This resource is for ENGRUD students who entered the UW in AUT24 or later.

ECE

Electrical and Computer Engineering Graduation Requirements
University of Washington
https://ece.uw.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 (3cr)

MATH 208 - Matrix Algebra with Applications (3cr)
 [pr: MATH 126] OR AMATH 352 (3cr)

IND E 315 - Prob. & Stats. for Engineers (3cr) [pr: MATH 207]
 OR STAT 390 - Statistical Methods in Engr. & Science (4cr)

Sciences (18-20cr)

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

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

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

One course from the following: BIOL 130 (4cr); BIOL 220 (5cr); MATH 224 (3cr); PHYS 123 (5cr)

General Education Requirements (41cr)

Written and Oral Communication:

◆ **English Composition (5cr)**

 E E 393 - Adv Tech Comm (4cr) or Dept. alternative
 Add'l writing (3cr) (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)

 Additional NSc (to reach 45cr, if needed). See adviser for approved list

Diversity - DIV (5cr) (may overlap with Areas of Inquiry or W)

Engineering Fundamentals (4-5cr)

★ *CSE 123 - Computer Programming III (4cr)*
 [pr: Recommended: CSE 122 or completion of Paul G. Allen School's Guided Self-Placement]
 OR
★ *CSE 143 - Computer Programming II (5cr)* [pr: CSE 142]

Departmental Core (22-24cr)

E E 201 - Computer Hardware Skills (2cr)
 [pr: CSE 122, CSE 123, CSE 142, or CSE 143, may be concurrent]

E E 215 - Fundamentals of Electrical Engineering (4cr)
 [pr: MATH 126; MATH 207, may be concurrent; PHYS 122]

E E 241 - Prog. for Signal & Info. Processing App. (2cr)
 OR
CSE 163 - Intermediate Data Programming (4cr)
 [pr: CSE 122, CSE 123, CSE 142, CSE 143, or CSE 160]

E E 242 - Signals, Systems, and Data I (5cr)
 [pr: MATH 207 or AMATH 351, may be concurrent; and either E E 241 concurrent, or CSE 163]

E E 271 - Digital Circuits & Systems (5cr)
 [pr: Either CSE 121, CSE 122, CSE 123, CSE 142, or CSE 143]

E E 280 - Exploring Devices (4cr)
 [pr: PHYS 122]

Advanced Elec. & Comp. Engr. Electives (36cr)

Professional Issues (1-5cr)
Visit an adviser for list of approved courses.

Capstone (4-8cr)
Visit an adviser for list of approved courses.

Additional 300 & 400 level E E Courses (to reach 36cr)
These credits are subject to the following:
- A max of 2cr of seminar courses (Visit an adviser for approved list)
- Max of 6cr of E E 499
- The following may count: E E 233, CSE 373, CSE 374, and ENGR 321 (max of 4cr for ENGR 321)
- 6cr max combining ENGR 321 and EE 499 may apply
- Min of 20cr at the 400 level
- Students may pursue optional pathways to complete their 36 credits of ECE course. Visit an adviser for more details.

Free Electives (to reach 180 total credits)

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.

Updated September 2024

ECE

Electrical and Computer Engineering Sample Curriculum
University of Washington
https://ece.uw.edu

Electrical & Computer Engineering Advising
Office: AE 100R, Paul Allen Center, Box 352500
Seattle, WA 98195-2500
Phone: (206) 221-5270
Email: undergradece@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, MATH 125, MATH 126; CHEM 142; PHYS 121; English Composition; ENGRUD students who are interested in ECE should choose one of the following: CSE 121, CSE 122, CSE 123, 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	★ *CSE 121 - Intro to Computer Programming I*	5	◆ **PHYS 121 - Mechanics**	5
◆ **E-FIG: ENGR 101 & GEN ST 199**	2	◆ **English Composition**	5	DIV	5
A&H/ SSc	5				
Qtr. Total:	**17**	Qtr. Total:	**15**	Qtr. Total:	**15**

Second Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
PHYS 122 - Electromagnetism	5	MATH 208 - Matrix Algebra	3	E E 280 - Exploring Devices	4
MATH 207 - Differential Equations	3	E E 215 - Fundamentals of E E	4	E E 241 - Programming Sig. Proc.	2
★ *CSE 122 - Intro to Computer Programming II*	4	Free elective	5	E E 242 - Signals, Systems, & Data	5
Writing	3	★ *CSE 123 - Intro to Computer Programming III*	4	Free elective	5
Qtr. Total:	**15**	Qtr. Total:	**16**	Qtr. Total:	**16**

Third Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
E E 271 - Digital Circuits & Systems	5	E E 201 - Computer HW Skills	1	Advanced ECE Elective	4
IND E 315 - Probability & Statistics	3	Advanced ECE Elective	5	Advanced ECE Elective	3
A&H/ SSc	5	E E 393 - Adv. Tech. Communication	4	A&H/ SSc	4
		Additional NSc Course	5	Free Elective	5
Qtr. Total:	**13**	Qtr. Total:	**15**	Qtr. Total:	**16**

Fourth Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
Advanced ECE Elective	5	Advanced ECE Elective (Capstone)	4	Advanced ECE Elective (Capstone)	4
Advanced ECE Elective	5	Advanced ECE Elective	5	A&H	5
Advanced ECE Elective (Prof. Issues)	1	SSc	5	Free Elective	5
Free Elective	4				
Qtr. Total:	**15**	Qtr. Total:	**14**	Qtr. Total:	**14**

◆ = **Placement Requirement**

★ = *Pick **one** to satisfy Placement Requirements*

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