

This resource is for ENGRUD students who entered the UW in AUT21 or later.



**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 - Probability & Statistics for Engineers (3cr)
[pr: MATH 136, MATH 207 or AMATH 351]
OR STAT 390 - Statistical Methods in Engr. & Science (4cr)

Sciences (25cr)

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

★ **CHEM 152 - General Chemistry (5cr)**
[pr: CHEM 142, CHEM 143, or CHEM 145]

◆ **PHYS 121 - Mechanics (5cr)**
[pr: MATH 124 or MATH 134]

★ **PHYS 122 - Electromagnetism (5cr)**
[pr: MATH 125 or MATH 134; PHYS 121]

★ **PHYS 123 - Waves (5cr)**
[pr: MATH 126 or MATH 134; PHYS 122]

Engineering General Education Requirements (36cr)

Written and Oral Communication:

◆ **English Composition (5cr)**

ENGR 231 - Intro to Technical Communication (3cr)
Additional writing (4cr)

Areas of Knowledge:

Visual, Literary & Performing Arts - VLPA (10cr)

Individuals & Society - I&S (10cr)

VLPA or I&S (4cr)

Diversity - DIV (3cr) (may overlap with VLPA / I&S)

Economics (4-5cr)

ECON 200 - Microeconomics (5cr) (can satisfy I&S),
OR IND E 250 – Fund Engr Economy (4cr) (can satisfy Engr.
Fundamentals)

Engineering Fundamentals (16cr)

★ **AMATH 301 - Beginning Scientific Computing (4cr)**
[pr: MATH 125, Q SCI 292, or MATH 134]

OR
★ **CSE 142 - Computer Programming I (4cr)**

OR
★ **CSE 160 - Data Programming I (4cr)**

Engineering Fundamentals (cont'd)

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

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

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

Additional Engineering Fundamentals Course (4cr)

Choose one: A A 260; E E 215; IND E 250; M E 123; MSE 170

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 & Capstone (7cr)

CEE 440 - Professional Practice Studio (2cr)

AND

Capstone (one from): CEE 441, 442, 444, or 445 (5cr)

Civil Engineering Technical Electives (15cr)

See department for a list of approved courses; this includes at least one course from three separate areas of concentration: Construction, Structural, Geotechnical, Transportation, Hydrology or Environmental.

Engineering and Science Electives (12-14cr)

- One basic science course from approved list
- CEE 400-level course(s) or course(s) from approved list

Free Electives (~2cr)

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.

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

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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; 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 142; ME 123; MSE 170; PHYS 122, PHYS 123.**

First Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
◆ 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
VLPA / I&S	5	CEE 102 - CEE Careers	1	◆ English Composition	5
◆ E-FIG: ENGR 101 & GEN ST 199	2	VLPA / I&S	5	CEE 103 - Engineering for Disasters	1
Qtr. Total:	17	Qtr. Total:	16	Qtr. Total:	15

Second Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
MATH 208 - Matrix Algebra	3	MATH 207 - Differential Equations	3	AMATH 301 - Beg. Sci Computing	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	VLPA / I&S	4	ENGR 231 - Intro to Technical Comm	3
Qtr. Total:	16	Qtr. Total:	16	Qtr. Total:	14

Third Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
CEE 317 - GeoSurveying	5	CEE 307 - Construction Engineering	5	CEE 327 - Transportation 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
Qtr. Total:	15	Qtr. Total:	15	CEE 440 - Design Practicum	2
				Qtr. Total:	15

Fourth Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
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	Free Elective	1	Upper Division Engineering & Science Elective	3
CEE Technical Elective	3	VLPA / I&S	5	VLPA / I&S	2
VLPA / I&S	3	Qtr. Total:	13	Qtr. Total:	13
Qtr. Total:	15				

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★ = Pick **one** to satisfy placement requirements

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