SYLLABUS
Natural Resource Management Systems Laboratory
ASM 264L, 1 credit, Spring 2024

Instructor: Dr. Xinhua Jia **Phone:** 701-231-6453
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Department: Agricultural & Biosystems Engineering (ABEN**)**
Class time: Th 2:00 – 4:50 pm in **Ladd Hall 209 or 201**

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 count 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

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.

Attendance Policy and Covid-19 Accommodation

In accordance with NDSU Policy 333 (http://www.ndsu.edu/fileadmin/policy/333.pdf), class participation is expected at all regularly scheduled class and lab times as they are critical to every student's success in

this course. Students are expected to attend every class and remain in class for the duration of the session when it is safe to do so.

If you are unable to attend class at the regularly scheduled time due to illness, contact the instructor for alternate arrangements, including accommodations and extensions as needed. **Do not come to class if you are sick.**

Academic Honesty
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 who need accommodations in this course are invited to share these concerns or requests with the instructor and contact the Center for Accessibility and Disability Resources as soon as possible.

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 and are encouraged to provide Activation Orders.

Family Educational Rights and Privacy Act (FERPA)
Your personally identifiable information and educational records as they relate to this course are subject to FERPA.

Important Dates (Full NDSU dates/deadlines can be found here)
Jan 1, Mon, HOLIDAY — New Year's Day (offices closed)
Jan 8, Mon, Classes begin at 4:00 p.m.
Jan 9, Tue, First full day of classes
Jan 15, Mon, HOLIDAY — Martin Luther King, Jr. Day (no classes, offices closed)
Jan 16, Tue, Last day to be added to Campus Connection Wait Lists
Jan 18, Thu, Last day to Add classes via Campus Connection* Permit needed after this date.
Jan 18, Thu, Last day for no-record Drop of classes @ 100% refund*(full semester classes only)
Jan 18, Thu, Last day to Withdraw to Zero Credits @ 100% refund*(full semester classes only)
Jan 24, Wed, Payments due for NDSU account balances
Jan 29, Mon, Last day to submit requests to Audit, Pass/Fail
Feb 19, Mon, HOLIDAY — Presidents' Day (no classes, offices closed)
Feb 19, Mon, Last day to Withdraw to Zero Credits @ 75% refund*full semester classes only)
Mar 4-8, Mon-Fri, Spring Break Week (no classes, offices open)
Mar 15, Fri, Late fee applied to unpaid account balances (11:59 p.m.)
Mar 21, Thu, Last day to Withdraw to Zero Credits @ 50% refund*(full semester classes only)
No refunds issued for withdraw to zero credits after this date.
Mar 29-Apr 1, Fri-Mon, HOLIDAY -- Spring Recess (no classes, offices closed Friday, offices open Monday)

Apr 5, Fri, Last day to Drop classes with 'W' record*
Apr 5, Fri, Last day to Withdraw to Zero Credits for Spring
Apr 15, Mon, Late fees applied to unpaid account balances (11:59 p.m.)
Apr 29-May 3, Mon-Fri, Dead Week
May 6-10, Mon-Fri, Final Examinations
May 11, Sat, Commencement ceremony

TENTATIVE LABORATORY SCHEDULE
Natural Resource Management Systems

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Date	Lab	Topics	Location
1/11	1	Web Soil Survey	LADD 201
1/18	2	Introduction	LADD 209
1/25	3	Distance and area measurement	LADD 209
2/1	4	Contour mapping	LADD 209
2/8	5	Soil erosion calculation (WEPPs)	LADD 209
2/15	6	Lidar mapping	LADD 201
2/22	7	Wind erosion (video)	LADD 209
2/29	8	Water balance/Infiltration	LADD 209/202
3/14	9	Waterway design	LADD 209
3/21	10	Subface drainage design	LADD 209
3/28	11	Subsurface drainage design	LADD 201
4/4	12	Water and chemical movement in soil (video)	LADD 209
4/11	13	Field trip	LADD 209
4/18	14	Survey with advanced instrument	LADD 209
4/25	15	Land Survey – Differential and Profile	LADD 209
5/2	16	Irrigation scheduling	LADD 201

Yellow highlighted labs will be held in Ladd Hall 201, the computer lab.
Red colored labs will be taught by alternative instructors.