

ELECTRICAL TECHNOLOGY



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

Associate in Applied Science Degree in Electrical Technology



Welcome to the Electrical Technology Program

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

Anne Dozeman, Electric League of Arizona Director of Education or
Brenda Meda, Electric League of Arizona Education Coordinator, (602) 263-0115
Email: education@elaz.org

Dr. Natalie Avila, Student Services Advising, (602) 263-8633 Email:
<mailto:natalie.avila@gatewaycc.edu>

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

Electric League of Arizona

The Electric League of Arizona is a statewide non-profit trade association founded in 1960. We represent approximately 350 companies committed to high standards of professionalism in the Electrical, HVACR, and Energy Management Industries. We can help you grow, prosper, and take a leadership role in the Electrical Industry.

Electric League of Arizona - Collaboration

GateWay Community College's Workforce Training Department in collaboration with the Electric League of Arizona (ELA) provides instruction and training for students in the Electrical Technology Program. The electrical courses are taught by ELA instructors at ELA or GateWay CC.

We offer three Certificates of Completion (Residential Wiring, Commercial Wiring, and Industrial Wiring). In addition, we also offer an Associate in Applied Science Degree in Electrical Technology.

Students register for electrical classes through the Electric League of Arizona and pay tuition and fees to the Electric League of Arizona. The continuing adult education electrical courses are offered in the evening as our students are encouraged to work in the electrical field during the day. Each class is offered every third semester to allow students to complete all three certificates in two years. Please contact us for more information: education@elaz.org, 602-263-0115.



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 including machines and wiring. 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. 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 Electrician
- Commercial Electrician
- 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.

GateWay CC Information: 602-238-0072

<https://www.gatewaycc.edu/degrees-certificates/applied-technology/electrical-technology-3767-aas>

CERTIFICATE PROGRAMS

Residential Wiring Certificate of Completion

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

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

Certificate of Completion Industrial Wiring Required Courses + indicates course has prerequisites and/or corequisites			
+ELC124	Industrial Electrical Wiring and Codes	3	
+ELC144	Basic Automated Systems Using Programmable Controllers	3	
+ELC210	AC Machinery and DC Machinery	3	
+ELC218	Variable Frequency Drives	3	
Total Required Credits for Certificate of Completion		12	

Associate in Applied Science (AAS) in Electrical Technology

Additional Courses for the 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.

ELECTRIC LEAGUE OF ARIZONA / GATEWAY COMMUNITY COLLEGE

Prior to Registration: Contact the Electric League of Arizona (ELA) at (602) 263-0115 or education@elaz.org.

Please notify ELA right away if you plan to utilize Financial Aid (FA).

Registering for ELC courses is a multi-step process.

1. Register for courses through the Electric League of Arizona (ELA).
2. Complete the admissions process with GateWay Community College.
3. Look for an email stating you are successfully admitted to GateWay Community College (GWCC).
4. Optional - Complete and return the Family Educational Rights and Privacy Act (FERPA) form to ELA in order for ELA to communicate with GWCC on your behalf. FERPA Form is provided to you after your register for classes with ELA.
5. ELA coordinator will contact you when permission to enroll through GWCC has been added.
6. Self-enroll with GWCC.
7. Please see below for additional steps required in order to successfully enroll in class(es).

IMPORTANT DEADLINES, TUITION CHARGES, AND OTHER RELEVANT INFORMATION

Registration Deadline: Students must be registered, admitted, and successfully enrolled in class(es) at least one (1) business day before the first day of class(es). **No exceptions.**

Additional Costs: ELA charges an administrative fee not covered by Financial Aide and that must be paid out of pocket before class starts. Textbooks and tools are not included as part of your tuition/registration charges. Textbook information is provided a few weeks before the start of class.

Withdrawal Deadline: GateWay course withdrawal deadlines may be found in your student center at <https://portal.maricopa.edu/>.

Cancellation Policy: A full refund will be issued only if written notice of cancellation is received seven (7) days prior to the class start date. All registrations received are confirmed registrations, unless cancelled within the proper time frame. No-show participants are charged the full amount if they register but do not attend.

COURSE REGISTRATION WITH THE ELECTRIC LEAGUE OF ARIZONA

New Student:

1. [Please click here](#) to view the full list of ELC courses and to register online.
2. If using Financial Aid, contact education@elaz.org before registering.
3. Click on Register Now under the class you would like to take.
4. Click on the Register Now button on the class information page.
5. Create a New Account on the ELA Institute for Education page.
6. Fill out online application.
7. Click on I'm not a robot.
8. Click on Submit Registration.
9. Select, and pay for the classes through the ELA Registration Website.
10. Complete the GateWay Community College Admissions Process.
11. Look for an email from education@elaz.org when your GWCC account is open to self-enroll GWCC.

