

SYLLABUS
Natural Resource Management Systems Laboratory
ASM 264L, 1 credit, Spring 2020

Instructor: Dr. Xinhua Jia

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Department: Agricultural & Biosystems Engineering (ABEN)

Class time: T 2:00 – 4:50 pm in **ABEN 208 and/or ABEN 210B**

Office hours: F 11:00 – 12:00 pm, or by appointment

Course Description: Laboratory to complement concepts introduced in ASM 264. Topics include land survey, maps, rainfall and runoff, erosion control, drainage and irrigation, and costs and returns.

Pre or Co-requisite: ASM 264.

Course Objectives

- To understand and gain hands-on experience on natural resource management
- To apply soil and water conservation practices for better environment protection
- To improve student's oral and written communication skills

Student Outcomes

- Graduates will be able to analyze and plan the function, application, production, and management of equipment, facilities, systems, and/or processes related to agriculture.
- Graduates will be able to solve problems by integrating ASM disciplinary knowledge and using appropriate technologies and methods.
- Graduates will be able to express themselves with professional oral and written communication, value their professionalism, work effectively in teams, and recognize the need for and importance of lifelong learning.

Evaluation Procedures and Criterion

There will be 15 lab reports, each counts for 10 points, so the total is 150 points.

Grade	Points
A	135 - 150
B	120 - 134
C	105 – 119
D	90 – 104
F	< 90

Grading Policies

- 1, Lab attendances are required for all labs. Make up labs are not allowed. However, you are allowed to miss one lab without penalty.
- 2, Lab reports are due at the assigned time on the assigned date. Late lab reports will receive 0 point unless it is due to a medical or family emergency. You are required to notify the instructor

in advance. Documented proof from an authorized person is required. Lab grade will receive a 20% reduction each day being late.

Other Policies

1, If you are falling behind in the course or have any questions about the course, please see the instructor or email the instructor about your concern as soon as possible.

2, When you contact the instructor through emailing, please use your official NDSU email and put “ASM 264L” in the subject line of the email. This will ensure that your email be responded to as a priority and your message doesn’t fall into the Junk E-Mail folder. I will respond to your email within 24 hours on weekdays and when I am NOT out of town.

Textbook: Instructor notes.

Blackboard: Additional reading materials, lecture outlines, lab assignments, and your grades will be posted on Blackboard. You are responsible for checking the course Blackboard regularly and downloading/printing the materials on time.

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 better 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 Lower Level of Main Library, Suite 17 (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.

Important Dates

Jan	20	Mon	HOLIDAY — Martin Luther King, Jr. Day (no classes, offices closed)
Jan	23	Thu	Last day to Add classes via Campus Connection* Permit needed after this date.
Jan	23	Thu	Last day for no-record Drop of classes @ 100% refund* (full semester classes only)
Jan	23	Thu	Last day to Withdraw to Zero Credits @ 100% refund* (full semester classes only)
Jan	23	Thu	Attempted credits calculated for financial aid SAP (11:59 p.m.)**
Jan	28	Tue	Financial aid applied to NDSU account balances
Feb	3	Mon	Last day to submit requests to Audit, Pass/Fail
Feb	7	Fri	Undergraduate/Professional Spring and Summer Degree Applications due
Feb	7	Fri	Graduate student Spring Graduate Degree Applications due
Feb	17	Mon	HOLIDAY — Presidents' Day (no classes, offices closed)
Feb	24	Mon	Last day to Withdraw to Zero Credits @ 75% refund* full semester classes only)
Mar	6	Fri	Grades of 'Incomplete' convert to 'F'
Mar	16-20	Mon-Fri	Spring Break Week (no classes, offices open)
Mar	26	Thu	Last day to Withdraw to Zero Credits @ 50% refund* (full semester classes only)
Mar	30	Mon	Summer/Fall registration begins online based on total credits completed
Apr	9	Thu	Last day to Drop classes with 'W' record
Apr	9	Thu	Last day to Withdraw to Zero Credits for Spring
Apr	10	Fri	HOLIDAY -- offices closed Friday
Apr	13	Mon	HOLIDAY -- Spring Recess (no classes, offices open Monday)
Apr	17	Fri	Graduate student Initial Disquisition submission for May graduation
Apr	20	Mon	Open registration for summer/fall
Apr	24	Fri	Spring Commencement Participation deadline
May	4-8	Mon-Fri	Dead Week
May	11-15	Mon-Fri	Final Examinations
May	16	Sat	Commencement ceremonies (10:00 & 2:00 in Fargodome)

TENTATIVE LABORATORY SCHEDULE
Natural Resource Management Systems

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Date	Lab	Topics	Location
1/14		No class	
1/21	1	Introduction and Web Soil Survey	ABEN 208 and 210B
1/28	2	Lidar mapping	ABEN 210B
2/4	3	Distance and area measurement	ABEN 208
2/11	4	Water and chemical movement in soil	ABEN 208
2/18	5	Contour mapping	ABEN 208
2/25	6	Soil erosion calculation (WEPPs)	ABEN 210B
3/3	7	Rainfall and runoff	ABEN 208 and Hultz Hall 235
3/10	8	Waterway design	ABEN 210B
3/24	9	Wind erosion	ABEN 208
3/31	10	Surface drainage design	ABEN 208 and 210B
4/7	11	Subsurface drainage design	ABEN 208 and 210B
4/14	12	Irrigation scheduling	ABEN 208
4/21	13	Land Survey – Differential and Profile	ABEN 208
4/28	14	Survey with advanced instrument	ABEN 208
5/5	15	Field trip	ABEN 208