Electrical Engineering Program Requirements

Course #	Description	CC Centralia College AS-MRP	UW Seattle EE	UW Tacoma EE	UW Bothell EE	WSU Pullman, Everett Bremerton EE	WSU TriCities EE	WSU Vancouver EE	EWU Cheney, North Seattle EE	WWU Bellingham EE	Seattle U Seattle EE	SPU Seattle EE	Gonzaga Spokane EE
Math& 151, 152, 163	Calculus 1, 2, 3	R	√-app	√	√	√	√	√	G	√	G	G	G
Math& 264	Calculus 4	S	√-app	√	√	√	√	√	G	G	G	G	G
Math 212	Differential Equations	R	√-enr	√	G	G (P), √(B,E)	G-see back	G	G	G	G	G	G
Math 118	Linear Algebra	R	G	√	G	√	√	G	G	√	G	G	P
Phys& 221	Calc Based Physics 1	R	√-app	√	√	√	√	√	G	√	G	G	G
Phys& 222	Calc Based Physics 2	R	√-app	√	√	√	√	√	G	√	G	G	G
Phys& 223	Calc Based Physics 3	R	√-enr	√	G	G (P), √(B,E)	G- see back	G	G	G	G	G	G
Chem& 161	General Chem 1	R	√-app		√	G (P), √(B,E)	G- see back	√	G	G	P	G	G
Chem& 162	General Chem 2	S	A[2]										
~~Engr& 104~~	~~Intro to Design~~	S[1]	A	A		A					G		
Engr& 204	Electric Circuits	R	G	√	G	√[5]	G	G	G	√	G	G	G
Engr& 214	Statics	S	A[2]			A	G- see back				P	A	G
Engr& 215	Dynamics	S	A[2]			A	G- see back				P	A	P
~~Engr& 224~~	~~Thermodynamics~~	S[1]	A[2]			A					P	A	P
Engr 203	App Numerical Methods	S				A					G		
CS& 141	Java 1	R	G	√ C++	G	√	√	√ C++	G C++	√ C++	G C++	G C++	G
~~CS XXX~~	~~Java 2~~	S[1]	G	√ C++	G	√	G- see back	G			G C++	G C++	G C++
Engl& 101	English Comp 1	R	√-app	G	√	G (P), √(B,E)	G- see back	G	G	G	G	A	G
Engl& 235	Technical Writing	S	G	A	G	G		G	G &102				G[4]
Biol& 222	Cellular & Molecular	S						A[6]					
Hum and Soc Sci*		R	A - see back	A	A	A - see back	A- see back	A - see back	A - see back	A - see back	A - see back	A - see back	A - see back

CC Key: There are two relevant Associate's degrees, the AS-Electrical and Computer Engineering - MRP degree and the AS-T2. More info on back.

R = Required for the Associate of Science degree . The AS-T2 also requires completion of a minimum of 32 additional advisor-approved college level credits.

S = Specialization Course - Minimum of 4 courses for AS-MRP. Minimum of 32 college level credits for AS-T2

University Key: √ = Required for admission or certification to the department. For UW, √-app class must be completed by April 5. √-enr by Fall start at UW.

G = Graduation requirement for the Bachelor of Science at the university. These are freshman/sophomore level courses so take now, if possible.

A = Meets an additional requirement. The university requires the selection of additional classes from specific lists for the BS.

P = Provides preparation for junior level university coursework and/or for the FE/EIT exam, the first step to being licensed.
C++ = The equivalent course at this university is a C/C++ course. Check with the university to see if Java is acceptable. It may be expedient to take programming at the university and transfer credits back to the CC for AS. However, knowing both languages is a benefit for majors.

Additional notes: *AS degrees require 15 credits of Humanities and Social Science. At least 5 credits must be a Humanities and 5 credits must be a social science. One class must meet the diversity requirement. See approved lists. Universities may have specific course Humanities/Social Science course requirements.

[1] ENGR& 104, ENGR&224, and Java 2 are not offered at CC. However, this presents no barrier to transfer as the first two are not admission requirements. The equivalent classes can be taken at the transfer institution if necessary. Second programming class in JAVA or C++ may be taken in summer session at the university before Fall admission. Check with transfer institution.

[2] UW EE dept requires a minimum of three classes with this [2] superscript for the BSEE. All are topics on FE/EIT exam.

[3] SMU requires English 102 instead of English 235. English 102 may be substituted for 235 in the AS degree.

[4] GU requires a literature-based writing class instead of English 235. English 102 may be substituted for 235 in the AS degree.

[5] ENGR& 204—a course equivalency for WSU's EE 261 and 262 is in progress. It has been accepted on an ad hoc basis in the past. Check with WSU academic coordinator.

[6] WSU Vancouver suggests 3 or 4 semester credits of Biological Sciences. Check with WSU-V advisor.

Electrical Engineering Program Requirements

Centralia College

Students should generally be working toward one of three associate's degrees: 1) the Associate of Science - Major Related Program for Computer/Electrical(AS-MRP), 2) the Associate of Science- Track 2 (AS-T2), and/or 3) the Associate of Arts DTA (AA-DTA). It is important to understand the distinctions. The AS-MRP was developed on the state level to most closely mirror the coursework that a student would be taking at a university engineering program. It requires 108 credits, rather than 90, which can be helpful with financial aid. In general, most EE students should be working toward the AS-MRP. The AS-T2 was also developed on the state level for a broader group of science/engineering fields. Students can make more self-advising errors using this model and should not use this as a degree goal; however, if ready to transfer and are a few classes short of the AS-MRP degree, might still be eligible for the AS-T2 (speak with an engineering advisor). The AA-DTA degree is intended for students to complete their general education requirements and is usually a poor fit for engineering students since it does not allow them to take all of the required prerequisites. Some universities give specific benefits for one or more of these degrees. Although we advise transferring without a degree in some instances, transferring courses back to complete the degree is requested. CC funding is tied to associate's degree completion, so you help future students by finishing your degree. You may earn more than one degree from Centralia. CC strongly encourages economics courses for engineering students.

