

# Course Syllabus

---

NOTE: This syllabus is subject to change during the semester. Please check this syllabus on a regular basis for any updates.

**Department** : Welding Technology  
**Course Title** : Intermediate Welding Using Multiple Processes  
**Section Name** : WLDG\_2413\_ 6245  
**Start Date** : 08/27/2012  
**End Date** : 12/11/2012  
**Modality** : FACE-TO-FACE  
**Credits** : 4 (2-6)

## ***Instructor Information***

---

**Name** : James Mosman  
**OC Email** : jmosman@odessa.edu  
**OC Phone #** : (432) 335-6474

## **Course Description**

---

Instruction using layout tools and print reading with demonstration and guided practice using some of the following processes; oxy-fuel cutting (OFC), Plasma Arc cutting (PAC), Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux core Welding (FCAW), Gas Tungsten Arc Welding (GTAW), Submerged Arc Welding (SAW) or any other approved welding process. This is a capstone course for the General Welder Level I Certificate and the Lead Welding Machine Operator Level II Certificate.

## **Prerequisites/Corequisites**

---

Prerequisite: WLDG 1417, WLDG 1421, WLDG 1430, WLDG 1434 and consent of Department Chair.

## **ICO's**

---

1, 2, 3, 4

## **Course Objectives**

---

The student will identify proper safety equipment and tools. Student will identify and select the proper welding process for a given application. The student will demonstrate skills training using more than one approved welding process; demonstrate ability to

analyze situations and make proper decisions using skills as taught; and select the most economical and practical welding process for the given task.

#### **ACADEMIC ETHICS:**

**Each student is expected to do their own work on the assignments, and take tests without outside assistance. If unethical behaviour is detected, by Odessa College Policy, all parties involved may either be denied credit for the project, or at the instructor's discretion, the student(s) may be dropped from the class. A report will be made to the department chairman for further action as deemed necessary by the department chair.**

### **Required Readings/Materials**

---

a) You must purchase the following **required** readings/materials:

**All** textbooks from prerequisite courses will be utilized.

1. Welding Hood with shade 10 or darker lens or auto-dark lens
2. Welding Cap
3. Welding Gloves
4. Safety Glasses or Goggles or Face Shield
5. Cutting Goggles or Face Shield
6. Spark striker
7. Chipping hammer
8. Hand Wire Brush
9. Stainless Steel Hand Wire Brush
10. MIG Pliers / Welpers
11. Combination Square

All students must have equipment prior to 3<sup>rd</sup> class period or arrangements made with instructor.

b) You are encouraged to buy the following *optional* books/materials

1. Welding Leather sleeves
2. 25 foot tape measure
3. 2<sup>nd</sup> pair of Welding Gloves

### **Course Requirements (Lectures, Assignments and Assessments)**

---

1. Take all tests
  2. Complete all homework assignments
  3. Complete all welds projects as assigned
-

### Summary of Assignments & Activities

\* NOTE: The due dates are subject to change. Please check this syllabus on a regular basis for any updates.

| Item(Name)  | Type               | Description   |
|---|--------------------|---|
| 1. Class Introduction, Safety Orientation                 | Lecture/Video/Exam | Students will be introduced to welding program, lab safety, class requirements.   |
| 2. Oxy-fuel welding and cutting / Weld project Assignment | Lecture/Lab        | Introduction to Oxy-fuel processes and safety. Introduction to weld projects assignment.                                |
| 3. Plasma Arc cutting                                     | Lecture/Lab        | Introduction to PAC and safety.   |
| 4. Air Carbon Arc Cutting / Base Metal Prep               | Lecture/Lab        | Introduction to CAC-A process and safety, preparation of base metal for welding. Weld projects determined and assigned. |
| 5. Project Assignment / SMAW                              | Lecture/Lab        | Introduction to paper and presentation project assignment. Begin work on SMA welding project.                           |
| 6. SMAW   | Lab                | Work on SMA welding project.  |
| 7. SMAW   | Lab                | Work on SMA welding project.  |
| 8. SMAW   | Lab                | Work on SMA welding project.  |
| 9. SMAW   | Lab                | Work on SMA welding project.  |
| 10. SMAW  | Lab                | Complete work on SMA welding project.   |
| 11. Presentation abstract / GMAW                          | Lecture/Lab/Exam   | Presentation abstract due. Section Exam. Begin work on Gas Metal Arc Welding project. First project due.                |
| 12. GMAW  | Lab                | Work on Gas Metal Arc Welding project.  |
| 13. GMAW  | Lab                | Work on Gas Metal Arc Welding project.  |
| 14. GMAW  | Lab                | Complete Gas Metal Arc Welding project.   |
| 15. FCAW  | Lecture/Lab        | Second project due. Begin work on Flux core Arc welding project.  |
| 16. FCAW  | Lab                | Work on Flux core Arc welding project.  |
| 17. FCAW  | Lab                | Work on Flux core Arc welding project.  |
| 18. FCAW  | Lab                | Complete Flux Core Arc welding project.   |
| 19. GTAW  | Lecture/Lab        | Third project due. Begin work on Gas Tungsten Arc welding project.  |

