

# Apprenticeship Programs

[apprenticeship.chemeketa.edu](http://apprenticeship.chemeketa.edu)

Apprenticeship training as a method of vocational education is recognized by the Apprenticeship and Training Division (ATD) of the Oregon Bureau of Labor and Industries (BOLI). It combines full-time, on-the-job learning (OJL) with committee approved contractors and trade related instruction taken in conjunction with each other.

The instruction at Chemeketa is for those already working in selected trades as apprentices, or for journey-level men and women who wish to upgrade their skills or knowledge. Each program requires four years of OJL and related instruction. Electricians and plumbers require state licensure at the conclusion of their training.

Chemeketa's Apprenticeship programs offer a Certificate of Completion and an Associate of Applied Science degree in Electrician Technologies Apprenticeship for Inside Wire Electricians, and a Certificate of Completion and an Associate of Applied Science degree in Construction Trades, General Apprenticeship with specializations in Heating, Ventilation, Air-Conditioning, and Refrigeration (HVAC/R); Plumbing; and Sheet Metal. These programs provide statewide transfer opportunities and an optional transfer path into a Bachelor of Science degree in Operations Management at the Oregon Institute of Technology (OIT). The related training courses are based on ATD and local Joint Apprenticeship Training Committee-approved related training developed to meet industry standards. They are approved for BOLI-registered apprentices and are not available to the general student population.

If you are interested in becoming registered in an Oregon State Apprenticeship program, please contact the Apprenticeship and Training Division at 971.673.0761 or [www.boli.state.or.us](http://www.boli.state.or.us) for program and entrance requirements. For more information on Chemeketa's apprenticeship certificates and degrees, please call Marilyn Hart Reed at 503.399.5255 or go to [www.oregonapprenticeship.org](http://www.oregonapprenticeship.org).

All students in the Inside Wire Electrician, HVAC/R or Sheet Metal apprenticeship program must complete 8000 hours of State of Oregon-approved OJL; the plumber program requires 7700 hours of OJL. In addition, students must successfully complete skill sets in their field of specialization, as well as required general education classes.

## **Students completing the Electrician Apprenticeship Technologies Certificate, Inside Wire Electrician specialization will:**

- Apply theory to electrical wiring.
- Repair and install electrical wire devices according to licensure regulations to meet NEC and OESC standards for Inside Electrician.

- Complete three general education courses in communications, computation and human relations.

## **Students completing the Electrician Apprenticeship Technologies AAS, Inside Wire Electrician specialization will:**

- Apply theory to electrical wiring.
- Repair and install electrical wire devices according to licensure regulations to meet NEC and OESC standards for Inside Electrician.
- Complete general education courses.

## **Students completing the Construction Trades General Apprenticeship Certificate, HVAC/R Specialization will:**

- Repair, install, and maintain a variety of building construction projects using trade-specific tools and techniques in compliance with building codes and OSHA regulations.
- Complete three general education courses in communications, computation and human relations.

## **Students completing the Construction Trades General Apprenticeship AAS, HVAC/R Specialization will:**

- Repair, install, and maintain a variety of building construction projects using trade-specific tools and techniques in compliance with building codes and OSHA regulations.
- Complete general education courses.

## **Students completing the Construction Trades General Apprenticeship Certificate, Plumbers Specialization will:**

- Repair, install, and maintain a variety of building construction projects using trade-specific tools and techniques in compliance with building codes and OSHA regulations.
- Complete three general education courses in communications, computation and human relations.

## **Students completing the Construction Trades General Apprenticeship AAS, Plumbers Specialization will:**

- Repair, install, and maintain a variety of building construction projects using trade-specific tools and techniques in compliance with building codes and OSHA regulations.
- Complete general education courses

## **Students completing the Construction Trades General Apprenticeship Certificate, Sheet Metal Specialization will:**

- Complete a minimum of 8000 hours of State of Oregon-approved on-the-job training.
- Repair, install, and maintain a variety of building construction projects using trade-specific tools and techniques in compliance with building codes and OSHA regulations.
- Complete three general education courses in communications, computation and human relations.



