

Washtenaw Community College Comprehensive Report

UAT 324 Industrial Rigging Technologies (UA 5009) Effective Term: Fall 2020

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: United Association Department

Discipline: United Association Training

Course Number: 324

Org Number: 28200

Full Course Title: Industrial Rigging Technologies (UA 5009)

Transcript Title: Industrial Rigging Tech (5009)

Is Consultation with other department(s) required: No

Publish in the Following:

Reason for Submission: New Course

Change Information:

Rationale: New United Association course

Proposed Start Semester: Fall 2020

Course Description: This course covers industrial rigging technologies including precautions required when lifting materials and equipment. Students will calculate proper/safe rigging of loads as well as identify the proper maintenance of rigging equipment including personal protective equipment (PPE). Practical application of industrial rigging and virtual crane signaling training modules will be demonstrated. Limited to United Association Instructor Training program graduates.

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

General Education

Degree Attributes

Below College Level Pre-Reqs

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Determine load weights, show stability of loads, and recognize how loads react to the center of gravity.

Assessment 1

Assessment Tool: Outcome-related exam questions

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. Demonstrate proper selection and installation of slings and rigging hardware.

Assessment 1

Assessment Tool: Demonstration

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: Observational checklist

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. Demonstrate proper OSHA crane, hand, and voice signaling.

Assessment 1

Assessment Tool: Demonstration

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: Observational checklist

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. Discuss best practices, materials, and equipment needed for students to create a rigging course at their local Training Centers.

Assessment 1

Assessment Tool: Group discussion

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: Checklist

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. Review the process and procedures involved in rigging and crane operation.
2. Calculate various load weights using worksheets and formulas.
3. Determine and minimize implicit factors that can affect load calculations.
4. Properly install slings to loads for lifting.
5. Identify and inspect slings, shackles, and lifting equipment as per safety procedures.
6. Review safety equipment and personal protection equipment (PPE) when performing crane lifting and rigging.
7. Calculate and demonstrate procedure to center gravity controls, improve load stability and prevent load shifting.
8. Perform lifts utilizing safe rigging practices.
9. Explain the basics of crane dynamics.
10. Observe and interpret Occupational Safety and Health Administration (OSHA)-approved hand and voice crane signals.
11. Communicate using OSHA-approved hand and voice crane signals.
12. Discuss the procedures, equipment, and area needed to create a class for the student's local Training Center.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

| <u>Reviewer</u> | <u>Action</u> | <u>Date</u> |
|---|---------------------------|---------------------|
| Faculty Preparer: <i>Tony Esposito</i> | <i>Faculty Preparer</i> | <i>Apr 13, 2020</i> |
| Department Chair/Area Director: <i>Marilyn Donham</i> | <i>Recommend Approval</i> | <i>Apr 16, 2020</i> |
| Dean: <i>Jimmie Baber</i> | <i>Recommend Approval</i> | <i>Apr 21, 2020</i> |
| Curriculum Committee Chair: <i>Lisa Veasey</i> | <i>Recommend Approval</i> | <i>Jun 09, 2020</i> |
| Assessment Committee Chair: <i>Shawn Deron</i> | <i>Recommend Approval</i> | <i>Jun 16, 2020</i> |
| Vice President for Instruction: <i>Kimberly Hurns</i> | <i>Approve</i> | <i>Jun 17, 2020</i> |