



Oregon State University
Ecampus

Course Name: Farm Implements

Course Number: AG 391

Credits: 3 Credits

Course Description

The purpose of this course is to familiarize the student with farm power and machinery involving selection, operation, and maintenance. All aspects of plant cultivation will be covered from tillage of soil to harvesting crops. This course will not be an exhaustive examination of all types of agriculture equipment or methods of performing various operations involved with crop production. However, the overview provided is adequate for students to apply this knowledge toward future careers related to the operation or sales of farm implements, and gain an appreciation for the methods of producing our nation's food supply. This course combines approximately 90 hours of instruction and assignments for 3 credits.

Communication

Please post all course-related questions in the General Discussion Forum so that the whole class may benefit from our conversation. Please email your instructor for matters of a personal nature. The instructor will reply to course-related questions and email within 24-48 hours. I will strive to return your assignments and grades for course activities to you within five days of the due date.

Course Credits

This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.

Minimum Technical Skills

You **do not** need to be a computer scientist to be successful in this course; however, it is helpful to have some familiarity with navigating the internet, using email, creating videos, and creating documents. (Supported file formats are .doc, .ppt, .xls, .pdf, .jpg, .mov). If you have questions for clarification please feel free to forward them to me.

Technical Assistance

This course will be delivered via Canvas where you will interact with your classmates and with your instructor. Within the course Canvas site you will access the learning materials, such as the syllabus, class discussions, assignments, projects, and quizzes. To preview how an online course works, visit the [Ecampus Course Demo](#). For technical assistance, please visit [Ecampus Technical Help](#).

If you experience any errors or problems while in your online course, contact 24-7 Canvas Support via chat, phone, or e-mail through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email osuhelptdesk@oregonstate.edu or visit the [OSU Computer Helptdesk](#) online.

Learning Resources

**My intention is to post necessary readings for the course, on Canvas, within each module. These are all good texts, which I would recommend, although there are some others I will use for this course as well.

Recommended Text:

Machinery Management (6th ed.)
Publisher: Deere
ISBN: 0-86691-350-5

Optional Text:

Preventative Maintenance (7th ed.)
Publisher: Deere
ISBN: 978-0-86691-338-6

Recommended Text:

Tractors: FMO (4th rev.)
Publisher: Deere
ISBN: 0-86691-351-3

Texts may be available at the OSU Bookstore, but you can certainly find them online as well.

Note to prospective students: Please check with the OSU Bookstore for up-to-date information for the term you enroll ([OSU Bookstore Website](#) or 800-595-0357). If you purchase course materials from other sources, be very careful to obtain the correct ISBN.

Measurable Student Learning Outcomes

Upon completion of AG 391, the student will

1. Discuss the history of the development of agricultural implements.
2. Describe the various classifications of farm implements based on their intended use.
3. Understand uses and functions of specific implements.
4. Identify major parts associated with specific implements.
5. Develop criteria for purchasing implements and power sources.
6. Describe proper techniques for operation of implements including settings, calibrations, and related adjustments.
7. Explain safe operational procedures of specific implements.
8. Develop a maintenance schedule for selected power sources and implements.
9. Describe the uses and maintenance of bearings, belts, chains, and seals.
10. Analyze cost effectiveness of implements in a farming scenario.

Grading

1. The plus/minus grading system of OSU will be used.
2. All assignments are due to the instructor ***on or before*** the date posted on the schedule.
 - a. Ten percent (10%) of the maximum points for the assignment will be subtracted from the grade for each day the assignment is late.
 - b. Assignments will not be accepted more than one week after the due date. ***Please contact me well in advance if you foresee a problem making the due date for an assignment.***
3. Each assignment, project, exam, etc., will be given a point value according to the table in "Evaluation of Student Performance". See that section for particular details on assignments.
4. All Assignments are due at 11:59pm PST of the Date Due in the Course Outline, unless otherwise noted.

Grading Scale

The following grading scale shown in percentages will be utilized to award letter grades:

93.0 & above = A	83-86.9 = B	73-76.9 = C	63-66.9 = D
90-92.9 = A-	80-82.9 = B-	70-72.9 = C-	60-62.9 = D-
87-89.9 = B+	77-79.9 = C+	67-69.9 = D+	59.9 & less = F

Evaluation of Student Performance

Course Assignments	Points	Notes	Week/s Due
Discussion Points	30		
	5	Bio/Video	1
	5	Engine Problems	1
	5	PTO	2
	5	Hometown Tillage	3
	5	SMV	7
	5	Class Review	12
Worksheets	30		
	10	PTO	2
	10	Tillage	3
	10	Harvesting	6
Reading Questions	25		
	10	Hydraulic	2
	15	Machinery	5
Projects	35		
	5	Planting Assignment	4
	5	Implement Advertisement	5
	5	Small Farmer Business Model	8
	5	Profitable Small Farms	8
	5	Phone Interview	8
	10	Precision Ag Forum	9
Final Project	30	Dreamland	
	10	Inventory	10
	10	Maintenance	10
	10	Narrative	12
Total Points	150		

