**This resource is for ENGRUD students who entered the UW in AUT24 or later.**

**CivE**

**Civil Engineering**
**Graduation Requirements**
University of Washington
http://ce.washington.edu

**ENGRUD Requirement Sheet – Key:**
◆ = Placement Requirements;
★ = *Pick **one** to satisfy placement requirement*
**Placement:** July 1 at the end of the first year

◆ **E-FIG: ENGR 101 and GEN ST 199 (2cr)**

## Mathematics (24-25cr)

◆ **MATH 124, 125, 126 - Calc. w/ Analytic Geom I-III (15cr)**

MATH 207 - Intro to Differential Equations (3cr)
[pr: MATH 125] OR AMATH 351

MATH 208 - Matrix Algebra with Applications (3cr)
[pr: MATH 126] OR AMATH 352

IND E 315 - Prob. & Stats. for Engineers (3cr) [pr: MATH 207]
OR STAT 390 - Statistical Methods in Engr. & Science (4cr)
OR Q SCI 381 - Intro to Probability & Statistics (5cr)

## Sciences (28-30cr)

◆ **CHEM 142 - General Chemistry (5cr)**

★ ***CHEM 152 - General Chemistry (5cr)***
[pr: CHEM 142]

◆ **PHYS 121 - Mechanics (5cr)**
[pr: MATH 124]

★ ***PHYS 122 - Electromagnetism (5cr)***
[pr: MATH 125; PHYS 121]

★ ***PHYS 123 - Waves (5cr)***
[pr: MATH 126; PHYS 122]

Basic Science Elective (3-5cr) – See department list for approved courses.

## General Education Requirements (36-41 cr)

***Written and Oral Communication:***

◆ **English Composition (5cr)**
Writing (7cr) (may overlap with Areas of Inquiry or DIV)

***Areas of Inquiry:***

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

***Diversity*** - DIV (5cr) (may overlap with Areas of Inquiry or W)

## Economics (4-5cr)

ECON 200 - Microeconomics (5cr) (SSc),
OR IND E 250 - Fund of Engr Economy (4cr)
OR ESRM 235/ ECON 235/ ENVIR 235 (SSc) (5cr)

## Engineering Fundamentals (16cr)

One course from the following:

★ ***AMATH 301 - Beginning Scientific Computing (4cr)***
[pr: MATH 125 or Q SCI 292]
★ ***CSE 121 - Intro to Computer Programming I (4cr)***
★ ***CSE 122 - Intro to Computer Programming II (4cr)***
★ ***CSE 123 - Intro to Computer Programming III (4cr)***
★ ***CSE 160 - Data Programming (4cr)***

A A 210 - Engineering Statics (4cr)
[pr: MATH 126; PHYS 121]

## Engineering Fundamentals (cont'd)

CEE 220 - Intro to Mechanics of Materials (4cr)
[pr: AA 210]

M E 230 - Kinematics and Dynamics (4cr)
[pr: AA 210]

## CivE Core (40cr)

CEE 307 - Construction Engineering (5cr)

CEE 317 - GeoSurveying (5cr)

CEE 327 - Transportation Engineering (5cr)

CEE 337 - Construction Materials (5cr)

CEE 347 - Intro to Fluid Mechanics (5cr)

CEE 357 - Environmental Engineering (5cr)

CEE 367 - Geotechnical Engineering (5cr)

CEE 377 - Intro to Structural Design (5cr)

## Professional Practice (2cr)

CEE 440 - Professional Practice Studio (2cr)

## Capstone (5cr)

One of the following Capstone Design Projects:
CEE 441 - Transportation and Construction
CEE 442 - Structural Geotechnical (W)
CEE 444 - Water Resources and Hydraulic Engineering
CEE 445 - Environmental Engineering

## Civil Engineering Technical Electives (15cr)

View the department website for a list of approved 400-level courses; this includes at least one course from three separate areas of concentration:
Construction
Structural & Mechanics
Geotechnical
Transportation
Hydrology
Hydrodynamics
Environmental

## Engineering and Science Electives (12-14cr)

CEE 400-level course(s) or course(s) from approved list. View the department website for list. Maximum of 3 credits for CEE 499.

## Free Electives (to reach 180 total credits)

Additional coursework in any subject area not used elsewhere in degree.

