

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

HCDE

Human Centered Design and Engineering
Graduation Requirements
University of Washington
<http://hcde.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 (15cr)

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

Sciences (15cr)

◆ CHEM 142 - General Chemistry (5cr)

◆ PHYS 121 - Mechanics (5cr)

[pr: MATH 124 or MATH 134]

Additional science from list below to reach 15cr

Additional Math/Science (20cr)

See list of qualifying courses on department website. Courses recommended by CoE for placement process include:

★ STAT 220 - Principles of Statistical Reasoning (5cr)

★ CHEM 152 - General Chemistry (5cr)

[pr: CHEM 142, CHEM 143, or CHEM 145]

★ CHEM 162 - General Chemistry (5cr)

[pr: CHEM 152]

★ PHYS 122 - Electromagnetism (5cr)

[pr: MATH 125 or MATH 134]

★ PHYS 123 - Waves (5cr)

[pr: MATH 126 or MATH 134; PHYS 122]

Engineering General Education Requirements (38cr)

Written and Oral Communication:

◆ English Composition (5cr)

HCDE 231 - Intro to Communication in HCDE (3cr)

Areas of Knowledge:

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

Individuals & Society - I&S (10cr)

Additional VLPA or I&S (10cr)

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

Engineering Fundamentals (12cr)

★ CSE 142 Computer Programming (4cr)

OR

★ CSE 160 Data Programming (4cr)

8 credits from:

A A 210, A A 260, CEE 220, ★ CSE 143, E E 215, HCDE 496,

IND E 250, I S 300, ★ ME 123, ME 230, ★ MSE 170, PHIL

120

Departmental Core (41cr)

HCDE 300 - Foundations of HCDE (5cr)

HCDE 301 - Advanced Communication in HCDE (5cr)

HCDE 308 - Visual Communication in HCDE (5cr)

HCDE 310 - Interactive Systems Design and Technology (5cr)

HCDE 313 - Intro to User Research (5cr)

HCDE 318 - Intro to User Centered Design (5cr)

HCDE 321 - Portfolio (2cr)

HCDE 322 - Organizational Teamwork (2cr)

HCDE 492 - Capstone Planning (2cr)

HCDE 493 - Senior Capstone (5cr)

Experiential Learning (4cr)

Any combination of the following:

ENGR 321 - Engineering Internship (1-2cr)

HCDE 496 - Directed Research in HCDE (1-4cr)

Department Electives (25cr)

Complete one option below. See department for list of approved courses.

- Standard Option
- HCI (Human-Computer Interaction) Option
- Data Science Option

Free Electives (5-9cr)

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

Total credits required for graduation: 180cr

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HCDE Advising
Office: 428 Sieg Hall, Box 352315
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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, 125, 126; CHEM 142; PHYS 121; English Composition; ENGRUD students who are interested in HCDE should choose one of the following: CHEM 152, CHEM 162, CSE 142, CSE 143, CSE 160, ME 123, MSE 170, PHYS 122, PHYS 123, STAT 220.**

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
◆ English Composition	5	★ CSE 142 or CSE 160	5	◆ PHYS 121 - Mechanics	5
VLPA / I&S	3	◆ CHEM 142 - General Chemistry	5	★ STAT 220 - Statistics	5
◆ E-FIG; ENGR 101 & GEN ST 199	2				
Qtr. Total:	15	Qtr. Total:	15	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>
VLPA / I&S	5	VLPA / I&S	5	VLPA / I&S / DIV	5
VLPA / I&S	5	Approved Math/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

Third Year

<u>Autumn Quarter</u>	<u>cr</u>	<u>Winter Quarter</u>	<u>cr</u>	<u>Spring Quarter</u>	<u>cr</u>
HCDE 310 - Interact Sys Design & Tech	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 Comm in HCDE	5	HCDE 308 - Visual Communication in HCDE	5
HCDE 231 - Intro to Comm in HCDE	3	HCDE 321 - Portfolio	2	HCDE 322 - Organizational Teamwork	2
Engineering Fundamentals	4	VLPA / I&S	2	Free Elective	3
Qtr. Total:	17	Qtr. Total:	14	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>
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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AMATH 351/352/353 may be alternatives to MATH 207/208/209, work with the department to confirm.

Updated October 2021