Advanced Arc Welding is a continuing career course stressing safety and equipment familiarization with lab exercises for skill development in basic fundamentals of electric arc welding, SMAW and FCAW processes. It includes technical information lectures in related subjects and preparation for A.W.S. welders’ certification.

1. **Required items – Furnished by the student**
   - **Textbook:** “Modern Welding Technology” By Howard B. Carey
   - Safety glasses
   - Leather welding gloves
   - High top boots or shoes (no tennis shoes)
   - Suitable clothing that is nonflammable
   - Notebook or folder with paper for taking notes
   - Ear plugs (recommended)
   - Flash light (small)
   - Screw driver (inexpensive)

2. **Lectures**
   Technical information on related welding subjects and equipment will be presented in lectures at the beginning of each class meeting.

3. **Lab Exercises**
   Skill development (principles and techniques) is stressed through selected lab skill building exercises designed to prepare the student for industrial applications and the A.W.S. Welding certification tests.

4. **Grading**
   Grading is based on evaluation of skill competency on lab assignments and practical quizzes – 70%.
   Quality of research evident in homework assignments: written quizzes and tests – 30%.
   Attendance:
   - To be qualified to receive an “A” grade – students cannot miss more than two classes.
   - To be qualified to receive a “B” grade – students cannot miss more than 4 classes.
   - To be qualified to receive a “C” grade – students cannot miss more than 6 classes.
   - To be qualified to receive a “D” grade – students cannot miss more than 8 classes.
   * Excused absences and tardies can be made up with instructor approval.
Homework
The following items must appear on each homework assignment turned in or a reduction of
credit will be given for that assignment: name, name of chapter, questions due (example: 1-29)
and the week number of the assignment.

All homework assignments are to be done on notebook size (8 1/2 X 11) paper.

Homework will be accepted late, there will be a 20% deduction in grade per day until the
homework assignment is turned in. Homework is due Monday by the start of class of the week it
is assigned. All homework must be completed and turned in by the last week of the term (the
week before finals) to get a passing grade. (See homework assignment sheet.)

6. Breaks and Clean-Up
The instructor will announce break time at each class session. The student is expected to return
from break on time and ready to resume work. Students returning later from break will be
marked tardy.

The instructor will announce clean-up time at the end of each class session and then this
procedure should follow:

- Shut down welding equipment you are using.
- Return any tools used to proper area.
- Return unused steel to proper storage area.
- Place welded pieces in the scrap container (cool, if necessary). Return unwelded pieces
to the new steel containers.
- Return welding rods over 2 inches in length to the proper box or tray in the storage rack.
- Sweep off table top in welding booth and place the welding stool on the table.
- Sweep the floor of the welding booth and put stubs and slag in metal garbage can.
- Clean up any other area in the shop that was used during the class period.

7. ITS Welding is an embedded co-curriculum club that enhances the learning experience of this
class. It allows students the experience and opportunity to see how class material applies to
industry and the community we live in. This is done by interaction with industry tours, special
speakers and community projects. The meeting time for this class will be announced by the
instructor.

8. Safety
The student is responsible to follow all safety rules and shop procedures and to perform all tasks
in a safe and conscientious manner. This includes wearing the required safety items (safety
glasses, high top boots or shoes, etc.) during the lab time.

**NOTE:** The instructor will verbally warn the student when required safety items are not being
worn in the shop, or when safety procedures are not being followed. Repeated safety violations
may require the student to be withdrawn from the course by the instructor – three strikes and you
are out. Third warning could result in dismissal from the class.

**NOTE:** Instructor has the right to change areas that will better enhance the learning of the
student. This will only happen with proper notification to the student.
## Advanced Arc Welding
### Homework Assignment Sheet

<table>
<thead>
<tr>
<th>Week</th>
<th>Chapter</th>
<th>Questions</th>
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</thead>
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<td>Week 2</td>
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<td>1-18</td>
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<td>Cost of Welding</td>
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<tr>
<td>Week 3</td>
<td>Chapter 21</td>
<td>1-8</td>
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<td>Quality Control &amp; Evaluation of Welds</td>
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<td>Week 4</td>
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<td>Quality Control &amp; Evaluation of Welds</td>
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<td>Week 5</td>
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<td>Welding, Specification, Procedures and Qualifications</td>
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<tr>
<td>Week 6</td>
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<td>Welding, Specification, Procedures and Qualifications</td>
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<tr>
<td>Week 7</td>
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<td>Welding Problems &amp; Solutions</td>
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<td>Week 8</td>
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<td>Welding Problems &amp; Solutions</td>
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<td>Week 9</td>
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<td>Failure Analysis, Repair Welding and Surfacing</td>
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<td>Week 10</td>
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<td>Failure Analysis, Repair Welding and Surfacing</td>
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<td>Week 11</td>
<td>Final Exam</td>
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### Disabilities Services and Emergency Planning – Meet with Instructor Week One

If you have emergency medical information for your instructor, need special arrangements to evacuate campus, or have a documented disability, please meet with your instructor, by appointment, no later than the first week of the term, to discuss your needs. If you have a documented disability that will impact you at college and you seek accommodations, contact the Office of Disability Services (ODS) for intake and to document your disability with LBCC. Then, each term, at least two to three weeks prior to the start of classes, submit your “Request for Accommodations” form to ODS and pickup instructor letters. ODS may be reached from any LBCC campus/center by email to ODS@linnbenton.edu or by calling 917-4789. Letter pickup is available to each LBCC campus/center.