University of Washington - Seattle

You must apply to both the university and the major. The Electrical Engineering departments only admits students in fall quarter. The transfer student application deadline for the University of Washington (fall quarter start) is February 15. (There may be other deadlines for international students.) The application deadline for the department is April 5. Some classes must be completed before you apply (√-app). Some courses must be completed before you start in the fall (√-enr). University of Washington requires core requirements from high school. This applies even if high school was years ago! High school is considered to start in 9th grade. The core requirements are 4 years of English, 3 years of math, 3 years of social science, 2 years of foreign language, 2 years of lab science, and 0.5 years of art. If you did not complete these in high school, the requirements can be met through TCC courses. In general, 1 year of high school class = 5 credits of college work. See the University of Washington website for more details.

Washington State University - Pullman, Bremerton, Everett

In addition to the program at the main Pullman campus, WSU has junior/senior year programs at Bremerton and Everett. These are ABET accredited as part of the main campus. WSU gives advantages to completing the AS-MRP degree. Individual departments have specific requirements, so while a social science may transfer, if you don't choose carefully, you may also have to take another class to meet the requirement. Choose the following courses: HIST& 128 (World Civ 3) and ECON& 202 (Macro). Save samples of graded written work from CC. Download forms from the WSU website, and ask your instructor to sign them. Do it as you are taking classes, rather than having to go back and ask instructors to evaluate your work again. WSU is on the semester system, rather than the quarter system. They require application to the university, followed by certification into the program. See university website for important deadlines.

Washington State University - TriCities

WSU- TriCities is separately ABET accredited. Choose the following courses: HIST& 128 (World Civ 3), and either ECON& 201 (Micro) or ECON& 202 (Macro). The most appropriate associate's degree for the required courses is the AS-T2. If you have time to complete the AA-DTA while taking required courses, this would allow you to meet all of the UCORE requirements. If you have taken all the required courses, the "G-see back" courses, and completed the AA-DTA, you should have two years remaining, assuming that you start in summer quarter.

Washington State University - Vancouver

WSU-Vancouver is separately ABET accredited. Choose the following courses: HIST& 128 (World Civ 3), and either ECON& 201 (Micro) or ECON& 202 (Macro). There are several courses in the sophomore level at WSU-Vancouver that are required for certification but are not offered at CC (or most CCs). These include: ECE 214 - Digital Logic and ECE 234- Microprocessor Systems. Former transfer students to WSU-Vancouver have sucessfully taken these classes in junior year. ENGR& 204 has been accepted for ECE 260 (will need one lab credit at WSU Vancouver) on an ad hoc basis. A formal articulation is in progress.

University of Washington - Tacoma

The University of Washington - Tacoma would be separately accredited from the University of Washington- Seattle. Each school has its own requirements, and application process. You must apply to both the UW-T and EE programs. The EE program only admits students once a year for autumn quarter. See website for details. UW-T's EE program is not yet listed as ABET accredited.

University of Washington - Bothell

UW-Bothell is separately ABET accredited. The EE program admits new students three times a year, for Autumn and Winter and Summer quarters.

Eastern Washington University

In addition to the program at the main Cheney campus, EWU has a junior/senior year program at North Seattle College. EWU has engineering programs, as well as a number of technology programs. Acceptance to the major is automatic once accepted to the University. EWU gives advantages to completing the AS degree. Students who complete the AS do not need to take 15 credits of the required 25 credits in the General Education Core requirements. All courses designated as Humanities and Social Sciences by CC will be accepted as Humanities and Social Sciences by EWU, regardless of individual course transferability. No biological sciences, or macro/micro economics courses are required for graduation.

Western Washington University

WWU's Electrical Engineering Technology (EET) program has been replaced by an Electrical Engineering program. Apply for admission to the program for fall of your sophomore year. Complete any remaining AS-T2 coursework at WWU and transfer it back to CC. Java meets the programming requirement, though WWU uses C++.

Seattle University

Seattle University is a private Catholic (Jesuit) university. Transfer student priority application deadline is March 1 for Fall Quarter and scholarships are available. Students can begin their studies at Seattle U also in winter and spring quarters. Obtaining an AS-T2 or AS-MRP degree is beneficial since it may reduce the number of CORE courses required for graduation to as few as 3. At least one course each in humanities, social science, and doing art (or creative writing) is highly recommended to maximize the benefit. The programming language at SU is C/C++. The EE program accepts Java as a substitute.

Seattle Pacific University

SPU is a private Christian university. If you have earned, prior to matriculation at SPU, an AS-T2, you will be required to take only two of the three required University Foundations courses, UFDN 3001 Christian Scriptures and UFDN 3100 Christian Theology. The programming language at SPU is C/C++. The EE program accepts Java as a substitute.

Gonzaga University

Gonzaga is a private Catholic (Jesuit) university. A literature-based english class is preferred over Technical Writing, check with GU for options. Take PHIL& 101 while at CC. One Java (CS& 141) class is accepted.

It is the student's responsibility to check university websites and meet with university advisors to ensure the accuracy of advising information.