Washtenaw Community College Comprehensive Report

UAT 132 Understanding Fire Alarm Panels and Initiating Devices of Fire Protection Systems (UA 7060)
Effective Term: Fall 2020

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: United Association Department
Discipline: United Association Training
Course Number: 132
Org Number: 28200
Full Course Title: Understanding Fire Alarm Panels and Initiating Devices of Fire Protection Systems (UA 7060)
Transcript Title: Fire Alarm Panel & Device 7060
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog
Reason for Submission: Course Change
Change Information:
Consultation with all departments affected by this course is required.
Course description
Outcomes/Assessment
Objectives/Evaluation
Rationale: Update United Association course
Proposed Start Semester: Spring/Summer 2020
Course Description: In this course, students study fire alarm electrical circuits and fire control panels that pertain to fire protection sprinkler systems. Students will review the concepts of low voltage electricity as well as identify electrical testing methods for alarm devices within the fire alarm system. In addition, students will also demonstrate the hands-on installation, operation, troubleshooting and repairing procedures of these devices with the system. 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. Identify the function, operation, and electrical symbols of components within fire protection systems.
   Assessment 1
   Assessment Tool: Outcome-related written 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 100%.
   Who will score and analyze the data: UA Training Coordinator

2. Demonstrate installation, operation, troubleshooting, and replacement procedures of fire sprinkler initiating devices.
   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

Course Objectives

1. Identify a range of manufacturers' alarm devices including water flow switches, water pressure switches, and anti-tamper alarms.
2. Compare and contrast intelligent/addressable and communications within fire alarm panels.
3. Describe operation of fire protection systems and fire alarm panel communications.
4. Describe the sequence of operation to reset system alarms, pumps, and fire dampers.
5. Identify building operations during fire mode including occupant evacuation system, lift operations, stair pressurization fans, and power shutdowns.
6. Identify standard locations of fire pumps, sprinkler systems, and fire damper operations in accordance with fire regulations.
7. Demonstrate the context of the fire system in a commercial building.
8. Review the safe operation of electrical and mechanical testing equipment.
9. Review Personal Protection Equipment (PPE) needed when testing, operating, and repairing equipment.
10. Test resistance and voltage in electrical fire panel components.
11. Recognize possible electrical and mechanical safety hazards inherent in fire protection systems.
12. Review wiring schematics and symbols.

13. Troubleshoot predetermined system faults.
14. Replace predetermined failed components.

New Resources for Course

Course Textbooks/Resources

Textbooks

UA / IAPMO. *Basic Electricity* , Fifth ed. IAPMO Group, 2015

Manuals

Periodicals

Software

Equipment/Facilities

Reviewer	Action	Date
Faculty Preparer:		
Tony Esposito	*Faculty Preparer*	*Apr 28, 2020*
Department Chair/Area Director:		
Marilyn Donham	*Recommend Approval*	*May 07, 2020*
Dean:		
Jimmie Baber	*Recommend Approval*	*May 27, 2020*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*Jun 19, 2020*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Jun 23, 2020*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Jul 06, 2020*