This resource is for ENGRUD students who entered the UW in AUT23 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 requirements*
Placement: July 1 at the end of the first year

◆ **E-FIG: ENGR 101 and GEN ST 199 (2cr)**

Mathematics (21cr)

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

Math 207 - Intro. to Differential Equations (3cr)
[pr: MATH 125]

MATH 208 - Matrix Algebra w/Applications (3cr)
[pr: MATH 126]

Statistics (3-4cr)

One of the following: IND E 315 (3cr); STAT 390 (4cr)

Sciences (15cr min.)

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

◆ **PHYS 121 - Mechanics (5cr)**
[pr: MATH 124 or MATH 134]

★ ***PHYS 122 - Electromagnetism (5cr)***
[pr: MATH 125 or MATH 134]

★ ***PHYS 123 - Waves (5cr)***
[pr: MATH 126 or MATH 134; PHYS 122] OR Other Natural Science (NSc) (5cr)

Engineering General Education Requirements (69cr)

Written and Oral Communication (12cr):

◆ **English Composition (5cr)**

ENGR 231 - Introduction to Technical Communication (3cr)
[pr: ENGL Composition]

E E 393 - Adv Tech Comm (4cr) or Dept. alternative
[pr: ENGR 231]

Areas of Inquiry:

Arts & Humanities - A&H (10cr)

Social Sciences - SSc (10cr)

Additional A&H or SSc (4cr)

Diversity - DIV (5cr) - (may overlap with A&H or SSc)

Additional NSc (to reach 45cr, if needed)

Must complete one course from the following: BIOL 130, BIOL 220, MATH 224, PHYS 123 (or PHYS 143)

Computer Programming (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 (21-23cr)

E E 201 – Computer Hardware Skills (1cr)
[pr: CSE 122, CSE 123, CSE 142, or CSE 143, any of which may be taken concurrently]

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

One of the following: E E 241 – Programming for Signal & Info. Processing App. (2cr) or CSE 163 – Intermediate Data Programming (4cr)
[pr: either CSE 122, CSE 123, CSE 142, CSE 143, or CSE 160]

E E 242 – Signals, Systems, and Data I (5cr)
[pr: MATH 136 or MATH 207 or AMATH 351; E E 241 (may be concurrent) and either E E 241, which may be taken concurrently, 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)

See adviser for list of approved courses.

Capstone (4-8cr)

See adviser for list of approved courses.

Additional 300 & 400 level EE Courses (to reach 36cr)

Minimum of 20cr at the 400 level

Optional Suggested Pathways:

These are groupings of courses within specified areas that students are encouraged to view as guides rather than strict requirements. Contact dept for list of current pathways.

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. AMATH 351/352 may be alternatives to MATH 207/208, work with the department to confirm.

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

Electrical & Computer Engineering Advising
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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: **ENGR 101; 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 12X - Comp Programming	4	◆ **PHYS 121 - Mechanics**	5
◆ **E-FIG: ENGR 101 & GEN ST 199**	2	◆ **English Composition**	5	★ ***CSE 12X - Comp Programming*** or	4-5
A&H /SSc	3			A&H / SSc / DIV	
Qtr. Total:	**15**	Qtr. Total:	**14**	Qtr. Total:	**14**

Second Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
PHYS 122 - Electromagnetism	5	PHYS 123 - Waves or Other NSc	5	EE 393 - Advanced Technical Comm	4
MATH 207 - Differential Equations	3	MATH 208 - Matrix Algebra	3	EE 215 - Fundamentals of EE	4
EE 241 - Prog. Signal Processing or	2-4	EE 242 - Signals, Systems, & Data I	5	EE 280 - Exploring Devices	4
CSE 163 – Interm. Data Programming	5	ENGR 231 - Intro to Technical Comm	3	Additional NSc	4
Free Elective					
Qtr. Total:	**15-17**	Qtr. Total:	**16**	Qtr. Total:	**16**

Third Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
EE 271 - Digital Circuits and Systems	5	EE 398 - Professional Issues	1	Advanced ECE Elective	5
EE 201 - Computer HW Skills	1	Advanced ECE Elective	5	Advanced ECE Elective	5
IND E 315 or STAT 390 - Statistics	3-4	Advanced ECE Elective	5	A&H / SSc	5
A&H / SSc	5	A&H / SSc	5		
Qtr. Total:	**14**	Qtr. Total:	**16**	Qtr. Total:	**15**

Fourth Year

Autumn Quarter	cr	Winter Quarter	cr	Spring Quarter	cr
Advanced ECE Elective	5	Advanced ECE Elective	5	Advanced ECE Elective	5
Advanced ECE Elective	5	Capstone	4	Capstone	4
A&H	5	Free Elective	5	Free Elective	5
Qtr. Total:	**15**	Qtr. Total:	**14**	Qtr. Total:	**14**

◆ = **Placement Requirement**

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

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