

ELECTRICAL CONSTRUCTION AND CONTROL

Students in the electrical construction and control program learn the basics of electrical wiring used in the installation and maintenance of lighting, appliances, motors, heating, and air conditioning. Training includes the operation, testing, and maintenance of electrical equipment and electronics for skills in electrical controls and solid-state devices, as well as computer experience using a programmable controller. Power distribution, industrial maintenance, electrical and service work, installation and service of irrigation equipment, and new construction are some of the areas with employment opportunities for graduates of the two-year electrical program. Students must possess or be eligible to obtain an electrical apprentice license issued by the state of Nebraska. US citizenship or legal resident status is required to obtain an electrical license in the state of Nebraska.

(Enrollment into this program is limited and based on the date of application.)

Required Program of Study for Associate of Applied Science Degree (2 years)

FIRST YEAR

Fall Semester	
Course	Credits
ELTR 1010 Basic Electricity	3
ELTR 1020 Basic Electricity Lab	2
ELTR 1030 Electrical Wiring I	3
ELTR 1040 Electrical Wiring I Lab	3
ELTR 1050 National Electrical Code I	3
ECON 1010 Personal and Business Finance*	2
MATH 1020 Technical Mathematics I*	3
	19

Spring Semester	
Course	Credits
ELTR 1200 National Electrical Code II	3
ELTR 1210 Electrical Wiring II	3
ELTR 1220 Electrical Wiring II Lab	2
ELTR 1230 Motor Control	2
ELTR 1240 Motor Control Lab	2
ELTR 1250 Blueprint and Cost Estimating	3
MATH 1060 Technical Mathematics II*	3
	18

Summer	
Course	Credits
ELTR 1300 Cooperative Internship I	6
	6

SECOND YEAR

Fall Semester	
Course	Credits
ELTR 2000 Motor Theory and Application	2
ELTR 2010 Motor Theory and Application Lab	1
ELTR 2020 Automation Fundamentals	2
ELTR 2030 Automation Fundamentals Lab	2
ELTR 2045 Electrical Energy Conservation I	3
ELTR 2055 Electrical Troubleshooting	2
ELTR 2065 Electrical Troubleshooting Lab	2
ENGL 1050 Workplace Communication*	3
	17

Spring Semester	
Course	Credits
ELTR 2210 Control Wiring	3
ELTR 2215 Control Wiring and Solid State Lab	2.5
ELTR 2235 Electrical Energy Systems	3
ELTR 2245 Electrical Energy Systems Lab	2
ELTR 2260 Solid State Fundamentals	2
PSYC 1000 Human Relations*	2
HLTH 1710 First Aid	2
	16.5

Total Credit Hours	76.5
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*Course fulfills a general education requirement for Northeast Community College. See general education requirements.