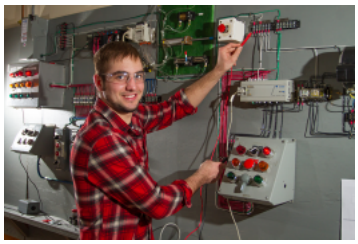

AOS DEGREE – CODE #0498

Bradley Thompson, Department Chair and Program Coordinator
Email address: thompsbj@alfredstate.edu

This program provides in-depth instruction in the theories and principles of electricity. Principles of operation for electrical devices and equipment, and correct and safe operation of tools are covered. You will study and learn to interpret and apply the requirements of the National Electric Code for designing electrical layouts, installation methods, and the maintenance, troubleshooting, and repair of electrical circuits and equipment.

Practical (hands-on) application of the classroom theory is the main emphasis of the laboratory work. As an electrical construction and maintenance electrician student, you will assist in the design and installation of the electrical installations of many projects both on and off campus. Approximately one-third of lab time is spent on actual work sites, gaining real-life work experience.

In your senior year, you will create completely automated projects in the lab using PLCs, pneumatics, electronics, and process controls.

ADVANTAGES

- Summer internships are available to selected students through the International Brotherhood of Electrical Workers, Village of Wellsville Electric Department, and RADEC Corporation in Rochester, allowing students to gain additional, valuable trade experience.
- Various IBEW Locals have agreed to award qualified graduates from Alfred State's electrical construction and maintenance electrician program advanced placement in their apprenticeship programs. The degree of advanced placement to be awarded will be determined after review by the joint apprenticeship committee and after all conditions of the joint apprenticeship standards have been met.

DIRECT ENTRY INTO BACCALAUREATE DEGREE PROGRAM

Alfred State electrical construction and maintenance electrician graduates may enter directly into the construction supervision BTech or technology management BBA degree program. Graduates who have credit for freshman composition, statistics, literature, history, and speech may complete the baccalaureate program in two additional years; others may complete the program in two-and-one-half years.

CONTINUING EDUCATION OPPORTUNITIES

The following local chapters of the International Brotherhood of Electrical Workers (IBEW) have signed articulation agreements with the electrical construction and maintenance electrician program at Alfred State.

IBEW Local 86, Rochester
IBEW Local 237, Niagara Falls
IBEW Local 241, Ithaca

OCCUPATIONAL OPPORTUNITIES

- Designer
- Installer
- Construction site electrician
- Electrical estimator
- Electrical inspector
- PLC programmer
- Salesperson
- Electrical trade union or non-union apprentice
- Electric motor control technician
- Private contractor (residential, commercial)
- Industrial maintenance electrician
- Technical field representative
- Wholesale representative
- Electrical technician
- Wind turbine technician/installer
- Photovoltaic technician/Installer

EMPLOYMENT STATISTICS

Employment and continuing education rate of 100 percent – 91 percent are employed; 9 percent continued their education.

RELATED PROGRAMS

Building Trades: Building Construction
Electrical Engineering Technology

ENTRANCE REQUIREMENTS/RECOMMENDATIONS

Recommended: Algebra; good writing and reading comprehension skills

TECHNICAL STANDARDS

Applicants in the electrical construction and maintenance electrician program must meet the following physical requirements:

- Must be able to visually translate information on analog or digital meters and other test equipment.
- Must be able to lift 50 pounds to eye level.
- Must be able to communicate orally with a person 6 to10 feet away.
- Must be able to read and decipher information found in technical manuals.
- Must be able to adhere to and perform all safety requirements.

ELECTRICAL CONSTRUCTION & MAINTENANCE ELECTRICIAN - AOS DEGREE

TYPICAL FOUR-SEMESTER PROGRAM

First			
ELTR	1156	Residential Wiring I	6
ELTR	1166	Residential Wiring Lab IA	6
ELTR	1176	Residential Wiring Lab IB	6
			18
Second			
ELTR	2156	Residential Wiring II	6
ELTR	2166	Residential Wiring Lab IIA	6
ELTR	2176	Residential Wiring Lab II B	6
			18
Third			
ELTR	3156	Electrical Power Systems	6
ELTR	3326	Magnetic Motor Controls	6
ELTR	3306	Alarms and Special Systems	6
			18
Fourth			
ELTR	3336	Photovltc & Wind Trbn Systm In	6
ELTR	3356	Prgrmble Cntrls for Ind Autotn	6
ELTR	3366	Ind Automtn & Process Controls	6
			18

Note: Seniors will rotate through the six courses listed in the third and fourth semesters. These six are taught both semesters.

GRADUATION REQUIREMENTS

A student must successfully complete all courses in the prescribed four-semester program and earn a minimum cumulative index of 2.0, which is equivalent to a “C” average.