



EAST TEXAS A&M

AMC 2303
CRN: 22034
Agricultural Welding

COURSE SYLLABUS

Instructor: Whitney Figland, Ph.D. - Assistant Professor

Office Location: AGET 153

Office Phone: 903-886-5379

Email Address: Whitney.Figland@tamuc.edu

Office Hours:

My door is always open if I am here, please come in anytime. If I am not here or you would like to schedule an appointment, please send me an email.

COURSE INFORMATION

Course Description: In this course, students will be exposed to a variety of processes in the welding industry; including, oxyacetylene, SMAW, and GMAW. Students will also gain an understanding of metal fabrication by completing a variety of projects.

Time & Location:

Lecture/Lab Monday 1:00p – 3:50p AGET 149

Textbook (Required): Course Text: Agricultural Mechanics: Fundamentals and Applications, 7th edition (5th or 6th will also work, but chapters may not be the same)

- ❖ Personal Protective Equipment (PPE)
 - i. Safety glasses/goggles (ANSI Z87 or better),
 - ii. 100% cotton lab coat/overalls or long sleeved shirt
 - iii. **100% cotton jeans that are free of frays**
 - iv. **Closed toe, leather boots/shoes (no tennis shoes)**
 - v. Tape measure (at least 10 feet)

Course Objectives:

Upon completion of this course, the student will be able to:

1. Determine minimum safety requirements for agricultural mechanics laboratories
2. Demonstrate welding fabrication skills by completing a variety of application based exercises
3. Demonstrate welding skills by performing a variety of application based exercises

COURSE REQUIREMENTS and ASSESSMENT

The assignments of this course are designed develop and refine your skills and abilities as an agriculture teacher in the agricultural mechanics laboratory. These assignments represent the process of teaching and evaluating hands-on, technical skills to school-based agriculture students.

Lecture Based Assignments

1. Module IRAT & TRAT tests

Laboratory Based Assignments

1. Agricultural Mechanics Safety Test (20 points)
2. Laboratory Participation and Safety (10 points per day; 280 points total)
3. Demonstration of technical skills

Specific Assignment Instructions - Laboratory

1. Agricultural mechanics safety test – After lessons on safety, you will be required to complete a safety test. Your first attempt at this test will be recorded for a grade in the course; however, you are **REQUIRED** to pass this test with a 100% to earn access to the laboratory. You may re-take the test as many times as it takes to earn 100%. However, if the test is not passed with 100% accuracy by the end of the fourth week of the semester it will result in an “F” for the course. Additionally, all missed laboratory time and assignments must be made up.
2. Laboratory participation and safety – This assignment is ongoing throughout the semester. You will be evaluated each class period we are in the laboratory. Grades are based on safety, workmanship, quality, and clean-up.
3. Demonstration of Technical Skills – It is vital that you gain experience in technical agricultural mechanics skills that you will teach your future secondary students. These skills will include:
 - i. Oxyacetylene Cutting
 1. Torch set-up and shut down
 2. Metal cutting
 - ii. SMAW
 1. Setup and shut down
 2. Welding processes
 3. Project
 - iii. GMAW
 1. Setup and shut down
 2. Welding processes
 3. Project

Final Exam: TBD

Assessment and Grade Determination

Assessment Criteria

Due Date	Criteria	Points	Score
	Module 1: Safety IRAT	15	
	Module 2: Oxyacetylene IRAT	20	
	Proper Oxyacetylene Startup & Cutting	50	
	Module 3: Metal Fabrication IRAT	15	
	Module 4: SMAW IRAT	15	
	SMAW Bead Plate	100	
	SMAW Lap Joint	100	
	SMAW Tee Joint	100	
	Project #1 (Oxyacetylene Cutting & SMAW) (Cube)	200	
	Module 4: GMAW IRAT	10	
	Project #2 (GMAW) (Fire pits or benches)	400	
	Laboratory Attendance, Participation, and Safety	280	
TOTAL		1295	

Grading Scale

%	Letter Grade
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
59 <	F

Course Schedule

Module	Lecture Topic	Activity	Reading
1	Overview/expectations; Module 1: Welding Safety	Tool Usage ; Module 1 IRAT/TRAT	D2L materials
2	Module 2: Oxyacetylene	Proper torch setup and cutting procedure; Module 2 IRAT/TRAT	D2L materials
	Module 3: Metal Fabrication	Layout and design; Module 3 IRAT/TRAT	D2L materials
3	Module 3: SMAW	Project #1; welding joints; Module 3 IRAT/TRAT	D2L materials
4	Module 4: GMAW	Welding Joints; CNC cutting; Project #2; Module 4 IRAT/TRAT	D2L materials
	Final Exam	TBD	

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:

Plagiarism: Plagiarism **WILL NOT** be tolerated and will result in an automatic **F** in the course. Students are expected to do their own work. Assistance with written assignments, such as proofreading or editing, is encouraged as long as the final concepts and product are those drafted and authored by the student. Information or materials (including ideas, quotes, data, procedures, etc.) from sources other than the student must be given proper credit through appropriate citation. The discipline of Agricultural Education uses the APA format (7th edition) as its primary style guide for publications, including research papers and reports. Assistance with this format and general guidelines for written assignments are available at the following source:

Scholarly Expectations: All works submitted for credit must be original works created by the scholar uniquely for the class. It is considered inappropriate and unethical, particularly at the graduate level, to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. Work submitted at the graduate level is expected to demonstrate higher-order thinking skills and be of significantly higher quality than work produced at the undergraduate level.

Writing Standards: All written assignment will be written in a format aligned with the *American Psychological Association (APA) Manual for Publication*, 7th edition. APA style will always be used for punctuation, writing style, headings, and citations. Exceptions to APA formatting will be specified when appropriate. For the two writings in this course, the exceptions and expectations are:

- Name (First Last) will be a flush right header and Assignment Name will be a flush right footer. I do not want a “running head” in the top left. Page numbers are optional. This precludes the need for a cover page or a “heading” on the first page in the body of the paper.
- 1” Margins for Top, Bottom, Left, and Right
- Times New Roman, 12 Point
- Single-Space all paragraphs with double space between paragraphs, topic headings (in the body), tables, and figures

A tutorial on scientific writing, including the use of APA format is available from the Online Writing Lab at Purdue University (<http://owl.english.purdue.edu/>). Personal face-to-face assistance with editing and format suggestions is available from the A&M Commerce on-campus Writing Center

Interaction with Instructor Statement: E-mail will serve as the primary method for out-of-class communication between the instructor and students. Therefore, students should check their university (myLeo) or other preferred e-mail account at least once daily. The instructor will attempt to answer each student-generated message within 48 hours of dispatch.

University Specific Procedures and Language

Students with Disabilities-- ADA Statement:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

ETAMU

Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

ETAMU will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Citizenship

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in ETAMU buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Use of AI Aids

ETAMU acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

Syllabus Change Policy

The syllabus is a guide. The instructor reserves the right to modify this syllabus during the semester, if needed. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance. The instructor also reserves the right to extend credit for alternative assignments, projects, or presentations.