



## EAST TEXAS A&M

AMC 315- Agri Systems Technology Management  
CRN 80791 Lecture  
CRN 80802 Lab (Monday)

### **Instructor**

Whitney Figland, Ph.D - Assistant Professor  
Office Location: AGET 153  
Email: [Whitney.Figland@tamuc.edu](mailto:Whitney.Figland@tamuc.edu)

### **Course Meeting Times & Location**

Mon, 11:00 am – 12:40 pm, AGET 255  
Mon, 1:00 pm – 2:50 pm, AGET 149 Lab

### **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**

***Agricultural Systems and Technology Management.*** Preliminary study to acquaint student professionals with the principles and theories needed to comprehend and manage agricultural and environmental technology; introduce the application of information technology to agricultural and environment systems; develop mathematical concepts and unit analysis skills associated with machinery and equipment, industry and marketing, energy, structural and environmental and natural resource systems. Focus shall be on basic knowledge rather than on in-depth analysis of the systems covered.

### **Learning Outcomes**

This course is designed to give students a working knowledge of basic agricultural mechanics concepts and skills. Upon completion of this course students should be able to demonstrate the following basic skills and concepts either in industry settings or the secondary agricultural education classroom:

- Display proper safety procedures in the agricultural mechanics laboratory
- Identify and demonstrate proper use of hand tools and power tools
- Demonstrate basic wood working skills
- Select and apply paint to materials
- Explain electrical theory and wire basic A/C circuits
- Demonstrate basic plumbing skills
- Display a basic understanding of project planning and design
- Properly identify and selection fasteners for agricultural projects
- Frame and finish agricultural structures
  - Research, outline, and present a demonstration on an assigned Agri System Technology topic

### **Course Textbook (Required)**

\*All materials are uploaded to D2L

## **Required Materials**

- Supplemental reading material will be available online via the course website.
- Students must acquire and maintain an active Leo account.
- Safety Glasses (ANSI Z87.1+) and appropriate protective clothing.

## **COMMUNICATION AND SUPPORT**

### **Interaction with Instructor**

The following is the list of communication methods used in this class and their purposes.

These include student-instructor, instructor-student and student-student communication.

You will be expected to check your university email account and log onto myLEO Online at least once every 24 hours Monday-Friday to keep abreast of the latest class announcements.

• **Email** will be used by me to communicate to the entire class general information about upcoming assignments, due dates, and any changes in the schedule or syllabus that might occur.

I will also email students individually with occasional feedback from assignments and on the class as a whole.

Students can use email to ask me any questions about (i) course logistics (upcoming assignments, due dates...) (ii) the way specific assignments were graded and feedback given (iii) constructive feedback to me about how the course is going and any problems/concerns with the course structure (and even things that work particularly well!)

In emails, please put “**AMC 315 Agri Systems Mgt**” in the subject header. I will reply to emails within 24 hours (48 hours during weekends and holidays).

I will always send emails to your official University Email address as given through MyLeo. It will be your responsibility to check your university email regularly.

## **Course Specific Procedures**

### **General Policies**

- The use of any tobacco products is strictly prohibited in all classrooms and laboratories.
- Please suspend the use of all electronic devices during lecture other than for notetaking.
- No late work will be accepted in this course without pre-approval from the instructor.
- All assigned reading should be completed before the corresponding lecture time.

### **Attendance**

Due to the hands-on nature of this course, lecture and laboratory attendance is strongly encourage Attendance will be taken during each lecture and laboratory session. University excused absences will be honored when appropriate written documentation is provided, otherwise the absence will be considered unexcused. Makeup work and labs may be arranged with the instructor prior to excused absences. Students may not make up work or labs missed from unexcused absences.

### **Laboratory Dress Code and Safety**

- Safety glasses are required to be worn at all times in the laboratory.
- Each student should purchase their own pair.
- Proper clothes should be worn while working in the lab.
- Closed toed shoes are required (work boots recommended).
- Ear plugs should be worn when in the presence of loud machinery.
- Students **not working** in a safe manner will be required to leave the shop.

### **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.

## **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

### ***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 East

Texas A&M University

Gee Library- Room 162

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

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto: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](http://www.tamuc.edu/counsel)

### **Nondiscrimination Notice**

East Texas A&M University 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.

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 East Texas A&M University 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.