Returning Student:

1. [Please click here](#) to view the full list of ELC courses and to register online.
2. Click on Register Now under the class you would like to take.
3. Click on the Register Now button on the class information page.
4. Fill out your username and password and log in.
5. Select, and pay for the classes through the ELA Registration Website.
6. Look for an email from education@elaz.org when your GWCC account is open to self-enroll with GWCC.

GATEWAY COMMUNITY COLLEGE ADMISSIONS PROCESS

Overview to Complete Student Admission Application:

1. To apply for admissions as a student at GWCC, go to <https://admissions.maricopa.edu>.
2. Your student account information is the same for all 10 community colleges within the Maricopa Community College District(MCCD).
3. Once you receive a MEID (Maricopa Enterprise ID), create a password, which you will need to log into your student account.
4. You will also receive an 8-digit Student ID after you submit your Gateway application.
5. Keep your MEID, password and 8-digit Student ID in a safe place as you will need them throughout the semester.
6. If you've previously completed courses with any of the 10 community colleges in MCCC, then you may already have an account. Click 'Find my MEID' to look up your account.

Helpful Tips to Complete the GateWay CC Student Admissions Application:

1. Primary College of Interest: *GateWay Community College*
2. Reason for Attending (choose one):
 - *Get an Associate Degree (Select this option if applying for Financial Aid)*
 - *Get a Certificate*
 - *Take a Class (not pursuing degree/certificate)*
3. Career Program: *Credit*
4. Term: *Please select the applicable term/semester*

5. Program Plan associated with chosen Track(choose one):
 - *Certificate of Completion (CCL) in Electrical Technology*
 - *Residential, Commercial, or Industrial*
 - *Associate Degree (AAS) in Electrical Technology* (select if you are using financial Aid)
6. Submit Lawful Presence and ID Authentication Documentation:
 - **Do not skip this step***
 - Residency for tuition purposes is determined in accordance with state law (ARS §§15-1801 et seq.) and regulations of the Maricopa Community Colleges Governing Board.
 - Submit valid document(s) that provides proof of both Lawful Presence and ID Authentication. <https://www.maricopa.edu/students/student-support/admissions-records-registration/residency>.
 - Students are subject to an out of state/out of county tuition assessment by GWCC if:
 - Students have resided in Maricopa County for less than one year, and if
 - Student is not a legal resident.
 - Students who have questions about their residency and eligibility status should contact the Admissions, Records, and Registration Office for clarification.
 - After submitting residency documents:
 - Log into your student center at <https://portal.maricopa.edu/>.
 - **Verify** your residency status.

**Please do not skip this step; must be completed in order to determine residency status for tuition purposes and help you identify if you'll be eligible for Maricopa County resident tuition status.*

Contact Electric League of Arizona:

1. Once you have been successfully admitted to GateWay CC and established your residency status, please contact ELA at (602) 263-0115 or education@elaz.org
2. ELA will send you a FERPA form to complete.

Release of Information Form:

1. Complete the Family Educational Rights and Privacy Act (FERPA).
2. The form allows ELA to assist you by communicating with GWCC on your behalf.
3. Return via email to education@elaz.org.

Self-Enroll at GateWay Community College:

1. Electric League of Arizona will notify you when you can self-enroll in your class(es).
2. Email education@elaz.org after you've self-registered.
3. Sign-in to your Maricopa Student Center using your MEID and password.
4. Select: **Manage Classes**.
5. Make sure your Student Center does not have any pending or current tasks.
6. Select: **Class Search and Enroll**.
7. Select the **correct semester**.
8. Action: **Enroll**.
9. Click **Submit**.
10. Unable to successfully enroll at GateWay Community College? Contact Dr. Natalie Avila, natalie.avila@gatewaycc.edu.

Please Note: *If your admissions process is incomplete or you have a debt over \$100 within MCCCCD, you will **not** be able to register. Please check your **My Maricopa Student Center** to confirm you are admitted and do not have any debts/holds on your account.*

Send e-mail confirmation to ELA when you have successfully added your classes to your Student Schedule through your Maricopa Student Center.

GWCC ACADEMIC ADVISING

Associate Of Applied Science (AAS) In Electrical Technology

1. The Associate of Applied Science (AAS) in Electrical Technology requires students to complete:
 - 13 electrical technology classes (39 credits).
 - 9-10 general education requirements (24-27 credits).
2. Students interested in the AAS should schedule an appointment with a GWCC academic advisor to:
 - Review academic plan.
 - Identify which general education classes are required.
 - Discuss any credit transfers.
 - Please note, general education requirement classes are set by GWCC.
3. For more information on scheduling an appointment with an advisor contact Natalie Avila, natalie.avila@gatewaycc.edu.