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**Students completing the Construction Trades General Apprenticeship AAS, Sheet Metal Specialization will:**

- Complete a minimum of 8000 hours of State of Oregon-approved on-the-job training.
- Repair, install, and maintain a variety of building construction projects using trade-specific tools and techniques in compliance with building codes and OSHA regulations.
- Complete general education courses

**Getting started**

The requirements for each apprenticeship certificate and degree program are listed below.

**Electrician Apprenticeship entry requirements:**

- Minimum of 18 years old.
- High School Diploma or GED.
- One year of high school algebra with grade "C" or higher or
- Completion of MTH060 and MTH070 at Chemeketa.
- Pass Chemeketa's Math Placement Test and be placed into MTH070 or higher.

**Electrician Apprenticeship Technologies AAS, Inside Wire Electrician Specialization requirements:**

- Journey-level status in the electrical industry.
- Complete a minimum of 30 credits at Chemeketa.
- Complete the general education requirements for an AAS degree.
- Compile a minimum of 90 approved credits; 22 credits may be awarded for proof of journey-level status.

**HVAC/R Apprenticeship entry requirements:**

- Minimum of 18 years old.
- High School Diploma or GED.
- One year of high school algebra with grade "C" or higher or
- Completion of MTH060 or MTH070 at Chemeketa.

**Construction Trades General Apprenticeship AAS, HVAC/R Specialization requirements:**

- Journey-level status in the HVAC/R industry.
- Complete a minimum of 30 credits at Chemeketa.
- Complete the general education requirements for an AAS degree.
- Compile a minimum of 90 approved credits; 22 credits may be awarded for proof of journey-level status.

**Plumber Apprenticeship entry requirements:**

- Minimum of 18 years old.
- High School Diploma or GED.

**Construction Trades General Apprenticeship AAS, Plumber Specialization requirements:**

- Journey-level status in the plumbing industry.
- Complete a minimum of 30 credits at Chemeketa.
- Complete the general education requirements for an AAS degree.
- Compile a minimum of 90 approved credits; 22 credits may be awarded for proof of journey-level status.

**Sheet Metal Apprenticeship entry requirements:**

- Minimum of 18 years old.
- High School Diploma or GED.
- One year of high school algebra with grade "C" or higher or
- Completion of MTH060 and MTH070 at Chemeketa.

**Construction Trades General Apprenticeship AAS, Sheet Metal Specialization requirements:**

- Journey-level status in the sheet metal industry.
- Complete a minimum of 30 credits at Chemeketa.
- Complete the general education requirements for an AAS degree.
- Compile a minimum of 90 approved credits; 22 credits may be awarded for proof of journey-level status.

**Electrician Apprenticeship Technologies**

**Electrician Apprenticeship Technologies Certificate of Completion**

*In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$280; apprenticeship fees, \$80; universal fee, \$496. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.*

You may earn a Certificate of Completion by successfully completing the required 64 credit hours.

Course	Title	Credit Hours
<b>Term 1</b>		
APR153A	Electrician Apprenticeship Fundamentals .....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR153B	Electrician Apprenticeship AC/DC Circuits .....	5
WR115	Introduction to Composition+ (or higher) .....	4
<b>Term 3</b>		
APR153C	Electrician Apprenticeship Measurements .....	3
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 4</b>		
APR153D	Electricians Apprenticeship Theory .....	5
<b>Term 5</b>		
APR153E	Electrician Apprenticeship Wiring/Print Reading...	5
<b>Term 6</b>		
APR153F	Electrician Apprenticeship Residential Installation.....	3
<b>Term 7</b>		
APR253G	Electrician Apprenticeship Safety and Code .....	5
<b>Term 8</b>		
APR253H	Electrician Apprenticeship Motors and Controls ...	5
<b>Term 9</b>		
APR253I	Electrician Apprenticeship Fiber Optics .....	3
<b>Term 10</b>		
APR253J	Electrician Apprenticeship Math/Test Equipment .	5
<b>Term 11</b>		
APR253K	Electrician Apprenticeship Voltage .....	5
<b>Term 12</b>		
APR253L	Electrician Apprenticeship Code and Exam Prep ..	3

+Meets related instruction requirement, see page 43.

