



# Program Map



## Electrical Engineering - Associate of Science Transfer Degree (AST2)

### Area of Study: Science, Technology, and Engineering

Electrical engineering involves the design, development, and analysis of electrical, electronic and computer systems. Electrical engineers design and build all devices that use electricity including power generation/transmission, semiconductor devices, computers, robots, motors, cars, phones, satellites, medical equipment and in general, anything that works with electricity. Engineers work in multi-disciplinary teams in a variety of industries that include government, telecommunications, aerospace, transportation, military, and industrial workplaces. Clark student projects involve developing ideas, creating circuit designs and schematics, developing software, and other design and implementation steps. Upon completion, students may continue their study toward a Bachelor of Science in Electrical Engineering or may seek internship/entry-level engineering positions.

**All students interested in Electrical Engineering should contact Electrical Engineering faculty for advising as soon as possible. Advising schedules are available at <https://www.engrcs.com/schedule>.**

*Program maps are suggested academic plans and should not be used in the place of regular academic advising. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.*

### Year One

#### Fall Term

- MATH& 151 Calculus I ..... 5
- CHEM& 141 General Chemistry I ..... 4
- CHEM& 151 General Chemistry Laboratory I ..... 1
- ENGR 120 Intro to Electrical/ Computer Sci & Engineering ..... 5
- ENGR 101 Engineering and Computer Science Orientation ..... 1

#### Winter Term

- MATH& 152 Calculus II ..... 5
- CSE 121 Introduction to C ..... 5
- ENGL& 101 English Composition I ..... 5

#### Spring Term

- MATH& 153 Calculus III ..... 5
- ENGR 250 Digital Logic Design ..... 5
- HIST& 128 World Civilizations II^ ..... 5

#### Summer Term

- ENGR 270 Digital Systems and Microprocessors ..... 5
- ECON& 202 Macro Economics ..... 5
- WS 101 Introduction to Women's Studies^ ..... 5

### Year Two

#### Fall Term

- MATH& 254 Calculus IV ..... 5
- PHYS& 231 Engineering Physics Lab I ..... 1
- PHYS& 241 Engineering Physics I ..... 4
- PHYS 094 Physics Calculations ..... 1
- ENGR& 204 Electrical Circuits ..... 5

#### Winter Term

- MATH 221 Differential Equations ..... 5
- PHYS& 232 Engineering Physics Lab II ..... 1
- PHYS& 242 Engineering Physics II ..... 4
- PHYS 095 Physics Calculations ..... 1
- ENGR 252 Electrical Circuits & Signals ..... 5

#### Spring Term

- MATH 215 Linear Algebra ..... 5
- PHYS& 233 Engineering Physics Lab III ..... 1
- PHYS& 243 Engineering Physics III ..... 4
- PHYS 096 Physics Calculations ..... 1
- ENGR 253 Signals and Systems ..... 5

**95-104 units required, 109 listed. View the [Clark College Catalog](#) for additional program information.**

*Elective credits in excess of 104 may not be funded by financial aid. Work with your advisor for specific academic planning based on your intended transfer institution.*

**Key:** ^ Alternative classes are available to fit your schedule or interest. & Common Course in the State of Washington.

### Approximate Costs Each Term

Tuition \$1490\* for 15 credits per term plus books, supplies, and miscellaneous fees. \*Tuition based on Washington resident rates. View [residency classifications](#) on our website.

### Customize with Advising

Make an appointment online with Advising Services to learn more about customizing your academic plan at [clark.edu/advising](http://clark.edu/advising).

## How to Enroll

Visit Clark College's Welcome Center in Gaiser Hall room 127 or the [Get Started webpage](#) for information on becoming a new student. Email [start@clark.edu](mailto:start@clark.edu) or call 360-992-2078.

Apply for Admission

## Support Services

At Clark College, we know that everyone who walks through our doors is a unique person with diverse, interesting and sometimes challenging circumstances. We are committed to ensuring each and every student can succeed at Clark, and are committed to serving systemically non-dominant communities, including (but not limited to) people of color, those who identify as LGBTQIA2S+ and people with disabilities. We have resource centers, clubs, programs and activities for all students.

Visit our [Student Support page](#) for more information.

## Funding Options at Clark

There are many resources available to help students cover the costs to attend college—tuition, books, fees, tools, transportation, childcare, etc.—so you can focus on completing your degree or certificate.

**Grants** Based on need. You do not need to pay back grants.

**Scholarships** Similar to grants, and there are different criteria; Clark College awards hundreds of thousands of dollars to students each year. We encourage everyone to apply!

**Student Employment & Work Study** Money you earn through working part-time; this helps to reduce your reliance on loans, and build your skills and resume.

**Loans** If you do need to borrow additional funds to pay for college-related expenses, you can consider loans. It is money you borrow and will pay back with interest.

**Specific Assistance** For Veterans, worker retraining, DREAMers, students receiving DSHS benefits, and more.

For more information, visit our [paying for college website](#) or visit the **Office of Financial Aid** in Gaiser Hall room 101.

## Career Opportunities

Career exploration and planning is an essential step to establishing your academic journey at Clark College and beyond. Career Services connects you with resources and strategies for career planning in six areas: knowing self; career awareness; relationship building and networking; work-based learning; job-search skills; and career readiness competencies. You are encouraged to participate in *MyPlan*, a comprehensive and interactive guide with activities to support your career, academic, and financial wellness planning. Visit [Career Services](#) in the Penguin Union Building room 002.

Students who complete the **Associate in Science Transfer – Electrical Engineering** degree could be employed as:  
*Some careers may require a bachelor's degree or higher*

**Electrical Engineer**  
**Solar or Wind Power Engineer**  
**Project Engineer**  
**Manufacturing Engineer**

**Biomedical Engineer**  
**Circuits Engineer**  
**Hardware Design Engineer**  
**Network Engineer**

Career exploration information established by Clark Faculty and Staff.



*Clark College does not discriminate on the basis of race, color, national origin, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, honorably discharged veteran or military status, or use of a trained guide dog or service animal in its programs and activities, in accordance with state and federal laws. The responsibility for and the protection of this commitment extends to students, faculty, administration, staff, contractors and those who develop or participate in college programs. It encompasses every aspect of employment and every student and community activity. The following person has been designated to handle inquiries regarding non-discrimination policies: Vice President of Diversity, Equity, and Inclusion, Gaiser Hall (GHL) 220, 360-992-2757, or 360-991-0901 (video phone).*

*Alternate format of this document is available upon request. Please contact Disability Support Services at 360-992-2314, or 360-991-0901 (video phone).*

**Created in March 2020, Last updated in March 2021.**