

Washtenaw Community College Comprehensive Report

WAF 290 Advanced Training and Weld Certification Effective Term: Winter 2020

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: Welding and Fabrication
Discipline: Welding and Fabrication
Course Number: 290
Org Number: 14600
Full Course Title: Advanced Training and Weld Certification
Transcript Title: Weld Training & Certification
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission:
Change Information:

Pre-requisite, co-requisite, or enrollment restrictions

Rationale: In addition to the advanced courses that are already pre-requisite requirements for this course. The students will need a background in the inspection techniques and codes used to evaluate their work. The proposed addition to the pre-requisite requirements of this class is to add the WAF140 inspection and testing class.

Proposed Start Semester: Spring/Summer 2019

Course Description: In this course, students will improve their command of welding processes, advance their welding skills and perform welds to the high standards established by the American Welding Society (AWS). The theory and skills needed for certification in specific welding vocations will be covered. Visual inspection of weld discontinuities along with the requirements and duties of the certified welding inspector are discussed. Successful students will perform welding tasks that meet AWS and ASME standards for an industry certification.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 30 Student: 30

Lab: Instructor: 45 Student: 45

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 75 Student: 75

Repeatable for Credit: YES

Number of times the course can be repeated for credit: 1

Maximum Hours: 6

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

Level 3

Requisites

Prerequisite

WAF 140 minimum grade "B"; may enroll concurrently
and

Prerequisite

WAF 230 minimum grade "B"
or

Prerequisite

WAF 231 minimum grade "B"
or

Prerequisite

WAF 232 minimum grade "B"

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University

Ferris State University

Other : Pennsylvania College of Technology

Student Learning Outcomes

1. Recognize and apply AWS standards and code requirements for specific welding materials, applications or locations.

Assessment 1

Assessment Tool: Lab exercises

Assessment Date: Winter 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Accredited check list

Standard of success to be used for this assessment: 90% of students will pass with 100%.

Who will score and analyze the data: Certified welding inspector

2. Perform certification test weldment that meets AWS standards.

Assessment 1

Assessment Tool: Test weldment

Assessment Date: Winter 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Accredited check list

Standard of success to be used for this assessment: 80% will score 70% or higher.

Who will score and analyze the data: Certified welding inspector

3. Perform visual inspection and destructive tests to code requirements.

Assessment 1

Assessment Tool: Lab exercises

Assessment Date: Winter 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Accredited check list

Standard of success to be used for this assessment: 90% of students will pass with 100%.

Who will score and analyze the data: Certified welding inspector

4. Identify and describe the requirements and duties of the certified welding inspector.

Assessment 1

Assessment Tool: Test

Assessment Date: Winter 2019

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% will score 70% or higher.

Who will score and analyze the data: Department faculty

Course Objectives

1. Read and interpret welding procedure specifications.
2. Identify correct materials and equipment setups for welding procedures.
3. Perform equipment setups for welding procedures.
4. Recognize and weld to AWS standards and code requirements for specific welding materials, uses or locations.
5. Perform visual inspection of weld discontinuities using AWS/ASME standards and codes.
6. Perform destructive testing using AWS/ASME standards and codes.
7. Perform weldment inspection using AWS inspection tools for non-destructive tests.
8. Perform weldment inspection using AWS inspection tools for destructive tests.
9. Complete the documentation required to perform a pre-weld assessment during a welder qualification test to American welding society standards.
10. Complete the documentation required to perform an assessment of a welder during a welder qualification test to American welding society standards.
11. Complete the documentation required to perform a post-weld assessment of a welder during a welder qualification test to American welding society standards.
12. Document and file the results of a welder qualification test per the requirements of the applicable code used by the welder.

New Resources for Course

Potential purchase of non-destructive testing equipment. Examples: MT,UT,RT.

Possible partnership with local non-destructive inspection facilities.

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

Reviewer

Action

Date

Faculty Preparer:

Alexander Pazkowski

Faculty Preparer

Feb 14, 2019

Department Chair/Area Director:

Default Washtenaw

Default

Apr 05, 2019

Dean:

<i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Apr 16, 2019</i>
Curriculum Committee Chair:		
<i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Apr 29, 2019</i>
Assessment Committee Chair:		
<i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>May 17, 2019</i>
Vice President for Instruction:		
<i>Kimberly Hurns</i>	<i>Approve</i>	<i>May 19, 2019</i>