Washtenaw Community College Comprehensive Report

UAT 181 Fire Pump Inspection and Testing (UA 7041)
Effective Term: Spring/Summer 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: 181
Org Number: 28200
Full Course Title: Fire Pump Inspection and Testing (UA 7041)
Transcript Title: Fire Pump Inspect and Test
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
- **Course title**
- **Course description**
- **Outcomes/Assessment**
- **Objectives/Evaluation**

Rationale: Course updates and outcomes combined to reflect current trends and technology available in the industry.
Proposed Start Semester: Spring/Summer 2025
Course Description: In this course, students will be provided with working knowledge and skills for proper installation, inspection and testing of the various types of fire pumps. National Fire Protection Association (NFPA) 20 and 25 codes, installation, inspection and testing for fire pumps, along with requirements for personal protective equipment (PPE) per NFPA 70E will be reviewed. Hands-on activities will include inspection, testing and troubleshooting. Students will perform a pump test and make necessary recommendations and adjustments. Students will also be given laser alignment trainer demonstration to simulate correct procedures for shaft alignment. Students will be able to use all of these resources for instructional material at students' local Training Centers. 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. Perform inspection, testing and maintenance requirements of NFPA 20 and 25 fire pumps.
   Assessment 1
   Assessment Tool: Outcome-related skills demonstration
   Assessment Date: Spring/Summer 2025
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Skills demonstration checklist
   Standard of success to be used for this assessment: 80% of students will score 80% or higher.
   Who will score and analyze the data: U.A. Instructors

2. Document and report a full-flow fire pump test.
   Assessment 1
   Assessment Tool: Outcome-related worksheet
   Assessment Date: Spring/Summer 2025
   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 students will score 80% or higher.
   Who will score and analyze the data: U.A. Instructors

Course Objectives

1. Compare and contrast proper and incorrect pump alignment and its significance in overall efficiency and operation of the system.
2. Discuss the methods of instruction of course material at the students' local Training Centers.
3. Review code requirements NFPA 20, 25, and 75 and their significance in the industry.
4. Identify fire pump and jockey pump piping arrangements.
5. Explain the test equipment and calibration needed to perform testing and troubleshooting.
6. Identify the safety precautions and PPE needed to perform testing and troubleshooting of fire protection equipment.
7. Discuss and perform a full-flow fire pump performance test including documentation.
8. Explain and demonstrate laser alignment tool procedures.
9. Explain the test procedures, required tolerances, and scheduling parameters for performance tests.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Reviewer	Action	Date
Faculty Preparer:		
Tony Esposito	*Faculty Preparer*	*Feb 03, 2025*
Department Chair/Area Director:		
Marilyn Donham	*Recommend Approval*	*Feb 07, 2025*
Dean:		
Eva Samulski	*Recommend Approval*	*Feb 07, 2025*
Curriculum Committee Chair:		
Randy Van Wagnen	*Recommend Approval*	*Jun 04, 2025*
Assessment Committee Chair:		
Jessica Hale	*Recommend Approval*	*Jun 09, 2025*
Vice President for Instruction:		
Brandon Tucker	*Approve*	*Jun 10, 2025*

Washtenaw Community College Comprehensive Report

UAT 181 Fire Pumps and Inspection (UA 7041)
Effective Term: Spring/Summer 2018

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: United Association Department
Discipline: United Association Training
Course Number: 181
Org Number: 28200
Full Course Title: Fire Pumps and Inspection (UA 7041)
Transcript Title: Fire Pumps & Inspection (7041)
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Web Page
Reason for Submission: New Course
Change Information:
Rationale: New UAT course
Proposed Start Semester: Spring/Summer 2018
Course Description: In this course, students will learn teaching methods, working procedures and skills involved in the proper installation, inspection, and testing of various types of Aurora fire pumps. The course includes hands-on workshops in which participants will inspect, test, adjust, and troubleshoot problems, as well as perform a pump test. Furthermore, this course will also address code requirements for National Fire Protection Association (NFPA) 20, 25, and Protective Personal Equipment (PPE) for NFPA 75. 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. Apply NFPA 25 regulations to the testing and inspection of fire pumps.
   Assessment 1
   Assessment Tool: Skills demonstration
   Assessment Date: Spring/Summer 2021
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Skills demonstration checklist
   Standard of success to be used for this assessment: 90% of students will score 100%
   Who will score and analyze the data: U.A. training coordinator

2. Complete full flow fire pump documentation.
   Assessment 1
   Assessment Tool: Written exam
   Assessment Date: Spring/Summer 2021
   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: 90% of students will score 100%
   Who will score and analyze the data: U.A. training coordinator

3. Describe NPFA 20, 25 and 75 code requirements.
   Assessment 1
   Assessment Tool: Teaching demonstration
   Assessment Date: Spring/Summer 2021
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Observation checklist
   Standard of success to be used for this assessment: 90% of students will scored 100%
   Who will score and analyze the data: U.A. training coordinator

Course Objectives

1. Compare and contrast proper and improper fire pump installations including piping arrangements.
2. Demonstrate annual test procedures.
3. Demonstrate test equipment and calibration methods as well as Personal Protective Equipment (PPE) needed for inspection and full-flow testing.
4. Perform full-flow fire pump testing and complete proper documentation needed.
5. Compare and contrast proper and incorrect pump alignment and its significance in overall efficiency and operation of the system.
6. Review the safety hazards involved in the testing and inspection of fire pumps along with lock out/ tag out procedures.
7. Discuss the methods of instruction of course material at the students' local training centers.
8. Review code requirements NFPA 20, 25, and 75 and their significance in the industry.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Reviewer	Action	Date
Faculty Preparer:		
Tony Esposito	*Faculty Preparer*	*Dec 01, 2017*
Department Chair/Area Director:		
Marilyn Donham	*Recommend Approval*	*Jan 03, 2018*
Dean:		
Brandon Tucker	*Recommend Approval*	*Jan 08, 2018*
Curriculum Committee Chair:		
David Wooten	*Recommend Approval*	*Apr 16, 2018*
Assessment Committee Chair:		
Michelle Garey	*Recommend Approval*	*Mar 28, 2018*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Apr 19, 2018*