# Civil and Environmental Engineering Graduation Requirements

**University of Washington**  
www.ce.washington.edu

## Requirement Sheet Key
- ◆ = Upper-Division Admission Requirements

### Mathematics (24 Credits)
- ◆ Math 124 (5cr) – Calculus I
- ◆ Math 125 (5cr) – Calculus II
- ◆ Math 126 (5cr) – Calculus III
- Math 307(3cr) – Differential Equations [pr: Math 125]
- ◆ Math 308 (3cr) – Matrix Algebra [pr: Math 126]
  One course from the following:
  Math/Stat 390 or Ind E 315
  (AMATH 351/352 may substitute for Math 307/308)

### Sciences (25 Credits)
- ◆ Chem 142 (5cr) – General Chemistry with lab
- Chem 152 (5cr) – General Chemistry with lab
- ◆ Phys 121 (5cr) – Mechanics with lab [pr: Math 124]
- ◆ Phys 122 (5cr) – Electro/Oscillatory with lab [pr: Math 125]
- Phys 123 (5cr) – Waves with lab [pr: Math 126]

### Written & Oral Communications (12 Credits)
- ◆ English Comp (5cr) – English Composition
- HCDE 231 (3cr) – Intro to Technical Writing [pr: Engl. Comp]
- CEE 363 (4cr) – Construction Materials (Writing Intensive)

### Visual, Literary & Performing Arts/Individuals & Society (VLPA/I&S) (24 Credits)
Minimum 10 credits in VLPA required.
Minimum 10 credits in I&S required.
Remaining 4 credits can be either VLPA or I&S.
(Econ 200 & 201 are I&S courses that count toward both I&S and the Economics requirement that follows)

### Economics (CEE topic requirement) (4-5 Credits)
- Econ 200 (5cr) or Econ 201 (5cr) or Ind E 250 (4cr)

### Engineering Fundamentals (20 Credits)
- ◆ AMATH 301(4cr) – Beg. Scientific Computing (preferred)
  -or-
  CSE 142 (4cr) – Computer Programming I
- ◆ AA 210 (4cr) – Engineering Statics [pr: Math 126, Phys 121]
- ◆ ME 230 (4cr) – Kinematics & Dynamics [pr: AA 210]
  One course from the following list:
  ME 123 (4cr), MSE 170 (4cr), EE 215 (4cr), EE 215 (4cr), Ind E 250 (4cr),
  AA 260 (4cr)

### CEE Core Courses (45 Credits)
- CEE 306 (3cr) – Construction Engineering I
- CEE 316 (4cr) – Surveying Engineering
- CEE 320 (3cr) – Transportation Engineering
- CEE 342 (4cr) – Fluid Mechanics [pr: CEE 220, ME 230, PHYS 123]
- CEE 345(4cr) – Hydraulic Engineering [pr: CEE 342]
- CEE 350 (4cr) – Environmental Engineering
- CEE 360 (3cr) – Sustainability in Civil Engineering
- CEE 363 (4cr) – Construction Materials
- CEE 366 (4cr) – Basic Soil Mechanics [pr: CEE 342]
- CEE 379 (4cr) – Elementary Structures I
- CEE 380 (4cr) – Elementary Structures II
- CEE 391 (3cr) - Autocad
- CEE 392 (1cr) – MatLab (waived if AMATH 301 completed)

### Civil Engineering Comprehensive Design (6 Credits)
- CEE 440 (2cr) – Civil Engineering Design Seminar
  One course from the following [pr: CEE 440 for all courses]
  CEE 441 (4cr) – Highway/Traff Engr. – Geometric Design
  CEE 442 (4cr) – Structural Engineering Design Project
  CEE 444 (4cr) – Water Resources/Hydraulic Engr. Design
  CEE 445 (4cr) – Environmental Engineering Design Studies

### Civil Engineering Technical Electives (15 Credits)
Students must take at least one course from four of the six different areas selected from the “Core Courses” list (available on CEE website), plus any additional CEE 400-level course, excluding CEE 423 not used elsewhere.

### Upper-Division ENGR/Sci Electives (9 Credits)
Choice of additional CEE 400 level courses (excluding CEE 423) and courses from an approved list of courses outside the department. See upper-division courses list on CEE website.

