Discipline: Welding Technology

Date Accepted: __12__/7__/2015
Renewal due: __Spring 2018________

Articulation Request and Agreement

This request and agreement is submitted for consideration of the following course as an articulated course at Columbia College. Students would receive course credit at Columbia College.

Directions:
1. Use a separate form for each course.
2. Attach the course outline for the course.
3. Attach the course final if course is to be considered for credit.
4. Mail to:  Dean of Instructional Services, Career Technical Education
   11600 Columbia College Drive
   Sonora, CA 95370

Completed by High School Instructor

High School:  Sonora High School

Contact Information:
Instructor Name:  Todd Isaman
Telephone Number:  (209) 532-5511 ext: 247
Email address:  tisaman@sonorahs.k12.ca.us
Address:  430 N. Washington Street
   Sonora, CA  95370

High School / ROP Course Title:  Advanced Welding

High school / Course Description:  The “Advanced Welding” course is available to students who have successfully completed the “Welding 1” course and desire further instruction with the intent of passing Welding Certification Tests in the SMAW (Shielded Metal Arc Welding) processes.

Each student will be evaluated in all four welding positions (Flat, Horizontal, Vertical and Overhead) using 6010 & 7018 welding electrode.

Students will show extensive knowledge in the setup, use & operation of Oxy-Acetylene torch, Plasma Arc Cutting (PAC), Carbon Arc Cutting (CAC), measuring and layout skills.
### College Course Title: WT 121 Welding Technology Level 1

<table>
<thead>
<tr>
<th>College Units:</th>
<th>3</th>
<th>HS/ROCP Credits:</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Prerequisite(s):</td>
<td>None</td>
<td>HS Prerequisite(s):</td>
<td>Completion of “Welding 1” course with a passing grade or can be challenged with instructor’s permission.</td>
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</tbody>
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**Advisories/Recommendations:** None

**Course Content:**
1. Welding Safety
2. Oxyfuel Cutting
3. Plasma Arc Cutting
4. Air Carbon Arc Cutting and Gouging
5. Base Metal Preparation
6. Weld Quality
7. SMAW equipment and Setup
8. Shielded Metal Arc Electrodes
9. SMAW Beads and Fillet Welds
10. Joint Fit up and Alignment
11. SMAW Groove Welds with Backing
12. SMAW Open V-Groove Welds

**Competencies and Skill Requirement** *(Use additional pages as necessary)*

*At the conclusion of this course, the student should be able to:*

1. Identify safe
2. Explain Oxyfuel cutting processes and techniques.
3. Demonstrate proficiency in Oxyfuel cutting processes.
4. Explain Plasma Arc cutting processes and techniques.
5. Demonstrate proficiency in Plasma Arc cutting processes.
6. Explain Air Carbon Arc cutting process and techniques.
7. Demonstrate proficiency in Air Carbon Arc cutting processes.
8. Identify and describe Shielded Metal Arc Welding process and characteristics.
10. Identify and describe Shielded Metal Arc Welding electrodes’ characteristics.
11. Determine correct SMAW electrode application.
12. Identify and describe Shielded Metal Arc Welding beads and fillet welds’ characteristics.
13. Set up and demonstrate appropriate SMAW bead welds.
Measurement Methods (include any industry certification or licensure):

1. Exams/Tests
2. Quizzes
3. Oral Presentation
4. Projects
5. Class Participation
6. Class Work
7. Lab Activities
8. Standardized instrument objectively measuring student knowledge
9. Competency-based written and practical tests which demonstrate the student's ability to learn and apply skills and concepts in accordance with minimum standards established by the instructor.
10. At the completion of the Welding 1 and Advanced Welding courses the student should have sufficient knowledge and skills to complete and pass Welding Certification Tests in the Shielded Metal Arc Welding (SMAW) processes.

In order to receive Columbia College credit the student must earn a “B” or better in the High School course.

Sample Textbooks or Other Support Materials (including Software):

<table>
<thead>
<tr>
<th>CC faculty Signature:</th>
<th>Date: 12-7-2015</th>
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</thead>
</table>

Completed by Columbia College
This portion is completed after CC faculty and H.S. faculty meet and agree on the terms of the articulation agreement.

Department faculty: ☑ Approved ☐ Not Approved
Dean: ☑ Approved ☐ Not Approved
CTE Transition Officer: ☑ Approved ☐ Not Approved
Admissions & Records notification: ☑ date: 12-7-15
High school notification: ☑ date: 12-7-15