Prerequisites & General Elective Coursework

<table>
<thead>
<tr>
<th>Mathematics (24 credits)</th>
<th>Sciences (25+ credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Calculus w/ Analytic Geo. (Math 124/125/126) 15cr</td>
<td>▶ General Chemistry 1 (CHEM 142) 5cr</td>
</tr>
<tr>
<td>Differential Equations (MATH 207 or AMATH 351) 3cr</td>
<td>General Chemistry 2 (CHEM 152) 5cr</td>
</tr>
<tr>
<td>▶ Matrix/Linear Algebra (MATH 208 or AMATH 352) 3cr</td>
<td>▶ Mechanics (PHYS 121) 5cr</td>
</tr>
<tr>
<td>Statistics (INDE 315 or STAT 390) 3-4cr</td>
<td>▶ Elect-Mag &amp; Oscillation (PHYS 122) 5cr</td>
</tr>
<tr>
<td></td>
<td>Waves (PHYS 123) 5cr</td>
</tr>
<tr>
<td><strong>Note</strong>: Students need to take 1 additional science course. See <a href="#">BSCE E&amp;S Elective list</a> for details.</td>
<td></td>
</tr>
</tbody>
</table>

**Engineering Fundamentals (20 credits)**

▶ Comp Programming 4cr
▶ Statics (AA 210) 4cr
▶ Mechanics of Materials (CEE 220) 4cr
▶ Dynamics & Kinematics (ME 230) 4cr
▶ One Additional Engineering Fund. Course 4cr
  ▶ Choose from ME 123 (VLPA), MSE 170, EE 215, INDE 250, AA 260 or INDE 315.
  ▶ If you complete statistics w/ INDE 315, you can apply MATH 209 or MATH 224 toward this requirement.

**Written Communication (12 credits)**

▶ English Composition 5cr
▶ Technical Writing (ENGR 231) 3cr
▶ Additional Composition or Writing 4cr

**Economics (4-5 credits)**

*CEE Topic Requirement 4-5cr
▶ INDE 250 (4cr), ECON 200 or ECON 201 (5cr)
  ▶ INDE 250 will also satisfy your Add'l Engr. Fundamentals requirement; ECON 200 or 201 will also satisfy I&S.

**Areas of Inquiry (24 credits)**

Arts and Humanities (A&H) 10cr
Social Sciences (SSc) 10cr
Additional A&H and/or SSc 4cr

**Diversity (3 credit minimum)**

One course from UW's approved DIV list. See MyPlan.

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**BSCE Major Coursework**

The BSCE degree covers six areas of interest: Construction, Environmental, Hydrology, Geotechnical, Structural, and Transportation. The 300-level CEE Core Curriculum provides a foundation in all areas. Technical Electives and Engineering & Science Electives, typically taken in the senior year, allow students to develop depth in their preferred area(s) of interest. Seniors also complete a capstone design course in an area of their choice.

**Core Curriculum (40 credits)**

*(See sample 4 year plan on page 2 for core curriculum sequencing (Track 1 and Track 2))*

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

**Capstone & Professional Practice (7 credits)**

Capstone Design Course 5cr
- CEE 441/442/444/445 taken SPR Qtr of senior year.

Professional Practice (CEE 440) 2cr
- CEE 440 is taken SPR Qtr of junior year.

**Technical Electives (TE) (15 credits, 3 areas)**

- Technical Electives are CEE 400-level courses that provide students with in-depth knowledge and design experience.
- **Area Requirement**: Students are required to take at least 3 credits from 3 of the 6 areas. (see [BSCE TE list](#) for details)

**Engineering & Science Electives (E&S) (12 cr.)**

BSCE students are required to complete 12 credits of Engineering and Science Elective coursework. Included in these 12 credits, students must include a basic science course. See the [BSCE E&S Elective list](#) for complete details.

**General Electives**

Additional credits to meet the 180 total required for the BSCE.

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**Academic Planning Notes:**

- Areas of Inquiry courses can also count toward Diversity and Additional Writing. Use MyPlan filters to identify courses that satisfy multiple requirements.
- CEE Study Abroad opportunities are a great way to satisfy degree requirements.

