



Electrical Engineering Graduation Requirements

University of Washington
www.ee.washington.edu

Requirement Sheet Key

◆ = Upper-Division Admission Requirements

Mathematics (24 Credits)

- ◆ Math 124 (5cr) – Calculus I
- ◆ Math 125 (5cr) – Calculus II
- ◆ Math 126 (5cr) – Calculus III
- Math 307(3cr) – Differential Equations [pr: Math 125]
- Math 308 (3cr) – Matrix Algebra [pr: Math 126]
- Math 324 (3cr) – Advanced Calculus [pr: Math 126]
- One course from the following:
- Math/Stat 390 [pr: Math 126] or Ind E 315 [pr: Math 307]
- (AMATH 351/352 may substitute for Math 307/308)

Sciences (20 Credits)

- ◆ Chem 142 (5cr) – General Chemistry with lab
- ◆ Phys 121 (5cr) – Mechanics with lab [pr: Math 124]
- ◆ Phys 122 (5cr) – Electro/Oscillatory with lab [pr: Math 125]
- Phys 123 (5cr) – Waves with lab [pr: Math 126]

Written & Oral Communications (12 Credits)

- ◆ English Comp (5cr) – English Composition
- HCDE 231 (3cr) – Intro to Technical Writing [pr: Engl. Comp]
- HCDE 333 (4cr) – Adv. Tech Writing [pr: HCDE 231]

Visual, Literary & Performing Arts/ Individuals & Society (VLPA/I&S) (25 Credits)

Minimum 10 credits in VLPA required.
Minimum 10 credits in I&S required.
Remaining 5 credits can be either VLPA or I&S.

Computer Programming (9 Credits)

- CSE 142 (4cr) – Computer Programming I
- CSE 143 (5cr) – Computer Programming II [pr: CSE 142]

EE Core Courses (14 Credits)

- EE 215 (4cr) – Fund. of EE [pr: PHYS 122 & MATH 126]
- EE 233 (5cr) – Circuit Theory [pr: EE 215]
- EE 235 (5cr) – Signal Analysis [pr: PHYS 122; MATH 307 & CSE 142 concurrent]

Professional Issues (1 Credit)

This requirement will cover issues relating to professional development, ethical dilemmas, and societal expectations of engineers. Please see an EE advisor for a list of the most current course options.

EE Electives (44 Credits)

At least one major concentration and enough additional EE courses to reach a minimum of 44 credits are required.

Major concentrations each include a mix of required 200-, 300- and 400-level courses, as well as suggested electives. Concentrations to choose from include:

- | | |
|-------------------------------|-----------------------------------------|
| – Analog circuits | – Wireless Communications |
| – Biomedical Instrumentation | – Large Scale Power Systems |
| – Sensors and Devices | – Sustainable Electric Energy |
| – Digital Integrated Circuits | – Power Electronics and Electric Drives |
| – Embedded Computing Systems | – Controls |
| – Electromagnetics | – Student-designed Pathways |
| – Digital Signal Processing | |
| – Communications | |

Engineering Electives (10 Credits)

Students may choose 200+ level courses from both the EE department and any other ENGR departments to fulfill this requirement. Refer to the EE Undergraduate Handbook noted above for more information specific courses.

Approved Non-EE Electives (10 Credits)

Refer to the EE website for a listing of specific courses.

Free Electives (8-9 Credits)

Total Credits Required for Graduation (180 Credits)

Early Admission Requirements

1. Early Admission is an option for Autumn Quarter Only.
2. Students must be enrolled at UW-Seattle.
3. Math 124, 125 & 126 or equivalent.
4. 10 credits of physical sciences courses plus the accompanying lab at the level of Chem 142, 152; Phys 121, 122, 123.
5. 5 credits of English Composition.
6. 15 credits must have been completed at UW.

Application Deadlines

- Early Admission – July 1st
- Upper Division Admission – February 1st or July 1st



Electrical Engineering Sample Curriculum

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Freshman – Autumn Quarter		Freshman – Winter Quarter		Freshman – Spring Quarter	
◆ Math 124 – Calculus I	5	◆ Math 125 – Calculus II	5	◆ Math 126 – Calculus III	5
◆ Chem 142 – Chem & Lab I	5	◆ Phys 121 – Mechanics & Lab I	5	◆ Phys 122 – Electro & Lab I	5
◆ English Comp.	5	VLPA/I&S	5	VLPA/I&S	5
Quarter Total	15	Quarter Total	15	Quarter Total	15
Sophomore – Autumn Quarter		Sophomore – Winter Quarter		Sophomore – Spring Quarter	
Math 307 – Diff. Equations	3	MATH 308 – Matrix Algebra	3	MATH 324 – Adv. Calculus	3
PHYS 123 – Waves & Lab	5	CSE 143 – Comp Programming II	5	EE 215 – Fund of EE	4
CSE 142 – Comp Programming I	4	**Approved or Free Elective	5	HCDE 231 – Intro Tech Writing	3
**Approved or Free Elective	4			VLPA/I&S	5
Quarter Total	16	Quarter Total	13	Quarter Total	15
Junior – Autumn Quarter		Junior – Winter Quarter		Junior – Spring Quarter	
EE 233 – Circuit Theory	5	EE Electives	15	EE Electives	15
EE 235 – Signal Analysis	5				
Math/Stats 390	4				
**Approved or Free Elective	3				
Quarter Total	17	Quarter Total	15	Quarter Total	15
Senior – Autumn Quarter		Senior – Winter Quarter		Senior – Spring Quarter	
EE Electives/ENGR Electives	8	EE Electives/ENGR Electives	9	EE Electives/ENGR Electives	8
Approved or Free Elective	4	VLPA/I&S	5	Approved or Free Elective	3
HCDE 333 – Adv. Tech Writing	3			VLPA/I&S	5
Quarter Total	15	Quarter Total	14	Quarter Total	16

Bold face courses are required for upper-division admission.

^Chem 152 Recommended for students considering multiple engineering programs

See EE Advising Guide for list of electives.

For more information contact:

Engineering Advising

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-or-

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