

MASTER SYLLABUS

Course Discipline Code & No: UAF102 Title: Intro to Arc Welding, Soldering and Brazing Effective Term SS 2009  
 Division Code: VCT Department Code: UA Org #: 28310  
 Don't publish: ☐ College Catalog ☒ Time Schedule ☐ Web Page

Reason for Submission. Check all that apply.  
☒ New course approval ☐ Reactivation of inactive course  
☐ Three-year syllabus review/Assessment report ☐ Inactivation (Submit this page only.)  
☐ Course change

Change information: Note all changes that are being made. Form applies only to changes noted.

|                                                                                                                              |                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Consultation with all departments affected by this course is required.                              | <input type="checkbox"/> Total Contact Hours (total contact hours were: _____)                                                      |
| <input type="checkbox"/> Course discipline code & number (was _____)*<br>*Must submit inactivation form for previous course. | <input type="checkbox"/> Distribution of contact hours (contact hours were:<br>lecture: _____ lab _____ clinical _____ other _____) |
| <input type="checkbox"/> Course title (was _____)                                                                            | <input type="checkbox"/> Pre-requisite, co-requisite, or enrollment restrictions                                                    |
| <input type="checkbox"/> Course description                                                                                  | <input type="checkbox"/> Change in Grading Method                                                                                   |
| <input type="checkbox"/> Course objectives (minor changes)                                                                   | <input type="checkbox"/> Outcomes/Assessment                                                                                        |
| <input type="checkbox"/> Credit hours (credits were: _____)                                                                  | <input type="checkbox"/> Objectives/Evaluation                                                                                      |
|                                                                                                                              | <input type="checkbox"/> Other _____                                                                                                |

Rationale for course or course change. Attach course assessment report for existing courses that are being changed.

Approvals Department and divisional signatures indicate that all departments affected by the course have been consulted.

Department Review by Chairperson ☐ New resources needed ☐ All relevant departments consulted

Print: Dan Welch Signature: D. Welch Date: 2/2/09  
 Faculty/Preparer

Print: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Department Chair

Division Review by Dean  
☐ Request for conditional approval

Recommendation ☐ Yes ☐ No D. Welch 2/2/09  
 Dean's/Administrator's Signature Date

Curriculum Committee Review  
 Recommendation ☐ Tabled ☒ Yes ☐ No Pia Veasy 3/18/09  
 Curriculum Committee Chair's Signature Date

Vice President for Instruction Approval Roger M. Palay 3/18/09  
 Vice President's Signature Date

Approval ☒ Yes ☐ No ☐ Conditional

Do not write in shaded area.  
 Log File 2/19/09 Ecopy ☐ Banner 3/19 C&A Database 3/19 C&A Log File 3/19 Basic skills ☐ Contact fee ☐

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to [sjohn@wccnet.edu](mailto:sjohn@wccnet.edu) for posting on the website.

**\*Complete ALL sections which apply to the course, even if changes are not being made.**

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| <b>Course:</b> UAF102 | <b>Course title:</b> Intro to Arc Welding, Soldering and Brazing |
|-----------------------|------------------------------------------------------------------|

