Washtenaw Community College Comprehensive Report

UAT 193A Robotic Total Station Beyond Basics (UA 3046)
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: 193A
Org Number: 28200
Full Course Title: Robotic Total Station Beyond Basics (UA 3046)
Transcript Title: RTS Beyond Basics (UA 3046)
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 2024
Course Description: In this course, students will develop increased competency in the application of equipment, software, and data using the Robotic Total Station (RTS). At an advanced level, students will demonstrate the processes of using vendor software and point creation, as well as jobsite troubleshooting of potential problems while using computer tablets. Students will create new points based on known coordinates, and will practice collecting, managing, and analyzing multiple points. Students will also be able to recognize and interpret coordination values (XYZ). 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. Demonstrate the use of vendor software, installing updates, point creation coordination, and other options associated with RTS units and computer tablets.
   Assessment 1
   Assessment Tool: Outcome-related 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: 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 the RTS and laser setup and layout, the collection of points with a prism pole and laser, data collection, and documentation.
   Assessment 1
   Assessment Tool: Outcome-related 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: 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. Review and download all vendor software updates.
2. Explain point creation options and coordination point creation.
3. Demonstrate the use of the vendor software with RTS units and tablets.
4. Review RTS setup and layout along with jobsite issues.
5. Explain and demonstrate how to set up and use a laser, collect points using a prism pole and laser, and gather data with the laser.
6. Review safety precautions and procedures associated with the setup and operation of RTS equipment.
7. Discuss common problems and their solutions when operating RTS equipment.

New Resources for Course

Course Textbooks/Resources
Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Reviewer	Action	Date

Faculty Preparer:

Tony Esposito   *Faculty Preparer*   *May 09, 2024*

Department Chair/Area Director:

Marilyn Donham   *Recommend Approval*   *May 10, 2024*

Dean:

Eva Samulski   *Recommend Approval*   *May 15, 2024*

Curriculum Committee Chair:

Randy Van Wagnen   *Recommend Approval*   *Nov 07, 2024*

Assessment Committee Chair:

Jessica Hale   *Recommend Approval*   *Nov 22, 2024*

Vice President for Instruction:

Brandon Tucker   *Approve*   *Nov 26, 2024*