**Electrician Apprenticeship Technologies Associate of Applied Science**

*In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$280; apprenticeship fees, \$80; universal fee, \$752. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.*

You may earn an Associate of Applied Science degree by successfully completing the required 97 credit hours (75 hours of coursework listed below, plus 22 hours for proof of journey-level status).

Course	Title	Credit Hours
<b>Term 1</b>		
APR153A	Electrician Apprenticeship Fundamentals .....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR153B	Electrician Apprenticeship AC/DC Circuits .....	5
WR121	English Composition–Exposition+ (or higher).....	4
<b>Term 3</b>		
APR153C	Electrician Apprenticeship Measurements .....	3
CIS101	Introduction to Microcomputer Applications .....	3
<b>Term 4</b>		
APR153D	Electricians Apprenticeship Theory.....	5
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 5</b>		
APR153E	Electrician Apprenticeship Wiring/Print Reading... 5	
SP111	Fundamentals of Public Speaking .....	4
<b>Term 6</b>		
APR153F	Electrician Apprenticeship Residential Installation 3	
EC202	Introduction to Macroeconomics .....	4
<b>Term 7</b>		
APR253G	Electrician Apprenticeship Safety and Code .....	5
<b>Term 8</b>		
APR253H	Electrician Apprenticeship Motors and Controls ... 5	
<b>Term 9</b>		
APR253I	Electrician Apprenticeship Fiber Optics .....	3
<b>Term 10</b>		
APR253J	Electrician Apprenticeship Math/Test Equipment . 5	
<b>Term 11</b>		
APR253K	Electrician Apprenticeship Voltage .....	5
<b>Term 12</b>		
APR253L	Electrician Apprenticeship Code and Exam Prep.. 3	

+Meets related instruction requirement, see page 43.

### Construction Trades, General Apprenticeship

#### Construction Trades, General Apprenticeship, Certificate of Completion: HVAC/R Specialization

In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$420; universal fee, \$560. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 72 credit hours.

Course	Title	Credit Hours
<b>Term 1</b>		
APR155A	HVAC/R Apprenticeship Fundamentals.....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR155B	HVAC/R Apprenticeship Soldering and Brazing .... 5	
WR115	Introduction to Composition+ (or higher) .....	4

#### Term 3

APR155C	HVAC/R Apprenticeship Introduction to Code .....	5
PSY101	Psychology of Human Relations+ (or higher) .....	4

#### Term 4

APR155D	HVAC/R Apprenticeship Trade Math.....	5
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#### Term 5

APR155E	HVAC/R Apprenticeship Introduction to Refrigeration.....	5
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#### Term 6

APR155F	HVAC/R Apprenticeship Electricity and Magnetism .....	5
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#### Term 7

APR255G	HVAC/R Apprenticeship Fuels.....	5
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#### Term 8

APR255H	HVAC/R Apprenticeship Residential Air Distribution .....	5
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#### Term 9

APR255I	HVAC/R Apprenticeship Welding.....	5
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#### Term 10

APR255J	HVAC/R Apprenticeship Refrigeration Fundamentals .....	5
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#### Term 11

APR255K	HVAC/R Apprenticeship Troubleshooting .....	5
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#### Term 12

APR255L	HVAC/R Apprenticeship Equipment and Room Layout.....	5
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+Meets related instruction requirement, see page 43.

### Construction Trades, General Apprenticeship Associate of Applied Science: HVAC/R Specialization

In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$350; program fees, \$420; apprenticeship fees, \$80; universal fee, \$816. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing the required 105 credit hours (83 hours of coursework listed below, plus 22 hours for proof of journey-level status).

