

AGR 162: Introduction to Agricultural Mechanization and Engineering Course Syllabus – Fall 2007

Instructor: Douglas M. Kingman, Ph.D.

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Office Hours: TBA

Text: none, materials will be available on the web as necessary

Lecture/Lab: M & W 7:30 a.m. – 8:50 a.m. (Some classes will meet at the AMC)

Location: THOM 222

Scope: Introduction to Agricultural Mechanization and Engineering, AGR 162, is an introductory course that acquaints students with the general areas of the Agricultural Mechanization curriculum. The focus is on basic concepts and academic skills rather than on in-depth analyses of the subjects covered. Additional courses are available in the department for students who desire to increase their competence in specific areas.

Objectives: Students are expected to be capable of the following at the end of the semester:

1. Analyzing word problems that require algebraic solutions and manipulation of units.
2. Describing how agricultural power is generated, measured, and transferred.
3. Applying basic principles of agricultural crop production and operations management.
4. Analyzing simple electrical circuits.
5. Describing the potential of applications of nanotechnology in agriculture settings
6. Describing systems analysis techniques, and safety analysis
7. Understanding basic land surveying techniques.
8. Developing topographical and profile maps or graphs from surveyed data.
9. Understanding basic elements of wind energy production systems, bio-diesel, and other alternative energy sources.
10. Description of careers, leadership opportunities and use of GPS and GIS in agriculture.

Course Assignment Breakdown and Grade Ranges:

Assignment	Points	Percentage
Quizzes	120	16.67%
Homework	150	20.83%
Labs	50	6.94%
Exams I	100	13.89%
Exam II	100	13.89%
Exam III	100	13.89%
Final Exam	100	13.89%
Total	720	100%

Grade	Points	Ranges by Percentage
A	648 or more	90-100%
B	576 - 647	80-89%
C	504 - 575	70-79%
D	432 - 503	60-69%
F	Less than 432	Under 60%

Week 1	20-Aug	1st Day - Introduction
	22-Aug	Syllabus and 1st Assignment
Week 2	27-Aug	Solving Problems, Simple Machines
		Simple Machines
Week 3	3-Sep	No Class - Labor Day
	5-Sep	Irrigation
Week 4	10-Sep	Pipe Sizing
	12-Sep	Soil Erosion
Week 5	17-Sep	Drainage
	19-Sep	Review Exam I
Week 6	24-Sep	Exam I
	26-Sep	Machinery Management
Week 7	1-Oct	Machine Efficiency
	3-Oct	Welding/Cutting
Week 8	8-Oct	Welding/Cutting
	10-Oct	Nanotechnology
Week 9	15-Oct	Fabrication
	17-Oct	Review Exam II
Week 10	22-Oct	Exam II
	24-Oct	GPS
Week 11	29-Oct	GPS/GIS
	31-Oct	Small Engines
Week 12	5-Nov	Internal Combustion Engines
	7-Nov	Horsepower and Torque
Week 13	12-Nov	Ethanol, Biodiesel
	14-Nov	Review Exam III
Week 14	19-Nov	Exam III
	21-Nov	No Class - Thanksgiving
Week 15	26-Nov	Biodiesel
	28-Nov	Alternative Energy
Week 16	3-Dec	Group Project Presentations
	5-Dec	Group Project Presentations
Week 17	8-Dec	Finals Week - TBA

Study Tips: A comprehensive set of class notes are recommended. Review sheets will be distributed and a review session will be conducted before each major exam.

Academic Dishonesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Visitors in the Classroom: Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

Americans with Disabilities Act: It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request assistance with academically related problems stemming from individual disabilities by contacting the Director of the Counseling Center in the Lee Drain Annex or by calling 936.294.1720.

If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Counseling Center.

Classroom Rules of Conduct: Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular phones and pagers must be turned off before class begins. Students are prohibited from making offensive remarks, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engage in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Religious Holidays: University policy states that a student who is absent from class for the observance of a religious holy day shall be permitted to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing the holy day(s) and the travel involved. The instructor should provide the student with a written description of the deadline for the completion of missed exams and/or assignments.