AGET 150 Course Syllabus

Course Description: The principles of operation, adjustments, calibration, and safety of wheel and track-type tractors. Selection, operation, and theory of operation of equipment commonly used in California agriculture. 2.0 hours lecture, 3.0 hours laboratory

Instructor: Michael Spiess

Office Hours and Contact Information: Monday and Wednesday 0900-1100, 12:00-12:30, in Plumas 213,

E-mail: mspiess@csuchico.edu.
Web site: http://www.agedweb.org
Phone: 898-4554.

Class Meeting: Monday and Wednesday 0800-0850, Lab: Monday 1400-1650 at Shop II or as announced

Course Objectives: Students will:

- Have an understanding of safe agricultural tractor/equipment operations and managers responsibilities for employee safety training.
- Be able to operate tractors with common implements including backing, hitching, and field operations.
- Be able to perform pre-start inspections.
- Have knowledge of tractor mechanical, hydraulic and electrical systems.
- Have a basic understanding of the use of common tractor implements.
- Have a basic understanding of tractor selection criteria and operating costs.
- Have a basic understanding of machine maintenance programs.
- Be able to identify machinery commonly use in California.
- Have a basic understanding of the setup and adjustment of sprayers, planters, fertilizer applicators, and tillage equipment.

Dress: Labs will often be conducted at the Farm and will include tractor and machinery operations. Old clothes are recommended and closed toe shoes are required.

Safety: Safety is a primary concern while operating equipment. Students that are not operating in a safe manner will not be allowed to participate and a no lab points will be given. Chronic problems with safe operation will result in a grade of "F" and removal from the course. Many of the machines are loud and prolonged exposure may cause hearing damage. Class exposure is brief, but students may wish to use hearing protection for some lab exercises. Hearing protection devices are available from local tool suppliers.

Required Texts & Equipment:

- Hunt, D. Farm Power and Machinery Management, 10th Edition. Iowa State University Press.
- Agricutural Machine Systems Lab Manual and Course Reference (available at the bookstore). Students are required to bring the lab manual to lab.
- Scientific Calculator. Students are required to bring the calculator to class. NOTE: A cell phone is not a substitute for a calculator.

Web Site and Computer Use:
Computers are an integral part of agricultural mechanics industry and students are expected to use this technology as part of the course. Some materials for this course are found on the course web

site delivered by WebCT. **These materials are an integral part of the course and students will be expected to review it regularly.** Written assignments are expected to be typed. Generally, assignments will be provided in MS-Word format allowing the student to print and edit the document. Students not familiar with computers or use of the Web (or WebCT) are strongly encouraged to seek training (see instructor for further information). Computer portions of this course can be completed on a home computer with an internet connection or in a campus computer lab (see http://www.csuchico.edu/stcp/labs/). Information on other computer resources for students is available at: http://www.csuchico.edu/stcp/.

On the web site students will find:

- Weekly quizzes (beginning the first week of class). Quizzes cover assigned reading materials and must be completed before the first lecture of the week.
- Lecture Notes (PDF) provided as a study aid only.
- Lab Exercises (PDF), useful if a clean copy is needed.
- Grades (generally posted after the 4th week)
- Assignments
- A current course activity schedule
- Other resources and required reading.

Lab Manual: Students are required to keep a binder of lab materials and machinery handouts. This notebook will be a useful study guide for the course and a future reference. For full credit binders will include completed lab assignments, equipment handouts & other readings (from web site), and tailgate topic sheets, other assignments separated by tabs. Tabs will be labeled as follows: Lab Exercises, Handouts & Readings, Safety Planning, Tailgate Topics, and Equipment Specs & Assignments. (See grading sheet in the Lab Manual.) Note: Not all lab exercises will be completed

"Tailgate" Safety Talks: Each student is required to prepare and present a 3 minute safety talk in lab. This exercise is designed to simulate the role typical of a manager/supervisor training employees. Topics must be **directly related** to agricultural machinery. Student will post talk to WebCT. A template is available on the course web site. Tailgate talks should address the safety problem and provide some background, provide some talking points, and list some questions. Topics will be 1-2 pages in length and students are expected to handout to the rest of the students in the lab. Topics will be posted electronically to the course web site to receive credit.

Grading:

Grades will be determined by:

	Approximate Points
WebCT Quizzes	140
Written assignments and unannounced quizzes (0-4)	50 to 150
Tailgate Topic	50
Midterm	100
Notebook	50
1 final exam (comprehensive)	150
Lab Attendance	75
Lab exercises	420

Grades will be assigned using the following scale:

94% - 100%	A
90% - 92%	A-
87% - 89%	B+
83% - 86%	B
80% - 82%	B-
77% - 79%	C+
73% - 76%	C
70% - 72%	C-
67% - 69%	D+
60% - 66%	D
Below 60%	Failure

Course Management:

- Students are strongly advised not to miss labs since this time may be difficult or impossible to make up.

- **No written assignments will be accepted after the assigned due date** without prior permission of the instructor.
- **No makeup of quizzes, written assignments, labs, etc.** will be allowed unless by prior permission of the instructor.
- **WebCT quizzes cannot be taken after the due date.**
- Cleanup of the shop is part of the laboratory exercise. Students not participating in shop cleanup will have points deducted from their lab grades.
- Tests will be a combination of multiple choice, problems, and/or short answer. They may include identification of equipment and parts from lab.
- Student grades will be posted on WebCT and it is the responsibility of the student to check their grade for accuracy. If a student feels an error in grading has been made, the student has one week from the time of the assignment is returned to them (or the grade is posted on the web, whichever is later) to request a review of the grade. The request must be in writing – attached to the original assignment—and must include a specific statement as to what is in error, how it should be corrected, and what supporting evidence is available.
- It is the student's responsibility to meet all appropriate deadlines for adding, withdrawing, etc. These deadlines can be found on the University web site at: http://www.csuchico.edu/schedule/
- Use of tobacco products is not allowed during class/lab.
- Students are expected to turn off all pagers, cell phones and other electronic devices during class time.
- Students are expected to pay attention and participate in class meetings.
- All class participants are expected to exhibit respectful behavior to other students and the instructor.
- All students have the right and privilege to learn in the class, free from harassment and disruption.
- Inappropriate or disruptive behavior will not be tolerated, nor will lewd or foul language.
- The class follows the standards set in the ***Code of Students Rights and Responsibilities (EM 96-38***) and students are subject to disciplinary action for violation of that code.