| <b>Credit hours:</b> <u>3</u><br>If variable credit, give range:<br>_____ to _____ credits | <b>Contact hours per semester:</b><br><table border="1"> <thead> <tr> <th></th> <th>Student</th> <th>Instructor</th> </tr> </thead> <tbody> <tr> <td>Lecture:</td> <td><u>45</u></td> <td><u>45</u></td> </tr> <tr> <td>Lab:</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Clinical:</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Practicum:</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Other:</td> <td>_____</td> <td>_____</td> </tr> <tr> <td><b>Totals:</b></td> <td><u>45</u></td> <td><u>45</u></td> </tr> </tbody> </table> |            | Student | Instructor | Lecture: | <u>45</u> | <u>45</u> | Lab: | _____ | _____ | Clinical: | _____ | _____ | Practicum: | _____ | _____ | Other: | _____ | _____ | <b>Totals:</b> | <u>45</u> | <u>45</u> | <b>Are lectures, labs, or clinicals offered as separate sections?</b><br><input type="checkbox"/> Yes - lectures, labs, or clinicals are offered in separate sections<br><input type="checkbox"/> No - lectures, labs, or clinicals are offered in the same section | <b>Grading options:</b><br><input type="checkbox"/> P/NP (limited to clinical & practica)<br><input type="checkbox"/> S/U (for courses numbered below 100)<br><input checked="" type="checkbox"/> Letter grades |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|------------|----------|-----------|-----------|------|-------|-------|-----------|-------|-------|------------|-------|-------|--------|-------|-------|----------------|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                            | Student                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Instructor |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |
| Lecture:                                                                                   | <u>45</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>45</u>  |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |
| Lab:                                                                                       | _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | _____      |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |
| Clinical:                                                                                  | _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | _____      |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |
| Practicum:                                                                                 | _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | _____      |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |
| Other:                                                                                     | _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | _____      |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |
| <b>Totals:</b>                                                                             | <u>45</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>45</u>  |         |            |          |           |           |      |       |       |           |       |       |            |       |       |        |       |       |                |           |           |                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                 |

**Prerequisites.** Select one:

☒ College-level Reading & Writing

☐ Reduced Reading/Writing Scores

☐ No Basic Skills Prerequisite

(Add information at Level I prerequisite)

(College-level Reading and Writing is not required)

**In addition to Basic Skills in Reading/Writing:**

Level I (enforced in Banner)

| Course                                                         | Grade | Test  | Min. Score | Concurrent Enrollment<br><small>Can be taken together</small> | Corequisites<br><small>Must be enrolled in this class<br/>also during the same semester</small> |
|----------------------------------------------------------------|-------|-------|------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> and <input type="checkbox"/> or _____ | _____ | _____ | _____      | <input type="checkbox"/>                                      | _____                                                                                           |
| <input type="checkbox"/> and <input type="checkbox"/> or _____ | _____ | _____ | _____      | <input type="checkbox"/>                                      | _____                                                                                           |
| <input type="checkbox"/> and <input type="checkbox"/> or _____ | _____ | _____ | _____      | <input type="checkbox"/>                                      | _____                                                                                           |
| <input type="checkbox"/> and <input type="checkbox"/> or _____ | _____ | _____ | _____      | <input type="checkbox"/>                                      | _____                                                                                           |

Level II (enforced by instructor on first day of class)

| Course                                                         | Grade | Test  | Min. Score |
|----------------------------------------------------------------|-------|-------|------------|
| <input type="checkbox"/> and <input type="checkbox"/> or _____ | _____ | _____ | _____      |
| <input type="checkbox"/> and <input type="checkbox"/> or _____ | _____ | _____ | _____      |

**Enrollment restrictions** (In addition to prerequisites, if applicable.)

☐ and ☐ or Consent required

☐ and ☒ or Admission to program required

☐ and ☐ or Other (please specify): \_\_\_\_\_

Program: UA apprenticeship

**Please send syllabus for transfer evaluation to:**

Conditionally approved courses are not sent for evaluation.

Insert course number and title you wish the course to transfer as.

☐ E.M.U. as \_\_\_\_\_

☐ \_\_\_\_\_ as \_\_\_\_\_

☐ U of M as \_\_\_\_\_

☐ \_\_\_\_\_ as \_\_\_\_\_

☐ \_\_\_\_\_ as \_\_\_\_\_

☐ \_\_\_\_\_ as \_\_\_\_\_

|                             |                                                                         |
|-----------------------------|-------------------------------------------------------------------------|
| <b>Course</b> <u>UAF102</u> | <b>Course title:</b> <u>Intro to Arc Welding, Soldering and Brazing</u> |
|-----------------------------|-------------------------------------------------------------------------|

