

## Washtenaw Community College Comprehensive Report

### UAT 292 Pipefitting Layout Effective Term: Spring/Summer 2020

#### Course Cover

**Division:** Advanced Technologies and Public Service Careers

**Department:** United Association Department

**Discipline:** United Association Training

**Course Number:** 292

**Org Number:** 28200

**Full Course Title:** Pipefitting Layout

**Transcript Title:** Pipefitting Layout

**Is Consultation with other department(s) required:** No

**Publish in the Following:** College Catalog , Web Page

**Reason for Submission:** Course Change

**Change Information:**

**Consultation with all departments affected by this course is required.**

**Course description**

**Outcomes/Assessment**

**Objectives/Evaluation**

**Rationale:** Revise course for UA

**Proposed Start Semester:** Spring/Summer 2020

**Course Description:** In this course, students will be introduced to the 57 ¼" method for pipefitting layout. Students will demonstrate layouts of simple, rolling, and mitered fittings along with odd angle fittings and laterals, all without using math. Students will also be able to lay out precise pipe angles of nozzles/o-lets on tanks and vessels as well as utilize the Pipe Trades Pro Calculator in pipefitting layout. 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. Solve odd angle scenarios without using math.

### **Assessment 1**

Assessment Tool: 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: 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

2. Explain and demonstrate the steps involved in laying out cut angles on fittings.

### **Assessment 1**

Assessment Tool: 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: 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

3. Solve mathematical scenarios using the Pipe Trades Pro.

### **Assessment 1**

Assessment Tool: 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: 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. Identify alternative means of layout and measuring pipes and fittings in the field.
2. Recognize different measurement concepts, and identify pipes and fittings.
3. Demonstrate standard field pipe layout techniques.
4. Demonstrate the process used to miter pipes and fittings.
5. Discuss how to solve odd angle scenarios without math.
6. Recognize how the 57 1/4" method relates to pipefitting layout.
7. Explain steps involved in developing a finished layout situation on worktable.
8. Demonstrate layout cut angles and fittings.

9. Review operation and calculations of the Pipe Trades Pro Calculator.
10. Determine calculations of pipe layout problems using the Pipe Trades Pro Calculator.

### New Resources for Course

#### Course Textbooks/Resources

Textbooks  
Manuals  
Periodicals  
Software

#### Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
<b>Faculty Preparer:</b> <i>Tony Esposito</i>	<i>Faculty Preparer</i>	<i>Apr 15, 2020</i>
<b>Department Chair/Area Director:</b> <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>Apr 16, 2020</i>
<b>Dean:</b> <i>Jimmie Baber</i>	<i>Recommend Approval</i>	<i>Apr 21, 2020</i>
<b>Curriculum Committee Chair:</b> <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>May 07, 2020</i>
<b>Assessment Committee Chair:</b> <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>May 10, 2020</i>
<b>Vice President for Instruction:</b> <i>Kimberly Hurns</i>	<i>Approve</i>	<i>May 12, 2020</i>