CIP Code

46.0301

The Lineman and Arboriculture AAT is a comprehensive program designed to equip students with the foundational knowledge and practical skills needed for careers in the electrical grid industry. The curriculum emphasizes essential training in electrical transmission, distribution, and power generation, incorporating critical skills in infrastructure maintenance for transmission lines, power stations, and related facilities. Students also gain specialized training in groundwork, vegetation management, and line maintenance support. Career opportunities within this industry include roles such as utility line workers, distributors, and dispatchers.

Program Pathway

The Lineman and Arboriculture program is designed to provide students with stackable credentials that can be taken individually or combined to complete the associate's degree. Students may enter the program at any quarter, provided course prerequisites are met, allowing for direct entry into specialized areas aligned with specific career paths. Students can then deepen their knowledge and experience through work-based learning and coursework offered in formats conducive to working adults.

The program consists of core courses, program options, and electives. Core courses, required for all students pursuing an Lineman and Arboriculture AAT degree, cover essential topics such as electricity, mathematics, communication, and social sciences.

Students will complete one or more program options designed to provide critical skills within the electrical grid industry. The current program options include the Electrical Line Worker option, Groundman, and Arboriculture.

Electives offer additional opportunities to earn credentials that enhance employability in focused areas. CDL truck driver certification is included as an elective, as a CDL-A license is commonly required for outdoor electric power roles and is necessary for individuals applying for a line worker apprenticeship.

Students in this program will gain a comprehensive understanding of electrical grid infrastructure, encompassing transmission, distribution, and generation systems. Through theoretical coursework, hands-on lab exercises, and real-world field experiences, students will learn to analyze, design, and maintain electrical grids, supporting the demand for reliable, efficient, and sustainable energy solutions.

Program Length

4-5 quarters

Admission Dates

Fall, Winter, Spring, Summer

Program Outcomes

- Communicate technical concepts and industry practices within the electrical grid sector, demonstrating respect for diverse perspectives and communication styles.
- Evaluate the design, implementation, and management of electrical grid transmission systems and propose equitable solutions that enhance grid performance.
- Uphold professional and ethical standards, adhering to safety protocols and regulations essential to the electrical grid industry.
- Utilize software tools and simulators to analyze, optimize, and manage electrical grid systems and ensure equitable access to reliable and affordable energy services for all stakeholders.

Prerequisite Requirements

Prerequisite(s)

Students need to be at least 17 years and 6 months old to enroll into the program.

Core Course List

LINE 101	Fitness Fundamentals	1
LINE 102	Fitness Fundamentals	1
LINE 103	Fitness Fundamentals	1
LINE 105	Basic Electrical Theory	5
LINE 110	Electrical Circuits and Systems	5
LINE 115	Electrical Safety and Codes	5
LINE 120	Electrical Installations and Maintenance	5
ENGL& 101	English Composition I	5
	Or	
CMST& 220	Public Speaking	5
	100-level math class	5

PSYC& 100	General Psychology	5
	Or	
SOC& 101	Introduction to Sociology	5
	Or	
PSY 112	Psychology of the Workplace	5
COLL 102	College Success for All	3
Total Credit Hours:		**41**

Program Options: Choose one of the following 3 tracks (required)

	Track 1 Electrical Line Worker	25
LINE 145	VOLTA Rigging	5
LINE 146	VOLTA Basic Electrical Theory	5
LINE 147	VOLTA Climbing	5
LINE 148	VOLTA Equipment and Hardware	5
LINE 149	VOLTA Safety	5

	Track 2 Groundman	20
LINE 161	Utility Ground Operations and Site Preparation	5
LINE 162	Equipment Handling and Maintenance for Groundmen	5
LINE 163	Safe Practices and Hazzard Management in Ground Work	5
LINE 164	Underground Utility Work and Cable Handling	5

	Track 3 Arboriculture	20
LINE 151	Tree Biology and Species Identification	5
LINE 152	Tree Health Assessment and Care Practices	5
LINE 153	Climbing, Rigging, and Knot Applications	5
LINE 154	Pruning Techniques and Chainsaw Proficiency	5
Total Credit Hours:		**20-25**

Electives: Choose from the following (minimum 40 credits required)

LINE 125	Safety and Emergency Response	5
LINE 130	Comprehensive Machinery Operation and Flagging	5
LINE 135	Basic Rigging and Lifting	5
LINE 140	Construction Blueprint Reading	5
CDL 170	Introduction to Commercial Driving	5
CDL 175	Vehicle Operations and Control	5
CDL 180	Safety Procedures and Emergency Handling	5
CDL 190	Introduction to Truck Maintenance	5
CDL 185	CDL Licensing Preparation	5
Total Credit Hours:		**40**

Note: Up to 20 course credits from the following programs may be accepted as electives

- *Automotive Technician*
- *Automotive Collision Technician*
- *Construction Technologies*
- *Electrician Low Voltage Fire/Security*
- *Heating and Air Conditioning /Refrigeration Service Technician*
- *Mechatronics*
- *Welding*

The program allows up to 120 credits at the students' discretion in order to provide flexibility to pursue additional electives or a second option if desired.

Total Credits

Total Credit Hours:	**101-120**