



Environmental Engineering
Graduation Requirements
University of Washington
<https://ce.washington.edu>

ENGRUD Requirement Sheet – Key

◆ = Placement Requirements

★ = Pick three to satisfy placement requirements

Placement Periods

Placement 1 = July 1 at end of first year

Placement 2 = January 15 of second year

Placement 3 = July 1 at end of second year

Mathematics (24cr)		Economics Requirement (4-5cr)	
◆ MATH 124, 125, 126 - Calculus with Analytical Geometry I, II, III (15cr)	<input type="checkbox"/>	Choose one: ECON 200 (5cr) <u>OR</u> IND E 250 (4cr)	<input type="checkbox"/>
AMATH 351 - Applied Differential Equations (3cr) [pr: MATH 125]	<input type="checkbox"/>	EnvE Core (30cr)	
AMATH 352 - Matrix Algebra (3cr) [pr: MATH 126]	<input type="checkbox"/>	CEE 347 - Introduction to Fluid Mechanics (5cr)	<input type="checkbox"/>
IND E 315 - Probability & Statistics for Engineers (3cr) [pr: either MATH 136, MATH 307, or AMATH 351]	<input type="checkbox"/>	CEE 348 - Hydrology and Environmental Fluid Methods (4cr)	<input type="checkbox"/>
Sciences (35cr)		CEE 349 - Case Studies in Environmental Engineering (3cr)	<input type="checkbox"/>
★ BIOL 180 - Introductory Biology (5cr)	<input type="checkbox"/>	CEE 350 - Mass and Energy Balances in Environmental Engineering (4cr)	<input type="checkbox"/>
★ CHEM 142 - General Chemistry (5cr)	<input type="checkbox"/>	CEE 352 - Introduction to Microbial Principles in Environmental Engineering (5cr)	<input type="checkbox"/>
★ CHEM 152 - General Chemistry (5cr)	<input type="checkbox"/>	CEE 354 - Introduction to Chemical Principles in Environmental Engineering (5cr)	<input type="checkbox"/>
★ CHEM 162 - General Chemistry (5cr)	<input type="checkbox"/>	CEE 356 - Quantitative and Conceptual Tools for Sustainability (4cr)	<input type="checkbox"/>
★ PHYS 121 - Mechanics (5cr) [pr: MATH 124]	<input type="checkbox"/>	EnvE/CEE Senior Courses (7cr)	
★ PHYS 122 - Electromagnetism (5cr) [pr: MATH 125]	<input type="checkbox"/>	CEE 440 - Professional Practice Studio (2cr) Choose one: CEE 444 (5cr) <u>OR</u> CEE 445 (5cr)	<input type="checkbox"/>
★ PHYS 123 - Waves (5cr) [pr: MATH 126]	<input type="checkbox"/>	Technical Electives (15cr)	
Engineering General Education Requirements (36cr)		Select courses from the Technical Electives: Core Courses list on the CEE website. Thematic areas: Engineered Systems and Processes, Natural Systems and Processes, and Hydrology and Hydrodynamics.	<input type="checkbox"/>
<i>Written and Oral Communication(12cr):</i>		Upper-Division Engineering and Science (13cr)	
◆ ENGL composition (5cr)	<input type="checkbox"/>	Select courses from within CEE or from approved list of non-CEE courses.	<input type="checkbox"/>
ENGR 231 - Into to Technical Communication (3cr)	<input type="checkbox"/>	Total credits required for graduation: 180cr	
Add'l Writing or Composition (4cr)	<input type="checkbox"/>		
<i>Areas of Knowledge:</i>			
Visual, Literary & Performing Arts - VLPA (10cr)	<input type="checkbox"/>		
Individuals & Society - I&S (10cr)	<input type="checkbox"/>		
VLPA or I&S (4cr)	<input type="checkbox"/>		
Diversity-DIV (3cr) (may overlap with VLPA/I&S)	<input type="checkbox"/>		
Engineering Fundamentals (16cr)			
AA 210 - Engineering Statics (4cr) [pr: MATH 126; PHYS 121]	<input type="checkbox"/>		
CEE 220 - Introduction to Mechanics of Materials (4cr) [pr: AA 210]	<input type="checkbox"/>		
AA 260 - Thermodynamics (4cr) [pr: CHEM 142, CHEM 144, or CHEM 145; MATH 126 or MATH 136; PHYS 121]	<input type="checkbox"/>		
AMATH 301 - Beginning Scientific Computing (4cr) [pr: MATH 125 or MATH 135] <u>OR</u> CSE 142 - Computer Programming I (4cr)	<input type="checkbox"/>		

Honors or accelerated sequences of math and chemistry can satisfy some of the above requirements, see department website for specifics. AMATH 351/352/353 are alternatives to Math 307/308/309.

This is a sample four-year plan for ENGRUD students. 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: **MATH 124, MATH 125, MATH 126; three courses from CHEM 142, CHEM 152, CHEM 162, PHYS 121, PHYS 122, PHYS 123, or BIOL 180; 5 credits of English Composition.**

	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
Freshman	◆ MATH 124 - Calculus with Analytical Geometry I	5	◆ MATH 125 - Calculus with Analytical Geometry II	5	◆ MATH 126 - Calculus with Analytical Geometry III	5
	★ CHEM 142 - General Chemistry	5	★ CHEM 152 - General Chemistry	5	★ CHEM 162 - General Chemistry	5
	VLPA/I&S	4	◆ English Composition	5	★ PHYS 121 - Mechanics	5
	E-FIG: ENGR 101 & GEN ST 199	2				
	Qtr. Total:	16	Qtr. Total:	15	Qtr. Total:	15
	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
Sophomore	AMATH 351 - Applied Differential Equations	3	AMATH 352 - Matrix Algebra	3	AMATH 301 - Beginning Scientific Computing -or- CSE 142 + BIOEN 498: MatLab Fundamentals	4
	★ PHYS 122 - Electromagnetism	5	★ PHYS 123 - Waves	5	★ BIOL 180 - Intro Biology I	5
	AA 210 - Engineering Statics	4	CEE 220 - Mechanics of Materials	4	AA 260 - Thermodynamics	4
	VLPA/I&S	5	VLPA/I&S	5		
	Qtr. Total:	17	Qtr. Total:	17	Qtr. Total:	13
	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
Junior	CEE 349 - Case Studies in Environmental Engineering	3	CEE 347 - Intro to Fluid Mechanics	5	CEE 348 - Hydrology & Environmental Fluid Methods	4
	CEE 350 - Mass & Energy Balances in Environmental Engineering	4	CEE 354 - Introduction to Chemical Principles in Environmental Engineering	5	CEE 356 - Quantitative & Conceptual Tools for Sustainability	4
	CEE 352 - Introduction to Microbial Principles in Environmental Engineering.	5	ENGR 231 - Intro to Technical Communication	3	IND E 250 - Engineering Economy	4
	IND E 315 - Probability and Statistics For Engineers	3	Additional Writing	4	Technical Elective	3
	Qtr. Total:	15	Qtr. Total:	17	Qtr. Total:	15
	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
Senior	Technical Elective	3	CEE 440 - Professional Practice Studio	2	CEE 444/445 - Capstone Design	5
	Technical Elective	3	Technical Elective	3	Technical Elective	3
	UD Elective	3	UD Elective	4	UD Elective	3
	VLPA/I&S/DIV	5	VLPA/I&S	5	UD Elective	3
	Qtr. Total:	14	Qtr. Total:	14	Qtr. Total:	14

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