University Policies

University policies will be enforced in the course (see Catalog).

Cheating and Plagiarism: Cheating and plagiarism are considered as the most serious offenses in the teaching-learning process, as it erodes the integrity of the student/faculty relationship. Students are reminded that the University Policy on Academic Honesty will be enforced in this class. The policy is available in the Catalog. *Students are reminded that turning in someone else's homework or project is considered cheating*. If there is evidence that you have been involved in any form of academic dishonesty, you will receive an "F" grade for the course, be locked from WebCT, and a report will be provided to Student Judicial Affairs for further action.

Students with Disabilities: Upon identifying themselves to the instructor and the university, students with disabilities will receive reasonable accommodation for learning and evaluation. (Contact Disability Support Services)

Academic Rigor

Academic rigor means the consistent expectation of excellence and the aspiration to significant achievement. It should pervade the entire atmosphere of the University--teaching and learning, curriculum, evaluation of student and faculty, outreach, admissions, advising, and student life.
Rigorous Learning

Rigorous students are part of the equation of rigorous teaching and learning. A rigorous education is vigorous, difficult, deeply satisfying work, and it requires a lifestyle conducive to achieving excellence. College is not a temporary diversion or a period of entertainment, but a fundamental piece of student character, citizenship, and employment future. A diploma and good grades from a demanding institution count for something. Rigorous students

- Set high personal standards, develop a strong sense of purpose, come to class well-prepared, and complete assignments on time.
- Develop an effective relationship with the instructor, in and outside of class, and make the most of University advising and other services.
- Treat fellow students and the classroom environment with complete respect. Give each class full attention and participation. Do not miss class, arrive late, or leave early.
- Accept continuing responsibility for learning and for grades earned.
- Approach each class in a professional manner, as if the class were real employment. Treat a full-course load as full-time work and spend no less time on it. Determine exactly what is expected.
- Experiment with all teaching and learning strategies used in classes, and also determine which work best for them.
- Demonstrate complete honesty and integrity.

Rigorous Teaching

Rigorous faculty are role models for the behaviors and accomplishments the University seeks to promote. They demonstrate a high level of professionalism and commitment to the University and to their discipline and inspire in students an excitement about learning. Guiding students toward excellence, they

- Communicate high expectations and demonstrate them through a demanding syllabus and well-prepared classes.
- Encourage student-faculty contact in and out of class and offer conscientious advising and consistent availability.
- Encourage collaboration and active learning, fully involving students in the learning experience.
- Provide students early, prompt, and frequent feedback and develop appropriate assessment strategies.
- Emphasize time on task, clearly communicate time required for learning, make it clear that full-time study is full-time work, and design learning experiences so that homework matters.
- Develop approaches and strategies geared to diverse talents and ways of learning, while maintaining high standards of accountability.
- Reduce opportunities to engage in academic dishonesty and challenge its occurrence.

Course Schedule*

The course schedule is subject to change. Changes will be announced in class and posted on the course web site. Assignments are found on WebCT and actual due dates listed there.

Week Of	Lecture Topic	Lab	Reading	Assignments
1/22/2007	Introduction, Planters	Unit Planter Calibration	Chapter 8	Experience Survey/Math Quiz
1/29/2007	Planters	Grain Drill Calibration		
2/5/2007	Fertilizer Applicators	Fertilizer Applicator Calibration	Chap 9	Start Tailgate Topics (lab)
2/12/2007	Nut (Almond) Harvesting Systems	Nut Harvesting	Gear Up and Throttle Down -- Saving Fuel.	
2/19/2007	Combines	Combine Setup & Adjustment	Chap 10	WWW Equipment III (Combine)
2/26/2007	Spray Systems	Sprayer Calibration	Chap 9	
3/5/2007	Tractor Introduction	Ballasting / Slippage	Chapter 15	
3/12/2007	Tractor Controls **MIDTERM (Wed.)**	Hydraulics	Nebraska Tractor Tests	Safety Test
3/19/2007	Spring Break			
3/26/2007	Safety Training Programs Prestart & Safety	Tractor Performance	Safety Resources, Radial Tractor Tires -- Performance That Counts	Sample Safety Plan
4/2/2007	Engine Systems	Safety, and Prestart Check	Chap 1-4.	WWW Equipment I (Tractors)
4/9/2007	Power Transmissions / Hydraulic Systems	Operation #1	Chap 16,17,18	
4/16/2007	Tillage	Operation #2	Chap 5, 6,7	
4/23/2007	Hay Equipment	Operation #3	Chap 11	WWW Equipment II (Hay Equipment)
4/30/2007	Intro to Precision Agriculture & Guidance Systems / VRT Technologies	Hay Equipment	Five Strategies for Extending Machinery Life	Tailgate Topics Posted (Monday)
5/7/2007	Cotton Harvest / Maintenance Programs, Equipment Management	Implement Power Requirements / Slippage/ Field Efficiency	Review Chap 1-4	**Lab books due (Monday)**
5/18/2006	Final Friday 8-9:50 a.m.			

* Lab schedule WILL change based on weather and availability of equipment.