|                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course description</b><br>State the purpose and content of the course. Please limit to <u>500</u> characters. | This is the introductory course in welding, soldering, and brazing. Topics include: safety in welding, cutting and allied processes, oxyacetylene cutting and welding, procedure for setting up oxy-fuel cutting and welding equipment. Related safety is covered in all topics.<br><br>This course is taught at United Association (UA) Training Centers throughout the United States and Canada. Enrollment is limited to apprentices accepted in to a UA training program. |
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|                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course outcomes</b><br>List skills and knowledge students will have after taking the course.<br><br><b>Assessment method</b><br>Indicate how student achievement in each outcome will be assessed to determine student achievement for purposes of course improvement. | <b>Outcomes</b><br>(applicable in all sections)<br><br>Upon successful completion of this course, the student will be able to: <ul style="list-style-type: none"> <li>• Explain the various types of soldering and brazing alloys</li> <li>• Identify the proper alloy for a specific application</li> <li>• Describe the proper preparation, cleaning and fluxing of joints</li> <li>• Demonstrate proper heating and application of the selected alloy</li> </ul> | <b>Assessment</b><br>Methods for determining course effectiveness<br><br>This course is assessed externally by the local's Joint Apprenticeship Training Committee (JATC), consisting of industry representatives and UA members. The local receives feedback on needed technical updates and apprentice skill performance. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                           |                                                                                                                                                                                          |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Course Objectives</b><br>Indicate the objectives that support the course outcomes given above.<br><br><b>Course Evaluations</b><br>Indicate how instructors will determine the degree to which each objective is met for each student. | <b>Objectives</b><br>(applicable in all sections)<br><br>Objectives and evaluation methods follow the International Pipe Trades Curriculum Outline issued by the UA Training Department. | <b>Evaluation</b><br>Methods for determining level of student performance of objectives |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|

**List all new resources needed for course, including library materials.**  
 No new resources, courses are taught at existing UA local training schools.

**Student Materials:**

|                                                                                                                          |                                                                                           |                                |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------|
| <b>List examples of types</b><br>Texts<br>Supplemental reading<br>Supplies<br>Uniforms<br>Equipment<br>Tools<br>Software | UA local training schools provide all the necessary books and materials for the students. | <b>Estimated costs</b><br>\$ 0 |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------|

**Equipment/Facilities:** Check all that apply. (All classrooms have overhead projectors and permanent screens.)

Check level only if the specified equipment is needed for all sections of a course.

☐ Level I classroom

Permanent screen & overhead projector

☐ Level II classroom

Level I equipment plus TV/VCR

☐ Level III classroom

Level II equipment plus data projector, computer, faculty workstation

☐ Off-Campus Sites

☐ Testing Center

☐ Computer workstations/lab

☐ ITV

☐ TV/VCR

☐ Data projector/computer

☒ Other Taught at UA Local schools

**Assessment plan:**

| Learning outcomes to be assessed<br>(list from Page 3)                                                                                                                                                                                                                                                                       | Assessment tool                                                                                                                                                                         | When assessment will take place<br>(semester & year)                                                               | Course section(s)/other population | Number students to be assessed |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------|
| <ul style="list-style-type: none"> <li>Explain the various types of soldering and brazing alloys</li> <li>Identify the proper alloy for a specific application</li> <li>Describe the proper preparation, cleaning and fluxing of joints</li> <li>Demonstrate proper heating and application of the selected alloy</li> </ul> | <p>Contractors (employer) provide paper feedback forms for apprentice skill performance reviews.</p> <p>JATC contractor members provide specifications detailing technical updates.</p> | <p>WCC will prepare a summary report on assessment activities in Winter 2011 and every three years thereafter.</p> | All                                | All                            |

**Scoring and analysis of assessment:**

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally developed rubric, external evaluation, other). Attach the rubric/scoring guide.

**Individual locals use apprentice feedback forms filled out by the employing contractor.**

2. Indicate the standard of success to be used for this assessment.

**The standard of success is set by the local JATC.**

3. Indicate who will score and analyze the data (data must be blind-scored).

**The data is analyzed by the JATC as a committee.**

4. Explain the process for using assessment data to improve the course.

**Results are initially shared with the training coordinator for the local. The training coordinator then works with appropriate instructor staff to make needed changes.**