Electrical Technology

Explore Catalog Search Courses

The Electrical Technology Degree prepares students for careers in a chemical plant, refineries, HVAC, and residential electricians. These jobs pay an average of $50 to 60 dollars per hour.

The Electrical Technology Associate of Applied Science degree program prepares graduates for entry-level careers as Electrician Technicians in the chemical processing industry and residential electricians.

Through the use of state of the art simulation equipment, as well as hands-on applied technology training and general academic coursework, the student will develop the skills required to be a successful instrument technician.

What will I learn?

Upon successful completion of the Electrical Technology Degree program, graduates will be able to:

- Analyze and solve direct current and alternating current series circuit and parallel circuit problems.
- Use appropriate electronic measurement tools and problem-solving skills to solve a variety of complex circuit problems.
- Create process and flow instruction sets to control various digitally-programmable circuits.
- Design circuit/systems to perform specific electronic functions.

- Work as a team member to effectively communicate technical information orally and in writing.

What can I do with this course of study?

Opportunities in the electrical field are increasing. As technology advances, the demand for qualified industrial electricians also increases. Today’s electricians install and maintain electrical systems including climate control, security, and communications. They may install coaxial or fiber optic cable for computers and test circuits for proper connections. They work with blueprints and must follow the current National Electric Code and comply with state an local building codes.

Electricians often work for large industrial plants, public utilities, government agencies, electrical contractors, building contractors, and construction companies. Hospitals, school districts, and department store chains often employ electricians.

Electrical Technology (AAS) Degree Plan

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
ELPT 1325	National Electrical Code I	IE1, EC1, EWI1 *The EC1 and EWI1 certificates require courses not included in the degree.
ELPT 1411	Basic Electrical Theory	EIA2 *The EIA2 certificate requires courses not included in the degree.
TECM 1341	Technical Algebra	
ELPT 2301	Journeyman Electrical Exam Review	IE1, EIA2
ENGL 1301	English Composition 1	

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
TECM 1349	Technical Math Applications	EIA2
PHYS 1407	Conceptual Physics II	EIA2
Creative Arts/Language Philosophy	Recommended: ENGL 2351, HUMA 2319, HIST 2381, ARCH 1311	

	Other options: any Creative Arts/LPC core course	
ELPT 1455	Electronic Applications	IE1, EIA2; EC1, EWI1
ELPT 2405	Motors and Transformers	IE1
ELPT 2319	Programmable Logic Controllers I	IE1, EIA2

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward Certificate
SPCH 1315	Principles of Public Speaking	
SBS/GOVT/HIST	Recommended:# HIST 2301, GOVT 2306, ECON 2301 Other options: any SBS/ HIST/GOVT core course	
ELPT 2331	AC/DC Drives	IE1, EIA2,
ELPT 1441	Motor Controls	IE1, EIA2
ELPT 2355	Programmable Logic Controllers II	IE1
Elective: Chose one from ELPT 1321 or ELPT 2325 or ELPT 2380	ELPT 1321 - Introduction to Electrical Safety and Tools (applies to EC1 & EWI1 certificates) or ELPT 2325 - National Electrical Code II or ELPT 2380 – Cooperative Education: Electrical and power Transmission Installation	EC1, EWI1 (ELPT 1321) IE1 (choose one elective)
Elective: Chose one from ELPT 1321 or ELPT 2325 or ELPT 2380	ELPT 1321 - Introduction to Electrical Safety and Tools or ELPT 2325 - National Electrical Code II or ELPT 2380 – Cooperative Education: Electrical and Power Transmission Installation	

Electrical Construction - EC1, Certificate of Completion

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
ELPT 1321	Introduction to Electrical Safety and Tools	EC1, EWI1
ELPT 1315	Electrical Calculations I	EC1
ELPT 1325	National Electrical Code I	EC1, EWI1

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
ELPT 1329	Residential Wiring	EC1
ELPT 1445	Commercial Wiring	EC1, EWI1

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward Certificate
ELPT 1457	Industrial Wiring	EC1
ELPT 2325	National Electrical Code II	EC1
ELPT 1451	Electrical Machines	EC1

Electrical Technology - IE1, Certificate of Completion

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
ELPT 1325	National Electrical Code I	IE1
ELPT 2301	Journeyman Electrical Exam Review	IE1

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward
ELPT 1455	Electronic Applications	IE1
ELPT 2405	Motors and Transformers	IE1
ELPT 2319	Programmable Logic Controllers I	IE1

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward Certificate
ELPT 2331	AC/DC Drives	IE1
ELPT 1441	Motor Controls	IE1
ELPT 2355	Programmable Logic Controllers II	IE1
Elective: Choose one from ELPT 1321 or ELPT 2325 or ELPT 2380	ELPT 1321 - Introduction to Electrical Safety and Tools (applies to EC1 & EWI1 certificates) or ELPT 2325 - National Electrical Code II or ELPT 2380 – Cooperative Education: Electrical and power Transmission Installation	IE1 (choose one elective)

Electrical Instrumentation and Analytical II EIA2

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
CTEC 1401	Applied Petrochemical Tech	EIA2
ELPT 1411	Basic Electrical Theory	EIA2
INTC 1348	Analytical Instrumentation	EIA2
ELPT 2301	Journeyman Electrical Exam Review	EIA2

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
PHYS 1407	Conceptual Physics II	EIA2
INTC 1456	Instrumentation Calibration	EIA2
TECM 1341	Technical Algebra	EIA2
ELPT 2319	Programmable Logic Controllers I	EIA2
ELPT 1455	Electronic Applications	EIA2

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward Certificate
ELPT 1441	Motor Control	EIA2
ELPT 2331	AC/DC Drives	EIA2
INTC 1441	Principles of Automatic Control	EIA2
CHEM 1405	Introductory Chemistry CAAC change needed: Make the math requirement to TECM 1341)	EIA2

Wiring Installation EWI1

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward Certificate
ELPT 1321	Introduction to Electrical Safety and Tools	EWI1
ELPT 1325	National Electrical Code I	EWI1

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward Certificate
ELPT 1445	Commercial Wiring	EWI1

CAREERS IN ELECTRICAL TECH.
My Next Move

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