Washtenaw Community College Comprehensive Report

UAT 357 TIP TIG Wire Feed Welding Process
Effective Term: Spring/Summer 2014

Course Cover

Division: Advanced Technologies and Public Service Careers
Department: United Association Department
Discipline: United Association Training
Course Number: 357
Org Number: 28200
Full Course Title: TIP TIG Wire Feed Welding Process
Transcript Title: TIP TIG Wire Feed Welding
Is Consultation with other department(s) required: No
Publish in the Following:
Reason for Submission: New Course
Change Information:
Rationale: This new course is being created to teach UA training program participants about a new technology.
Proposed Start Semester: Spring/Summer 2014
Course Description: In this course, designed for UA Welding Instructors, students will learn about and develop methods of teaching the GTAW Hot Wire (HW) Feed TIP TIG welding process. Students will learn the safety, operation, technology and equipment set-up associated with this advanced welding system. Students will learn process variables, system control functions and weld parameter selection for a variety of materials. Enrollment shall be limited to instructors with a minimum of 5 years of experience with the GTAW/GMAW process. Limited to United Association program participants.

Course Credit Hours

Variable hours: No
Credits: 1
Lecture Hours: Instructor: 15 **Student:** 15
The following Lab fields are not divisible by 15: Student Min, Instructor Min
Lab: Instructor: 5 **Student:** 5
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 20 **Student:** 20
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 methods of teaching the central concepts of the TIP TIG welding process utilizing UA approved materials.
   Assessment 1
   Assessment Tool: Presentation
   Assessment Date: Spring/Summer 2014
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Presentation parameters with rubric
   Standard of success to be used for this assessment: 75% of students will achieve 75% or above.
   Who will score and analyze the data: Departmental faculty

2. Demonstrate the TIP TIG welding process.
   Assessment 1
   Assessment Tool: Skill assessment
   Assessment Date: Spring/Summer 2014
   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 with rubric
   Standard of success to be used for this assessment: 75% of students will achieve 75% or above.
   Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify the components of a TIP TIG unit.
   Matched Outcomes
2. Assemble a TIP TIG unit.
   Matched Outcomes
3. Weld 6" pipe in the 5G position.
   Matched Outcomes
4. Weld 6" pipe in the 2G position.
   Matched Outcomes
5. Demonstrate a teaching explanation of how to weld with the TIP TIG process.
   Matched Outcomes
6. Demonstrate a teaching explanation of the TIP TIG process and its benefits.
   Matched Outcomes
7. Adjust power settings for various applications.
   Matched Outcomes
8. Identify power sources available to use for the TIP TIG process.
   Matched Outcomes
9. Demonstrate a teaching explanation of the background history of the TIP TIG process.
   Matched Outcomes
10. In the role of teacher, demonstrate and explain how to use TIP TIG equipment in various situations.
    Matched Outcomes
11. Create and present an original lecture on TIP TIG welding applications.
    Matched Outcomes

New Resources for Course

Course Textbooks/Resources

Textbooks

Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom
Other: Welding lab with a minimum of 6 welding stations.

Reviewer	Action	Date
Faculty Preparer:		
Amanda Scheffler	*Faculty Preparer*	*Feb 02, 2014*
Department Chair/Area Director:		
Scott Klapper	*Recommend Approval*	*Feb 03, 2014*
Dean:		
Marilyn Donham	*Recommend Approval*	*Feb 05, 2014*
Vice President for Instruction:		
Bill Abernethy	*Approve*	*May 01, 2014*