

ADVANTAGES

Summer internships are available, 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.

PROGRAM STUDENT LEARNING OUTCOMES

- Read, interpret, and apply technical information from the National Electrical Code.
- Perform basic and complex mathematical equations that apply to the electrical trade.
- Perform layout, design, and installation for commercial and industrial wiring systems.
- Perform entry-level layout, design, and installation of residential wiring systems.
- Apply combined knowledge to perform maintenance and troubleshooting procedures within the electrical trade.
- Students will develop an understanding of efficiency, design, and NEC requirements as pertaining to renewable energy systems.
- Design, sizing, layout, and selection of equipment for the electrical systems within a residential dwelling.

DIRECT ENTRY INTO BACCALAUREATE DEGREE PROGRAM

Build on your associate degree to complete a bachelor's 100% online. Alfred State electrical construction and maintenance electrician graduates may enter directly into the technology management BBA degree program. Graduates who have credit for freshman composition, statistics, literature, history, and speech may complete the BBA program in two additional years; others may complete the BBA 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 | Electric motor control technician |
| Installer | Private contractor |
| Construction site electrician | Industrial maintenance electrician |
| Electrical estimator | Technical field representative |
| Electrical inspector | Wholesale representative |
| PLC programmer | Electrical technician |
| Salesperson | Wind turbine technician/installer |
| Electrical trade apprentice | Photovoltaic technician/installer |

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. In your senior year lab, you'll create completely automated projects using PLCs, pneumatics, electronics, and process controls.

Practical (hands-on) application of the classroom theory is the main emphasis of the laboratory work. 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.

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You want to move ahead, make things happen, reach your goals, and start your career.

Through hands-on experience and applied learning you gain a head start.

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PIONEER STUDENT QUOTE:

"Alfred State is top of the line. I'm going through training right now as a substation maintenance technician and I utilize concepts I learned in college every day." -Wyatt Shuman, '14

ENTRANCE REQUIREMENTS/RECOMMENDATIONS

Recommended: Algebra; good writing and reading comprehension skills.

APPLICATION PROCEDURES:

- Complete the SUNY application (www.SUNY.edu/attend); current high school seniors should also complete the SUNY Supplemental Application form
- Indicate the following:
 - Alfred State College code—91
 - Special Campus Project code—NORTH
- Forward the additional required documents to the Alfred State Admissions Office (10 Upper College Drive, Alfred, NY 14802):
 - Official high school transcript
 - GED/TASC scores and diploma
 - SUNY Supplemental Application or essay (topic of your choice although applicants are encouraged to share information on any related experience and/or reasons for interest in program)
 - Official college transcripts if college course work was taken after high school graduation

Alfred State does not discriminate on the basis of race, color, national origin, religion, sex, disability, honorably discharged veteran or military status, sexual orientation, genetic information, or age in its programs and activities.

Admissions@AlfredState.edu | 1-800-4-ALFRED

Apply Now: www.SUNY.edu/attend

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	Prgmble 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.

TECHNICAL STANDARDS

- 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 effectively with a person six to 10 feet away.
- Must be able to read and decipher information in technical manuals.
- Must be able to adhere to and perform all safety requirements.



Electrical Trades Dept.



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