



2018 – 2019
Career Technical Programs

Advanced Technology Division
541.463.5380

lanecc.edu

Industrial Mechanics and Maintenance Technology Apprenticeship

Associate of Applied Science Degree
One-Year Certificate of Completion
Career Pathway Certificate, Trade Worker Apprenticeship Technologies

Program Coordinator Joy Crump, Bldg. 15 Rm. 201, 541.463.5496, crumpj@lanecc.edu.

Purpose To provide a structured system of training in millwright trades or occupations, leading to certification and journey-level status, only for apprentices who are sponsored by individual employers, accepted by a Joint Apprenticeship Training Committee, and registered with the State of Oregon Bureau of Labor and Industries.

Learning Outcomes The graduate will:

- perform the duties and responsibilities of the millwright trade.
- develop machine shop skills in troubleshooting.
- demonstrate and use industry safety standards.
- identify mechanical and/or electrical industrial systems.
- develop attitudes conducive to improved customer relations skills in the millwright trade.
- develop communication and critical thinking skills necessary for job advancement.
- use appropriate library and information resources to research professional issues and support lifelong learning.
- access library, computing, and communications services, and appropriately select information and data from regional, national, and international networks.
- apply appropriate formulas to mathematical situations.
- adapt to new job requirements to qualify for advancement in becoming lead supervisors.
- complete 8000 hours State of Oregon-approved on-the-job training.

Licensing & Certification An apprenticeship "Award of Completion" issued by the Oregon Bureau of Labor and Industries Apprenticeship and Training Division certifies that an individual has been trained in all aspects of an occupation and has met the requirements for program completion. This certificate is recognized throughout Oregon and industry-wide as a valid indicator of high quality, standardized training, and it provides on-the-job training documentation for community college credit. In addition, the Oregon community college Industrial Mechanics and Maintenance Technology Apprenticeship pathway provides statewide transfer opportunities, ladder certificates of completion, and an optional transfer path into Oregon Institute of Technology Bachelor of Science degree in Operations Management or Bachelor of Applied Science degree in Technology and Management. The Industrial Mechanics and Maintenance Technology Apprenticeship pathway includes an advising guide with a set of recommended courses that satisfy both the AAS and the Oregon Transfer Module (OTM). Students who complete the recommended set of OTM courses may apply for 45 credits of guaranteed block transfer to any other community college.

Admission Information Admission to the millwright trade is usually conducted as an internal process with the employer. Information is available at the Oregon Bureau of Labor and Industries website: boli.state.or.us.

Advising and Counseling lanecc.edu/advising/advisors

Job Openings Projected through 2020

Lane County openings - 4 annually
Statewide openings - 39 annually
Lane County average hourly - \$23.21; average annual - \$48,271
Oregon average hourly - \$25.51; average annual - \$53,065

Although wages vary, the average starting wage of an apprentice is about 50 percent of a journey worker's rate of pay. Apprentices usually earn a five-percent raise every six months if training and school performance is satisfactory. Check the Bureau of Labor and Industries website: boli.state.or.us.

Costs Estimate based on 2017-18 tuition and fees. Consult Lane's website for updated tuition.

Books	\$1,500
Resident Tuition and General Student Fees	\$10,000
Total Estimated Cost \$11,500	

*Course fees may change during the year. See the online credit class schedule for fees assigned to courses.

Course Requirements

- Prerequisites are required for some courses. See course descriptions.
- WR 115W and MTH 060 must be passed with a grade of Pass or 'C-' or better to satisfy program requirements.
- complete 8000 hours State of Oregon-approved on-the-job training and provide a State of Oregon Apprenticeship Training Journey-man card or BOLI-ATD Certificate of Completion.
- demonstrate an equivalency of 90 credit hours, with a minimum of 24 credits at Lane, including the last term at Lane.
- complete all requirements for an AAS degree as listed below.
- earn a cumulative grade point average above 2.0 at Lane or transfer credits earned at other regionally accredited colleges or universities.

General Education

WR 115W Introduction to College Writing: Workplace	
Emphasis or higher	3
PE/Health Requirement	3
Arts and Letters requirement.....	3
Human Relations requirement	3
Science/Math/Computer Science requirement.....	3
Choice of:	
Arts and Letters requirement	
Human Relations or Social Science requirement	
Science/Math/Computer Science requirement.....	3
MTH 060 Beginning Algebra or higher	4

Journeyman card from Oregon Bureau of Labor and Industries Apprenticeship and Training Division (22 credits)

State of Oregon Apprenticeship Training Journey-man card or BOLI-ATD Certificate of Completion.....	22
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Industrial Mechanics and Maintenance Technology Apprenticeship

Millwright Core Related Training (43 credits)

APR 150 The Millwright and Shop Safety	5
APR 151 Millwright Machine Theory and Trade Calculations.....	5
APR 152 Millwright: Power Transmissions and Boilers-Steam	5
APR 250 Millwright: Industrial Print Reading, Schematics, and Estimating.....	5
APR 251 Millwright: Pneumatics and Lubrications.....	5
APR 252 Hydraulics for Millwrights	5
APR 253 Millwright Piping Systems.....	5
MTH 085 Applied Geometry for Technicians.....	4
APR 185 Shielded Metal Arc Welding 1.....	2
APR 186 Wire Drive Welding 1	2

Program Electives to complete 90 credits for degree:

Industrial Mechanics and Maintenance Technology Apprenticeship

Offered by the Advanced Technology Division, 541.463.5380

One-Year Certificate of Completion

Program Coordinator Joy Crump, Bldg. 15 Rm. 201, 541.463.5496, crumpj@lanec.edu.

