Fundamentals of Agricultural Technology - AGET 4110/4210
SPRING 2024 - SYLLABUS

Instructor: Don McGuffin
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Office Hours: Monday and Wednesday 9:00 am to 11:00 am or by appointment
Office: Agricultural Engineering Technology Building, enter on west side
Department: Agriculture
Class meeting time and place: M W 11:00 – 11:50 – Ag Mechanics Bldg. Room 110
Lab meeting times and place: W 3:00-4:50 - Ag Mechanics Bldg.

As the instructor, I will make myself available regularly. I will reply to emails in a timely manner. However, I do not check my email at night or on weekends so if you email me at these times do not expect a response until the next business day.

Course Description
AGET 4110/4210 is an advanced course designed to acquaint students with a wide range of basic concepts, principles, procedures, and techniques for agricultural machine selection, operation, performance evaluation and management of machinery used in agriculture. Emphasis in lab will be in developing hands-on knowledge in engine operating principles, and application of these in real world situations.

Program Learning Outcomes
1. The student will demonstrate competence of technical subject matter (technical)
3. The student will exhibit problem solving skills. (Problem Solving)
4. The student will demonstrate effective communication skills. (Communication)
5. The student will exhibit leadership and other interpersonal skills needed for career placement and advancement. (Leadership)

Student Learning Outcomes
Learn the safety procedures associated with tractors and other agricultural machinery.
Learn proper and safe tool usage.
Develop basic understanding of 4-stroke and diesel engines.
Develop understanding of tractor engines and components.
Develop understanding of various types of agricultural machinery

Text and Materials There is no text required for this course. All course materials will be disseminated through lecture and lab portions of this course. Brightspace D2L will be used for much of the delivery of materials for this course.
Course Calendar
Week 1 1/22 and 1/24  Introduction to Course, Expectations, Tractor/Ag History
Week 2 1/29 and 1/31  4-Stroke Engine Principles and Components
Week 3 2/5 and 2/7  Diesel Engine Principles, Fuel Systems
Week 4 2/12 and 2/14  Tractors – Lubrication Systems, Oils and Lubricants  EXAM 1
Week 5 2/19 and 2/21  Tractors - Cooling and Electrical Systems
Week 6 2/26 and 2/28  Tractors – Tires, Ballasting
Week 7 3/4 and 3/6  Tractors - Hitches and Hydraulics  EXAM 2
    3/11 through 3/14 - Spring Break
Week 8 3/18 and 3/20  Tractors – Transmissions, PTO
Week 9 3/25 and 3/27 – ATMS CDE (Will have lab 3/27)
Week 10 4/1 and 4/3  Hay and Silage Harvesting and Handling
Week 11 4/8 and 4/10  Tillage, Planting and Seeding Machinery  EXAM 3
Week 12 4/15 and 4/17  Combines and Grain Harvesting Machinery
Week 13 4/22 and 4/24  Determining Machinery Costs, Selecting and Managing Machinery
Week 14 4/29 and 5/1  Tractor Safety
    Wednesday 5/8 – 10:30 am to 12:30 pm  SEMESTER EXAM

Course Requirements
Quizzes and Exams  500 points
Lab  300 points
Semester Exam  100 points
TOTAL  900 points

Grading Policy
Each assignment, quiz, exam, and lab exercise will be assigned a point value. Grades are calculated on total points earned for the semester. Thus, at the end of the semester the points you earned will be divided by the total points available. This point total will give your grade according to the following:
A =  810 to 900 points
B =  720 to 809 points
C =  630 to 719 points
D =  540 to 629 points
F =  539 points and below

** All grades will be posted on the Brightspace D2L Grades page for AGET 4210 **
AGET 4110 LAB REQUIREMENTS
All students will be required to purchase their own personal pair of safety glasses to participate in shop activities. The safety glasses must meet the ANSI Z87.1 standard which specifies that the safety glasses can withstand an impact test. These glasses can be purchased locally at Wal-Mart, Lowe’s, Harbor Freight and other locations. Cost is generally between $2.00 and $10.00. This is considered a necessity for minimal eye protection.

It is also suggested to come to lab prepared to get dirty, so wear clothing that you don’t mind getting dirty.

SFA AG DEPARTMENT ATTENDANCE AND PUNCTUALITY POLICY (SFA Policy 6.7)
Attendance and punctuality are core skills to have as an engaged student and for a successful career.
Attendance will be taken for each class meeting.
When possible, excused absences can be approved before the actual absence.
Excuses can be provided as a hard copy or electronically. As per SFASU policy, documentation for excused absences is due within ten days of the absence.

For reference, below are examples of excused absences.
1. Approved university activities (require documentation from sponsor and advanced notice, see below)
2. Death or major illness of an immediate family member (requires documentation and notice as soon as possible)
3. Major illness of yourself (requires a doctor’s note).

If you miss class for any other reason and feel your absence should be excused, you must provide an email memo explaining why the absence should be excused and provide appropriate documentation. This memo must be provided within 10 days of the absence. All other absences will be considered unexcused.

**Excessive absences can lead to poor academic performance.**
**Academic Integrity (A-9.1)**

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at [http://www.sfasu.edu/policies/student-academic-dishonesty-4.1.pdf](http://www.sfasu.edu/policies/student-academic-dishonesty-4.1.pdf)

**Any act of Academic Dishonesty can result in immediate failure of the course!**

**Student Conduct**

Students are expected to assist in maintaining a classroom environment which is conducive to learning. In order to assure that all students have an opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from using cellular phones or beepers, eating in class, making offensive remarks, reading newspapers, sleeping, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in, minimally, a request to leave the classroom. The use of all tobacco and vape products (included but not limited to cigarettes, cigars, pipes, smokeless tobacco, e-cigarettes, vaporizers, vape pens, hookahs, blunts, pipes, snuff, and all other tobacco or vape related products) is prohibited on all property that is owned, leased, occupied, or controlled by SFASU.

**Acceptable Classroom Behavior**

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic, or other penalties. This prohibition applies to all instructional forums. The instructor shall have full discretion over what is appropriate/inappropriate in all instructional forums. Students who do not attend classes regularly or who perform poorly may be referred to the SSC Campus Early Alerts program [http://www.sfasu.edu/judicial/earlyalert.asp](http://www.sfasu.edu/judicial/earlyalert.asp) This program provides students with recommendations or other assistance that is available to help SFA students succeed.
**Responsible Use of Technology**

It is expected that all students will only use cell phones, PDAs, laptop or table computers, MPs players, and related devices outside of class time or when appropriate in class. Answering a cell phone, texting, listening to music, or using a laptop/tablet for matters unrelated to the course may be grounds for dismissal from class or other penalties.

**Withheld Grades Semester Grades Policy (A-54)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

**Mental Health Policy**

SFASU values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support student’s mental health and wellness. Many of these resources are free, and all of them are confidential.

**On-campus Resources**

SFASU Counseling Services  
www.sfasu.edu/counselingservices  
3rd Floor Rusk Building  
936-468-2401

**SFASU Human Services Counseling Clinic**

[www.sfasu.edu/humanservices/139.asp](http://www.sfasu.edu/humanservices/139.asp)  
Human Services Room 202  
936-468-1041

**Crisis Resources**

Burke 24-hour crisis line 1(800) 392-8343  
Suicide Prevention Lifeline 1(800) 273-TALK (8255)  
Crisis Text Line: Text HELLO to 741-741