Course Syllabus
Course #: WET 1140 **Course Name:** Welding I Lab
Division: Engineering and Industrial Technologies

Class Days: **Class Time:**
Location: **Laboratory:** D 102
Credit Hours: 2 **Contact Hours:** **Lab Hours:** 4 **Lecture Hours:** 0

Instructor: Bill McCleese **Office Location:** D 102A
Phone: **Email Address:** bmccleese@terra.edu

Office Hours: TBD
Division Office Location: Engineering Bldg. **Division Fax:** (419) 334-2300
Full-Time Contact Person: Jayne Bowersox **Phone:** (419) 559-2410

Course Description: Oxy-Fuel Welding (OFW) will involve fusion welding, brazing, and cutting. Shielded Metal Arc Welding (SMAW) will involve welding in the flat, horizontal, vertical, and overhead positions on lap, tee, corner, and open butt groove welds using E6010 cellulose and E7018 low hydrogen electrodes.

Prerequisites: None

Co-requisite(s): None, however, certificate and degree seeking students should also take WET 1130, Welding I.

Entry Level Skills and Knowledge: This course requires good eye-hand co-ordination and manipulative skills.

Grading:

The following grading system will be utilized. However, points less than 100 indicate an individual's inability to correct welding flaws by changing technique and manipulative patterns during welding. Therefore, if at all possible, through repeat demonstrations and practice, all weld flaws will be removed, so each student's welding will meet industry standards and practices.

93 – 100 = A
85 – 92 = B
75 – 84 = C
65 – 74 = D
<65 = F

Learning Outcomes:
General Education

1. **Communicate effectively**
2. **Evaluate arguments in a logical fashion**—Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). **Students will be able to demonstrate competence in problem solving in communication, mathematics, and in team settings.**
3. **Employ the methods of inquiry characteristic of natural sciences, social sciences, mathematics, and the arts and humanities**; general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines.

Plan of Work:

Week 1	Oxy-Fuel Fusion Welding (OFW) edge, corner, lap, tee, & butts
Week 2	Oxy-Fuel Fusion Welding (OFW) continued
Week 3	Oxy-Fuel Brazing (OFB) laps, corner, tee, & butt
Week 4	Oxy-Fuel Cutting (OFC) manual (MA) and semi-automatic (SA)
Week 5	Shielded Metal Arc Welding (SMAW) flat & horizontal fillets
Week 6	SMAW flat & horizontal fillets continued
Week 7	SMAW flat & horizontal fillets continued
Week 8	SMAW flat & horizontal open groove welds for guided bend testing
Week 9	SMAW flat & horizontal open groove welds continued
Week 10	SMAW vertical & overhead fillets
Week 11	SMAW vertical & overhead fillets continued
Week 13	SMAW vertical & overhead fillets continued
Week 14	SMAW vertical & overhead open groove welds for guided bend testing
Week 15	SMAW vertical & overhead open groove welds continued

NOTE: Welding involves a very high degree of manipulative skills and excellent eye-hand co-ordination. Not all students will have the same abilities and/or the same amount of prior welding experience, if any. Therefore, some individuals may not require the entire 15 weeks to complete laboratory requirements, while other students will require the entire 15 weeks to complete their requirements.

Course Requirements: Complete all assignments required.

<u>Policies</u>:

Course Withdrawing: If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic **"F."** Please follow official College procedure for withdrawing from this or any course.

College Academic Policies are located in the College Catalog. A copy of the current Catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at https://www.terra.edu/register/Collegecat/policies.asp.

Support Services: The college offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 334-8400 X 208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.

Tutoring services are available to students beginning the second week of every Semester. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).