

# Washtenaw Community College Comprehensive Report

## UAT 325 Industrial Rigging Effective Term: Spring/Summer 2014

### Course Cover

**Division:** Advanced Technologies and Public Service Careers  
**Department:** United Association Department  
**Discipline:** United Association Training  
**Course Number:** 325  
**Org Number:** 28200  
**Full Course Title:** Industrial Rigging  
**Transcript Title:** Industrial Rigging  
**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:**  
    **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 methods of teaching about industrial rigging. This course has a theoretical and a practical component covering the best rigging practices, calculating centers of gravity, sling stress, crane set up, and the use of tuggers, jacks, and rollers. There will be a written exam along with the performance exam, which upon passing the student will receive a UA/EPRI certification for industrial rigging as well as a rigging course CD and example workbook. Limited to United Association Instructor Training program graduates.

### Course Credit Hours

**Variable hours:** No

**Credits:** 2

**Lecture Hours: Instructor:** 30 **Student:** 30

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

**Lab: Instructor:** 10 **Student:** 10

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

**Total Contact Hours: Instructor:** 40 **Student:** 40

**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. Take the UA/EPRI exam.

### **Assessment 1**

**Assessment Tool:** UA/EPRI 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 pass the exam

**Who will score and analyze the data:** Departmental faculty

2. Demonstrate methods of teaching the central concepts of industrial rigging.

### **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:** Presentation 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. Demonstrate teaching practicum on proper industry rigging practices.

### **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:** Skills 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

## Course Objectives

1. Identify the formulas to perform various functions, such as calculating the weight of pipe and the sling stress due.

### **Matched Outcomes**

2. Calculate applicable math functions to complete various lifts.

### **Matched Outcomes**

3. Recognize the methods and techniques associated with lifting, finding center of gravity, and loading.

### **Matched Outcomes**

4. Demonstrate a teaching explanation of the math functions and methods and techniques associated with lifting, finding center of gravity, and loading.

### **Matched Outcomes**

5. Identify changes to ASME and OSHA rigging safety requirements.

### **Matched Outcomes**

6. Demonstrate a teaching explanation of changes to ASME and OSHA rigging safety requirements.  
**Matched Outcomes**
7. Perform a level horizontal spool lift, transfer it to vertical position mid-air then transfer the spool from a crane to a chainfall in an hour and a half.  
**Matched Outcomes**
8. Complete a task hazard analysis of a rigging scene.  
**Matched Outcomes**
9. Demonstrate a teaching explanation of how to determine when various sized rigging tools such as shackles, slings, sling eyes and hooks are appropriate.  
**Matched Outcomes**
10. Explain when to flag and tag multiple lift and landing areas per industry standards.  
**Matched Outcomes**
11. In the role of instructor, perform a safety briefing for an anticipated lift covering all industry required material.  
**Matched Outcomes**
12. Demonstrate appropriate hand signaling during a lift.  
**Matched Outcomes**
13. Measure for appropriate lengths and properly secure taglines.  
**Matched Outcomes**
14. Explain proper use of beam clamps and which load angles are appropriate.  
**Matched Outcomes**
15. Complete an online rigging test proctored by a UA professional.  
**Matched Outcomes**

## **New Resources for Course**

### **Course Textbooks/Resources**

#### Textbooks

International Pipe Trades Joint Training Committee. *Rigging*, ed. International Pipe Trades Joint Training Committee, 2005

#### Manuals

#### Periodicals

#### Software

### **Equipment/Facilities**

Level III classroom

Other: Parking lot area for crane lifts

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Amanda Scheffler</i>	<i>Faculty Preparer</i>	<i>Feb 02, 2014</i>
<b>Department Chair/Area Director:</b> <i>Scott Klapper</i>	<i>Recommend Approval</i>	<i>Feb 03, 2014</i>
<b>Dean:</b> <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>Feb 05, 2014</i>
<b>Vice President for Instruction:</b> <i>Bill Abernethy</i>	<i>Approve</i>	<i>Apr 28, 2014</i>