### Total Credits Required for Graduation (180 Credits)

## Application Deadlines
Upper division applications are due July 1st.
CEE does not have an Early Admission process.

Last revised July 2010
## Civil and Environmental Engineering Sample Curriculum

University of Washington

www.ce.washington.edu

### Freshman – Autumn Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 100</td>
<td>Introduction to CEE</td>
<td></td>
</tr>
<tr>
<td>Math 124</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>Chem 142</td>
<td>Chemistry &amp; Lab I</td>
<td>5</td>
</tr>
<tr>
<td>Engl 131</td>
<td>English Composition</td>
<td>5</td>
</tr>
</tbody>
</table>

**Quarter Total:** 15

### Freshman – Winter Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 125</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Chem 152</td>
<td>Chemistry &amp; Lab II</td>
<td>5</td>
</tr>
<tr>
<td>VLPA/I&amp;S</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>CEE 100</td>
<td>Introduction to CEE</td>
<td>1</td>
</tr>
</tbody>
</table>

**Quarter Total:** 16

### Freshman – Spring Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 126</td>
<td>Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>Phys 121</td>
<td>Mechanics &amp; Lab I</td>
<td>5</td>
</tr>
<tr>
<td>VLPA/I&amp;S</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

**Quarter Total:** 15

### Sophomore – Autumn Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 210</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 200</td>
<td>– Intro to MicroEcon</td>
<td>5</td>
</tr>
<tr>
<td>Math 307</td>
<td>Diff. Equations</td>
<td>5</td>
</tr>
</tbody>
</table>

**Quarter Total:** 17

### Sophomore – Winter Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 308</td>
<td>Matrix Algebra</td>
<td>3</td>
</tr>
<tr>
<td>CEE 220</td>
<td>Mech. of Materials</td>
<td>4</td>
</tr>
<tr>
<td>HCD 231</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Quarter Total:** 15

### Sophomore – Spring Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 230</td>
<td>Kinematics/Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>INDE 315</td>
<td>Engineering Stats</td>
<td>4</td>
</tr>
<tr>
<td>AMATH 301</td>
<td>– Sci. Computing</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter Total:** 15

### Junior – Autumn Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 306</td>
<td>Construction Engr I</td>
<td>3</td>
</tr>
<tr>
<td>CEE 316</td>
<td>Surveying Engr</td>
<td>4</td>
</tr>
<tr>
<td>CEE 320</td>
<td>Transportation Engr</td>
<td>3</td>
</tr>
<tr>
<td>CEE 363</td>
<td>Construction Materials</td>
<td>4</td>
</tr>
<tr>
<td>CEE 392</td>
<td>Computer Applications</td>
<td>1</td>
</tr>
</tbody>
</table>

**Quarter Total:** 16

### Junior – Winter Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 391</td>
<td>Autocad</td>
<td>3</td>
</tr>
<tr>
<td>CEE 342</td>
<td>Fluid Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>CEE 379</td>
<td>Elem. Structures I</td>
<td>3</td>
</tr>
<tr>
<td>CEE 390</td>
<td>CE Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter Total:** 14

### Junior – Spring Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 345</td>
<td>Hydraulic Engr</td>
<td>4</td>
</tr>
<tr>
<td>CEE 350</td>
<td>Environmental Engr I</td>
<td>4</td>
</tr>
<tr>
<td>CEE 366</td>
<td>Basic Soil Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>CEE 380</td>
<td>Elem. Structures II</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter Total:** 16

### Senior – Autumn Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 440</td>
<td>Design Practicum</td>
<td>2</td>
</tr>
<tr>
<td>CEE Technical Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CEE Technical Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CEE 333</td>
<td>Adv. Technical Writing</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter Total:** 12

### Senior – Winter Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE Technical Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Upper Div. ENGR &amp; SCI Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>VLPA/I&amp;S</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

**Quarter Total:** 14

### Senior – Spring Quarter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE Comp Design</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Upper Div. ENGR &amp; SCI Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Upper Div. ENGR &amp; SCI Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CEE Tech elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Quarter Total:** 13

**Bold face** courses are required for upper-division admission.

^Chem 152 Recommended for students considering multiple engineering programs

See CEE Advising Guide for list of technical electives.

---

**For more information contact:**

Engineering Advising

Office: 301 Loew Hall Box 352180, Seattle, WA 98195-2180
Phone: (206) 543-1770 Email: engradv@uw.edu

-or-

Mariko Navin

Civil and Environmental Engineering Advising

Office: 201 More Hall Box 352700, Seattle, WA 98195-2400
Phone: (206) 543-5092 Email: ceadvice@u.washington.edu

Last Revised July 2010