

UAT 147: SAFE PRESSURE TESTING FOR PIPING SYSTEMS (UA 2160)

History

1. Dec 5, 2025 by Sera Bird (sabird)

Viewing: UAT 147 : Safe Pressure Testing for Piping Systems (UA 2160)

Last approved: 2025-12-05T08:03:37Z

Last edit: 2025-12-01T22:09:49Z

Effective Term

Winter 2026

Rationale and proposal summary

United Association course updated to reflect current technologies and industry standards.

Course Cover

Full Course Title

Safe Pressure Testing for Piping Systems (UA 2160)

Transcript Title

Safe Press Test Pipe Sys 2160

Subject Code

UAT - United Association Training

Course Number

147

Department

United Assoc Dept (UAT Only) (UATD)

Banner Division

ATP

Division/College

Adv Tech/Public Serv Careers (AT)

Org Code

28200

Course Description

In this course, students will identify and demonstrate safe working practices required to plan, perform, and document pressure tests on industrial, plumbing, and refrigeration piping systems. Pressure test demonstrations will use a combination of detailed images, videos, and interactive, hands-on exercises. By the end of this course, students will be able to present pressure-testing instructional activities for use at the local training center. Limited to United Association program participants.

Has this course been approved for online or online blended?

No

Grading method

Standard Letter, Audit

CIP Code

469999 - Construction Trades, Other.

Occupational Indicator

Yes

ACS Code

130

Degree Attributes

BCL - Below College Level Pre-Reqs

Credit hours, contact hours, repeatability**Repeatable for additional credit**

No

Course credits

1.5

Lecture contact hours

22.5

Lab contact hours

1.5

Total Contact Hours

24

Expected Total Contact Hours

24

Prerequisites and prerequisite skill levels**College-Level Math**

No Level Required

College-Level Reading and Writing

College-level Reading and Writing

Approved Level I Prerequisite:

Academic Reading and Writing Levels of 6

Course Assessment Plan**Learning Outcome****Outcome**

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

Assessment #1**Assessment Tool**

Outcome-related skills demonstration

Anticipated Next Assessment Year

2025

Anticipated Next Assessment Term

Summer

Assessment Cycle

Every Three Years

Anticipated assessment population

All students from all sections

How the assessment will be scored

Skills demonstration checklist

Who does the scoring?

U.A. instructors

Standard of success

80% of the students will score 80% or higher.

Assessment #2

Learning Outcome

Outcome

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

Assessment #1

Assessment Tool

Outcome-related skills demonstration

Anticipated Next Assessment Year

2025

Anticipated Next Assessment Term

Summer

Assessment Cycle

Every Three Years

Anticipated assessment population

All students from all sections

How the assessment will be scored

Skills demonstration checklist

Who does the scoring?

U. A. instructors

Standard of success

80% of the students will score 80% or higher.

Assessment #2

Learning Outcome

Outcome

Present an interactive instructional activity utilizing resources and instruction materials.

Assessment #1

Assessment Tool

Presentation

Anticipated Next Assessment Year

2025

Anticipated Next Assessment Term

Summer

Assessment Cycle

Every Three Years

Anticipated assessment population

All students from all sections

How the assessment will be scored

Observational checklist

Who does the scoring?

U.A. instructors

Standard of success

80% of the students will score 80% or higher.

Assessment #2

Course Objectives

	Objective(s)
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.	Identify the safety hazards and the personal protection equipment (PPE) involved in pressure testing.
4.	Indicate which regulations pertain to given system tests and stated regulation requirements.
5.	Recognize aspects of proper pressure testing procedures, including planning, training, communication, equipment, use of lockout/tagout, signage, barricading, pressure relief, and documentation of results.
6.	Develop a procedure for conducting a safe pressure test, giving examples and parameters.
7.	Conduct a successful and safe pressure test on a given system using proper equipment and safety techniques.
8.	Prepare and present an interactive activity for a lesson plan at the student's local Training Center.
9.	Discuss the responsibilities associated with an United Association pressure testing operator.
10.	Access and review resources available for course materials for instructional use at the students' Training Centers.

General Education Area(s)

Area 1: Writing

No

Area 2: 2nd Writing or Communication/Speech

No

Area 3: Mathematics

No

Area 4: Natural Science

No

Area 5: Social and Behavioral Science

No

Area 6: Arts and Humanities

No

MTA General Education

No

Review

Is conditional approval requested?

No

Is this course currently conditionally approved, and you are now submitting it for full approval?

No

Key: 8797

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>