

Electrical Technology – Specialization in Energy Technology

Associate of Applied Science Degree

Program Coordinator: Donnie Melvin • ISC 142A • 276-739-2453

Length: Four semesters (two years)

Purpose: The Associate of Applied Science Degree in Electrical Technology – Specialization in Energy Technology is designed to prepare students for employment upon graduation as electrical technicians with emphasis on installation, power distribution, controls, programmable controls, mechanical systems and the maintenance of industrial machinery.

Occupational Objectives: Basic Electrician, Electrical/ Electronic Technician, Power Systems Technician, Solar Power Technician, Maintenance Supervisor

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to the Electrical Technology – Specialization in Energy Technology curriculum. Proficiency in high school English and mathematics is required. Students who are not proficient in English and mathematics will be required to correct their deficiencies in developmental courses.

Program Requirements: The Electrical Technology Degree is a two-year program with two-thirds of the program content in electrical and mechanical courses, and the remaining one-third consists of math, social sciences, English, humanities, and physical education. The graduate will be awarded the Associate of Applied Science in Electrical Technology upon satisfactory completion of the two-year program. Course content will include the theoretical concepts and practical applications as they pertain to industry needs.

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
First Semester (Fall)				
DRF 161	Blueprint Reading	1	2	2
ELE 133	Practical Electricity I	2	2	3
ELE 111	Home Electric Power I	2	3	3
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
SDV 101	Orientation to College Success	1	0	1
ITE 100	Introduction to Information Systems ¹	3	0	3
SAF 130	Industrial Safety – OSHA 10	1	0	1
Total		13	7	16
Second Semester (Spring)				
MTH 111	Basic Technical Mathematics	3	0	3
ELE 134	Practical Electricity II	2	2	3
ELE 141	DC & AC Machines	3	3	4
ELE 112	Home Electric Power II	2	3	3
ELE 131	National Electrical Code I	3	0	3
Total		13	8	16
Third Semester (Fall)				
ELE 100	Conventional and Alternate Energy Applications	3	3	4
ELE 175	Industrial Solid State Devices & Circuits	2	3	3
ELE 245	Industrial Wiring	2	2	3
ELE 176	Introduction to Alternative Energy Including Hybrid Systems	2	3	3
EEE	Humanities Elective	3	0	3
Total		12	11	16

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
Fourth Semester (Spring)				
ELE 177	Photovoltaic Energy Systems	3	3	4
ENE 200	Power Monitoring	3	3	4
ELE 132	National Electrical Code II	3	0	3
EEE	General Education Elective	3	0	3
PED	Physical Education	0	2-3	1
EEE	Social Science Elective	3	0	3
Total		15	8-9	18
Total Minimum Credits for the AAS Degree				66

1. ITE 115 or ITE 119 are acceptable substitutes

Students are urged to follow the [recommended pathway](#) for this degree when choosing electives.

Additional approved humanities and social science electives are listed at <http://www.vhcc.edu/GenEdCore>.