

# Washtenaw Community College Comprehensive Report

## UAT 286 Industrial Refrigeration Trainer Effective Term: Spring/Summer 2016

### Course Cover

**Division:** Advanced Technologies and Public Service Careers

**Department:** United Association Department

**Discipline:** United Association Training

**Course Number:** 286

**Org Number:** 28200

**Full Course Title:** Industrial Refrigeration Trainer

**Transcript Title:** Industrial Refrigerati Trainer

**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 text.

**Proposed Start Semester:** Fall 2015

**Course Description:** In this course, students will learn methods of teaching basic commercial refrigeration concepts using the Hampden Industrial Refrigeration Trainer (IRT). Topics include operating and servicing large industrial systems requiring water-cooled condensers; electric and hot gas defrost systems; cooling towers; hot bypass capacity control systems; crankcase pressure regulators; crankcase heaters; and pressure pumps. 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 to apprentices and journey-people basic refrigeration concepts and skills using the Hampden Industrial Refrigeration Trainer.

### **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:** UA faculty

2. Demonstrate teaching basic refrigeration concepts to apprentices and journey-people using the Hampden Industrial Refrigeration Trainer.

### **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:** UA faculty

3. Use the Hampden Industrial Refrigeration Trainer to teach apprentices and journey-people utilizing approved industry and UA course/training materials.

### **Assessment 1**

**Assessment Tool:** Teaching demonstration

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

## Course Objectives

1. Recognize and explain the principles of basic thermal dynamics and commercial refrigeration.
2. Describe and demonstrate how to calibrate sensors and gauges.
3. Explain and demonstrate how to connect laptop computers to the Hampden Industrial Refrigeration Trainer to execute pre-set experiments.
4. Set up the Hampden Industrial Refrigeration Trainer to perform experiments.
5. Demonstrate appropriate use and knowledge of course materials.

## New Resources for Course

### Course Textbooks/Resources

Textbooks  
Manuals  
Periodicals  
Software

**Equipment/Facilities**

Other: Hampden Industrial Refrigeration Trainer

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Justin Carter</i>	<i>Faculty Preparer</i>	<i>Jul 23, 2015</i>
<b>Department Chair/Area Director:</b> <i>Scott Klapper</i>	<i>Recommend Approval</i>	<i>Jul 24, 2015</i>
<b>Dean:</b> <i>Brandon Tucker</i>	<i>Recommend Approval</i>	<i>Jul 24, 2015</i>
<b>Curriculum Committee Chair:</b> <i>Kelley Gottschang</i>	<i>Recommend Approval</i>	<i>Oct 06, 2015</i>
<b>Assessment Committee Chair:</b> <i>Michelle Garey</i>	<i>Recommend Approval</i>	<i>Oct 11, 2015</i>
<b>Vice President for Instruction:</b> <i>Michael Nealon</i>	<i>Approve</i>	<i>Oct 23, 2015</i>