

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING (BSENV E)

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)

New! Earth Science (see [UD Engr & Science list](#))

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 cr**

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

The BSENV E 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 to Microbial Principles in Environmental Engineering (5)
- CEE 354 Intro to Chemical Principles in Environmental Engineering (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. See list of approved courses on website. Students may petition to have courses added to list. **Must include one approved earth science course from UD Engr & Science list.**

General Electives

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

Transfer Students & UW Interest Changers

(DTC students: Consult with your adviser for DTC placement reqs.)

- ◇ **Application Requirements** – must be completed by time of application (April 5)
- ◆ **Enrollment Requirements** – must be complete prior to enrollment in major.

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.

BSENE 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
ENGR 101	2	CEE 101/102	1	CEE 103	1
Total	17	Total	16	Total	16

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
VLPA/I&S/DIV	3	VLPA/I&S	3	VLPA/I&S	3
Total	16	Total	15	Total	15

Sample Junior Year

Autumn		Winter		Spring	
CEE 349	3	CEE 347	5	CEE 348	4
CEE 350	4	CEE 354	5	CEE 356	4
CEE 352	5	ENGR 231	3	Tech Elec	3
IND E 315	3	elective	2	IND E 250	4
Total	15	Total	15	Total	15

Sample Senior Year

Autumn		Winter		Spring	
Tech Elec	3	CEE 440	2	Capstone	5
Tech Elec	3	Tech Elec	3	Tech Elec	3
UD / Science	5	UD Elect	4	UD Elec	3
VLPA/I&S	5	VLPA/I&S	5	UD Elec	3
Total	16	Total	14	Total	14

Additional credits as desired or needed

NOTE:

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

RESOURCES:

BSENE webpage (for prospective & current students)
www.ce.washington.edu/future/undergrad/environmental
www.ce.washington.edu/current/undergrad/environmental
UW Admissions
admit.washington.edu/
UW College of Engineering
www.engr.washington.edu/
UW Course Equivalencies for WA St Comm Colleges
admit.washington.edu/apply/transfer/equivalency-guide/
CEE Add Code Request Form
<http://tinyurl.com/ceeaddcoderequest>

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 BSENE 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 BSENE 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 COURSE LIST

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

Engineered Systems and Processes

- CEE 482 Wastewater Reuse and Resource Recovery (3)
- CEE 483 Drinking Water Treatment (3)
- CEE 490 Air Pollution Control (3)
- CEE 497 Engr Jordan: Water in an Arid Land (5)

Natural Systems and Processes

- CEE 432 Advanced Remote Sensing & Earth Observ (4)
- CEE 462 Applied Limnology and Pollutant Effects (3)
- CEE 480 Air-Quality Modeling (3)
- CEE 496 Fate and Transport of Chemical in the Envr (3)
- CEE 498 Environmental Analyses (4)

Hydrology and Hydrodynamics

- CEE 473 Coastal Engineering (3)
- CEE 474 Hydraulics of Sediment Transport (3)
- CEE 475 Analysis Techniques for Groundwater Flow (3)
- CEE 476 Physical Hydrology (3)
- CEE 477 Open-Channel Flow (3)
- CEE 481 Hydraulic Design for Envr Engr (3)

NEW! *Additional earth science course (not biology, chemistry, or physics) required for graduation. See Upper Division Engr & Science List for approved science courses:*

www.ce.washington.edu/current/undergrad/environmental/upper/req/nondep