

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING (BSCE)****PREREQUISITE & GENERAL EDUCATION COURSES**

Mathematics	24 cr
◇ MATH 124, 125, and 126	(15)
Calculus with Analytic Geometry	
MATH 307 Differential Equations	(3)
◆ MATH 308 Matrix Algebra	(3)
IND E 315 Prob & Stats for Engineers	
(Preferred), or STAT 390	(3-4)
Sciences	25 cr
◇ CHEM 142 General Chemistry	(5)
CHEM 152 General Chemistry	(5)
◇ PHYS 121 Mechanics	(5)
◇ PHYS 122 Elect-Mag & Osc	(5)
PHYS 123 Waves	(5)
Engineering Fundamentals	20 cr
◆ AMATH 301 Beg Sci Computing <i>or</i>	(4)
CSE 142 Computer Programming I	
<i>Note: AMATH 301 preferred</i>	
◇ AA 210 Statics	(4)
◆ CEE 220 Mechanics of Materials	(4)
◆ ME 230 Kinematics & Dynamics	(4)
One course additional course from:	(4)
<i>ME 123, MSE 170, EE 215, IND E 250, AA 260,</i>	
<i>and IND E 315*. (Students who take IND E 315 may</i>	
<i>apply any non-statistics, non-teaching 300-level</i>	
<i>MATH course towards the mathematics requirement.)</i>	
Written Communication	12 cr
◇ English Composition	(5)
ENGR 231 Intro to Technical Writing	(3)
Additional Composition or Writing	(4)
Economics	CEE topic requirement
ECON 200 or 201 (5) or IND E 250 (4)	
<i>IND E 250 also counts as Engr Fundamentals above.</i>	
<i>ECON 200 also counts as I&S below.</i>	
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.	
<i>Can also count as VLPA/I&S if course is designated</i>	
<i>as such.</i>	

The BSCE program is accredited by the Engineering Accreditation Commission of ABET <http://www.abet.org>.

UPPER-DIVISION COURSEWORK

The BSCE degree covers six areas of interest (**construction, transportation, geotechnical, structural, water, and environmental engineering**). The 300-level curriculum provides a foundation in all areas and is typically completed in the junior year in a pre-arranged sequence of courses, called Track I or II. (See back for more information.) In the senior year, students can explore their areas of interest as they select courses to meet Technical Elective and Upper-Division Engineering & Science Elective requirements. Seniors also complete a spring capstone design course in an engineering area of their choice (e.g., Construction/Transportation, etc.).

CEE Junior Year Courses (40 cr)

CEE 307 Construction Engineering	(5)
CEE 317 GeoSurveying	(5)
CEE 327 Transportation Engineering	(5)
CEE 337 Construction Materials	(5)
CEE 347 Intro to Fluid Mechanics	(5)
CEE 357 Environmental Engineering	(5)
CEE 367 Geotechnical Engineering	(5)
CEE 377 Intro to Structural Design	(5)

CEE Senior Year Courses

Professional Practice and Capstone	7 cr
CEE 440 Professional Practice	(2)
Capstone Design Course	(5)
<i>Choice of CEE 441, 442, 444 or 445</i>	

Technical Electives **15 cr**

Three "core" courses, each one selected from a different category of departmental emphasis. See "Core Courses" list on page 2 (also available on the CEE website). Complete additional 400-level CEE courses, not used to fulfill other requirements, for a total of 15 credits.

Upper-Division Engineering and Science **12 cr**

Any 400-level CEE courses (not including CEE 440, capstone, and courses used to satisfy Technical Electives.) Additionally, courses from outside the department may also apply if listed on the pre-approved Upper-Division course list (available on CEE website), or if approved by petition.

General Electives

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

Upper-Division Admission Prerequisites:

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

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	PHYS 121	5
ENGL Comp	5	VLPA/IS	5	VLPA/IS	5
ENGR 101	2	CEE 101 or 102	1	CEE 103	1
			1		
Total	17	Total	6	Total	16

Sample Sophomore Year

Autumn		Winter		Spring	
MATH 308	3	MATH 307	3	IND E 315	3
PHYS 122	5	PHYS 123	5	AMATH301	4
AA 210	4	CEE 220	4	ME 230	4
IND E 250	4	ENGR 231	3	VLPA/IS	4
(or ECON 200)					
Total	16	Total	15	Total	15

Sample CEE Junior Year (Students take Track I or II)

Autumn		Winter		Spring	
<i>Track I</i>					
CEE 317	5	CEE 307	5	CEE 327	5
CEE 337	5	CEE 347	5	CEE 367	5
CEE 377	5	CEE 357	5	CEE 4xx, grad req, or other elective	5
Total	15	Total	15	Total	15
<i>Track II</i>					
CEE 307	5	CEE 327	5	CEE 337	5
CEE 317	5	CEE 367	5	CEE 357	5
CEE 347	5	CEE 377	5	CEE 4xx or grad reqmt, or other elective	5
Total	15	Total	15	Total	15

Sample CEE Senior Year

Autumn		Winter		Spring	
Tech Elec	3	CEE 440	2	Capstone	5
Tech Elec	3	Tech Elec	3	Tech Elec	3
Tech Elec	3	UD Elect	3	UD Elec	3
UD Elect	3	UD Elect	3	Elective	3

Additional credits as desired or needed

Notes:

- Tech Elec = CEE Technical Electives (required)
- UD Elec = CEE Upper Division Science & Engr Electives (required)
- AMATH 351/352 may be substituted for MATH 307/308.
- IND E 315 may be counted as either a Math class or Engineering Fundamental, but not both.
- Q SCI 381 may satisfy your statistics requirement.
- For VLPA and I&S, see UW Areas of Knowledge on Web

ADMISSIONS:

The CEE program admits students once a year for autumn quarter only. See the CEE website for detailed application information and link to the online form.

Transfer students must also submit a UW admissions application for autumn. See UW Admissions for more information. *Transfer students seeking course substitutions should be prepared to present a course description and syllabus.*

RESOURCES:

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>

TECHNICAL ELECTIVES: CORE COURSES LIST

Construction Core

- CEE 404 Infrastructure Construction (4)
- CEE 420 Engineering With Developing Communities (3)
- CEE 424 GIS for Civil Engineers (3)
- CEE 429 Sustainability in Building Infrastructure (3)

Transportation Core

- CEE 410 Traffic Engr Fundamentals (3)
- CEE 412 Trans Data Mgmt (3)
- CEE 416 Urban Trans Planning Design (3)

Geotechnical Core

- CEE 436 Foundation Design (3)

Structural core

- CEE 451 Design of Metal Structures (3)
- CEE 452 Design Reinforced Concrete Structures (3)
- CEE 453 Prestressed Concrete Design (3)
- CEE 454 Design Timber Structures (3)
- CEE 455 Structural Unit Masonry (3)
- CEE 456 Structural Analysis (5)
- CEE 457 Advanced Structures I (3)

Water Core

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

Environmental Core

- CEE 462 Applied Limnology (3)
- CEE 480 Air-Quality Modeling (3)
- CEE 481 Hydraulic Design for Env'l Engr (3)
- CEE 482 Wastewater Treatment & Reuse (3)
- CEE 483 Drinking Water Treatment (3)
- CEE 484 Wastewater Mgmt & Reuse (3)
- CEE 488 Hazardous Wastes Engineering (3)
- CEE 490 Air-Pollution Control (4)
- CEE 491 Deterministic Systems (3)