## Total credits required for graduation: 180cr

*Honors or accelerated sequences of chemistry, math and physics will satisfy the placement requirements.*

*Updated September 2024*

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CivE

**Civil Engineering**
**Sample Curriculum**
University of Washington
http://ce.washington.edu

**Civil and Environmental Engineering Advising**
Office: 201 More Hall, Box 352700
Seattle, WA 98195-2700
Phone: (206) 543-5092
Email: ceadvice@uw.edu

This is a sample four-year plan for ENGRUD students that prepares them to be able to request placement at the end of the first year. It is intended to provide a framework for ENGRUD students to reference as they create their own individual academic plan.

Courses required to request placement for ENGRUD students: **ENGR 101 & GEN ST 199; MATH 124, MATH 125, MATH 126; CHEM 142; PHYS 121; English Composition; ENGRUD students who are interested in CivE should choose one of the following: AMATH 301, CHEM 152, CSE 122, ME 123, MSE 170, PHYS 122, PHYS 123.**

**First Year**

| Autumn Quarter | cr | Winter Quarter | cr | Spring Quarter | cr |
|---|---|---|---|---|---|
| ◆ **MATH 124 - Calc. w Analytic Geom I** | 5 | ◆ **MATH 125 - Calc w Analytic Geom II** | 5 | ◆ **MATH 126 - Calc w Analytic Geom III** | 5 |
| ◆ **CHEM 142 - General Chemistry** | 5 | ★ ***CHEM 152 - General Chemistry*** | 5 | ◆ **PHYS 121 - Mechanics** | 5 |
| ◆ **E-FIG: ENGR 101 & GEN ST 199** | 2 | SSc | 5 | ◆ **English Composition** | 5 |
| A&H | 5 | | | | |
| Qtr. Total: | **17** | Qtr. Total: | **15** | Qtr. Total: | **14** |

**Second Year**

| Autumn Quarter | cr | Winter Quarter | cr | Spring Quarter | cr |
|---|---|---|---|---|---|
| MATH 208 - Matrix Algebra | 3 | MATH 207 - Differential Equations | 3 | AMATH 301 - Beg. Sci Computing OR CSE 122 OR CSE 160 | 4 |
| PHYS 122 - Electromagnetism | 5 | PHYS 123 - Waves | 5 | IND E 315 - Prob and Stats for Engineers | 3 |
| AA 210 - Engineering Statics | 4 | CEE 220 - Intro to Mechanics of Materials | 4 | ME 230 - Kinematics and Dynamics | 4 |
| IND E 250 - Fund of Engineering Econ | 4 | Writing | 5 | DIV | 5 |
| Qtr. Total: | **16** | Qtr. Total: | **17** | Qtr. Total: | **16** |

**Third Year**

| Autumn Quarter | cr | Winter Quarter | cr | Spring Quarter | cr |
|---|---|---|---|---|---|
| CEE 317 - GeoSurveying | 5 | CEE 307 - Construction Engineering | 5 | CEE 327 - Transporation Engineering | 5 |
| CEE 337 - Construction Materials | 5 | CEE 347 - Intro to Fluid Mechanics | 5 | CEE 367 - Geotechnical Engineering | 5 |
| CEE 377 - Intro to Structural Design | 5 | CEE 357 - Environmental Engineering | 5 | CEE Technical Elective | 3 |
| Writing | 3 | | | CEE 440 - Design Practicum | 2 |
| Qtr. Total: | **18** | Qtr. Total: | **15** | Qtr. Total: | **15** |

**Fourth Year**

| Autumn Quarter | cr | Winter Quarter | cr | Spring Quarter | cr |
|---|---|---|---|---|---|
| CEE Technical Elective | 3 | Upper Division Engineering & Science Elective | 3 | CEE Capstone | 5 |
| CEE Technical Elective | 3 | CEE Technical Elective | 3 | Upper Division Engineering & Science Elective | 3 |
| Upper Division Engineering & Science Elective | 3 | Additional Writing | 4 | Upper Division Engineering & Science Elective | 3 |
| CEE Technical Elective | 4 | Basic Science Elective | 5 | A&H | 5 |
| A&H/ SSc | 4 | | | | |
| Qtr. Total: | **17** | Qtr. Total: | **15** | Qtr. Total: | **13** |

◆ **= Placement Requirement**
★ **=** *Pick **one** to satisfy placement requirements*

*Honors or accelerated sequences of chemistry, math and physics will satisfy the placement requirements.*

*Updated September 2024*