EnvE

Environmental 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 (24cr)

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

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

AMATH 352 - Appl Linear Algebra and Numerical Analysis (3cr)
  [pr: MATH 126] OR MATH 208

IND E 315 - Prob. & Stats. for Engineers (3cr) [pr: AMATH 351]
  OR STAT 390 - Statistical Methods in Engr. & Science (4cr)
  OR Q SCI 381 - Intro to Probability & Statistics (5cr)

Sciences (28-30cr)

BIOL 180 - Introductory Biology (5cr)

◆ **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]

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

General Education Requirements (41cr)

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

Engineering Fundamentals (12-13 cr)

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)*

Engineering Fundamentals (cont'd)

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

One course from the following:
  A A 260 - Thermodynamics (4cr)
    [pr: CHEM 142; MATH 126; PHYS 121]
  M E 323 (5cr)
    [pr: CHEM 142; MATH 126; PHYS 121]

EnvE Core (30cr)

CEE 347 - Introduction to Fluid Mechanics (5cr)

CEE 348 - Hydrology and Environmental Fluid Methods (4cr)

CEE 349 - Case Studies in Environmental Engineering (3cr)

CEE 350 - Mass and Energy Bal in Environmental Engr. (4cr)

CEE 352 - Intro to Microbial Prin. in Environmental Engr. (5cr)

CEE 354 - Intro to Chem Prin. in Environmental Engr. (5cr)

CEE 356 - Quant. and Concept Tools for Sustainability (4cr)

Professional Practice (2cr)

CEE 440 - Professional Practice Studio (2cr)

Capstone (5cr)

One of the following Capstone Design Projects:
  CEE 444 - Water Resources and Hydraulic Engineering
  CEE 445 - Environmental Engineering

Environmental Engineering Tech Electives (15cr)

CEE 400-level coursework from an approved list. See department website for list.

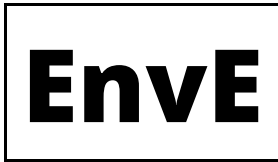## Engineering & Science Electives (13cr)

Choice of additional CEE 400-level courses or courses from an approved list from outside the department. Maximum 6 credits of CEE 498 and 3 credits of CEE 499 allowed.

Total credits required for graduation: 180cr

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

EnvE

Environmental 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, 125, 126; CHEM 142; PHYS 121; English Composition; ENGRUD students interested in EnvE should choose one of the following: AMATH 301, CHEM 152, CHEM 162, CSE 122, CSE 160, 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	★ *CHEM 162 - General Chemistry*	5
◆ E-FIG: ENGR 101 & GEN ST 199	2	◆ English Composition	5	◆ PHYS 121 - Mechanics	5
A&H / SSc	3				
Qtr. Total:	**15**	Qtr. Total:	**15**	Qtr.Total:	**15**

Second Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
AMATH 351 - Appl. Differential Equations	3	AMATH 352 - Linear Alg & Num. Analysis	3	AMATH 301 - Beg. Sci. Computing	4
★ *PHYS 122 - Electromagnetism*	5	★ *PHYS 123 - Waves*	5	BIOL 180 - Intro Biology I	5
A A 210 - Engineering Statics	4	Writing	5	A A 260 - Thermodynamics	4
A&H / SSc	5	A&H / SSc	5	Basic Science Elective	3
Qtr. Total:	**17**	Qtr. Total:	**18**	Qtr. Total:	**16**

Third Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
CEE 349 - Case Studies in EnvE	3	CEE 347 - Inro to Fluid Mechanics	5	CEE 348 - Hydrology & Environmental Fluid Methods	4
CEE 350 - Mass & Energy Bal in EnvE	4	CEE 354 - Intro to Chemical Principles in Environmental Engineering	5	CEE 356 - Quantitative & Conceptual Tools for Sustainability	4
CEE 352 - Intro to Microbial Principles in Environmental Engineering	5	DIV	5	IND E 250 - Engineering Economy	4
IND E 315 - Prob and Stat for Engineers	3	Writing	2	Technical Elective	3
Qtr. Total:	**15**	Qtr. Total:	**17**	Qtr. Total:	**15**

Fourth Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
Technical Elective	3	CEE 440 - Professional Practice Studio	2	CEE 444/445 - Capstone Design	5
Technical Elective	3	Technical Elective	3	Technical Elective	3
E&S Elective	3	E&S Elective	4	E&S Elective	3
A&H / SSc	5	A&H / SSc	5	E&S Elective	3
Qtr. Total:	**14**	Qtr. Total:	**14**	Qtr. Total:	**14**

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