

BARSTOW COMMUNITY COLLEGE COURSE OUTLINE –**IMMT 73****Dept & Nbr:** IMMT 73**Abbrev Title:** Identify, Install, and Maintain Valves**Full Title:** Identify, Install, and Maintain Valves**Old Number:****Title 5 Category:** Associate Degree Applicable**Certificate Applicable:**

Units	Course Hrs per Week	Nbr of Weeks	Course Hrs Total
Max: 1.0	Lecture .75	18	Lecture 13.5
Min: 1.0	Lab .25		Lab 13.5
	Contact DHR 0.0		Contact DHR 0.0
	Contact Total 1.5		Contact Total 27.0
	Non-contact DHR 0.0		Non-contact DHR 0.0

Delivery method: Lecture and Online**Selected Topic:** No**Grading:** Option (A-F) (P/NP)**Concurrent Course:** None**Repeat Code:** May be taken two times with a grade of less than "C".**Basic Skills** 0: This is not a basic skills class**CATALOG DESCRIPTION:**

Designed to give the student the fundamental skills necessary to work with various types of valves and perform basic hydrostatic and pneumatic testing on the jobsite.

PREREQUISITES: None**COREQUISITES:** None**RECOMMENDED PREPARATION:** None**CONTENT:**

- A** Identify, Install, and Maintain Valves
- B** Hydrostatic and Pneumatic Testing

COURSE OBJECTIVES:**Upon successful completion of this course the student will be able to:**

1. Remove and install threaded valves.
2. Remove and install flanged valves.
3. Replace valves stem O-rings.
4. Replace bonnet gaskets.
5. Explain the purpose of valve packing.
6. Repack a valve.
7. Perform pretest requirements.
8. Perform service and flow tests
9. Perform head pressure tests.
10. Perform hydrostatic tests.
11. Explain how to perform steam blow tests.
12. Explain nondestructive examinations (NDE).

COURSE-LEVEL STUDENT LEARNING OUTCOMES:

1. Identify types of valves and explain their purposes and installation.

Assessment Method(s): Performance Evaluation

- Communication
- Critical Thinking
- Global Awareness
- Personal/Professional Development.

2. Repack a valve stem O-ring.

Assessment Method(s): Performance Evaluation

- Communication
- Critical Thinking
- Global Awareness
- Personal/Professional Development.

3. Replace a bonnet gasket and replace a valve.

Assessment Method(s): Performance Evaluation

- Communication
- Critical Thinking
- Global Awareness
- Personal/Professional Development.

B. Critical Thinking Tasks/Assignments:

Critical thinking assignments include (but are not limited to) the following:

1. Identify options for using various types of valves and testing used by industrial Maintenance Mechanics.
2. Solve problems related to various situations.

Other outside class assignments include (but are not limited to) the following:

C. Measurement of Student Learning Outcomes:

1. Substantial writing assignments, including:
 - Written homework
 - The course primarily involves skill demonstrations or problem solving.
2. Computational or non-computational problem-solving demonstration, including:
 - Exam(s)
 - Quizzes
 - Homework problems
3. Skill demonstration, including:
 - Class performance(s)
4. Objective examinations, including:
 - Multiple choice
 - Completion
5. Other
 - Attendance/Participation
 - Observation

REQUIRED READING, WRITING AND OTHER OUTSIDE-OF-CLASS ASSIGNMENTS:

Over an 18-week presentation of the course three hours of study are required for each unit of credit. Two hours of independent work done out of class are required for each hour of lecture. Outside of the regular class time the students in this class will be doing the following:

- Study
- Answer questions
- Skill Practice
- Required reading
- Problem solving activity or exercise
- Written work

BASIS FOR GRADES:

Writing Assignments	20%
Problem-Solving	20%
Skill Demonstrations	20%
Objective Examinations	20%
Attendance & Participation	20%
Other.....	%
<hr/> TOTAL	<hr/> 100%

TEXTS/MATERIALS

Contren, Industrial Maintenance Mechanic Level1, Prentice-Hall 2007

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Area Department: B & W

=====Instructional Office Use Only - Signatures and Codes=====

Instructional Vice President Approval: Steven Eaton, AAVP

Curriculum Committee Approval Date: 11May12

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