

UAT 372: UA/IBEW INSTRUMENTATION CALIBRATION CERTIFICATION LEVEL II (UA 5021)

History

1. Dec 4, 2025 by Sera Bird (sabird)

Viewing: UAT 372 : UA/IBEW Instrumentation Calibration Certification Level II (UA 5021)

Last approved: 2025-12-04T08:05:48Z

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Effective Term

Winter 2026

Rationale and proposal summary

Course updates are needed for current trends and technology in the industry.

Course Cover

Full Course Title

UA/IBEW Instrumentation Calibration Certification Level II (UA 5021)

Transcript Title

Instrumentation Calib II 5021

Subject Code

UAT - United Association Training

Course Number

372

Department

United Assoc Dept (UAT Only) (UATD)

Banner Division

ATP

Division/College

Adv Tech/Public Serv Careers (AT)

Org Code

28200

Course Description

In this course, students will explore the process of instrument calibration and prepare to implement an instrument calibration program at the local level. Students will demonstrate calibration and documentation of various devices in a classroom and lab environment. In addition, students will prepare to take the UA/International Brotherhood of Electrical Workers (IBEW) Electrical Power Research Institute (EPRI) Level II Administrator Certification for proctoring of exams at the local. Limited to United Association Instructor Training program graduates.

Has this course been approved for online or online blended?

No

Grading method

Standard Letter, Audit

CIP Code

469999 - Construction Trades, Other.

Occupational Indicator

Yes

ACS Code

130

Degree Attributes

BCL - Below College Level Pre-Reqs

Credit hours, contact hours, repeatability**Repeatable for additional credit**

No

Course credits

1.5

Lecture contact hours

22.5

Lab contact hours

1.5

Total Contact Hours

24

Expected Total Contact Hours

24

Prerequisites and prerequisite skill levels**College-Level Math**

No Level Required

College-Level Reading and Writing

College-level Reading and Writing

Approved Level I Prerequisite:

Academic Reading and Writing Levels of 6

Course Assessment Plan**Learning Outcome****Outcome**

Demonstrate the selection, set-up, and operation of test equipment for calibration specifications to complete the EPRI exam.

Assessment #1**Assessment Tool**

Outcome-related skills demonstration

Anticipated Next Assessment Year

2025

Anticipated Next Assessment Term

Summer

Assessment Cycle

Every Three Years

Anticipated assessment population

All students from all sections

How the assessment will be scored

Observational checklist

Who does the scoring?

U.A. Instructors

Standard of success

80% of the students will score 80% or higher.

Assessment #2

Learning Outcome

Outcome

Calibrate the five instruments that are required for the EPRI exam.

Assessment #1

Assessment Tool

Outcome-related skills demonstration

Anticipated Next Assessment Year

2025

Anticipated Next Assessment Term

Summer

Assessment Cycle

Every Three Years

Anticipated assessment population

All students from all sections

How the assessment will be scored

Observational checklist

Who does the scoring?

U.A. Instructors

Standard of success

80% of the students will score 80% or higher.

Assessment #2

Course Objectives

	Objective(s)
1.	Discuss the history of calibration.
2.	Identify the tools and equipment used in calibration.
3.	Discuss the process for the set-up of calibration equipment.
4.	Demonstrate the proper set-up of calibration equipment as per manufacturers' specifications.
5.	Review the requirements and qualifications for proctoring the UA/IBEW EPRI Level II Administrator Certification Exam.
6.	Discuss the methods and curriculum needed to proctor a calibration program at the student's local Training Center.
7.	Navigate educational resources available for establishing a Calibration Program at the student's local Training Center.
8.	Discuss and demonstrate the proper operation of digital volt meters (DVM) and their capabilities.
9.	Discuss and demonstrate alternate equipment available to calibrate the same instruments.
10.	Discuss and demonstrate safety protocols and personal protective equipment (PPE) used for calibration equipment.
11.	Complete calibration paperwork.

12. Discuss proper calibration tolerances.
13. Calibrate instruments and record results on calibration paperwork.

General Education Area(s)

Area 1: Writing

No

Area 2: 2nd Writing or Communication/Speech

No

Area 3: Mathematics

No

Area 4: Natural Science

No

Area 5: Social and Behavioral Science

No

Area 6: Arts and Humanities

No

MTA General Education

No

Review

Is conditional approval requested?

No

Is this course currently conditionally approved, and you are now submitting it for full approval?

No

Key: 9024

Washtenaw Community College Comprehensive Report

UAT 372 UA/IBEW Instrumentation Calibration Certification Level II (UA 5021) Effective Term: Fall 2020

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: United Association Department

Discipline: United Association Training

Course Number: 372

Org Number: 28200

Full Course Title: UA/IBEW Instrumentation Calibration Certification Level II (UA 5021)

Transcript Title: Instrumentation Calib II 5021

Is Consultation with other department(s) required: No

Publish in the Following:

Reason for Submission: New Course

Change Information:

Rationale: New United Association Course

Proposed Start Semester: Fall 2020

Course Description: In this course, students will explore the process of instrument calibration and prepare to implement an instrument calibration program at their local Training Center. Students will demonstrate calibration and documentation of various devices in a classroom and lab environment. In addition, students will prepare to take the UA/International Brotherhood of Electrical Workers (IBEW) Electrical Power Research Institute (EPRI) Level II Administrator Certification for proctoring of exams at their Training Center. 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

Degree Attributes

Below College Level Pre-Reqs

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Identify and demonstrate the proper set-up of calibration equipment, including a pressure differential transmitter, a pressure switch, and current-to-pneumatic transducer "I/P".

Assessment 1

Assessment Tool: Skills demonstration

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: Skills 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. Prepare and present a lesson plan for delivering a calibration program at the local level.

Assessment 1

Assessment Tool: Presentation

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: Observation 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

3. Pass the Level II Administrator Certification examination for proctoring.

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. Discuss the history of calibration.
2. Identify the tools and equipment used in calibration.
3. Discuss the process for the set-up of calibration equipment.
4. Demonstrate the proper set-up of calibration equipment as per manufacturers' specifications.
5. Review the requirements and qualifications for the UA/IBEW EPRI Level II Administrator Certification Exam.
6. Demonstrate the calibration of a conventional pressure differential transmitter, a pressure switch, a current-to-pneumatic transducer I/P, a pressure differential transmitter and a temperature transmitter.
7. Discuss the methods and curriculum needed to develop a calibration program at the student's local Training Center.

8. Locate and navigate educational resources available for establishing a Calibration Program at the student's local Training Center.
9. Prepare and present a lesson plan for classroom critique.
10. Review safety precautions and personal protective equipment (PPE) needed when performing calibration.

New Resources for Course

Course Textbooks/Resources

Textbooks

International Association of Plumbing and Mechanical Officials. *APPLIED SCIENCE OF INSTRUMENTATION*, First ed. IAPMO Group, 2017, ISBN: 1935941267.

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 18, 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>Aug 13, 2020</i>
Assessment Committee Chair:		
<i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Oct 20, 2020</i>
Vice President for Instruction:		
<i>Kimberly Hurns</i>	<i>Approve</i>	<i>Oct 22, 2020</i>