

Electrical Technology – Specialization in Energy Technology

Associate of Applied Science Degree

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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.

Direct enrollment guidelines using either multiple measures or informed placement will determine a student’s placement into college-level English and mathematics 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)				
ENG 111 or	College Composition I or	3	0	3
ENG 115	Technical Writing			
DRF 161	Blueprint Reading	1	2	2
ELE 111	Home Electric Power I	2	3	3
ELE 157	Electricity Fundamentals	3	6	6
SAF 130	Industrial Safety – OSHA 10	1	0	1
SDV 101	Orientation to College Success	1	0	1
Total		11	11	16
Second Semester (Spring)				
ITE 100	Introduction to Information Systems ¹	3	0	3
MTH 111	Basic Technical Mathematics	3	0	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		14	6	16
Third Semester (Fall)				
ENE 100	Conventional and Alternate Energy Applications	3	3	4
MUS 121 or	Music Appreciation I or Religions of	3	0	3
REL 230	the World ²			
ELE 176	Introduction to Alternative Energy Including Hybrid Systems	2	3	3
ELE 245	Industrial Wiring	2	2	3
BUS 100	Introduction to Business ³	3	0	3
Total		13	8	16

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
Fourth Semester (Spring)				
ELE 177	Photovoltaic Energy Systems	3	3	4
ELE 175	Industrial Solid State Devices & Circuits	2	3	3
ENE 200	Power Monitoring	3	3	4
ELE 132	National Electrical Code II	3	0	3
PED	Physical Education	0	2	1
ECO 201 or	Principles of Macroeconomics or	3	0	3
PSY 120	Human Relations ⁴			
Total		14	11	18
Total Minimum Credits for AAS Degree				66

Footnote:

¹ITE 115, ITE 119, or ITE 152 are acceptable substitutes

²Recommended Humanities Elective

³Recommended General Education Elective

⁴Recommended Social Science Elective

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>.