Washtenaw Community College Comprehensive Report

UAT 366 Water Conditioning for the Residential/Light Commercial Service Technician (4110)
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: 366
Org Number: 28200
Full Course Title: Water Conditioning for the Residential/Light Commercial Service Technician (4110)
Transcript Title: Water Conditioning
Is Consultation with other department(s) required: No
Publish in the Following:
Reason for Submission: New Course
Change Information:
Rationale: New U.A. Course
Proposed Start Semester: Spring/Summer 2025
Course Description: In this course, students will acquire and demonstrate the skills to install and maintain residential and light commercial water treatment equipment in accordance with the policies of American Society of Sanitary Engineers (ASSE). Students will review the fundamentals of water aesthetics and the technology available to improve undesirable water issues. Topics will include water theory, on-site water aesthetics testing, creating solutions to remedy findings, and ideal equipment installation/troubleshooting/maintenance practices. Students will have the opportunity to take the ASSE 22000 certification exam. 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

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Identify water conditioning system applications, safe installation, maintenance, legality, operating principles, and testing procedures.
   Assessment 1
   Assessment Tool: Outcome-related quiz
   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 the students will score 80% or higher.
   Who will score and analyze the data: U.A. Instructors

2. Recognize water conditioning principles as well as terminology associated with water aesthetics and water conditioning.
   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 the students will score 80% or higher.
   Who will score and analyze the data: U.A. Instructors

3. Demonstrate the water sampling and testing process, including identification of contaminants and water quality characteristics.
   Assessment 1
   Assessment Tool: Outcome-related 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: 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. Determine whether water conditioning systems are adhering to industry standards and best practices.
2. Demonstrate the ability to perform routine maintenance on water conditioning equipment, ensuring optimal functionality and longevity.
3. Discuss the legal regulations governing water conditioning systems, including relevant permits, codes, and environmental considerations.
4. Conduct on-site water aesthetics testing for Total Dissolved Solids (TDS), Chlorine, Iron, and Hardness, and interpret the results.

5. Problem-solve specific water aesthetics issues, choosing and implementing appropriate solutions based on testing outcomes.
6. Identify and define key terms related to water aesthetics, including TDS, Chlorine, Iron, Hardness, ion exchange, reverse osmosis, and filtration.
7. Demonstrate the use of vocabulary to describe and discuss water aesthetics issues, enabling effective communication within the context of residential and light commercial settings.
8. Identify and categorize common contaminants in water, including biological, chemical, and physical impurities, demonstrating an understanding of their potential health and environmental impacts.
9. Analyze and describe key water quality characteristics, such as color, odor, taste, turbidity, temperature, pH, and dissolved oxygen, recognizing their significance in assessing overall water quality.
10. Demonstrate proficiency in various water sampling techniques, including grab samples, composite samples, and depth-specific samples, ensuring representative and accurate data collection.
11. Interpret water test results, correlating them with contaminant levels and water quality characteristics, and discuss the implications for human health and environmental impact.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Reviewer	Action	Date
Faculty Preparer:		
Tony Esposito	*Faculty Preparer*	*Mar 07, 2025*
Department Chair/Area Director:		
Marilyn Donham	*Recommend Approval*	*Mar 10, 2025*
Dean:		
Eva Samulski	*Recommend Approval*	*Mar 11, 2025*
Curriculum Committee Chair:		
Randy Van Wagnen	*Recommend Approval*	*Jul 23, 2025*
Assessment Committee Chair:		
Jessica Hale	*Recommend Approval*	*Jul 30, 2025*
Vice President for Instruction:		
Brandon Tucker	*Approve*	*Jul 31, 2025*