# Washtenaw Community College Comprehensive Report

# UAT 262 Methods of Teaching Drawing Interpretation and Plan Reading (UA 2004) Effective Term: Fall 2020

**Course Cover** Division: Advanced Technologies and Public Service Careers Department: United Association Department **Discipline:** United Association Training **Course Number: 262** Org Number: 28200 Full Course Title: Methods of Teaching Drawing Interpretation and Plan Reading (UA 2004) Transcript Title: Teach Drawing & Plan Rd 2004 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 title Course description Outcomes/Assessment Objectives/Evaluation** Rationale: Update U.A. course Proposed Start Semester: Fall 2020

**Course Description:** PipIn this course, students will use the Drawing Interpretation and Plan Reading set to develop methods to teach drafting, drawing interpretation, and plan reading at local Training Centers. Students will be shown how to teach orthographic and isometric drawings, followed by a hands-on drafting lab where they will interpret and create their own drawings and plans. In addition, students will review various types of drawings, specifications, and submittals used to install piping systems. The title of this course was previously Pipe Trades Advanced Drawing. 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

# <u>Request Course Transfer</u> Proposed For:

# **Student Learning Outcomes**

1. Create methods used to teach the drafting of orthographic and isometric drawings.

#### Assessment 1

Assessment Tool: Worksheet 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: Departmentally-developed rubric 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. Identify and describe the various types of drawings, views, and documents used to design and install piping systems.

### Assessment 1

Assessment Tool: Outcome-related written exam questions 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: Answer key 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 a lesson plan for drawing interpretation and plan reading using recommended resources and teaching methods.

# 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. Use the Drawing Interpretation and Reading Plan set as a resource for teaching.

2. Identify various graphic symbols for pipe fittings and valves.

- 3. Recognize various building specifications related to creating working drawings.
- 4. Identify and interpret plan, elevation and isometric drawings.
- 5. Size and scale all lines on a drawing.
- 6. Create pipe drawings using graphic symbols in one and two dimensions.
- 7. Explain the use of an isometric compass.
- 8. Categorize different types of drawings.
- 9. Identify the different drawing views.
- 10. Recognize prints/specifications and describe submittals.
- 11. Identify the various methods and the resources available to develop lesson plans.
- 12. Navigate the United Association Online Learning Resource (UAOLR) center for Blackboard information and class resources.
- 13. Develop and demonstrate a five-minute lesson plan for class observation and discussion.

### **New Resources for Course**

#### **Course Textbooks/Resources**

#### Textbooks

National Joint Steamfitter - Pipefitter Apprenticeship Committee. *Drawing Interpretation and Plan Reading Building Plans for United Association Journeymen and Apprentices*, ed. National Joint Steamfitter - Pipefitter Apprenticeship Committee, 1996 Manuals

Periodicals Software

## **Equipment/Facilities**

Level III classroom Computer workstations/lab Data projector/computer

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer:		
Tony Esposito	Faculty Preparer	Apr 23, 2020
<b>Department Chair/Area Director:</b>		
Marilyn Donham	Recommend Approval	Apr 28, 2020
Dean:		
Jimmie Baber	Recommend Approval	May 27, 2020
Curriculum Committee Chair:		
Lisa Veasey	Recommend Approval	Aug 13, 2020
Assessment Committee Chair:		
Shawn Deron	Recommend Approval	Aug 25, 2020
Vice President for Instruction:		
Kimberly Hurns	Approve	Aug 26, 2020