

## APPRENTICESHIP TECHNOLOGIES

### Electrician Apprenticeship Technologies Certificate

#### PROGRAM MISSION

The Electrical Apprenticeship Technology certificate prepares students for advanced-level job and journeyman careers.

#### PROGRAM DESCRIPTION

Oregon Bureau of Labor and Industries – Apprenticeship Training Division (BOLI-ATD) and local Joint Apprenticeship Training Committee (JATC) trade-specific standards of apprenticeship control the training. This program is restricted to BOLI-ATD registered apprentices. The Inside Electrical Apprenticeship is an open apprenticeship with a competitive ranked list. The Manufacturing Plant Electrician apprenticeship is a closed enrollment program and not available to the general student population.

Apprenticeship training is an earn-while-you learn program. The apprentice is an employee and earns a wage while receiving on-the-job training and attending related training classes. An approved training agent selects apprentices through a competitive bid process from current employees. The apprentice connects to the JATC after selection through the indenture (registration) process. Local JATCs representing labor and management work with the College to implement the apprenticeship programs. Every six months the JATC reviews and evaluates each apprentice's progress.

The apprenticeship model provides statewide transfer opportunities, ladder-type Certificates of Completion, Associate of Applied Science degrees and an optional transfer path into a Bachelor of Applied Science degree in Operations Management at Oregon Institute of Technology.

The BOLI-ATD website [www.oregon.gov/boli/atd](http://www.oregon.gov/boli/atd) provides more information about apprenticeship and statewide opportunities.

Umpqua Community College offers two 8,000-hour BOLI-ATD registered apprenticeships in partnership with Roseburg Industrial Electrical JATC, Area IV (Roseburg) Inside Electrical JATC and BOLI-ATD.

- Manufacturing Plant Electrician
- Inside Electrician

#### PROGRAM OUTCOMES

This apprenticeship program provides specialized training for apprentices who are registered with BOLI-ATD as Manufacturing Plant Electricians or General Journey Inside Electricians. The Oregon State Standard for each trade aligns the course of study.

Successful completion of required courses must be with at least a "C" grade. Successful apprentice students earn a trade-specific Oregon State License Journeyman Card upon successful completion of the Building Codes Division electrical journeyman test.

Students who successfully complete the Manufacturing Plant Electrician or Inside Electrician program will:

1. Demonstrate knowledge of electrical fundamentals and safety
2. Demonstrate accurate measurements, calculations and use of equipment
3. Assess and troubleshoot various electrical situations
4. Complete Electrical Code and Exam Prep

#### CAREER CONSIDERATIONS

The Electrical Apprenticeship Technology program prepares students for advanced-level jobs and journeyman careers in the following areas:

- General Licensed Journeyman Electrician
- PJ Limited Licensed Journeyman Manufacturing Plant Electrician

#### PROGRAM COURSE REQUIREMENTS

##### Year One

APR 140	Welding for Apprentices * MPE only	1
APR 151	Basic Electronics and Electricity	4
APR 153	Electrical Applications and Techniques	3
APR 155	Electrical Best Practices	2
APR 157	Introduction to the NEC	2
APR 159	Electrical Blueprint Reading	2

##### Year Two

APR 160	Residential Wiring *Inside Electrician Only	3
APR 163	Commercial Wiring	3
APR 165	AC Electronics and Electricity	4
APR 167	Electric Motors and Transformers	3
APR 169	Electrical Code Study 2	2

##### Year Three

APR 251	Electrical Sensors and Controls	3
APR 253	Electrical Code Study 3	2
APR 255	Motor Controls 1	2
APR 257	High Voltage Applications	2
APR 259	Solid State and Digital Applications	4
APR 261	Electrical Code Study 4	2

##### Year Four

APR 263	Communications Alarms and Controls	2
APR 265	Motor Controls 2	2
APR 267	Advance Code Study	3
APR 269	Journeyman's Exam Prep	3
APR 269	Journeyman's Exam Prep	3

**Total Credits 41**

[www.umpqua.edu](http://www.umpqua.edu)

## APPRENTICESHIP TECHNOLOGIES, continued

### Electrician Apprenticeship Technologies Certificate

#### Approved Electives –

Choose enough electives to reach a minimum of 63 overall degree credits

APR 112	Machine Shop Practices 2	3
APR 113	Machine Shop Practices 3	3
APR 122	Hydraulics 2	3
APR 123	Hydraulics 3	3
APR 142	Advanced Welding for Apprentices	1
APR 151	Basic Electronics & Electricity	4
APR 153	Electrical Applications & Techniques	3
APR 165	AC Electronics & Electricity	4
APR 259	Solid State and Digital Applications	4
BA 101	Introduction to Business	4
CIS 120	Intro to Computer Information Systems	4
CIS 125D	Microcomputer Applications – Database	3
CIS 125S	Computer Applications Spreadsheets	3
HPE 295	Wellness & Health Assessment	3
SDP 109	Elements of Supervision	3
SDP 113	Human Relations for Supervisors	3

#### Additional Related Instruction – 6 credits

MTH 95 or higher	4
WR 122 or higher	4

#### Human Relations Course

PSY 101	Psychology of Human Relations	3
SDP 113	Human Relations/Supervisors	3
SP 105	Listening	3
SP 218	Interpersonal Communication	3
SP 219	Small Group Discussion	3

**Total Credits 91**

#### PROGRAM ENTRANCE REQUIREMENTS

##### Academic Entrance Requirement

- JATC Approval

NOTE: A state-issued Journeyman card is equal to 22 credits – INDU 93

