

A photograph of a male student in a dark t-shirt working on a large electrical control panel. He is using a yellow multimeter with red and black probes. In the background, another student is visible working on a similar panel. The scene is set in a classroom or lab with computer monitors and keyboards on the desk.

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ELECTRICAL TECHNOLOGY

*Residential Wiring, Commercial Wiring, and Industrial Wiring Certificates in
Electrical Technology*

Associate in Applied Science Degree in Electrical Technology

Information: 602-238-0072

**[https://www.gatewaycc.edu/degrees-certificates/applied-technology/electrical-
technology-3767-aas](https://www.gatewaycc.edu/degrees-certificates/applied-technology/electrical-technology-3767-aas)**

Welcome to the Electrical Technology Program at GateWay Community College

If you have any questions about the enclosed program material, please feel free to contact any of the following program contacts:

Stephanie Stewart, Apprenticeships and Industry Engagement, Program Manager,
Phone (602) 238-0072 Email: stephanie.stewart@gatewaycc.edu

Fausto Gonzalez, Electric League of Arizona Director of Education, Phone (602) 263-0115
Email: education@elaz.org

Dariyea Hollins, Student Services Analyst, Advising Phone (602) 263-8633 Email:
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Registration Checklist

1	Submit 'Student Information Form' https://eims.maricopa.edu/MAW/MAW.htm	Enrollment Services IE 1214	602.286.8200
2	Verify in-state residency by filling out Prop 300 form. http://www.maricopa.edu/residency/ Click Student Declaration Form	Enrollment Services IE 1214	602.286.8200
3	Request Official Transcripts from all other educational agencies and High School Transcripts are to be forwarded to the following address Gateway Community College Attn: Admissions and Records 108 North 40 Street Phoenix, AZ 85034	Enrollment Services IE 1214	602.286.8200
4	Take Course Placement Test (if applicable) Some courses and programs require test scores prior to enrollment. No fee required BRING PICTURE ID Call for times	Testing Center IE 1252	602.286.8160
5	Apply for Financial Aid and Scholarships, if interested http://enroll.gatewaycc.edu/FinancialAid/ApplyForFinancialAid/ http://enroll.gatewaycc.edu/FinancialAid/Scholarships/	Enrollment Services IE 1214	602.286.8300
6	Meet with a Workforce Training Program Advisor Explore your program options, obtain registration advisement and setup a program of study plan.	Academic Advising GateWay Central City "A" Building	602.286.8633
7	Register for Courses Schedule Available at http://classes.sis.maricopa.edu/ Contact Electric League of Arizona (602) 263-0115 to register for class.	Enrollment Services IE 1201	602.286.8200
8	Pay Tuition and Fees Payment Plans and Payment Extensions Available. Ask for Details.	Enrollment Services IE 1214	602.286.8277
9	Obtain Student ID, Optional Enrollment Services — BRING PICTURE ID	Enrollment Services IE 1214	602.286.8200
10	Obtain Parking Decal, Required Required if parking a vehicle on campus	Enrollment Services IE 1214	602.286.8200
11	Purchase Books Bookstore or online at www.efollet.com	Main Building, Bookstore Room MA1200	602.286.8400

Electric League of Arizona - Partnership

GateWay Community College's Workforce Training Department is partnered with the Electric League of Arizona to provide instruction and training for students in the Electrical Technology Program. **Students are required to register for electrical classes through the Electric League and may be required to pay additional fees set forth by Electric League.** Please contact them for more information.