Purpose Students may earn a Certificate of Completion in Industrial Mechanics and Maintenance Technology Apprenticeship by successfully completing 43 core related training credits with a 'C' grade or better in all courses, and completing related instruction in communications, computation, and human relations.

Learning Outcomes Graduates will:

- perform the duties and responsibilities of the millwright trade.
- identify mechanical and/or electrical industrial systems.

Licensing & Certification An apprenticeship "Award of Completion" issued by the Oregon Bureau of Labor and Industries Apprenticeship and Training Division certifies that an individual has been trained in all aspects of an occupation and has met the requirements for program completion. This certificate is recognized throughout Oregon and industry-wide as a valid indicator of high quality, standardized training, and it provides on-the-job training documentation for community college credit. In addition, the Oregon community college Industrial Mechanics and Maintenance Technology Apprenticeship pathway provides statewide transfer opportunities, ladder certificates of completion, and an optional transfer path into Oregon Institute of Technology Bachelor of Science degree in Operations Management or Bachelor of Applied Science degree in Technology and Management. The Industrial Mechanics and Maintenance Technology Apprenticeship pathway includes an advising guide with a set of recommended courses that satisfy both the AAS and the Oregon Transfer Module (OTM). Students who complete the recommended set of OTM courses may apply for 45 credits of guaranteed block transfer to any other community college.

Admission Information Admission to the millwright trade is usually conducted as an internal process with the employer. Information is available at the Oregon Bureau of Labor and Industries website: boli.state.or.us.

Advising and Counseling lanec.edu/advising/advisors

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Costs Estimate based on 2017-18 tuition and fees. Consult Lane's website for updated tuition.

Books	\$1,075
Resident Tuition and General Student Fees.....	\$7,600
Total Estimated Cost	\$8,675

*Course fees may change during the year. See the online credit class schedule for fees assigned to courses.

Course Requirements

- Prerequisites are required for some courses. See course descriptions.
- Human Relations course choices are listed on the Associate of Applied Science degree page.
- To earn the certificate, student must:
- complete State of Oregon-approved on-the-job training and provide a State of Oregon Apprenticeship Training Journey-level card or BOLI-ATD Certificate of Completion, 8000-Hour BOLI-ATD Trade: Industrial Millwright.
- complete related instruction credits (communication, computation, human relations). 10 credits complete core-related training credits. 43 credits Total Credits 53

Journeyman card from Oregon Bureau of Labor and Industries Apprenticeship and Training Division, prior certification

State of Oregon Apprenticeship Training Journey-level card or BOLI-ATD Certificate of Completion, 8000-hour BOLI-ATD Trade: Industrial Millwright

22

Related Instruction

WR 115W Introduction to College Writing: Workplace Emphasis or higher.....	3
Human Relations	3
MTH 060 Beginning Algebra or higher	4

Core-Related Training

APR 150 The Millwright and Shop Safety	5
APR 151 Millwright Machine Theory and Trade Calculations.....	5
APR 152 Millwright: Power Transmissions and Boilers-Steam	5
APR 250 Millwright: Industrial Print Reading, Schematics, and Estimating.....	5
APR 251 Millwright: Pneumatics and Lubrications.....	5
APR 252 Hydraulics for Millwrights	5
APR 253 Millwright Piping Systems.....	5
MTH 085 Applied Geometry for Technicians.....	4
APR 185 Shielded Metal Arc Welding 1.....	2
APR 186 Wire Drive Welding 1	2

Industrial Mechanics and Maintenance Technology Apprenticeship

Trade Worker Apprenticeship Technologies

Offered by the Advanced Technology

Career Pathway Certificate

Program Coordinator Joy Crump, Bldg. 15 Rm. 201, 541.463.5496, crumpj@lanecc.edu

Purpose To provide a structured system of training to prepare students with the foundational skills and knowledge required to enter the maintenance millwright trade.

Learning Outcomes The graduate will:

- complete 4,000 hours State of Oregon-approved on-the-job training.
- successfully complete all required core related-training courses with a grade of *C* or better.
- repair, install, and maintain a variety of building construction projects using trade specific tools and techniques in compliance with building codes and OSHA regulations.

Admission Information Students must be registered apprentices with the State of Oregon Bureau of Labor and Industries and accepted by a Joint Apprenticeship Training Committee. Information is available at boli.state.or.us.

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Maintenance Millwright (15 credits)

APR 150 The Millwright and Shop Safety	5
APR 151 Millwright Machine Theory and Trade Calculations.....	5
APR 152 Millwright: Power Transmissions and Boilers-Steam	5