

Washtenaw Community College Comprehensive Report

UAT 160 Implementing a Gas Distribution System (UA 5025) 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: 160

Org Number: 28200

Full Course Title: Implementing a Gas Distribution System (UA 5025)

Transcript Title: Gas Distribution System (5025)

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Web Page

Reason for Submission: Course Change

Change Information:

Course description

Outcomes/Assessment

Objectives/Evaluation

Rationale: Updates for United Association Course

Proposed Start Semester: Spring/Summer 2024

Course Description: In this course, students will demonstrate the process and procedures for the electrofusion of pipe joint connections in plastic gas distribution lines with a focus on residential meter installation. They will perform manual fusion, hydraulic butt fusion, sidewall fusion, and line taps under pressure (hot taps). Students will have the opportunity to take the McElroy instrument certification exam. 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. Demonstrate the operation of the McElroy fusion equipment to perform various types of electrofusion.

Assessment 1

Assessment Tool: Outcome-related skills demonstration

Assessment Date: Fall 2024

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 the students will score 80% or higher.

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

2. Demonstrate tapping and stopping pipelines under pressure for residential meter setting installation.

Assessment 1

Assessment Tool: Outcome-related skills demonstration

Assessment Date: Fall 2024

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 the students will score 80% or higher.

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

Course Objectives

1. Identify components and operation procedures used in McElroy Pipe Fusion equipment.
2. Identify all safety concerns, AOC (Abnormal Operation Conditions), and malfunctions that can occur during equipment setup, operation, and cool-down.
3. Calculate pipe markings needed to complete butt fusion, sidewall fusion, and manual fusion as per code and manufacturer.
4. Recognize the safe and proper procedures and tools used to create a gas flow stoppage in a plastic gas pipeline.
5. Install a residential gas meter on a wall using shadow testing procedures.
6. Demonstrate setup procedures for sidewall fuses with a sidewinder or manual machine while identifying satisfactory pressures for melt time, soak time, and cooling time.

New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals

Periodicals

Software

Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Tony Esposito</i>	<i>Faculty Preparer</i>	<i>May 10, 2024</i>
Department Chair/Area Director: <i>Marilyn Donham</i>	<i>Recommend Approval</i>	<i>May 10, 2024</i>
Dean: <i>Eva Samulski</i>	<i>Recommend Approval</i>	<i>May 15, 2024</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Nov 07, 2024</i>
Assessment Committee Chair: <i>Jessica Hale</i>	<i>Recommend Approval</i>	<i>Nov 21, 2024</i>
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Approve</i>	<i>Nov 26, 2024</i>

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College: Advanced Technologies and Public Service Careers

Division: Advanced Technologies and Public Service Careers

Department: United Association Department

Discipline: United Association Training

Course Number: 160

Org Number: 28200

Full Course Title: Implementing a Gas Distribution System (UA 5025)

Transcript Title: Gas Distribution System (5025)

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 U.A. course

Proposed Start Semester: Spring/Summer 2018

Course Description: In this course, students will demonstrate the process and procedures involved in electrofusion of pipe joint connections of plastic gas distribution lines used in the installation for residential meter settings. They will perform manual fusion, hydraulic butt fusion, sidewall fusion, and line taps under pressure (hot taps). Students will take the McElroy instrument certification exam. 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. Describe and properly operate the McElroy fusion equipment to perform various types of electrofusion.

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 the students will score 100%

Who will score and analyze the data: U.A. training coordinator

Assessment 2

Assessment Tool: McElroy Certification 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: Exam is scored by 3rd party provider

Standard of success to be used for this assessment: 90% of the students will pass the certification exam

Who will score and analyze the data: U.A. training coordinator will analyze the data

2. Demonstrate tapping and stopping pipelines under pressure and for residential meter setting installation.

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 the students will score 100%

Who will score and analyze the data: U.A. training coordinator

Course Objectives

1. Identify components and operation procedures used in McElroy Pipe Fusion equipment.
2. Identify all safety issues, AOC (Abnormal Operation Conditions), and malfunctions that can occur during set-up, operation, and cool down of equipment.
3. Identify pressures, melt time, soak time, and cool down time for different pipe sizes and locations.
4. Calculate pipe markings needed to complete butt fusion, sidewall fusion, and manual fusion as per code and manufacturer.
5. Recognize the safe and proper procedure and tools used to create a gas flow stoppage in a plastic gas pipeline.
6. Install a residential gas meter on a wall with the procedures of shadow testing.

New Resources for Course

Course Textbooks/Resources

Textbooks
 Manuals
 Periodicals
 Software

Equipment/Facilities

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