>15</b>

NOTES: (F/S): these courses are offered both Fall and Spring semesters

(1) CA = Content Area in General Education (GenEd) Requirements (For current lists of GenEd courses, visit <http://geoc.uconn.edu>). These courses may be taken at any time and CA assignments to particular semesters are indicative only.

(2) Earth Science Requirement (1 Course):

- NRE 4135-Intro. to Groundwater Hydrology (Fall semester) OR
- ENVE 3530- Engr. & Env. Geology (Spring semester)

(3) Professional Electives (4 Courses): At least one course from four different focus areas (see pg. 2 for list of approved courses). ENVE 4886 Thesis I (1 cr) plus ENVE 4986 Thesis II (2 cr) may fulfill one professional elective. Honors students must fulfill one professional elective using ENVE 4886 + 4986 to complete an Honors Thesis. ENVE 4886 + 4986 is recommended as a professional elective for students planning to pursue graduate studies.

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**ENVE Professional Electives (F: Fall semester, S: Spring semester)**  
**Note: Course scheduling may change for departments other than CEE**

<p><b>Area 1: Data Collection and Analysis</b> NRE 3535 Remote Sensing of the Environment (F) CE 2500 Introduction to GIS (S) ME 3263 Introduction to Sensors and Data Analysis CE 2410 Geomatics &amp; Spatial Measurement (F)  CE 4410 Computer Aided Site Design (S)</p>	<p><b>Area 6. Water Resources</b> ENVE 4820. Hydraulic Engineering (S) NRE 3125 Watershed Hydrology (F) NRE 4135. Groundwater Hydrology (F)* NRE 4165. Soil and Water Management and Engineering (S, odd yrs)</p>
<p><b>Area 2. Renewable Energy</b> ME 3270 Fuel Cells (S, even yrs)  ME 3285 Sustainable Energy Sources and Systems (S, odd yrs)</p>	<p><b>Area 7. Geoenvironmental Processes</b> CE 3510. Soil Mechanics (F) ENVE 3530. Engineering and Environmental Geology (S)* NRE 4165. Soil and Water Management and Engineering. ENVE 3110. Brownfield Redevelopment</p>
<p><b>Area 3. Systems Analysis</b> CHEG 3151. Process Kinetics CE 4210. Operations Research in Civil and Environmental Engineering (S)</p>	<p><b>Area 8. Atmospheric Processes</b> GEOG 3400. Climate and Weather (F)  NRE 3145. Meteorology (F) NRE 3146 Climatology (S) ME 3239. Combustion for Energy Conversion</p>
<p><b>Area 4. Environmental Chemistry</b> CHEM 2241 or CHEM 2443. Organic Chemistry SPSS 3420. Soil Chemistry Components (F, even yrs) SPSS 4420. Soil Chemistry Processes (F, odd yrs) MARN 4030W. Chemical Oceanography (F) NRE 3155. Water Quality Management (F, even yrs) CHEM 4370. Environmental Chemistry - Atmosphere</p>	<p><b>Area 9. Management and Policy</b> AH 3275. HAZWOPER (F) ARE 3434. Environment and Resource Policy (S) ARE 4462. Economics of Natural Resource Use EEB 3205. Current Issues in Environmental Science (F, odd years) GEOG 3320W. Environmental Evaluation and Assessment (S, online) GEOG 3340. Environmental Planning and Management LAND 3230W. Environmental Planning and Landscape Design (F) MEM 2221. Principles of Engineering Management (F/S) NRE 3245. Environmental Law (F) ENVE 3100 Climate Resilience and Adaptation (F)</p>
<p><b>Area 5. Environmental Biology</b>  NRE 3105. Wetlands Biology and Conservation (F) NRE 3205. Stream Ecology (F, odd yrs)  NRE 4340 Ecotoxicology (S, odd yrs)  MARN 3030. Coastal Pollution and Bioremediation</p>	
<p><b>Area 10. Construction Management</b> CE 3220. Principles of Construction Management I (F) CE 4220. Principles of Construction Management II (S) OPIM 3801. Project Management</p>	

\* If you choose one course as earth science requirement, then you can take the other one as professional elective.