UNIVERSITY of WASHINGTON

CIVIL & ENVIRONMENTAL ENGINEERING

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING (BSENVE)

The BSEnvE is a minimum requirement admission major.
Students may declare the major upon successful completion of admission requirements.

♦ Designates admission prerequisites. Minimum grade of 2.5 is required in each class.
A cumulative prerequisite GPA of 3.0 is required.

PREREQUISITE & GENERAL EDUCATION COURSES

Mathematics **24 cr**

♦ MATH 124, 125, and 126 Calculus with Analytic Geometry	(15)
♦ AMATH 351 Applied Diff'l Equations	(3)
AMATH 352 Matrix Algebra	(3)
IND E 315***** Prob & Stats for Engrs	(3)

Sciences **35 cr**

♦ BIOL 180 Intro Biology	(5)
♦ CHEM 142 General Chemistry	(5)
♦ CHEM 152 General Chemistry	(5)
♦ CHEM 162 General Chemistry	(5)
♦ PHYS 121 Mechanics	(5)
♦ PHYS 122 Elect-Mag & Osc	(5)
♦ PHYS 123 Waves	(5)

Engineering Fundamentals **16 cr**

♦ AMATH 301 Beg Sci Computing ***or*** CSE 142 Computer Programming I *Note: AMATH 301 preferred*	(4)
♦ AA 210 Statics	(4)
♦ CEE 220 Mechanics of Materials	(4)
♦ AA 260 Thermodynamics	(4)

Economics **4-5 cr**

IND E 250 Engr Econ (4) ***or*** ECON 200 (5)

Written Communication **12 cr**

♦ English Composition	(5)
ENGR 231 Intro to Technical Writing	(3)
Additional Composition or Writing	(4)

Areas of Knowledge **24 cr**

Visual, Literary, & Perf Arts (VLPA)	(10)
Individuals & Society (I&S)	(10)
Additional VLPA or I&S	(4)

Diversity **3-5 cr**

One course from UW's approved diversity list.
Can also count as VLPA/I&S if course is designated as such.

UPPER-DIVISION COURSEWORK

CEE Junior Year Courses **29 cr**

CEE 347 Intro to Fluid Mechanics	(5)
CEE 348 Hydrology & Envr Fluid Mechn	(4)
CEE 349 Case Studies in Envr Engineering	(3)
CEE 350 Mass and Energy Balances Envr	(4)
CEE 352 Intro Envr Chem & Microbiology	(4)
CEE 354 Envr Engineering Applications	(5)
CEE 356 Quantitative & Conceptual Tools for Sustainability	(4)

CEE Senior Year Courses

Professional Practice and Capstone **7 cr**

CEE 440 Professional Practice	(2)
Capstone Design Course *Choice of CEE 444 (Water) or 445 (Envr)*	(5)

Technical Electives **15 cr**

400-level CEE courses. See Technical Electives Course list (page 2).

Upper-Division Engineering and Science **13 cr**

Select courses from within CEE or from approved list of non-CEE courses. A list of courses that are pre-approved is available from the advisors. Students may petition to have courses added to the list.

General Electives

Additional credits to meet the 180 total required for the baccalaureate degree.

Notes:
- Tech Elec = CEE Technical Electives (required)
- UD Elec = CEE Upper Division Science & Engr Electives (required)
- MATH 307/308 may be substituted for AMATH 351/352.
- STAT 390 may be substituted for IND E 315.
- ECON 200 satisfies Economics and I&S requirement.
- For VLPA and I&S, see UW Areas of Knowledge on Web

The BSEnvE program, launched in Autumn 2017, will be eligible for accreditation review by the Engineering Accreditation Commission of ABET (www.abet.org) in 2019.

BSEnvE Sample 4-year plan:

Sample Freshman Year

Autumn		*Winter*		*Spring*	
MATH 124	5	MATH 125	5	MATH 126	5
CHEM 142	5	CHEM 152	5	CHEM 162	5
ENGL Comp	5	VLPA/I&S	5	PHYS 121	5
Total	15	Total	15	Total	15

Sample Sophomore Year

Autumn		*Winter*		*Spring*	
AMATH 351	3	AMATH 352	3	AMATH 301	4
PHYS 122	5	PHYS 123	5	BIOL 180	5
AA 210	4	CEE 220	4	AA 260	4
VLPA/I&S	3-5	VLPA/I&S	3-5		
Total	15-17	Total	15-17	Total	13

Sample Junior Year

Autumn		*Winter*		*Spring*	
CEE 349	3	CEE 347	5	CEE 348	5
CEE 350	4	CEE 354	5	CEE 356	5
CEE 352	4	ENGR 231	3	Tech Elec	3
IND E 315	3			IND E 250	4
Total	14	Total	13	Total	16

Sample Senior Year

Autumn		*Winter*		*Spring*	
Tech Elec	3	CEE 440	2	Capstone	5
Tech Elec	3	Tech Elec	3	Tech Elec	3
UD Elec	3	UD Elect	4	UD Elec	3
VLPA/I&S	5	VLPA/I&S	5	UD Elec	3
Total	14	Total	14	Total	14

Additional credits as desired or needed

Resources:

BSEnvE webpage
www.ce.washington.edu

UW Admissions
www.admit.washington.edu

UW College of Engineering
www.engr.washington.edu

UW - WA CC Course Equivalency Guide
https://admit.washington.edu/EquivalencyGuide

Admissions:

The BSEnvE is a minimum requirement admission major at this time. Students may declare the major upon successful completion of admission requirements. (To declare the major, see CEE website for information.)

♦ Designates admission prerequisites. Minimum grade of 2.5 is required in each class. A cumulative prerequisite GPA of 3.0 is required.

Students who do not meet minimum admission requirements may petition for admission by writing to ceadvice@uw.edu (Attention: the CEE Undergraduate Committee).

The BSEnvE junior year curriculum (300-level courses) begins in autumn quarter and is designed to be taken in sequence each quarter.

Transfer students must apply to the UW for admissions. See UW Admissions for more information. *Transfer students seeking course substitutions should be prepared to present course descriptions and syllabi.*

Technical Electives: Core Courses List

Select courses from any of the following. *Thematic areas are shown to help guide selection.*

Engineered Systems and Processes
CEE 482 WW Reuse and Resource Rec (3)
CEE 483 Drinking Water Treatment (3)
CEE 484 Decentralized WW Treatment (3)
CEE 487 Solid Waste Management (3)
CEE 488 Hazardous Waste Eng. (3)
CEE 490 Air Pollution Control (3)
CEE 497 Water in an Arid Land (5)

Natural Systems and Processes
CEE 462 Limnology (3)
CEE 480 Air Quality Modeling (3)
CEE 485 Environmental Chemistry (3)
CEE 496 Chemical Fate and Transport (3)
CEE 498 Micro of Earth and Human Sys (3)
CEE 498 Environmental Analyses (4)
CEE 498 Advanced Remote Sensing (4)

Hydrology and Hydrodynamics
CEE 473 Coastal Engineering (3)
CEE 474 Hydraulics of Sed. Transport (3)
CEE 475 Groundwater Flow (3)
CEE 476 Physical Hydrology (3)
CEE 477 Open Channel Flow (3)
CEE 481 Hydraulic Design for Env Eng (3)