

# Washtenaw Community College Comprehensive Report

## UAT 124 Trenching and Excavation- Competent Person Trainer (UA 2159) Effective Term: Fall 2020

### Course Cover

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

**Department:** United Association Department

**Discipline:** United Association Training

**Course Number:** 124

**Org Number:** 28200

**Full Course Title:** Trenching and Excavation- Competent Person Trainer (UA 2159)

**Transcript Title:** Trenching and Excavation 2159

**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 examine the current Occupational Safety and Health Administration (OSHA) Trenching and Excavation Standards used in the construction industry. Students will utilize newly-developed technology such as interactive e-learning modules, job site mobile apps, and complete trainer guides. This course involves classroom theory as well as hands-on interaction. Upon completion, students will be able to teach certified competent person level training at their local Training Center. 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**

### **Prerequisite**

OSHA 500 or OSHA 502 certification card

## **General Education**

### **Degree Attributes**

Below College Level Pre-Reqs

## **Request Course Transfer**

### **Proposed For:**

## **Student Learning Outcomes**

1. Identify safe practices in hazardous situations when performing trenching and excavating work.

### **Assessment 1**

Assessment Tool: Outcome-related multiple-choice quiz

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

2. Locate and identify OSHA 1926 Subpart P standards to protect against potential or existing trench and excavation hazards.

### **Assessment 1**

Assessment Tool: Outcome-related multiple-choice quiz

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. Identify the role and responsibilities of the competent person regarding trench and excavation work in accordance to OSHA 1926 Subpart P standards.

### **Assessment 1**

Assessment Tool: Outcome-related multiple-choice quiz

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

4. Identify soil classifications and protective systems used for trenching and excavation safety.

### **Assessment 1**

Assessment Tool: Outcome-related multiple-choice quiz

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

### **Course Objectives**

1. Identify the warning signs of trench collapse, and examine the types of trench collapses.
2. Implement appropriate emergency action plans that should be available on a site in which trenching or excavation will occur.
3. Define how to counteract lateral and vertical forces of the soil.
4. Review inspection requirements and inspection of equipment by the competent person for trenches and excavations to ensure safety prior to workers entering.
5. Summarize industry facts regarding the dangers of trenching and excavation work.
6. Discuss preplanning to ensure a safe trenching and excavation jobsite.
7. Identify the proper Personal Protection Equipment (PPE) needed for working in trenches.
8. Locate and reference OSHA 1926 Subpart P standards and regulations.
9. Identify responsibilities of the competent person when planning trench and excavation work, including work stoppage, hazardous atmosphere, and water removal.
10. Assess trenches and excavations for hazards: egress, installations, fall protection, falling loads, vehicle traffic, soil piles, and heavy equipment.
11. Recognize the effects of water accumulation in excavation safety.
12. Identify the soil classifications and testing methods.
13. Summarize the four main types of protective systems and the soil conditions that determine them.
14. Select the appropriate protective system for specific worksite situations.
15. Discuss safe work practices regarding specific hazards such as underground utilities, spoil piles, and struck-by hazards.
16. Identify hazardous atmospheres using testing, continuous air monitoring, and ventilation procedures.

### **New Resources for Course**

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

Textbooks

U.S. Government . *29 CFR Part 1926 OSHA Construction Standards & Regulations*, Reglogic ed.  
Reglogic Premium , 2018

Manuals

Periodicals

Software

#### **Equipment/Facilities**

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Tony Esposito</i>	<i>Faculty Preparer</i>	<i>Apr 28, 2020</i>
<b>Department Chair/Area Director:</b> <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>Apr 28, 2020</i>
<b>Dean:</b> <i>Jimmie Baber</i>	<i>Recommend Approval</i>	<i>May 27, 2020</i>
<b>Curriculum Committee Chair:</b> <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Jun 19, 2020</i>

**Assessment Committee Chair:**

*Shawn Deron*

*Recommend Approval*

*Jun 23, 2020*

**Vice President for Instruction:**

*Kimberly Hurns*

*Approve*

*Jul 06, 2020*