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www.ce.washington.edu • 201 More Hall, Box 352700, Seattle, WA 98195 • ceadvice@uw.edu
# Bachelor of Science in Civil Engineering (BSCE/CIVE)  
**University of Washington**

## Sample 4-year Plan

### Freshman Year

<table>
<thead>
<tr>
<th>AUT</th>
<th>WIN</th>
<th>SPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 124</td>
<td>5 MATH 125</td>
<td>5 MATH 126</td>
</tr>
<tr>
<td>CHEM 142</td>
<td>5 CHEM 152</td>
<td>5 PHYS 121</td>
</tr>
<tr>
<td>Eng. Comp.</td>
<td>5 A&amp;H/SSc</td>
<td>5 A&amp;H/SSc</td>
</tr>
<tr>
<td>ENGR 101</td>
<td>2 CEE 102</td>
<td>1 CEE 103</td>
</tr>
</tbody>
</table>

**Total**: 17 credits, 16 credits, 16 credits

### Sophomore Year

<table>
<thead>
<tr>
<th>AUT</th>
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<th>SPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 210</td>
<td>4 CEE 220</td>
<td>4 ME 230</td>
</tr>
<tr>
<td>PHYS 122</td>
<td>5 PHYS 123</td>
<td>5 AMATH 301</td>
</tr>
<tr>
<td>MATH 208</td>
<td>3 MATH 207</td>
<td>3 Additional Science</td>
</tr>
<tr>
<td>INDE 250/ECON</td>
<td>4 ENGR 231</td>
<td>3 A&amp;H/SSc</td>
</tr>
</tbody>
</table>

**Total**: 16 credits, 15 credits, 16 credits

### Junior Year (Students Choose Track 1 or Track 2)

#### Jr. Track 1

<table>
<thead>
<tr>
<th>AUT</th>
<th>WIN</th>
<th>SPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 317</td>
<td>5 CEE 307</td>
<td>5 CEE 337</td>
</tr>
<tr>
<td>CEE 327</td>
<td>5 CEE 347</td>
<td>5 CEE 367</td>
</tr>
<tr>
<td>CEE 357</td>
<td>5 CEE 377</td>
<td>5 CEE 440</td>
</tr>
</tbody>
</table>

**Total**: 15 credits, 15 credits, 12+ credits

#### Jr. Track 2

<table>
<thead>
<tr>
<th>AUT</th>
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<th>SPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 307</td>
<td>5 CEE 327</td>
<td>5 CEE 337</td>
</tr>
<tr>
<td>CEE 317</td>
<td>5 CEE 367</td>
<td>5 CEE 357</td>
</tr>
<tr>
<td>CEE 347</td>
<td>5 CEE 377</td>
<td>5 CEE 440</td>
</tr>
</tbody>
</table>

**Total**: 15 credits, 15 credits, 12+ credits

### Senior Year

<table>
<thead>
<tr>
<th>AUT</th>
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</thead>
<tbody>
<tr>
<td>Technical Elective</td>
<td>3 Technical Elective</td>
<td>3 Capstone</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>3 E&amp;S Elective</td>
<td>4 Technical Elective</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>3 INDE 315</td>
<td>3 Elective</td>
</tr>
<tr>
<td>E&amp;S Elective</td>
<td>3</td>
<td>+</td>
</tr>
</tbody>
</table>

Additional Credits as Desired of Needed

### BSCE Admissions:

The BSCE program admits students once a year for autumn quarter only. See the [CEE website for detailed application information](#). 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. WA State Community College Transfers should consult the [UW Equivalency Guide](#).

### BSCE Technical Electives: Course List

- **Construction, Energy & Sustainable Infrastructure**
  - CEE 424 GIS for Civil Engineers (3)
  - CEE 433* Design and Construction of Temporary Structures (3)
  - CEE 434 Project Estimating (3)
  - CEE 435 Project Scheduling (3)
  - CEE 454* Design of Timber Structures (3)

- **Environmental Engineering**
  - CEE 462 Applied Limnology and Pollutant Effects (3)
  - CEE 465* Data Analysis in Water Sciences (3)
  - CEE 480* Air-Quality Modeling (3)
  - CEE 481* Hydraulic Design for Environmental Engineering (3)
  - CEE 482 Wastewater Reuse & Resource Recovery (3)
  - CEE 483 Drinking Water Treatment (3)
  - CEE 490 Air-Pollution Control (4)
  - CEE 497 Engineering Jordan (Study Abroad) (5)

- **Geotechnical Engineering**
  - CEE 436 Foundation Design (3)

- **Hydrology/Hydrodynamics (Water)**
  - CEE 465* Data Analysis in Water Sciences (3)
  - 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 Engr (3)
  - CEE 478 Water Systems Management and Operations (3)
  - CEE 480* Air-Quality Modeling (3)
  - CEE 481* Hydraulic Design for Environmental Engineering (3)

- **Structural Engineering**
  - CEE 378 Structural Analysis (Formerly CEE 456) (5)
  - CEE 433* Design and Construction of Temporary Structures (3)
  - 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)

- **Transportation Engineering**
  - CEE 410 Traffic Engr Fundamentals (3)
  - CEE 412 Transportation Data Mgmt. (3)
  - CEE 416 Urban Transportation Planning & Design (3)

- **Non Area-Specific Courses** (Will not satisfy area requirement)
  - CEE 409 Engineering Rome (Study Abroad) (5)
  - CEE 432 Advanced Remote Sensing & Earth Observation (4)
  - CEE Study Abroad Opportunities (India, Indonesia, etc.)