

HCDE

**Human Centered
Design and Engineering**
Graduation Requirements
University of Washington
<https://hcde.washington.edu>

ENGRUD Requirement Sheet – Key

◆ = Placement Requirements
★ = *Pick one to satisfy placement requirement*

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 (15cr)	
◆ MATH 124, 125, 126 - Calculus with Analytical Geometry I, II, III (15cr)	<input type="checkbox"/>
Statistics – pick one of the following (3-5cr)	
★ STAT 220 - Principles of Statistical Reasoning (5cr)	<input type="checkbox"/>
★ STAT 221 - Statistical Concepts and Methods for the Social Sciences (5cr)	<input type="checkbox"/>
★ STAT 311 - Elements of Statistical Analysis (5cr) [pr: MATH 120 or 124]	<input type="checkbox"/>
★ IND E 315 - Probability and Statistics for Engineers (3cr) [pr: MATH 307]	<input type="checkbox"/>
Sciences – pick one ★ course for placement (5cr) and three additional courses from below to graduate (14-15cr)	
★ CHEM 142 - General Chemistry (5cr)	<input type="checkbox"/>
CHEM 152 - General Chemistry (5cr)	<input type="checkbox"/>
CHEM 162 - General Chemistry (5cr)	<input type="checkbox"/>
★ PHYS 121 - Mechanics (5cr) [pr: MATH 124]	<input type="checkbox"/>
PHYS 122 - Electromagnetism (5cr) [pr: MATH 125]	<input type="checkbox"/>
PHYS 123 - Waves (5cr) [pr: MATH 126]	<input type="checkbox"/>
PHYS 114 - General Physics (4cr)	<input type="checkbox"/>
PHYS 115 - General Physics (4cr)	<input type="checkbox"/>
PHYS 116 - General Physics (4cr)	<input type="checkbox"/>
BIOL 118 - Survey of Physiology (5cr)	<input type="checkbox"/>
★ BIOL 180 - Introductory Biology (5cr)	<input type="checkbox"/>
BIOL 200 - Introductory Biology (5cr) [pr: CHEM 152]	<input type="checkbox"/>
PSYCH 202 - Biopsychology (5cr)	<input type="checkbox"/>
See HCDE website for additional courses that may count toward graduation requirements.	
Engineering General Education Requirements (38cr)	
Written and Oral Communication (8cr):	
◆ English Composition (5cr)	<input type="checkbox"/>
HCDE 231 - Introduction to Communication in HCDE (3cr)	<input type="checkbox"/>
Areas of Knowledge:	
Visual, Literary & Performing Arts - VLPA (10cr)	<input type="checkbox"/>
Individuals & Society - I&S (10cr)	<input type="checkbox"/>
VLPA or I&S (10cr)	<input type="checkbox"/>
Diversity-DIV (3cr) - (may overlap with VLPA/I&S)	<input type="checkbox"/>

Engineering Fundamentals (12cr)	
★ CSE 142 - Computer Programming (4cr) OR ★ CSE 160 - Data Programming (4cr)	<input type="checkbox"/>
Two of the following: AA 210, AA 260, CEE 220, CSE 143, EE 215, HCDE 496 (up to 4 cr), INDE 250, INDE/AA 280, ME 230, ME 123, MSE 170, PHIL 120	<input type="checkbox"/>
Departmental Core (46cr)	
HCDE 300 - Foundations of HCDE (5cr)	<input type="checkbox"/>
HCDE 301 - Advanced Communication in HCDE (5cr)	<input type="checkbox"/>
HCDE 308 - Visual Communication in HCDE (5cr)	<input type="checkbox"/>
HCDE 310 - Interactive Systems Design and Technology (5cr)	<input type="checkbox"/>
HCDE 313 - Introduction to User Research (5cr)	<input type="checkbox"/>
HCDE 318 - Introduction to User Centered Design (5cr)	<input type="checkbox"/>
HCDE 321 - Portfolio (2cr)	<input type="checkbox"/>
HCDE 322 - Organizational Teamwork (2cr)	<input type="checkbox"/>
HCDE 492 - Capstone Planning (2cr)	<input type="checkbox"/>
HCDE 493 - Senior Capstone (5cr)	<input type="checkbox"/>
HCDE 495 - Internship (3cr)	<input type="checkbox"/>
HCDE 496 - Directed Research in HCDE (2cr)	<input type="checkbox"/>
Technical Electives (25-29cr)	<input type="checkbox"/>
Free Electives (5-9cr)	
Additional credits to meet the 180 total required for the baccalaureate degree.	<input type="checkbox"/>
Total credits required for graduation: 180cr	

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; CSE 142 or CSE 160; one course from STAT 220, STAT 221, STAT 311, OR IND E 315; one course from CHEM 142, PHYS 121, 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
	◆ English Composition	5	★ CSE 142 or 160	5	★ Statistics	5
	★ Science	5	VLPA/I&S	5	Science	5
	E-FIG: ENGR 101 & GEN ST 199	2				
	Qtr. Total:	17	Qtr. Total:	15	Qtr. Total:	15
Sophomore	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
	VLPA/I&S	5	VLPA/I&S	5	VLPA/I&S/DIV	5
	VLPA/I&S	5	Science	5	Approved Math/Science	5
	Approved Math/Science	5	VLPA/I&S	5	Engineering Fundamentals	4
					Free Elective	3
Qtr. Total:	15	Qtr. Total:	15	Qtr. Total:	17	
Junior	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
	HCDE 310 - Interactive Systems Design & Technology	5	HCDE 300 - Foundations of HCDE	5	HCDE 313 - Intro to User Research	5
	HCDE 318 - Intro. to User Centered Design	5	HCDE 301 - Written Communication in HCDE	5	HCDE 308 - Visual Communication in HCDE	5
	HCDE 231 - Introduction to Communication in HCDE	3	HCDE 321 - Portfolio	2	HCDE 322 - Organizational Teamwork	2
	Engineering Fundamentals	4	Free Elective	3	Free Elective	3
Qtr. Total:	17	Qtr. Total:	15	Qtr. Total:	15	
Senior	Autumn Quarter	Cr	Winter Quarter	Cr	Spring Quarter	Cr
	HCDE Elective	5	HCDE 492 - Capstone Planning	2	HCDE 493 - Senior Capstone Project	5
	HCDE Elective	5	HCDE Elective	5	HCDE Elective	5
	HCDE 495 - Internship	3	HCDE Elective	5	Approved Math/Science	5
			HCDE 496 - Directed Research in HCDE	2		
Qtr. Total:	13	Qtr. Total:	14	Qtr. Total:	15	

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