

# ELECTRICIAN APPRENTICESHIP TECHNOLOGIES, CERTIFICATE

## 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 [oregon.gov/boli/atd/](http://oregon.gov/boli/atd/) (<http://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

## 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

Course	Title	Credits
<b>First Year</b>		
<b>First Term</b>		
APR 151	Basic Electronics-Electricity	4
MTH 065	Elementary Algebra (or higher)	4
		<b>Credits</b>
		<b>8</b>
<b>Second Term</b>		
APR 153	Electrical Applications-Tech	3
APR 159	Electrical Blueprint Reading	2
		<b>Credits</b>
		<b>5</b>
<b>Third Term</b>		
APR 155	Electrical Best Practices	2
APR 157	Intro to National Elect Code	2
		<b>Credits</b>
		<b>4</b>
<b>Second Year</b>		
<b>First Term</b>		
APR 140	Beg Welding for Apprentices	1
APR 163	Commercial Wiring	3
		<b>Credits</b>
		<b>4</b>
<b>Second Term</b>		
APR 165	AC Electronics and Electricity	4
WR 115	Intro to Expos Writing (or higher)	4
		<b>Credits</b>
		<b>8</b>
<b>Third Term</b>		
APR 167	Electric Motors-Transformers	3
APR 169	Electrical Code Study II	2
		<b>Credits</b>
		<b>5</b>
<b>Third Year</b>		
<b>First Term</b>		
APR 251	Electrical Sensors and Control	3
APR 255	Motor Controls I	2
		<b>Credits</b>
		<b>5</b>
<b>Second Term</b>		
APR 253	Electrical Code Study III	2
APR 265	Motor Controls II	2
		<b>Credits</b>
		<b>4</b>
<b>Third Term</b>		
APR 259	Solid State and Digital Apps	4
PSY 101	Psychology of Human Relations	3
		<b>Credits</b>
		<b>7</b>
<b>Fourth Year</b>		
<b>First Term</b>		
APR 261	Electrical Code Study IV	2
APR 263	Communications Alarm-Control	2
		<b>Credits</b>
		<b>4</b>
<b>Second Term</b>		
APR 257	High Voltage Applications	2
APR 267	Advanced Code Study	3
		<b>Credits</b>
		<b>5</b>

**Third Term**

APR 269	Journeyman Exam Prep	3
	<b>Credits</b>	<b>3</b>
	<b>Total Minimum Credits</b>	<b>62</b>

## **Program Entrance Requirements**

- JATC Approval