Electric League of Arizona

2702 N. 3rd Street Ste. 2020, Phoenix, Arizona 85004

Phone: 602-263-0115 • Fax: 602-277-9881

WWW.ELECTRICLEAGUEOFARIZONA.ORG

Career Description

Electricians maintain, install, test and connect electrical systems in factories, industrial buildings, residential properties and other facilities. As an electrical technician you will work with the electrical systems of machines and equipment used in business and industry. The majority of electricians do both construction and maintenance, but you can specialize. As a construction electrician, you will read blueprints to install and maintain a building's electrical system. As a maintenance electrician, your work will depend on where you are employed. You may lay the founding electrical system of a high rise building or perform maintenance on a residential home. Much of a maintenance electrician's time is spent on preventative maintenance, inspecting and locating problems before they occur. Maintaining a safe environment is the top priority of all types of electricians. In this field, you must have specialized knowledge in electricity, refrigeration, solid state electronic controls and safety. Electricians are employed in every industry, and many are self-employed.

How To Get Started

We offer three Certificates of Completion (Residential Wiring, Commercial Wiring, and Industrial Wiring) and an Associate in Applied Science Degree in Electrical Technology. Both programs offer hands-on learning through work experience and classroom activities. Because your job will require you to interact with management, regulatory agencies and engineers, we suggest that you have written and verbal communication skills. Contact the Electric League of Arizona at (602) 263-0115 to schedule and enroll in courses. If you have attended another college or university, please have your transcripts sent to: Admissions & Records @ GWCC, 108 North 40th Street Phoenix, AZ 85034.

Accreditation

GateWay Community College is a Maricopa Community College, accredited by the Commission on Institutions of High Education of the North central Association of Colleges and Schools (30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504. Phone (800) 621-7440)

Career Opportunities

- Residential/Commercial/Industrial Electrician
- Maintenance Electrician
- Construction Electrician
- Electrical Contractor
- Design & Engineering Assistant
- Manufacturing Technician
- Electrical Facilities Technician
- Solar/Photovoltaic Technician
- Electrical Project Field Supervisor
- Field Service Engineer
- Building & Code Compliance Inspector
- Electrical Project Manager
- Electrical Project Estimator

Employment Outlook

In Arizona, Electrical Technician positions are expected to increase 6% or more by 2028. In Arizona, as of 2023, electrical technicians earn an average hourly rate of \$32.66, for an average annual salary of \$67,927.



Residential Wiring Certificate of Completion – 5756N

Course Pre-Fix	Course Name	Credits	Advisor Notes
Certificate of Completion Residential Wiring Required Courses + indicates course has prerequisites and/or corequisites			
ELC103	Electrical/Mechanical Calculations	3	
+ ELC119	Concepts of Electricity and Electronics	3	
ELC123	Residential Electrical Wiring and Codes	3	
+ ELC160	Applied Electrical Codes I	3	
ELC164	Grounding and Bonding	3	
Total Required Credits for Certificate of Completion		15	

Commercial Wiring Certificate of Completion – 5904N

Course Pre-Fix	Course Name	Credits	Advisor Notes
Certificate of Completion Commercial Wiring Required Courses + indicates course has prerequisites and/or corequisites			
ELC120	Solid State Fundamentals	3	
+ELC125	Commercial Electrical Wiring and Codes	3	
+ELC161	Applied Electrical Codes II	3	
+ELC217	Motor Controls	3	
Total Required Credits for Certificate of Completion		12	

Industrial Wiring Certificate of Completion – 5906N

Course Pre-Fix	Course Name	Credits	Advisor Notes
Certificate of Completion Residential Wiring Required Courses + indicates course has prerequisites and/or corequisites			
ELC103	Electrical/Mechanical Calculations	3	
+ ELC119	Concepts of Electricity and Electronics	3	
ELC123	Residential Electrical Wiring and Codes	3	
+ ELC160	Applied Electrical Codes I	3	
ELC164	Grounding and Bonding	3	
Total Required Credits for Certificate of Completion		15	

