

Washtenaw Community College Comprehensive Report

UAT 246 Concepts of Controlled Bolting Effective Term: Fall 2025

Course Cover

College: Advanced Technologies and Public Service Careers

Division: Advanced Technologies and Public Service Careers

Department: United Association Department (UAT Only)

Discipline: United Association Training

Course Number: 246

Org Number: 28200

Full Course Title: Concepts of Controlled Bolting

Transcript Title: Concepts of Controlled Bolting

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Web Page

Reason for Submission: Inactivation

Change Information:

Consultation with all departments affected by this course is required.

Rationale: U.A. Course no longer relevant: the course was combined with a new course to condense and/or update the material taught.

Proposed Start Semester: Winter 2025

Course Description: In this course, students will learn to teach concepts of achieving integrity in a bolted joint, the theory of how a bolted connection works dynamically as a piece of equipment, the calculations required to tighten a flange to maximize joint life and integrity and the practical means to achieve preload including the use of hydraulic torque wrenches and hydraulic bolt tensioners. Limited to United Association 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

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. Explain the concepts of controlled bolting to apprentice and journey-people at the home local.

Assessment 1

Assessment Tool: Teaching demonstration

Assessment Date: Fall 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: 75% of all students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% will score 11 or higher out of 16.

Who will score and analyze the data: UAT faculty

2. Demonstrate techniques for tightening bolted connections to apprentices and journey-people.

Assessment 1

Assessment Tool: Teaching demonstration

Assessment Date: Fall 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: 75% of all students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% will score 11 or higher out of 16.

Who will score and analyze the data: UAT faculty

3. Utilize UA and vendor supplied teaching materials for controlled bolting effectively.

Assessment 1

Assessment Tool: Teaching demonstration

Assessment Date: Fall 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: 75% of all students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% will score 11 or higher out of 16.

Who will score and analyze the data: UAT faculty

Course Objectives

1. Explain concepts of controlled bolting.
2. Identify applications using controlled bolting.
3. Explain correct procedures for controlled bolting.
4. Demonstrate proper bolting techniques for piping applications.
5. Present UA supplied lecture material.
6. Incorporate vendor supplementary materials.

New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Tony Esposito</i>	<i>Faculty Preparer</i>	<i>Nov 01, 2024</i>
Department Chair/Area Director: <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>Nov 04, 2024</i>
Dean: <i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>Nov 06, 2024</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Reviewed</i>	<i>Apr 15, 2025</i>
Assessment Committee Chair:		
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Approve</i>	<i>Apr 15, 2025</i>

Washtenaw Community College Comprehensive Report

UAT 246 Concepts of Controlled Bolting Effective Term: Spring/Summer 2016

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: United Association Department

Discipline: United Association Training

Course Number: 246

Org Number: 28200

Full Course Title: Concepts of Controlled Bolting

Transcript Title: Concepts of Controlled Bolting

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Web Page

Reason for Submission: Course Change

Change Information:

Consultation with all departments affected by this course is required.

Course description

Credit hours

Total Contact Hours

Outcomes/Assessment

Rationale: Change credit hours, contact hours, assessment date and minor text changes.

Proposed Start Semester: Fall 2015

Course Description: In this course, students will learn to teach concepts of achieving integrity in a bolted joint, the theory of how a bolted connection works dynamically as a piece of equipment, the calculations required to tighten a flange to maximize joint life and integrity and the practical means to achieve preload including the use of hydraulic torque wrenches and hydraulic bolt tensioners. 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. Explain the concepts of controlled bolting to apprentice and journey-people at the home local.

Assessment 1

Assessment Tool: Teaching demonstration

Assessment Date: Fall 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: 75% of all students

How the assessment will be scored: Departmentally-developed rubric

Standard of success to be used for this assessment: 75% will score 11 or higher out of 16.

Who will score and analyze the data: UAT faculty

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New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Justin Carter</i>	<i>Faculty Preparer</i>	<i>Jun 25, 2015</i>
Department Chair/Area Director: <i>Scott Klapper</i>	<i>Recommend Approval</i>	<i>Jul 02, 2015</i>
Dean: <i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Jul 07, 2015</i>
Curriculum Committee Chair: <i>Kelley Gottschang</i>	<i>Recommend Approval</i>	<i>Sep 29, 2015</i>
Assessment Committee Chair: <i>Michelle Garey</i>	<i>Recommend Approval</i>	<i>Sep 29, 2015</i>
Vice President for Instruction: <i>Michael Nealon</i>	<i>Approve</i>	<i>Oct 06, 2015</i>