APPRENTICESHIP TECHNOLOGIES

Industrial Mechanics and Maintenance Technology Apprenticeship
Certificate

PROGRAM DESCRIPTION

Oregon Bureau of Labor and Industries – Apprenticeship Training Division (BOLI-ATD) and local Trade Apprenticeship Training Committee (TATC) trade-specific standards of apprenticeship control the training. This program is restricted to BOLI-ATD registered apprentices. Therefore, this 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 TATC after selection through the indenture (registration) process. Local TATCs representing labor and management work with the College to implement the apprenticeship programs. Every six months the TATC 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 Technology and Management at Oregon Institute of Technology.

The BOLI-ATD website www.oregon.gov/boli/atd provides more information about apprenticeship and statewide opportunities.

Umpqua Community College offers three 8,000-hour BOLI-ATD registered apprenticeships in partnership with Douglas Coos Curry TATC and BOLI-ATD.

- Industrial Fabricator/Welder
- Industrial Maintenance Machinist
- Industrial Maintenance Millwright

PROGRAM OUTCOMES

This apprenticeship program provides specialized training for apprentices registered with BOLI-ATD as Industrial Fabricator/Welder, Industrial Maintenance Machinist, or Industrial Maintenance Millwright apprentices. 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. Each apprentice student earns a trade-specific Oregon State Journeyman Card upon successful completion. Students will:

1. Demonstrate knowledge of machinery operation and maintenance
2. Demonstrate fabrication techniques
3. Demonstrate mathematics of the trade
4. Demonstrate safe working practices in accordance with state and federal regulations

CAREER CONSIDERATIONS

The Industrial Maintenance program prepares students for advanced-level jobs and journeyman careers in the following areas:

- Journeyman Fabricator/Welder
- Journeyman Industrial Maintenance Machinist
- Journeyman Industrial Maintenance Millwright

PROGRAM COURSE REQUIREMENTS

Industrial Apprenticeship Core Curriculum

APR 111 Machine Shop 1	3
APR 115 Computer Aided Drafting 1 (CAD)	3
APR 120 Industrial Safety	3
APR 121 Hydraulics 1	3
APR 131 Basic Metallurgy	3
APR 140 Beginning Welding	1
APR 141 Intermediate Welding	1
APR 145 Blueprint Reading and Sketching	3
APR 228 Rigging Fundamentals	3
MTH 075 Applied Geometry	3

Additional Curriculum for Fabricator/Welders

APR 112 Machine Shop 2	3
APR 122 Hydraulics 2	3
APR 130 Mechanical Principles and Drive Design	3
APR 229 Basic Pneumatics	3
MTH 052 Intro to Algebra for the Trades	3
or MTH 075 Applied Geometry	3

Industrial Apprenticeship for Millwrights

APR 112 Machine Shop 2	3
APR 122 Hydraulics 2	3
APR 123 Hydraulics 3	3
APR 130 Mechanical Principles and Drive Design	3
APR 229 Basic Pneumatics	3

Additional Curriculum for Machinists

APR 112 Machine Shop 2	3
APR 113 Machine Shop 3	3
APR 130 Mechanical Principles and Drive Design	3
CIS 120 Intro to Computer Information Systems	4

APPRENTICESHIP TECHNOLOGIES, continued

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Additional Related Instruction

WR 115 or higher		3
HUMAN RELATIONS COURSE:		
PSY 101	Psychology of Human Relations	3
SDP 112	Communicating Effectively in the Workplace	3
SDP 113	Human Relations/Supervisors	3
SP 105	Listening	3
SP 218	Interpersonal Communication	3
SP 219	Small Group Discussion	3

Total Credits 37

Approved Electives

Choose enough electives to reach a minimum of 48 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	3
BA 101	Introduction to Business	4
CIS 120	Introduction to Computer Information Systems	4
CIS 125D	Microcomputer Applications - Database	4
CIS 125S	Computer Applications Spreadsheets	3
DRF 245	Engineering Graphics	3
HPE 295	Wellness & Health Assessment	3
SDP 109	Elements of Supervision	3
SDP 113	Human Relations for Supervisors	3

Total Credits 49

PROGRAM ENTRANCE REQUIREMENTS

Academic Entrance Requirement

- TATC Approval
- CPR/First Aid certification is required for entry.