### **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.

### **Grading Scale**

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

## **Grading Criteria**

| Due Date     | Criteria                                               | Points      | Score |
|--------------|--------------------------------------------------------|-------------|-------|
|              | Safety Presentations (Group)                           | 50          |       |
|              | Module 1: Safety IRAT                                  | 20          |       |
|              | Module 1: Safety TRAT                                  | 20          |       |
|              | Module 2: Principles of Electricity & Materials IRAT   | 20          |       |
|              | Module 2: Principles of Electricity & Materials TRAT   | 20          |       |
|              | Striping, Hooking, & Screwing Electrical Wire          | 30          |       |
|              | Outlet lab 1 & 2 (10 pts. Each)                        | 20          |       |
|              | Single pole labs 1-3(15 pts. Each)                     | 30          |       |
|              | 3 & 4 way switch labs 1 (15 pts. Each)                 | 30          |       |
|              | Electrical PS Capstone                                 | 50          |       |
|              | Wiring diagrams drawings (All labs)                    | 60          |       |
|              | Module 3: Tool and Parts ID IRAT                       | 20          |       |
|              | Module 3: Tool and Parts ID TRAT                       | 20          |       |
|              | Part ID Practicum                                      | 25          |       |
|              | Module 4: 4-cycle theory & Fuel IRAT                   | 25          |       |
|              | Module 4: 4-cycle theory & Fuel TRAT                   | 25          |       |
|              | Carburetor Disassemble & Reassembly                    | 20          |       |
|              | Module 5: Ignition and Electrical/Governor System IRAT | 15          |       |
|              | Module 5: Ignition and Electrical/Governor System TRAT | 15          |       |
|              | Recoil Starter Rewind Reassembly                       | 20          |       |
|              | Module 6: Cooling and Lubrication System IRAT          | 20          |       |
|              | Module 6: Cooling and Lubrication System TRAT          | 20          |       |
|              | Module 7: Troubleshooting IRAT                         | 15          |       |
|              | Module 7: Troubleshooting TRAT                         | 15          |       |
|              | Engine Teardown & Rebuild (100 pts. Each)              | 200         |       |
|              | Small Engines Measuring Activity                       | 25          |       |
|              | Small Engine Review                                    | 25          |       |
|              | Laboratory Attendance, Participation, and Safety       | 280         |       |
|              |                                                        |             |       |
| <b>TOTAL</b> |                                                        | <b>1135</b> |       |

## Course Schedule

| Week      | Lecture Topic                                                | Lab Activity                                                                | Reading      |
|-----------|--------------------------------------------------------------|-----------------------------------------------------------------------------|--------------|
| 1. 8/24   | Syllabus Review & Expectations                               | Team Formation & Orientation                                                | D2L Mod. 1   |
| 2. 8/31   | Module 1: Safety                                             | Module 1: IRAT/TRAT<br>Safety Demonstration<br>Project                      |              |
| 3. 09/07  | Labor Day – No Class                                         | Labor Day – No Class                                                        |              |
| 4. 09/14  | Module 2: Principles of Electricity                          | Module 2: IRAT/TRAT<br>Basics of Electricity                                | D2L Mod. 2   |
| 5. 09/21  | Module 2: Principles of Electricity                          | Lab Wiring Diagrams<br>Outlets labs 1 & 2                                   | D2L          |
| 6. 09/28  | Module 2: Principles of Electricity                          | Lab Wiring Diagrams<br>Single-Pole Labs 1- 2                                | D2L          |
| 7. 10/05  | Module 2: Principles of Electricity                          | Lab Wiring Diagrams<br>3-way Lab 1 & PS capstone                            | D2L Mod. 3   |
| 8. 10/12  | Module 3: Tool & Part ID                                     | Module 3: IRAT/TRAT<br>Tool and Part ID Practicum                           |              |
| 9. 10/19  | Module 4: 4-cycle theory & fuel                              | Module 4: IRAT/TRAT Carb<br>Disassembly &<br>Reassembly/engine tear<br>down | D2L Mod. 5   |
| 10. 10/26 | Module 5 Ignitions & Electrical                              | Module 5: IRAT/TRAT<br>Recoil rewind starter –<br>Finish Disassembly        | D2L Module 6 |
| 11. 11/2  | Module 6: Cooling & Lubrication<br>ETAMU LDE Invitation 11/5 | Mod. 6: IRAT/TRAT<br>Team Measuring Lab<br>Engine Rebuild                   |              |
| 12. 11/09 | Engine Rebuild                                               | Engine Rebuild                                                              | D2L Module 7 |
| 13. 11/19 | Module 7: Troubleshooting                                    | Mod. 7: IRAT/TRAT<br>Troubleshooting lab<br>Engines must run!               |              |
| 14. 11/24 | No Class                                                     | No Class                                                                    |              |
| 15. 11/30 | Troubleshooting Practicum<br>Capstone                        | Lab Final                                                                   |              |
| 16. 12/09 | Final Exam<br>10:30 – 12:30                                  |                                                                             |              |

\*Schedule is tentative and may be changed by the instructor at any time.