

Washtenaw Community College Comprehensive Report

UAT 274 Oxy-Fuel Cutting and Welding Effective Term: Spring/Summer 2014

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: United Association Department
Discipline: United Association Training
Course Number: 274
Org Number: 28200
Full Course Title: Oxy-Fuel Cutting and Welding
Transcript Title: Oxy-Fuel Cutting and Welding
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Web Page
Reason for Submission: Three Year Review / Assessment Report
Change Information:
 Course title
 Course description
 Credit hours
 Total Contact Hours
 Outcomes/Assessment
 Objectives/Evaluation

Rationale: Course update

Proposed Start Semester: Spring/Summer 2014

Course Description: In this course, students will learn about methods of teaching oxy-fuel safety, welding, layout and cutting procedures. Students will demonstrate proper techniques and procedures employed in successfully teaching this subject. Each student will have the opportunity to try the methods being discussed. The technical aspects of teaching as well as the practice of cutting and welding pipe with oxy-fuel will also be covered. Students selecting this course should come to class in safe working clothes. The title of this course was previously Oxy-Acetylene Cutting and Welding. Limited to United Association program participants.

Course Credit Hours

Variable hours: No

Credits: 1

Lecture Hours: Instructor: 15 **Student:** 15

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

Lab: Instructor: 5 **Student:** 5

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 20 **Student:** 20

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. Demonstrate methods of teaching the central concepts and skills of oxy-fuel cutting and welding utilizing UA approved materials.

Assessment 1

Assessment Tool: Presentation

Assessment Date: Spring/Summer 2014

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Skill checklist with rubric

Standard of success to be used for this assessment: 75% of students will achieve 75% or above.

Who will score and analyze the data: Departmental faculty

2. Demonstrate methods of teaching oxy-fuel cutting and welding.

Assessment 1

Assessment Tool: Skill assessment

Assessment Date: Spring/Summer 2014

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Performance parameters with rubric

Standard of success to be used for this assessment: 75% of students will achieve 75% or above.

Who will score and analyze the data: Departmental faculty

3. Identify various types of oxy-fuel equipment and their applications.

Assessment 1

Assessment Tool: Written exam

Assessment Date: Spring/Summer 2014

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: 75% of students will achieve 75% or above.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify safe, efficient, and practical cutting procedures with oxy-fuel equipment and welding of pipes.

Matched Outcomes

2. Identify the fundamental puddle control of molten metal and the welding process.

Matched Outcomes

3. Recognize safety procedures, methods, and tools when cutting with plasma.

Matched Outcomes

4. Demonstrate appropriate use and knowledge of course materials.

Matched Outcomes

5. Explain the theory behind oxy-fuel cutting.
Matched Outcomes
6. Describe the oxy-fuel welding process in a presentation.
Matched Outcomes
7. Perform mathematical calculations presented in the course.
Matched Outcomes
8. Assemble an oxy-fuel outfit according to manufacturer's recommendations.
Matched Outcomes
9. Identify proper safety techniques for storing and handling.
Matched Outcomes
10. Weld a 3" pipe with the oxy-fuel process.
Matched Outcomes
11. Layout and cut a project according to a given blueprint.
Matched Outcomes

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Data projector/computer

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Amanda Scheffler</i>	<i>Faculty Preparer</i>	<i>Jun 27, 2013</i>
Department Chair/Area Director: <i>Scott Klapper</i>	<i>Recommend Approval</i>	<i>Feb 03, 2014</i>
Dean: <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>Feb 05, 2014</i>
Vice President for Instruction: <i>Bill Abernethy</i>	<i>Approve</i>	<i>Apr 21, 2014</i>