



## College Abilities

Clark College has identified six college-wide abilities that help students apply what they learn. The core abilities are taught across the curriculum and students continually practice and improve their skills in the six areas.

### Communication

The ability to understand and deliver written, spoken and visual communication clearly and accurately.

### Critical Thinking/Problem Solving

The ability to formulate, evaluate and synthesize facts, data, ideas, assumptions, values and points of view.

### Effective Citizenship

The ability to identify community issues; evaluate and respect various opinions and values; and articulate one's own perspective.

### Global/Multicultural Perspectives

The ability to identify, analyze and demonstrate how culture shapes world perceptions, values and behaviors.

### Lifelong Learning

The ability to set and revise goals, access resources and assume responsibility for one's own learning.

### Information/Technology

The ability to identify resources; retrieve and manage data; interpret, evaluate and use information; and adapt to changing technologies.

Clark College does not discriminate on the basis of race, color, national origin, sex, disability, age, religion, sexual orientation, gender identity, gender expression, creed, disabled veteran status, marital status or Vietnam-era veteran status in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies:

Director for Equity and Diversity  
Baird Administration Building  
(360) 992-2355  
(360) 992-2835 (TTY)

## Technology Programs

# Electronics Technology



- Hands-on training for local high-tech careers
- Associate in Applied Science Degree
- Associate in Applied Technology Degree
- Two-year program
- Short-term certificates also available (see Electronics certificates brochure)



The Electronics Department at Clark College is continually updating its instructional programs to keep pace with current industry developments. Laboratory facilities are among the best available in education due to donations of state-of-the-art equipment from Southwest Washington electronics firms.

The Electronics Technology program at Clark College is designed to provide an Associate in Applied Science degree in two years. The objective is to train students for employment in a variety of jobs requiring electronic skills. Target industries are involved in the design, manufacture, repair, and support of electronics equipment and manufacturing systems. Training encompasses both basic electronics skills and specific target technologies that are aimed at current job opportunities.

The College has worked closely with manufacturing companies such as WaferTech, BPA and Georgia Pacific to provide the training needed for entry-level positions in the industry as well as courses that enable electronics workers to advance on the job.

*Certificates and degree programs are available.*

# Electronics Technology

Advances in microcircuitry have resulted in phenomenal growth in the electronics industry that is affecting virtually every aspect of our lives. Today's applications are only a hint at the potential developments in the years ahead.

If you are looking for an exciting and rewarding career opportunity, Clark College can give you the skills you need to get started in:

- Automated Manufacturing
- Industrial Control Systems
- Semiconductor Manufacturing

The program provides the student with a wide range of general and specific skills, allowing the graduate to approach the job market with the background needed to perform or learn the specialized skills unique to each employer in the industry.

## Program Preparation:

High school students who are considering a career in electronics are advised to develop the necessary English and math skills while still attending high school. Math and English proficiency tests are required of all students before program entry.

Students must complete all major area courses with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

## Electronics Technology

Associate in Applied Technology Degree

### Major Area Requirements

#### First Quarter (Fall)

BTEC	149	Computer Application Essentials	3 credits
CTEC	110	Command Line Essentials	3 credits
ENGL	111	Technical Report Writing I	5 credits
MATH		Computational Skills	5 credits

#### Second Quarter (Winter)

ELEC	101	DC Fundamentals (5 weeks)	6 credits
ELEC	102	AC Fundamentals (5 weeks)	6 credits

#### Third Quarter (Spring)

ELEC	107	A+ PC Core Hardware Technologies	5 credits
ELEC	121	Semiconductors I	6 credits
ELEC	209	Digital Principles I (5 weeks)	6 credits
ELEC	210	Digital Principles II (5 weeks)	6 credits

#### Fourth Quarter (Fall)

ELEC	100	Professional Development for Technicians	3 credits
ELEC	122	Semiconductors II (4 weeks online)	4 credits
ELEC	215	Pneumatics/Hydraulics/Vacuum	3 credits
ELEC	240	Intro to Statistical Process Control	5 credits
ELEC	260	Programmable Controllers I	3 credits

#### Fifth Quarter (Winter)

ELEC	244	Industrial Electronics	9 credits
ELEC	262	Programmable Controllers II	3 credits

#### Sixth Quarter (Spring)

CMST	201	Small Group Communication	5 credits
ELEC	250	Introduction to Semiconductor Manufacturing I (5 weeks)	2 credits
ELEC	252	Introduction to Semiconductor Manufacturing II (5 weeks)	2 credits
ELEC	265	Industrial Data Communications	4 credits
ELEC	270	Capstone: Automated Systems	3 credits
or	199	Cooperative Work Experience	3 credits

**Total Credits Required 97credits**

Refer to the Degree Requirements section in the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

## Electronics Technology

Associate in Applied Science Degree

#### First Quarter (Fall)

BTEC	149	Computer Application Essentials	3 credits
CTEC	110	Command Line Essentials	3 credits
ENGL	098	Writing Fundamentals	5 credits
or	111	Technical Report Writing I	5 credits
MATH	090	Elementary Algebra	5 credits

#### Second Quarter (Winter)

ELEC	101	DC Fundamentals (5 weeks)	6 credits
ELEC	102	AC Fundamentals (5 weeks)	6 credits
MATH	095	Intermediate Algebra	5 credits

#### Third Quarter (Spring)

ELEC	107	A+ PC Core Hardware Technologies	5 credits
ELEC	121	Semiconductors I	6 credits
ELEC	209	Digital Principles I (5 weeks)	6 credits
ELEC	210	Digital Principles II (5 weeks)	6 credits
ENGL	111	Technical Report Writing I	0-5 credits

*(not required if taken in first quarter)*

#### Fourth Quarter (Fall)

ELEC	100	Professional Development for Technicians	3 credits
ELEC	122	Semiconductors II (4 weeks online)	4 credits
ELEC	215	Pneumatics/Hydraulics/Vacuum	3 credits
ELEC	240	Intro to Statistical Process Control	5 credits
ELEC	260	Programmable Controllers I	3 credits

#### Fifth Quarter (Winter)

ELEC	244	Industrial Electronics	9 credits
ELEC	262	Programmable Controllers II	3 credits
PHYS	105	Introduction to Physics	5 credits
or			
CHEM	100	Preparatory Inorganic Chemistry	4 credits

#### Sixth Quarter (Spring)

CMST	201	Small Group Communication	5 credits
ELEC	250	Introduction to Semiconductor Manufacturing I (5 weeks)	2 credits
ELEC	252	Introduction to Semiconductor Manufacturing II (5 weeks)	2 credits
ELEC	265	Industrial Data Communications	4 credits
ELEC	270	Capstone: Automated Systems	3 credits
or	199	Cooperative Work Experience	3 credits

**Total Credits Required 115-121credits**  
*(including General Education Requirements)*

Refer to the Degree & Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

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For more information, see the Clark College Catalog or contact the Technology Programs Advisor at (360) 992-2309 or by email: bvogler@clark.edu  
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