FINANCIAL AID (FAFSA)

Complete the Federal Financial Aid Form (FAFSA) application:

1. FAFSA® Form: <https://studentaid.gov/h/apply-for-aid/fafsa>.
2. Please Include GateWay's School Code: **008303**.
3. GWCC Financial Aid: <https://www.gatewaycc.edu/pay-college/financial-aid>
4. Contact GateWay's Financial Aid Office if assistance is needed in completing the FA process.
Maricopa Financial Aid Answer Center, 24/7 phone number: (855) 622-2332
E-mail: finaid@gatewaycc.edu
Phone: (602) 286-8117
5. Students should contact the Financial Aid Office at GWCC for more details about their enrollment classification status (part-time/full-time) and award funding.
6. The use of alternate funding (Financial Aid, Third Party Payments, etc.) does not remove the student's responsibility for any tuition (*including out-of-state charges*) and fees related to their enrollment in the Maricopa Community Colleges, as the funding may be reversed upon loss of eligibility.
7. Financial aid requirements & eligibility vary for each student based on their Free Application for Federal Student Aid (FAFSA) application and financial need.

SCHOLARSHIPS

We encourage students to explore scholarship opportunities. Be sure to check eligibility requirements and application processes. Some may have special requirements that require individual applications.

For more information, please visit: <https://www.maricopa.edu/students/scholarships>.

ESTIMATED PROGRAM COSTS

Maricopa County Resident - ELC Class Cost Estimate by Semester*

Classes	Class Tuition ** (3 Credits each, \$97 per credit)	GateWay Registration Fee, per Semester	ELA Admin Fee per Class***	Total
ELC Class	\$291.00	\$15.00	\$93.00	\$399.00
ELC Class	\$291.00		\$93.00	\$384.00
				\$738.00*

*Please note, this does not include the cost of books and other class materials. Book information is provided to students before the classes begin.

**Out-of-state residents residing in Arizona who do not qualify for in-state residency will have tuition rate calculated at \$372 per credit.

***Please note, FAFSA (Financial Aid) does not cover the Electric League of Arizona (ELA) administrative fee of \$93 per class. The administrative fee is paid directly to ELA upon registration.

Electrical Technology Degree and Certificate Cost Estimates

Program	Tuition*	Course Fees	Total
Associate of Applied Science in Electrical Technology	\$6,305	\$1,642	\$7,947
Certificate of Completion in Electrical Technology – Residential Wiring	\$1,455	\$550	\$2,005
Certificate of Completion in Electrical Technology – Commercial Wiring	\$1,164	\$417	\$1,581
Certificate of Completion in Electrical Technology - Industrial Wiring	\$1,164	\$417	\$1,581

*Estimates are based on the 2025-2026 tuition rates for in-county students.

Please note that these are only estimates and do not include books and supplies.

These estimates may change based on tuition increases, course and admin fees.

Additional fees may apply.

Associates of Applied Science in Electrical Technology-Sample

*Classes can be taken in any order as long as prerequisites are fulfilled or instructor permission is given. The number of semesters required to complete the AA depends on the number of classes taken each semester. ELC courses are only offered during the fall and spring semesters.

Course	Description	Credit
FYE101	Introduction to College, Career and Personal Success	1
ELC103	Electrical/Mechanical Calculations	3
ELC119	Concepts of Electricity and Electronics	3
ELC125	Commercial Electrical Wiring and Codes	3
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
Course	Description	Credit
ELC217	Motor Controls	3
ELC164	Grounding and Bonding	3
ELC124	Industrial Electrical Wiring and Codes	3
ENG111	Technical Writing	3
Course	Description	Credit
ELC103	Electrical/Mechanical Calculations	3
ELC210	AC Machinery and DC Machinery	3
ELC161	Applied Electrical Codes II	3
HUM101	General Humanities	3
Course	Description	Credit
ELC120	Solid State Fundamentals	3
ELC218	Variable Frequency Drives	3
SOC101	Introduction to Sociology	3
Course	Description	Credit
ELC144	Basic Automated Systems Using Programmable Controllers	3
CHM130/CHM130LL	Fundamental Chemistry	4
COM230	Small Group Communication	3

ELECTRIC LEAGUE OF ARIZONA CONTACT INFORMATION

Admissions, Registration and Records.....	(602) 263-0115
Brenda Meda, Education Coordinator.....	(602) 263-0115
Registration Website.....	edu.elaz.org
Admissions, Registration and Records E-mail.....	education@elaz.org

GW CC 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