COURSE OUTLINE

APPRENTICESHIP PROGRAM / ADVANCED TECHNOLOGY DIVISION

COURSE TITLE	INDUSTRIAL INSTRUMENTATION TECHNICIAN SPECIALIZED CONTROL SYSTEMS 1	COURSE HOURS PER WEEK: 4
COURSE NUMBER:	APR 265	Lecture: 4
COURSE CREDITS:	4	Lec/Lab:
COURSE PREREQUISITES:	Indentured apprentice	Lab:

COURSE DESCRIPTION:
Designed for Oregon state-recognized apprentices employed in a trade or industry related occupation. This course explores control elements trasducers and transmitters commonly used in process control. Students will learn a knowledge base consisting of the basic theory, vocabulary and safety practices commonly used in process control systems.

GENERAL COURSE OUTCOMES:

Upon completion of this course, the successful student will be able to:	**These outcomes will be verified by one or more of the following assessments:**
Discuss the construction, operation, and uses of pneumatic control valves, actuators, and positioners.	Weekly assignments, Mid-term and Final Examinations.
Explain the installation and maintenance of various control devices.	Weekly assignments, Mid-term and Final Examinations.
Verify mechanical installation and verification of a loop.	Weekly assignments, Mid-term and Final Examinations.
Validate that a loop has correct tag numbers.	Weekly assignments, Mid-term and Final Examinations.
Troubleshoot and locate problems in a control loop.	Weekly assignments, Mid-term and Final Examinations.
Discuss PID controls and their application in industrial process control.	Weekly assignments, Mid-term and Final Examinations.

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COURSE OUTLINE BY MAJOR TOPIC:
Pneumatic Control Valves, Actuators, and Positioners
Performing Loop Checks
Troubleshooting and Commissioning a Loop