

Washtenaw Community College Comprehensive Report

UAT 147 Safe Pressure Testing for Piping Systems (UA 2160) Effective Term: Fall 2020

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: United Association Department
Discipline: United Association Training
Course Number: 147
Org Number: 28200
Full Course Title: Safe Pressure Testing for Piping Systems (UA 2160)
Transcript Title: Safe Press Test Pipe Sys 2160
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog
Reason for Submission: Course Change

Change Information:

Consultation with all departments affected by this course is required.

Course description

Outcomes/Assessment

Objectives/Evaluation

Rationale: Update United Association course

Proposed Start Semester: Fall 2020

Course Description: In this course, students will identify and demonstrate safe working practices required to plan, execute, and document pressure tests on industrial plumbing and industrial refrigeration piping systems. Pressure test demonstrations will use a combination of detailed images, videos, and interactive, hands-on exercises. In addition, students will present interactive pressure testing activities that can be used at their local Training Centers. Limited to United Association program participants.

Course Credit Hours

Variable hours: No

Credits: 1.5

The following Lecture Hour fields are not divisible by 15: Student Min ,Instructor Min

Lecture Hours: Instructor: 22.5 Student: 22.5

The following Lab fields are not divisible by 15: Student Min, Instructor Min

Lab: Instructor: 1.5 Student: 1.5

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 24 Student: 24

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

General Education

Degree Attributes

Below College Level Pre-Reqs

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Identify safety procedures, hazards, and regulations that govern pipe system pressure testing.

Assessment 1

Assessment Tool: Skills demonstration

Assessment Date: Fall 2020

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Skills demonstration checklist

Standard of success to be used for this assessment: 80% of the students will score 80% or higher.

Who will score and analyze the data: U.A. instructors

2. Design and demonstrate a pressure test of a pipe system within predetermined parameters using safety procedures and plans.

Assessment 1

Assessment Tool: Skills demonstration

Assessment Date: Fall 2020

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Skills demonstration checklist

Standard of success to be used for this assessment: 80% of the students will score 80% or higher.

Who will score and analyze the data: U. A. instructors

3. Prepare and present an interactive instructional activity utilizing resources and instruction materials.

Assessment 1

Assessment Tool: Presentation

Assessment Date: Fall 2020

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Observational checklist

Standard of success to be used for this assessment: 80% of the students will score 80% or higher.

Who will score and analyze the data: U.A. instructors

Course Objectives

1. Perform math and physics calculations associated with pressure testing.
2. List characteristics and types of piping, fittings, and connections that affect pressure testing.
3. Compare and contrast pneumatic and hydrostatic pressure testing.
4. Identify the safety hazards and the personal protection equipment (PPE) involved in pressure testing.
5. Indicate which regulations pertain to given system tests and stated regulation requirements.
6. Recognize aspects of proper pressure testing procedures, including planning, training, communication, equipment, use of lockout/tagout, signage, barricading, pressure relief, and

documentation of results.

7. Develop a procedure for conducting a safe pressure test, giving examples and parameters.
8. Conduct a successful and safe pressure test on a given system using proper equipment and safety techniques.
9. Prepare and present an interactive activity for a lesson plan at the student's local Training Center.
10. Discuss the responsibilities associated with an United Association pressure testing operator.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Tony Esposito</i>	<i>Faculty Preparer</i>	<i>Jul 14, 2020</i>
Department Chair/Area Director: <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>Jul 14, 2020</i>
Dean: <i>Jimmie Baber</i>	<i>Recommend Approval</i>	<i>Jul 14, 2020</i>
Curriculum Committee Chair: <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Jul 15, 2020</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Jul 21, 2020</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Jul 28, 2020</i>