|                                  |                  |  |
|----------------------------------|------------------|--|
| 20. GTAW                         | Lab              | Work on Gas Tungsten Arc welding project.  |
| 21. GTAW                         | Lab              | Work on Gas Tungsten Arc welding project.  |
| 22. Final Exam Assignment / GTAW | Lecture/Lab/Exam | Second Exam Due. Final Exam distributed. Work on Gas Tungsten Arc welding project. |
| 23. GTAW                         | Lab              | Complete Gas Tungsten Arc welding project.   |
| 24. SAW                          | Lecture/Lab      | Fourth project due. Begin work on Submerged Arc welding project.                   |
| 25. SAW                          | Lab              | Work on Sub Arc welding project.   |
| 26. SAW                          | Lab              | Work on Sub Arc welding project.   |
| 27. SAW                          | Lab              | Complete Sub Arc welding project.  |
| 28. Presentations                | Lecture          | Final weld project due. Give class project presentation.                           |
| 29. Presentations                | Lecture          | Give class project presentation.   |
| 30. Final Review & Clean-up      | Lecture /Lab     | Final Review. Clean-up Lab.  |
| 31. Final Exam                   | Exam             | Final comprehensive written exam due.  |

## Grading Policy

---

### METHOD OF EVALUATION:

|                    |            |
|--------------------|------------|
| Mid-term Exam      | 20%        |
| Written Paper      | 5%         |
| Class Presentation | 5%         |
| Lab Work           | 50%        |
| Final Exam         | <u>20%</u> |
| Total Grade        | 100%       |

90 – 100 = A

80 – 89 = B

70 – 79 = C

61 – 69 = D

Below 61 = F

## Special Needs

---

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

## Learning Resource Center (Library)

---

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the "[Ask a Librarian](#)" service provide additional help.

## Student E-mail

---

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

## Student Portal

---

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

## Technical Support

---

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

## Important School Policies

---

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).

The Odessa College Student Success Coaches will help you stay focused and on track to complete your educational goals. If an instructor sees that you might need additional help or success coaching, he or she may submit a Retention Alert or a Starfish Alert. A Student Success Coach will contact you to work toward a solution.

### **Expectations for Engagement – Online Learning**

To help make the web-based learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the online learning environment. Students and instructors are welcome to exceed these requirements.

#### **Reasonable Expectations of Engagement for Instructors**

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
  - provided my contact information at the beginning of the syllabus;
  - respond to all messages within 24 hours if received Monday through Thursday and within 48 hours if received Friday through Sunday; and,
  - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
  - provide clear information about grading policies and assignment requirements in the course syllabus, and
  - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
  - post grades for discussion postings within one week of the discussion thread closing.
  - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

#### **Reasonable Expectations of Engagement for Students**

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
  - line up alternative computer and internet access in case my primary computer crashes or my internet services is unavailable;
  - recognize that the college provides free wi-fi and computer labs during regular campus hours to help me with accessing my course; and,

- understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my equipment or service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to
    - getting “kicked off” of the system during tests or quizzes;
    - having trouble submitting assignments; and
    - dealing with a traumatic personal event.
  3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
    - seek out help from my instructor and/or from tutors;
    - ask questions if I don’t understand; and,
    - access my course several times during the week to keep up with assignments and announcements.

### **Expectations for Engagement – Face to Face Learning**

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

#### Reasonable Expectations of Engagement for Instructors

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
  - provided my contact information at the beginning of the syllabus;
  - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
  - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I’m unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
  - provide clear information about grading policies and assignment requirements in the course syllabus, and
  - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
  - return classroom activities and homework within one week of the due date and
  - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

#### Reasonable Expectations of Engagement for Students

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
  - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
  - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
  - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
  - missing class when a major test is planned or a major assignment is due;
  - having trouble submitting assignments;
  - dealing with a traumatic personal event; and,
  - having my work or childcare schedule changed so that my classroom attendance is affected.
3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
  - seek out help from my instructor and/or from tutors;
  - ask questions if I don't understand; and,
  - attend class regularly to keep up with assignments and announcements.

The SEI process for face-to-face and online courses is scheduled for the week of November 26th.