Late Work Policy

1. Ten percent (10%) of the maximum points for the assignment will be subtracted from the grade for each day the assignment is late.
2. Assignments will not be accepted more than one week after the due date. ***Please contact me well in advance if you foresee a problem making the due date for an assignment.***

Course Outline*

All Assignments are due by 11:59pm PST on the "Due Date" to be considered on time

Week/ Module	Topics	Content	Assignments
1	Introductions and Engine Problems	Tractor Reading Ch. 1-3 Machinery Management Reading Assignment	Discussion Point – Bio/Video Discussion Point – Engine Problems
2	PTOs and Hydraulics	PTO Background Reading Hydraulic Background Reading Hydraulic Maintenance and Safety	Discussion Point – PTO PTO Worksheet Hydraulic Reading Questions
3	Tillage Systems	Tillage Systems Tillage Toolbars Primary/Secondary Tillage	Discussion Point – Hometown Tillage Tillage Worksheet
4	Planting Equipment	Planting Reading Planting PowerPoint Planting Equipment Video	Planting Assignment
5	Machine Sizing	Reading Assignment Machine Sizing Reading	Implement Advertisement Machinery Questions
6	Harvesting Systems	Reading Assignment Cotton Harvesting	Harvesting Worksheet
7	General Equipment Maintenance	Maintenance PowerPoint Preventative Maintenance Machinery Maintenance Machinery Management	Discussion Point – SMV
8	Small Farms	Small Farms Reading PowerPoint	Small Farmer Business Model Profitable Small Farms Phone Interview
9	Precision Agriculture	Precision Agriculture Project	Precision Agriculture Forum
10	Dreamland Project		Dreamland Farms Inventory Project Dreamland Maintenance Schedule
Dead Week	Dreamland Project		Dreamland Final Project - Narrative
Finals	Wrap Up	None	Discussion Point – Class Review

**Subject to Change*

Course Policies

Incompletes

Incomplete (I) grades will be granted only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in 80% of the points possible (in other words, usually everything but the final assignment). If you are having any difficulty that might prevent you completing the coursework, please don't wait until the end of the term; let me know right away.

Guidelines for a Productive and Effective Online Classroom

Students are expected to conduct themselves in the course (e.g., on discussion boards, email) in compliance with the university's regulations regarding civility.

Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please bring any communications you believe to be in violation of this class policy to the attention of your instructor.

Active interaction with peers and your instructor is essential to success in this online course, paying particular attention to the following:

- Unless indicated otherwise, please complete the readings and view other instructional materials for each week before participating in the discussion board.
- Read your posts carefully before submitting them.
- Be respectful of others and their opinions, valuing diversity in backgrounds, abilities, and experiences.
- Challenging the ideas held by others is an integral aspect of critical thinking and the academic process. Please word your responses carefully, and recognize that others are expected to challenge your ideas. A positive atmosphere of healthy debate is encouraged.

Statement Regarding Students with Disabilities

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Accessibility of Course Materials

All materials used in this course are accessible.

If you require accommodations please contact [Disability Access Services \(DAS\)](#).

Additionally, Canvas, the learning management system through which this course is offered, provides a [vendor statement](#) certifying how the platform is accessible to students with disabilities.

Expectations for Student Conduct

Student conduct is governed by the university's policies, as explained in the [Office of Student Conduct and Community Standards](#).

Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the [university's regulations regarding civility](#).

Academic Integrity

Students are expected to comply with all regulations pertaining to academic honesty. For further information, visit [Student Conduct and Community Standards](#), or contact the office of Student Conduct and Mediation at 541-737-3656.

OAR 576-015-0020 (2) Academic or Scholarly Dishonesty:

- a) Academic or Scholarly Dishonesty is defined as an act of deception in which a Student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the Student's own efforts or the efforts of another.
- b) It includes:
 - i) CHEATING - use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a Student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.
 - ii) FABRICATION - falsification or invention of any information including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.
 - iii) ASSISTING - helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone's grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person (ORS 165.114).
 - iv) TAMPERING - altering or interfering with evaluation instruments or documents.
 - v) PLAGIARISM - representing the words or ideas of another person or presenting someone else's words, ideas, artistry or data as one's own, or using one's own previously submitted work. Plagiarism includes but is not limited to copying another person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project and then submitting it as one's own.
- c) Academic Dishonesty cases are handled initially by the academic units, following the process outlined in the University's Academic Dishonesty Report Form, and will also be referred to SCCS for action under these rules.

Tutoring

[NetTutor](#) is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Students connect to live tutors from any computer that has Internet access. NetTutor provides a virtual whiteboard that allows tutors and students to work on problems in a real time environment. They also have an online writing lab where tutors critique and return essays within 24 to 48 hours. Access NetTutor from within your Canvas class by clicking on the Tools button in your course menu.

OSU Student Evaluation of Teaching

Course evaluation results are extremely important and are used to help me improve this course and the learning experience of future students. Results from the 19 multiple choice questions are tabulated anonymously and go directly to instructors and department heads. Student comments on the open-ended questions are compiled and confidentially forwarded to each instructor, per OSU procedures. The online Student Evaluation of Teaching form will be available toward the end of each term, and you will be sent instructions via ONID by the Office of Academic Programs, Assessment, and Accreditation. You will log in

to "Student Online Services" to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted.