

AGRICULTURAL SYSTEMS MANAGEMENT (ASM)
ASM125: **Fabrication and Construction Technology**

Class Information:

Credit – 3

Fall 2021

Class Room: ABEN 201

Time: Lecture: 9-9:50 am MW

Lab Section 1: 2:00-4:50 pm Mon. Section 2: 1-3:50 pm Wed.

Instructor:

Matt Olhoft

ABEN 204

Phone: 701-231-7269

E-mail: matthew.olhoft@ndsu.edu

Office Hours: By appointment or drop in. Usually available Tuesdays and Thursdays 8-5.

Course Description: Overview of Agricultural techniques of fabrication and construction related to engines, machinery, structures, electricity, processing, and conservation applications.

TEXTS: "The Visual Handbook of Building and Remodeling" by Charles Wing. Third Edition. The Taunton Press, 63 South Main Street, PO Box 5506, Newtown, CT 06470-5506.
"Farm and Workshop Welding" by Andrew Pearce. First Edition. Fox Chapel Publishing, FoxChapelPublishing.com

COURSE OBJECTIVES:

1. To develop and introduce new ideas in the many study areas in Agricultural Systems Management.
2. To develop and introduce new terminology in the many study areas in Agricultural Systems Management.
3. To solve basic, applied, and practical problems in Agricultural Systems Management.
4. To provide a tactile opportunity to practice skills in an agricultural shop system.

REQUIRED RESOURCES: Text book, non-spiral letter size paper for homework, pencil, eraser, basic calculator.
(For Lab) Personal protection equipment consisting of long pants, closed toed shoes, and safety glasses. Safety glasses will be worn at all times in the shop/lab. No exceptions!

BLACKBOARD: Blackboard will be used for announcements, class presentations, assignments, and temporary grades presentation

GRADING

<u>Items</u>		Total Points
Tests	(Four tests, 100 pts each)	400
Lab work	(10 Lab projects, 10 points each)	100
Unannounced quizzes	(2 quizzes, once in every 8 weeks, 15 pts each)	30
		Total pts: 530

All the home works and quizzes must be submitted in time. The due date for homework will be announced when the home work is given. No late submissions are accepted.

(There may be extra credits for students in addition to the formal grading. So the total grade points can be more than 530).

Grading will be on the straight system: A=100-90%, B=89-80%, C=79-70%, D=69-60%, F=59%

The students are encouraged to work lab problems sets together. Working together can be a good learning experience. But the solution and submission of home work and lab problem sets should be individual. There will be two unannounced quizzes, once in each eight weeks, either at the beginning or end of the class.

MISSING EXAMS

The exam dates are set at the beginning of the semester. All other extracurricular activities should not be scheduled on these dates. If for some **emergency reasons**, someone misses an exam, the instructor **must** be notified **BEFORE** the exam is given. Notification by e-mail or other written formats are acceptable. Missing an exam without notifying the instructor **BEFORE** the exam date will result in a **"0"** for that exam - **no exceptions!**

MISSING HOMEWORK ASSIGNMENTS

Homework is an important learning tool and assessment for you. It helps to understand the concepts discussed in class and it helps to develop good problem solving skills, which will be important in later courses and in professional life. You are expected to complete all homework assignments and hand them in for grading on time. Homework will be collected at the beginning of class. **No late submissions of Homework are accepted.**

MISSING QUIZZES

Quizzes **cannot** be made up. For legitimate emergency, contact me before the class and allowance can be made. If you miss a quiz, your score for the quiz is **"0"**. Quizzes will be unannounced and will be given for one or more of the following reasons:

1. To see if the class understands some of the concepts.
2. To encourage response to questions in the form of quiz.
3. To encourage class attendance.

If you are unable to attend the class, let the instructor know ahead of time by e-mail or other written formats. In this case, the instructor will not have unannounced quiz.

MISSING CLASSES

You are expected to attend all class periods but there is no roll-call. If a class is missed, contact the instructor or class mates for notes. The PowerPoint presentations will be posted in the blackboard.

IMPORTANT NOTIFICATION

Academic Honesty: All students taking any course in the College of Agriculture, Food Systems, and Natural Resources are under the Honor System (<http://www.ag.ndsu.edu/academics/honor-system-1>). The Honor System is a system that is governed by the students and operates on the premise that most students are honest and work best when their honesty, and the honesty of others, is not in question. It functions to prevent cheating as well as penalize those who are dishonest. It is the responsibility of the students to report any violations of the honor pledge to the instructor, honor commission or the Dean of the College of Agriculture, Food Systems, and Natural Resources.

The academic community is operated on the basis of honesty, integrity, and fair play. [NDSU Policy 335: Code of Academic Responsibility and Conduct](#) applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the [Office of Registration and Records](#). Informational resources about academic honesty for students and instructional staff members can be found at www.ndsu.edu/academichonesty.

Students with special requirements: Any students with disabilities or other special needs, who need special accommodations in this course are invited to share these concerns or requests with the instructor as soon as possible. The instructor may ask for verification and that, plus other assistance, can be requested from Disability Services in Wallman Wellness Center 170 (231-8463). <http://www.ndsu.edu/disabilityservices/>.

Veterans and military personnel: Veterans or military personnel with special circumstances or who are activated are encouraged to notify the instructor as early as possible.

Syllabus Statements on Masking

Currently (or at the time of writing this syllabus or as of August 9, 2021), NDSU is strongly recommending that all people wear masks in indoor spaces when social distancing cannot be maintained. Further, faculty may require masks to be worn in their classes at their discretion. In case of any changes, you will be notified and this syllabus will be updated. Consistent with NDSU's recommendations, **in this class all participants, including those who are fully vaccinated, are required to wear a face covering.** If you fail to properly wear a face covering, you will not be admitted to the classroom. Given the changing conditions associated with the pandemic, this class' faculty member has reserved the right to modify the mask status of the class during the semester. The following will be used as needed: referral to Dean of Students Office or administrative removal from class.

- Students who cannot wear a face covering due to a medical condition or disability, or who are unable to remove a mask without assistance may seek an accommodation through the Disability Services (701-231-8463; <http://www.ndsu.edu/disabilityservices/>).
- In accordance with NDSU Policy 601, failure to comply with instructions, including the mask requirement, may be handled according to the Code of Student Conduct resolution process and may result in disciplinary sanctions.

See https://www.ndsu.edu/police_safety/covid_19_preparedness_and_response/ for current guidelines. For additional language that can be used to compose your syllabus statement see: https://www.ndsu.edu/fileadmin/provost/Forms/Faculty/Syllabus_Checklist_for_COVID.pdf

Important Dates

Fall 2021

Variable Length Session Drop/Add Deadlines

Date	Day	Description
Aug 23	Mon	Classes begin at 4:00 p.m.
Aug 24	Tue	First full day of classes
Aug 31	Tue	Last day for Campus Connection Wait Lists to run
Sep 1	Wed	Last day to Add classes via Campus Connection* Permit needed after this date.
Sep 1	Wed	Last day for no-record Drop of classes @ 100% refund* <i>(full semester classes only)</i>
Sep 1	Wed	Last day to Withdraw to Zero Credits @ 100% refund* <i>(full semester classes only)</i>
Sep 1	Wed	Attempted credits calculated for financial aid SAP (11:59 p.m.)**
Sep 1	Wed	Eligible Pell/TEACH/ND Grants/Scholarships based on enrollment at 11:59 p.m.
Sep 6	Mon	HOLIDAY — Labor Day <i>(no classes, offices closed)</i>
Sep 7	Tue	Financial aid applied to NDSU account balances
Sep 8	Wed	Payments due for NDSU account balances
Sep 13	Mon	Last day to submit requests to Audit, Pass/Fail
Sep 20	Mon	Last Day to Add Full Semester Classes. Permit & Appeal needed after this date.
Oct 1	Fri	Last day to Withdraw to Zero Credits @ 75% refund* <i>(full semester classes only)</i> .
Oct First	Week	Spring/Summer registration schedule available
Oct Second	Week	Spring/Summer registration appointment times available
Oct 15	Fri	Late fees applied to unpaid account balances (11:59 p.m.)
Oct 15	Fri	Undergraduate/Professional Fall Graduation Applications due
Oct 15	Fri	Graduate student Intent to Graduate survey
Oct 15	Fri	Grades of 'Incomplete' convert to 'F'
Oct 18	Mon	2nd half (8-week session) of Fall semester begins
Oct 28	Thu	Spring/Summer registration begins online based on total credits completed

