Washtenaw Community College Comprehensive Report

UAT 232A Methods in Teaching Drainage Systems (UA 4002)
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: 232A
Org Number: 28200
Full Course Title: Methods in Teaching Drainage Systems (UA 4002)
Transcript Title: Teaching Drainage Systems
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: New Course
Change Information:
Rationale: This is an updated course that is more reflective of the teaching element of the topic. I believe the outcomes and assessments have been altered enough from the original course to constitute another course.
Proposed Start Semester: Spring/Summer 2025
Course Description: In this course, students will acquire the skills to deliver a Drainage Systems course at their local Training Center. Students will review current codes and standards, materials, installation methods, and fixture connections. Students will also review storm, vent, and special waste systems. By the end of this course, students will be able to apply methods of teaching to create a syllabus and lesson plan as well as formulate a valid assessment of student learning using resources from the United Association Online Learning Resources (UAOLR), Canvas Learning Management System (LMS), and hands-on techniques. 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

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Develop a plan for a Drainage Systems course syllabus to be used at the student's local Training Center.
   Assessment 1
   Assessment Tool: Outcome-related syllabus
   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: Rubric
   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. Create a lesson plan for learning activities to accommodate different learning styles and learning methods for a Drainage Systems course.
   Assessment 1
   Assessment Tool: Outcome-related lesson plan
   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: Rubric
   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. Create an assessment tool to evaluate student learning in a Drainage Systems course.
   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: Rubric
   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 codes and standards applicable to the student’s jurisdiction.
2. Discuss the various materials from which drainage systems are built.
3. Describe industry standards for various drainage and installation methods.
4. Identify different storm system configurations.
5. Discuss special waste piping systems.
6. Describe various types of vent system installation.

7. Discuss traps and fixture connections used in plumbing and drainage systems.
8. Identify target audiences for drainage courses.
9. Describe Bloom's Taxonomy of Learning.
10. Differentiate between course outcomes and objectives.
11. Evaluate different methods for assessing achievement.
12. Identify the four types of learning styles.
13. Identify tools on the UAOLR that could be used to teach a Drainage systems course.
14. Describe how to navigate the U.A. Drainage Manual.
15. Edit UAOLR drainage PowerPoint presentations.
16. Identify LMS features that can be used to support learning.
17. Align teaching activities to learning styles.
18. Identify the different types of tools in the LMS and UAOLR that can be used to assess student learning in a Drainage course.
19. Differentiate between formal and informal assessments.
20. Identify the specific objectives or outcomes that are measured by the assessment.
21. Choose the best type of assessment for each outcome.
22. Evaluate the effectiveness of each assessment.

New Resources for Course

Course Textbooks/Resources

Textbooks

American Technical Publishers. *UA Drainage Systems Manual*, ed. American Technical Publisher, 2016

Manuals

Periodicals

Software

Equipment/Facilities

Reviewer	Action	Date
Faculty Preparer:		
Tony Esposito	*Faculty Preparer*	*Feb 06, 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*	*Apr 24, 2025*
Assessment Committee Chair:		
Jessica Hale	*Recommend Approval*	*Apr 26, 2025*
Vice President for Instruction:		
Brandon Tucker	*Approve*	*Apr 28, 2025*