Course	Title	Credit Hours
<b>Term 1</b>		
APR155A	HVAC/R Apprenticeship Fundamentals.....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR155B	HVAC/R Apprenticeship Soldering and Brazing .... 5	
WR121	English Composition–Exposition+ (or higher).....	4
<b>Term 3</b>		
APR155C	HVAC/R Apprenticeship Introduction to Code .....	5
CIS101	Introduction to Microcomputer Applications .....	3
<b>Term 4</b>		
APR155D	HVAC/R Apprenticeship Trade Math.....	5
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 5</b>		
APR155E	HVAC/R Apprenticeship Introduction to Refrigeration.....	5
SP111	Fundamentals of Public Speaking .....	4

**Term 6**  
 APR155F HVAC/R Apprenticeship Electricity and Magnetism ..... 5  
 EC202 Introduction to Macroeconomics ..... 4

**Term 7**  
 APR255G HVAC/R Apprenticeship Fuels ..... 5

**Term 8**  
 APR255H HVAC/R Apprenticeship Residential Air Distribution ..... 5

**Term 9**  
 APR255I HVAC/R Apprenticeship Welding ..... 5

**Term 10**  
 APR255J HVAC/R Apprenticeship Refrigeration Fundamentals ..... 5

**Term 11**  
 APR255K HVAC/R Apprenticeship Troubleshooting ..... 5

**Term 12**  
 APR255L HVAC/R Apprenticeship Equipment and Room Layout ..... 5

+Meets related instruction requirement, see page 43.

**Construction Trades, General Apprenticeship, Certificate of Completion: Plumber Specialization**

*In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$280; apprenticeship fees, \$80; universal fee, \$496. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.*

You may earn a Certificate of Completion by successfully completing the required 64 credit hours.

<b>Course</b>	<b>Title</b>	<b>Credit Hours</b>
<b>Term 1</b>		
APR158A	Plumber Apprenticeship Fundamentals .....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR158B	Plumber Apprenticeship Math and Print Reading .	5
WR115	Introduction to Composition+ (or higher) .....	4
<b>Term 3</b>		
APR158C	Plumber Apprenticeship Pipe Sizing .....	3
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 4</b>		
APR158D	Plumber Apprenticeship Basic Installation .....	5
<b>Term 5</b>		
APR158E	Plumber Apprenticeship Occupancy .....	5
<b>Term 6</b>		
APR158F	Plumber Apprenticeship Advanced Waste Water Systems .....	3
<b>Term 7</b>		
APR258G	Plumber Apprenticeship Residential Installation ...	5
<b>Term 8</b>		
APR258H	Plumber Apprenticeship Commercial Installation..	5
<b>Term 9</b>		
APR258I	Plumber Apprenticeship Code .....	3
<b>Term 10</b>		
APR258J	Plumber Apprenticeship Industrial Installation .....	5

**Term 11**  
 APR258K Plumber Apprenticeship Basic Waste Water System..... 5

**Term 12**  
 APR258L Plumber Apprenticeship Code and Test Prep ..... 3  
 +Meets related instruction requirement, see page 43.

**Construction Trades, General Apprenticeship, Associate of Applied Science: Plumber Specialization**

*In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$280; apprenticeship fees, \$80; universal fee, \$752. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.*

You may earn an Associate of Applied Science degree by successfully completing the required 97 credit hours (75 hours of coursework listed below, plus 22 hours for proof of journey-level status).

<b>Course</b>	<b>Title</b>	<b>Credit Hours</b>
<b>Term 1</b>		
APR158A	Plumber Apprenticeship Fundamentals .....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR158B	Plumber Apprenticeship Math and Print Reading .	5
WR121	English Composition–Exposition+ (or higher).....	4
<b>Term 3</b>		
APR158C	Plumber Apprenticeship Pipe Sizing .....	3
CIS101	Introduction to Microcomputer Applications .....	3
<b>Term 4</b>		
APR158D	Plumber Apprenticeship Basic Installation .....	5
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 5</b>		
APR158E	Plumber Apprenticeship Occupancy .....	5
SP111	Fundamentals of Public Speaking .....	4
<b>Term 6</b>		
APR158F	Plumber Apprenticeship Advanced Waste Water Systems .....	3
EC202	Introduction to Macroeconomics .....	4
<b>Term 7</b>		
APR258G	Plumber Apprenticeship Residential Installation ...	5
<b>Term 8</b>		
APR258H	Plumber Apprenticeship Commercial Installation..	5
<b>Term 9</b>		
APR258I	Plumber Apprenticeship Code .....	3
<b>Term 10</b>		
APR258J	Plumber Apprenticeship Industrial Installation .....	5
<b>Term 11</b>		
APR258K	Plumber Apprenticeship Basic Waste Water System.....	5
<b>Term 12</b>		
APR258L	Plumber Apprenticeship Code and Test Prep ..... 3	

+Meets related instruction requirement, see page 43.

