



TEXAS A&M UNIVERSITY
COMMERCE

**AMC 428 – Laboratory Management in Agricultural Mechanics
Summer II 2022**

Instructor

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Course Meeting Times & Location: Online

Office Hours

I have an open-door policy for office hours. If my door is open, you may come in. You may also email me to schedule an in-person appointment or for general questions during normal business hours.

Course Description

This course is designed to teach students information on the principles and techniques for planning, organizing, and supervising instructional activities in agricultural mechanization. Topics include lab safety, inventory control, equipment selection, skill/curriculum development, and assessment methods. Additional focus will be on developing skills related to mechanized agricultural systems and developing competencies regarding agricultural science expectations.

Learning Outcomes

Upon completion of this course students should be able to demonstrate the following skills and concepts:

- Practice and model safety procedures in agricultural mechanics laboratory/shop settings.
- Develop student management procedures for laboratory settings.
- Successfully teach a mini lesson using the demonstration method.
- Create a shop layout for the safe operation of machinery.
- Develop a shop program budget and manage purchase requisitions.

Course Textbook (Required)

Various sources and materials will be provided on D2L as necessary.

Course Specific Procedures

Attendance

Due to the online delivery of this course, it will be important for students to stay on schedule in completing the modules. University excused absences will be honored when appropriate written documentation is provided, otherwise missing an assignment will be considered unexcused. Makeup work may be arranged with the instructor prior to excused absences. Students may not make up work missed from unexcused absences. No late work will be accepted without prior approval from the instructor.

Interaction with Instructor

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.

Grading Scale

Letter Grade	Points
A	900 – 1000
B	800 – 899
C	700 – 799
D	600 – 699
F	599 or Less

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

Texas A&M University-Commerce

Gee 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/>

Counseling Availability

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

Nondiscrimination Notice

Texas A&M University-Commerce 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 Texas A&M University-Commerce 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.

Assignment Descriptions

Safety Test (100 Points) – A test covering safety in the agricultural mechanics laboratory in school settings will be administered online through D2L. This is a pass/fail test where a 100 must be achieved to receive points for the safety test. Anything less than 100% correct will receive zero points. You will have three opportunities to pass the exam.

Laboratory Safety Rules and Behavior Management Plan (50 Points) – Develop a list of safety and behavior rules that you would adopt in your own agricultural mechanics laboratory. In addition to the rules, write a description for how these rules will be enforced.

Demonstration Lesson (200 Points) – You will demonstrate either how to safely operate a power tool or how to perform a mechanical skill of your choice. You will create a shortened lesson plan and a recorded video (5-10 minutes) of you demonstrating how to operate a power tool or how to perform a mechanical skill.

Student Management Plan (50 Points) – Given a scenario, develop a student management plan for grouping students in the laboratory based on equipment available and class size. This plan should include time for classroom instruction and laboratory practice.

Shop Inventory (50 Points) – Assume you are teaching in an active agricultural mechanics program. Create a shop inventory list using the Excel template provided. You should have 50 unique items on this inventory list that are appropriate for a school shop.

Shop Layout Design (200 Points) – You will design the layout of a 5000 square foot shop for an active agricultural mechanics program. You are not restricted on the outside shape of the shop perimeter. You may have to do some research to determine the types of equipment and generally layout of components in agricultural mechanics shops.

Purchase Order (50 Points) – You will fill out a mock purchase order request to secure funds to purchase a few tools and supplies for a project you would build in an agricultural mechanics course.

Agricultural Mechanics Lab Budget (200 Points) – Create an instructional budget for the scenario provided. Your budget should have income (\$6,000) and expenses with a balance at the end. Each expense should have a justification listed. You can make the budget in either a Word or Excel document. You should have a minimum of 50 different expenses listed.

Final Exam (100 Points) – A final exam will be given in D2L testing your knowledge of concepts and skills taught throughout the entire course. Some items will be simple recall while others will require application.

Course Calendar		
Topic	Reading	Assignments Due
Module 1: Managing Student Safety		
Secondary Agricultural Mechanics Programs	-Secondary Ag Mechanics Programs PPT -Applied Ag Engineer Program of Study -Agriculture TEKS	
Safety in the Ag Mechanics Laboratory	-Safety in the Ag Mechanics Lab PPT	Laboratory Safety Test Sunday, 7/17, 11:59 PM
Managing Student Safety	-Managing Student Safety PPT -20 Acts of Negligence -40 Most Common OSHA Violations	Safety Rules/Behavior Plan Sunday, 7/17, 11:59 PM
Module 2: Teaching in Laboratory Settings		
Learning Domains	-Learning Domains PPT	
Writing Objectives	-Developing Instructional Objectives PPT -Writing Objectives Handout	
The Demonstration Method	-Teaching Using Demonstration PPT	Demonstration Lesson Sunday, 7/24, 11:59 PM
Evaluation and Assessment	-Evaluation and Assessment PPT	
Module 3: Managing Laboratory Facilities		
Scheduling Student Activity	-Scheduling Student Lab Activity PPT	Student Management Plan Sunday 7/31, 11:59 PM
Laboratory Inventory	-Managing Laboratory Inventory PPT	Shop Inventory Sunday 7/31, 11:59 PM
Organization and Supply Management	-Organizing & Managing Shop Supplies PPT	
Laboratory Layout	-Planning Facilities PPT -Ag Facilities Guide -Lincoln School Shop Guide -Facility Examples	Shop Layout Design Sunday 7/31, 11:59 PM
Module 4: Purchasing and Budgeting for Laboratories		
Purchasing for Laboratories	-Selecting and Purchasing Equipment PPT	Purchase Order Sunday 8/7, 11:59 PM
Budgeting	-Laboratory Budgets PPT	Ag Mechanics Lab Budget Sunday 8/7, 11:59 PM
Final Exam: Due Thursday, 8/11, 11:59 PM		