

Electrical Technology

MSU-Northern's Electrical Technology program is the only program in the state to offer an Associate of Applied Science degree in conjunction with State of Montana Apprenticeship program. With an electrical technology degree, students will be prepared to start their career as an apprentice electrician or to continue their education in electrical engineering.

Mission Statement

Graduate has earned an Associate of Applied Science Degree in Electrical Technology. The graduate will have the necessary skills, training, and confidence to be a valuable employee to an electrical contractor with skills commensurate to a 2nd year apprentice.

Learning Outcomes for Electrical Technology, AAS

Upon completion of this program, students will understand and apply:

- Understand basic electricity and it's functions
- Understanding basic residential wiring (IE: branch circuits, overcurrent protection, single pole and 3-way switching.)
- Understand National Electrical Code Requirements for Motor installation and hook up a motor installation with Magnetic Starter, Thermal Overloads, Overcurrent Protection, and Control devices. Understand how to read a Volt Ohm Meter and other basic hand-held meters.
- Bend conduit with hand held bender and large mechanical benders. Identify electrical parts used on the job.

Associate of Applied Science Electrical Technology

Code	Title	Credits
Required Courses		
ELCT 101	Electrical Fundamentals I	3
ELCT 103	Electric Code Study/Codeology	3
ELCT 106	Electrical Formulas & Calc	3
ELCT 137	Electrical Drafting	2
HPE 234	First Aid and CPR	2
CAPP 120	Introduction to Computers	3
ELCT 111	Electric Meters & Motors	3
ELCT 102	Electrial Fundamentals II	3
ELCT 133	Basic Wiring	5
ELCT 139	Elctrcl Code Study-Residential	3
M 105 or M 121	Contemporary Mathematics College Algebra	3
ELCT 201	Alternating Current Theory	3
ELCT 205	Electrical Design & Lighting	3
ELCT 211	AC Measurements	3
ELCT 233	Commercial Wiring Lab	3
ELCT 239	Grounding & Bonding Fund	3
WRIT 101 or WRIT 122	College Writing I Business Writing	3
ELCT 204	Elctrcl Planning & Estimating	3
ELCT 236	Conduit/Rcwys & Code Calc Lab	3
ELCT 241	Electric Motor Controls	3
IT 111	Industrial Safety/Waste Mgmt	2
COMX 115 or COMX 111	Intro to Interpersonal Communc Intro to Public Speaking	3
Total minimum credits required for degree		65