

Washtenaw Community College Comprehensive Report

IWT 220 New Seismic Requirements for Structural Steel Conditional Approval Effective Term: Fall 2011

Course Cover

Division: Vocational Technologies

Department: United Association Department

Discipline: Ironworker Instructor Training

Course Number: 220

Org Number: 28700

Full Course Title: New Seismic Requirements for Structural Steel

Transcript Title: Seismic Requirements for Steel

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Web Page

Reason for Submission: New Course

Change Information:

Rationale: This course is part of the Ironworker ITP.

Proposed Start Semester: Fall 2011

Course Description:

This course, presented by representatives of the Lincoln Electric Company, covers the latest seismic (earthquake) requirements for structural steel welding. The classroom and hands-on instruction focus primarily on the AWS D1.8 recommendations for FCAW welding: electrodes, qualification, design and fabrication. This course is recommended for areas with seismic requirements. Limited to Ironworker Instructor Training 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

Lab: Instructor: 0 Student: 0

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 22.5 Student: 22.5

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. Set up and demonstrate structural steel seismic welding.

Assessment 1

Assessment Tool: Survey of Ironworker training coordinators/supervisors.

Assessment Date: Fall 2012

Assessment Cycle: Every Two Years

Course section(s)/other population: All

Number students to be assessed: Random sampling of 50% of all students teaching related topics the subsequent year.

How the assessment will be scored: The student's training activities at the home local will be scored and evaluated on a survey questionnaire covering the learning outcomes.

Standard of success to be used for this assessment: Based on the number of students who teach the related material in the subsequent year, 75% will score an average of satisfactory or better.

Who will score and analyze the data: The UA Program Administrator will coordinate the collection of data with the Ironworker Training Department and will discuss the results with the Ironworker Training Department and IWT faculty.

2. Deliver safety and other structural steel seismic welding related lecture material.

Assessment 1

Assessment Tool: Survey of Ironworker training coordinators/supervisors.

Assessment Date: Fall 2012

Assessment Cycle: Every Two Years

Course section(s)/other population: All

Number students to be assessed: Random sampling of 50% of all students teaching related topics the subsequent year.

How the assessment will be scored: The student's training activities at the home local will be scored and evaluated on a survey questionnaire covering the learning outcomes.

Standard of success to be used for this assessment: Based on the number of students who teach the related material in the subsequent year, 75% will score an average of satisfactory or better.

Who will score and analyze the data: The UA Program Administrator will coordinate the collection of data with the Ironworker Training Department and will discuss the results with the Ironworker Training Department and IWT faculty.

3. Effectively use the Ironworker and vendor training materials.

Assessment 1

Assessment Tool: Survey of Ironworker training coordinators/supervisors.

Assessment Date: Fall 2012

Assessment Cycle: Every Two Years

Course section(s)/other population: All

Number students to be assessed: Random sampling of 50% of all students teaching related topics the subsequent year.

How the assessment will be scored: The student's training activities at the home local will be scored and evaluated on a survey questionnaire covering the learning outcomes.

Standard of success to be used for this assessment: Based on the number of students who teach the related material in the subsequent year, 75% will score an average of satisfactory or better.

Who will score and analyze the data: The UA Program Administrator will

coordinate the collection of data with the Ironworker Training Department and will discuss the results with the Ironworker Training Department and IWT faculty.

Course Objectives

1. Demonstrate FCAW welding processes

Methods of Evaluation
Matched Outcomes

2. Demonstrate the use of electrodes in structural steel seismic welding systems

Methods of Evaluation
Matched Outcomes

3. Apply qualified design and fabrication techniques to seismic welding processes

Methods of Evaluation
Matched Outcomes

4. Successfully complete course tests to earn welding certification

Methods of Evaluation
Matched Outcomes

5. Explain safety precautions and regulations that apply to seismic requirements for structural steel welding

Methods of Evaluation
Matched Outcomes

6. Describe the components used in structural steel welding process that meet seismic requirements

Methods of Evaluation
Matched Outcomes

7. Explain the step-by-step procedures used in the structural steel processes that meet seismic requirements

Methods of Evaluation
Matched Outcomes

8. Reference Ironworker and vendor supplied manuals during lectures and demonstrations

Methods of Evaluation
Matched Outcomes

9. Apply Ironworker and vendor training material guidelines and concepts

**Methods of Evaluation
Matched Outcomes**

New Resources for Course

All required materials will be provided by the Ironworker Training Department.

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom

Reviewer

Action

Date

Faculty Preparer:

Faculty Preparer

*May 05,
2011*

Department Chair/Area Director:
Daniel Welch

Recommend Approval

*May 05,
2011*

Dean: *Daniel Welch*

Request Conditional Approval

*May 05,
2011*

Vice President for Instruction: *Stuart
Blacklaw*

Conditional Approval

*May 06,
2011*