Oct 31	Sun	Last day to Withdraw to Zero Credits @ 50% refund* <i>(full semester classes only)</i> . No refunds issued for withdraw to zero credits after this date.
Nov 11	Thu	HOLIDAY — Veterans Day <i>(no classes, offices closed)</i>
Nov 12	Fri	Last day to Drop classes with 'W' record*
Nov 12	Fri	Last day to Withdraw to Zero Credits for Fall
Nov 15	Mon	Late fees applied to unpaid account balances (11:59 p.m.)
Nov 19	Fri	Graduate student Initial Disquisition submission for December graduation
Nov 19	Fri	Fall Commencement Participation deadline
Nov 22	Mon	Open registration for spring
Nov 24-26	Wed-Fri	HOLIDAY — Thanksgiving <i>(no classes; offices closed Thursday, offices open Wednesday& Friday)</i>
Dec 6-10	Mon-Fri	Dead Week
Dec 7	Tue	Grade entry begins
Dec 10	Fri	Last day of Fall classes
Dec 13-17	Mon-Fri	Final Examinations
Dec 15	Wed	Late fees applied to unpaid account balances (11:59 p.m.)
Dec 17	Fri	Graduate student Final Disquisition copy due for December graduation
Dec 17	Fri	Application for Graduate Degree forms for students not submitting a master's paper, thesis or dissertation.
Dec 17	Fri	Commencement ceremony (2:00 p.m. in Sanford Health Athletic Complex)
Dec 21	Tue	Grades due (12:00 p.m.)
Dec 21	Tue	Fall grade access begins online (late evening)
Dec 24	Fri	HOLIDAY — Christmas Day Observed <i>(offices closed)</i>

GENERAL CLASS SCHEDULE (subject to change)

Period	Date	Topic	Unit
1	Aug. 25	Introduction	
2	30	Planning	1&2
3	Sept. 1	Planning	1&2
4	8	Construction of Small Buildings	3&4

5	13	Construction of Small Buildings	3&4
6	15	Lumber	5&7
7	20	Lumber	5&7
8	22	Lumber	5&7
9	27	Exam 1	
10	29	Framing	6
11	Oct. 4	Siding, Walls, Roofing	8,9,10,13
12	6	Siding, Walls, Roofing	8,9,10,13
13	11	Siding, Walls, Roofing	8.9.10,13
14	13	Plumbing	11
15	18	Exam 2	
16	20	Electrical	12
17	25	Hand Tools	pp
18	27	Power Tools	pp
19	Nov. 1	Fasteners and Hardware	21
20	3	Metal Fabrication	Intro
21	8	Exam 3	
22	10	Metal Fabrication	Intro
23	15	Arc Welding	1
24	17	Arc Welding	1
25	22	MIG Welding	2
26	24	Oxy Fuel Welding	3&5
27	19	Oxy Fuel Welding	3&5
28	Dec. 1	TIG Welding	4&8
29	6	Tap, Dies, and Soldering	7&9
30	8	Blacksmithing and Tempering	10
31	?	Plastic Welding	
32	?	Final review	

ASM 125 Labs

Period	Topics
1	Introduction
2	Bill of materials
3	Drawing of garage framing
4	Gears, chains, and belts
5	Stair and rafter layout, Connector construction
6	Tool fitting
7	Hot metal, welding, lathe
8	Hot metal, welding, lathe
9	Plumbing
10	Electric wiring
11	Wood wall construction
12	Electrical motors and test equipment
13	3D Printing
14	Review or makeup

These are tentative dates for tests and material covered, the actual dates and material may vary. **That is why attendance is important.** Any change in schedule will be notified ahead of time.

THE DATE FOR FINAL EXAM IS Wednesday Dec. 15, 2020 at 10:30 am.