Associate in Applied Science (AAS) in Electrical Technology – 3767

Associate in Applied Science Electrical Technology Required Courses + indicates course has prerequisites and/or corequisites			
**	<i>Above 3 Certificates of Completion in Residential, Commercial, and Industrial Wiring</i>	39	
FYE 101	Introduction to College, Career and Personal Success	1	
ENG101+	First-Year Composition	3	
ENG111+	Technical Writing	3	
COM230	Small Group Communication	3	
CRE101	College Critical Reading and Critical Thinking OR Equivalent as indicated by assessment	3	
CHM130+/CHM130LL+	Fundamental Chemistry	4	
HUM101	General Humanities	3	
SOC101	Introduction to Sociology	3	
+MAT122	Intermediate Algebra or Equivalent by Assessment	3	
Total Required Credits for Associate in Applied Science		65	

To receive this certification and/or degree, students must earn a grade 'C' or better in all courses within the program.

Note: (+) Indicates a prerequisite and/or co requisite is required

Associates of Applied Science in Electrical Technology—Major 3767

1st Semester, Fall

Course	Description	Credit
FYE101	Introduction to College, Career and Personal Success	1
ELC103	Electrical/Mechanical Calculations	3
ELC119	Concepts of Electricity and Electronics	3
ELC164	Grounding and Bonding	3

2nd Semester, Spring

Course	Description	Credit
ELC123	Residential Electrical Wiring and Codes	3
ELC160	Applied Electrical Codes	3
ENG101	First-year Composition	3
CRE101	College Critical Reading and Critical Thinking OR Equivalent as indicated by assessment	3

3rd Semester, Fall

Course	Description	Credit
ELC217	Motor Controls	3
MAT122	Intermediate Algebra	3
ENG111	Technical Writing	3
CHM130/CHM130LL	Fundamental Chemistry	4

4th Semester, Spring

Course	Description	Credit
ELC120	Solid State Fundamentals	3
ELC125	Commercial Electrical Wiring and Codes	3
ELC161	Applied Electrical Codes II	3
HUM101	General Humanities	3

5th Semester, Fall

Course	Description	Credit
ELC144	Basic Automated Systems Using Programmable Controllers	3
ELC210	AC Machinery and DC Machinery	3
SOC101	Introduction to Sociology	3

6th Semester, Spring

Course	Description	Credit
ELC218	Variable Frequency Drives	3
ELC124	Industrial Electrical Wiring and Codes	3
COM230	Small Group Communication	3

PROGRAM COSTS

Electrical Technology Degree and Certificate Cost Estimates

Program	Tuition	Course Fees	Total
Associate of Applied Science in Electrical Technology	\$6,305	\$2,046	\$8,351
Certificate of Completion in Electrical Technology – Residential Wiring	\$1,455	\$465	\$1,920
Certificate of Completion in Electrical Technology – Commercial Wiring	\$1,164	\$372	\$1,536
Certificate of Completion in Electrical Technology - Industrial Wiring	\$1,164	\$372	\$1,536

Please note that these are only estimates and do not include books. These estimates may change based on increases to tuition, course fees and book costs. Estimates are based on the 2023-2024 tuition rates for in-county students. Additional fees may apply.

COLLEGE CONTACT INFORMATION

Admissions, Registration and Records.....	(602) 286-8200
Adult Re-Entry.....	(602) 286-8900
Apprenticeship Programs	(602) 286-8681
Assessment/Testing Center	(602) 286-8160
Bookstore	(602) 286-8400
Cafeteria.....	(602) 286-8308
Career and Employment Services Center.....	(602) 286-8500
College Safety	(602) 286-8911
Cashier's Office.....	(602) 286-8277
Cashier's TIP Hotline	(602) 286-8286
Children's Learning Center	(602) 286-8130
College Information	(602) 286-8000
Counseling.....	(602) 286-8900
Disability Services.....	(602) 286-8888
Financial Aid.....	(602) 286-8300
Institute for Computer Training (ICT) Lab.....	(602) 286-8568
Learning Center	(602) 286-8800
Library.....	(602) 286-8454
Phone Registration	(602) 286-8100
Student Activities/Clubs.....	(602) 286-8700
Veterans Services.....	(602) 286-8076