## Construction Trades, General Apprenticeship, Certificate of Completion: Sheet Metal Specialization

In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$420; universal fee, \$552. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.

You may earn a Certificate of Completion by successfully completing the required 71 credit hours.

Course	Title	Credit Hours
<b>Term 1</b>		
APR166A	Sheet Metal Apprenticeship Fundamentals .....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR166B	Sheet Metal Apprenticeship Fundamentals of Drawing.....	5
WR115	Introduction to Composition+ (or higher) .....	4
<b>Term 3</b>		
APR166C	Sheet Metal Apprenticeship Fundamentals of Lay-out .....	5
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 4</b>		
APR166D	Sheet Metal Apprenticeship Basic Installation .....	5
<b>Term 5</b>		
WLD077	Welding Processes.....	4
<b>Term 6</b>		
APR166E	Sheet Metal Apprenticeship Architectural Systems .....	5
<b>Term 7</b>		
APR266F	Sheet Metal Applied Math.....	5
<b>Term 8</b>		
APR266G	Sheet Metal Apprenticeship Triangulation and Fiberglass.....	5
<b>Term 9</b>		
APR266H	Sheet Metal Apprenticeship Calculator Layout.....	5
<b>Term 10</b>		
APR266I	Sheet Metal Apprenticeship Radial Line Development .....	5
<b>Term 11</b>		
APR266J	Sheet Metal Apprenticeship Duct Sizing .....	5
<b>Term 12</b>		
APR266K	Sheet Metal Apprenticeship Job Site Management .....	5

+Meets related instruction requirement, see page 43.

## Construction Trades, General Apprenticeship Associate of Applied Science: Sheet Metal Specialization

In addition to tuition, estimated costs for students who complete the entire program listed below are program fees, \$420; universal fee, \$632. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.

You may earn an Associate of Applied Science degree by successfully completing the required 104 credit hours (82 hours of coursework listed below, plus 22 hours for proof of journey-level status).

Course	Title	Credit Hours
<b>Term 1</b>		
APR166A	Sheet Metal Apprenticeship Fundamentals .....	5
MTH095	Intermediate Algebra+ (or higher) .....	4
<b>Term 2</b>		
APR166B	Sheet Metal Apprenticeship Fundamentals of Drawing.....	5
WR121	English Composition–Exposition+ (or higher).....	4
<b>Term 3</b>		
APR166C	Sheet Metal Apprenticeship Fundamentals of Lay-out .....	5
CIS101	Introduction to Microcomputer Applications .....	3
<b>Term 4</b>		
APR166D	Sheet Metal Apprenticeship Basic Installation .....	5
PSY101	Psychology of Human Relations+ (or higher) .....	4
<b>Term 5</b>		
WLD077	Welding Processes.....	4
SP111	Fundamentals of Public Speaking .....	4
<b>Term 6</b>		
APR166E	Sheet Metal Apprenticeship Architectural Systems .....	5
EC202	Introduction to Macroeconomics .....	4
<b>Term 7</b>		
APR266F	Sheet Metal Apprenticeship Applied Math.....	5
<b>Term 8</b>		
APR266G	Sheet Metal Apprenticeship Triangulation and Fiberglass.....	5
<b>Term 9</b>		
APR266H	Sheet Metal Apprenticeship Calculator Layout.....	5
<b>Term 10</b>		
APR266I	Sheet Metal Apprenticeship Radial Line Development .....	5
<b>Term 11</b>		
APR266J	Sheet Metal Apprenticeship Duct Sizing .....	5
<b>Term 12</b>		
APR266K	Sheet Metal Apprenticeship Job Site Management .....	