

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING (BSENVE)

PREREQUISITE & GENERAL EDUCATION COURSES

Mathematics **24 cr**

- ◆ MATH 124, 125, and 126 (15)
Calculus with Analytic Geometry
- ◆ 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* (4)
CSE 142 Computer Programming I
Note: AMATH 301 preferred
- ◆ AA 210 Statics (4)
- ◆ CEE 220 Mechanics of Materials (4)
- ◆ AA 260 Thermodynamics (4)
(or ME 323 Engr Thermodynamics)

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.

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.

UPPER-DIVISION COURSEWORK

CEE Junior Year Courses **30 cr**

- CEE 347 Intro to Fluid Mechanics (5)
- CEE 348 Hydrology & Environmental Fluid Mechanics (4)
- CEE 349 Case Studies in Envr Engineering (3)
- CEE 350 Mass and Energy Balances in Environmental Engineering (4)
- CEE 352 Intro Microbial Principles in Environmental engineering (5)
- 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 (5)
Choice of CEE 444 (Water) or 445 (Envr)

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.

◆ *Designates admission prerequisites (for transfer students and UW interest changers.) A minimum grade of 2.0 is required in each prerequisite course, and a minimum cumulative GPA of 2.5 is required.*

Notes:

- 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.

BSENV E 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 301	4	AMATH 351	3	AMATH 352	3
PHYS 122	5	PHYS 123	5	BIOL 180	5
AA 210	4	CEE 220	4	AA 260	4
electives	2	VLPA/I&S	3	VLPA/I&S	3
Total	13-15	Total	15	Total	15

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	5	ENGR 231	3	Tech Elec	3
IND E 315	3	elective	2	IND E 250	4
Total	15	Total	15	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
<i>Additional credits as desired or needed</i>					

NOTE:

- For VLPA and I&S, see UW Areas of Knowledge on Web
- Tech Elec = CEE Technical Electives (required)
- UD Elec = CEE Upper Division Science & Engr Electives (required)

RESOURCES:

BSEnvE webpage

www.ce.washington.edu

UW Admissions

admit.washington.edu

UW College of Engineering

www.engr.washington.edu

UW - WA CC Course Equivalency Guide

<https://admit.washington.edu/EquivalencyGuide>

ADMISSION INFORMATION

TRANSFER STUDENTS AND INTEREST CHANGERS:

◆ Designates admission prerequisites. Minimum grade of 2.0 is required in each class. A cumulative GPA of 2.5 is required. See BSENV E website for [transfer](#) and [admission information](#).

Transfer students must apply for [UW Admissions](#) by February 15 and submit the online engineering application by April 5 for autumn quarter admission.. *Transfer students seeking course substitutions should be prepared to present course descriptions and syllabi.*

DIRECT TO COLLEGE ENGINEERING STUDENTS:

Engineering Undeclared students are admitted to the major by placement. See [website](#) for more information.

The BSENV E junior year curriculum begins in autumn quarter each year. The 300-level CEE courses are designed to be completed in sequence during the academic year.

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)