

Washtenaw Community College Comprehensive Report

UAT 232 Drainage Systems (UA 4002) Effective Term: Fall 2020

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: United Association Department

Discipline: United Association Training

Course Number: 232

Org Number: 28200

Full Course Title: Drainage Systems (UA 4002)

Transcript Title: Drainage Systems (UA 4002)

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 title

Course description

Outcomes/Assessment

Objectives/Evaluation

Rationale: Update United Association course

Proposed Start Semester: Fall 2020

Course Description: In this course, students will study the installation and maintenance of drainage systems used by pipe trades journey workers. Students will study the science behind the different types of drainage systems, venting, piping materials, and their joining methods. In addition, students will analyze public and private sewage disposal systems, as well as alternative water source drainage systems. The title of this course was previously Drainage. 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 materials and joining methods of pipes and equipment used in the installation of drainage waste, vent, and fixture connections in plumbing 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 80% or higher.

Who will score and analyze the data: U.A. instructors

2. Recognize the science, purpose, design, and installation of sanitary and storm drainage 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 80% or higher.

Who will score and analyze the data: U.A. instructors

3. Recognize and apply the principles used in the design of public and private sewage treatment 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 80% or higher.

Who will score and analyze the data: U.A. instructors

Course Objectives

1. Identify various materials and joining methods used in the installation of drainage systems.
2. Describe the proper use of drainage pattern and vent fittings.
3. Explain the approved methods of connection between the drainage system and plumbing fixtures.
4. Describe the function and design of plumbing traps and interceptors.
5. Discuss the parts of the sanitary drainage system.

6. Discuss types of special waste systems.
 7. Describe the uses and challenges of subsoil drainage systems.
8. Calculate pitch and grade for the installation of drainage pipe using formulas.
9. Discuss the purpose and function of a storm drainage system.
10. Discuss the type of vents, characteristics, and the installation process of venting systems.
11. Compare and contrast the various methods of sewage disposal.
12. Discuss the purpose and function of private sewage disposal systems.
 13. Describe the purpose and function of public sewage disposal systems.
 14. Explain the methods used for alternate water source drainage systems.

New Resources for Course

Course Textbooks/Resources

Textbooks

International Pipe Trades Joint Training Committee. *Drainage Systems* , First ed. International Pipe Trades Joint Training Committee, 2016

Manuals

Periodicals

Software

Equipment/Facilities

Computer workstations/lab

Data projector/computer

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Tony Esposito</i>	<i>Faculty Preparer</i>	<i>May 11, 2020</i>
Department Chair/Area Director: <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>May 20, 2020</i>
Dean: <i>Jimmie Baber</i>	<i>Recommend Approval</i>	<i>May 27, 2020</i>
Curriculum Committee Chair: <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Jul 23, 2020</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Aug 25, 2020</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Aug 26, 2020</i>