NRES 474: Integrated Resource Management (fall 2021)

Instructor: Dr. Michael Rader Office: TNR 378 Office hours: Wed 11am-noon & Fri 10-11am, or by appointment Phone: (715) 346-2876 Email: mrader@uwsp.edu

Course Time/Location:

Lecture- Monday 1:00 – 1:50 pm, TNR 352 Discussion 1- Tuesday 9:00 – 10:50 pm, TNR 254 Discussion 2- Tuesday 12:00 – 1:50 pm, TNR 254

Course Description:

Natural resource management is about making decisions and implementing actions (or not) to achieve resource objectives. This course will specifically explore how management occurs in areas with multiple types of natural resources, diverse and often competing objectives, varied stakeholders, often numerous administrative boundaries, in the face of great uncertainty, i.e., where you will most likely find yourself working as a natural resource professional. Lectures will focus on how public agencies, private landowners and NGO's manage properties with diverse natural resources and differing goals and objectives. Discussion will concentrate on developing your natural resource problem-solving and critical thinking skills through discussion of natural resource case studies and in a group structured decision-making project.

Course Objectives:

1. You will learn and apply a structured approach to making management decisions for a variety of natural resource management problems.

2. You will develop and demonstrate oral and written communication, and critical thinking skills.

3. You will demonstrate the ability to collaborate and work effectively in a team.

4. You will be able to identify and describe the root causes and competing interests for a variety of natural resource problems and develop possible solutions.

Textbooks:

1. Gregory, R., L. Failing, M. Harstone, G. Long, T. McDaniels, and D. Ohlson. 2012. Structured decision making- a practical guide to environmental management choices. (required; text rental)

2. Knight, R.L., and C. White (eds.). 2009. Conservation for a new generation. Island Press, Washington, DC. (required; purchase or available as an ebook at: https://ebookcentral.proquest.com/lib/uwsp/detail.action?docID=3317583 Assigned readings are testable material.

Discussion: The goal of discussion is to reinforce topics covered in lecture and to give students practical application in integrated resource management. We will accomplish this through *analysis of case studies* and a *group natural resource management project*. Attendance and participation are mandatory.

Grading Scheme:

Your course grade will be based on the following components:

Midterm Exam:	100 points
Final Exam:	100 points
Discussion/Participation:	200 points

Exams can be a combination of multiple choice, fill-in-the-blank, short answer, matching, True/False, and discussion.

Grade	%
А	93-100
A-	90-92
B+	87-89
В	83-86
B-	80-82
C+	77-79
С	73-76
C-	70-72
D+	67-69
D	60-66
F	Below 60

Exams: There will be a midterm and a final exam. The final is cumulative. Exams must be taken on the scheduled dates or a score of zero will be assigned. See "Due Dates/Late Policy" for absence policy.

Case Studies: Each week during Discussion, we will analyze a case study (see Schedule). You must read each case study prior to class and be prepared to discuss the case in class. Each student is expected to contribute to the discussion each week. 50% of your course grade is dependent on your case study and structured decision-making project discussion participation. Contributions in class will scored according to the following scale: 4- well prepared, frequent contributor; 3- satisfactory, need to work on quality or quantity; 2- infrequent comments, unprepared; 0- no contribution, absent. Your course Discussion grade will be your total points earned divided by the total possible (e.g., 11 Discussions X 4 points = 44 points total).

Structured Decision-Making Project: During discussion, I will assign students to teams to work on a class natural resources management project that practically applies structured decision-making. Each week, you will complete a component of the structured decision-making process for the class project. I may utilize team peer evaluation to assess individual effort and weight Discussion grades. Group members will independently and confidentially assign each group member (including themselves) a percentage to indicate group member contribution.

Attendance: Attendance is mandatory and necessary to be successful in the course. I consider attendance to be a component of professionalism (See "Professionalism" below). Additionally, material will be covered in class that is pertinent to exams and class assignments that will not be directly stated in any provided slides, class outlines, class notes, etc. I have noticed in previous classes that success is consistent with regular attendance. *No more than two absences will be excused for Discussion since this component of the course depends on participation.*

Communication: Students are expected to routinely check their UWSP email and the Canvas course site for updates and materials.

Due Dates/Late Policy: All assignments are due on the specified due date at the beginning of class. *You are responsible for your own time management and keeping up with due dates.* Illness, family emergency, etc., may be cause for extending a due date if I am notified **prior** to the due date (email and voicemail have date and time stamps) and you can **document** (e.g., Dr.'s note) your absence.

Course Effort/Study: I believe being a full-time University student is akin to having a full-time job. A full-time job generally equates to at least 40 hours of work per week. You will only spend approximately a third of this time in class. You must spend the additional time on *your own* studying, reading, completing assignments, etc. To get the most out of this course and your University experience (i.e., grades, knowledge, skills, etc.), *you* must put in the time outside of class. A good rule of thumb is to plan on spending two hours of outside preparation for every hour you spend in class. Budget this time into your weekly/monthly planner.

Academic Integrity: Academic integrity is central to the mission of higher education in general and UWSP in particular. Academic dishonesty (cheating, plagiarism, etc.) is taken very seriously. Don't do it! The minimum penalty for a violation of academic integrity is a failure (zero) for the assignment. For more information, see the "Student Academic Standards and Disciplinary Procedures" section of the Community Rights and Responsibilities document, UWSP Chapter 14. This can be accessed by viewing page 11 of the document at: http://www.uwsp.edu/dos/Documents/CommunityRights.pdf

Professionalism: A professional is competent, reliable, respectful, and has integrity. It is a necessary attribute for most careers, particularly law enforcement. It is never too early to begin developing a professional mindset, e.g., being on time with the appropriate equipment, being competent and knowledgeable in your field, completing assignments correctly and on time, being respectful to others, etc. I may deduct up to 5% of your final course grade for lack of

professionalism, e.g., absences, profanity, disrespect, sleeping, disrupting class with unsolicited texting and talking, etc.

Disability Policy: Please discuss with me as soon as possible any concerns you may have regarding a disability so we can accommodate you as per UWSP policy.

Tentative Schedule

		Торіс	Reading
Week 1	Lecture	NO CLASS	
9/2-9/3	Discussion	NO CLASS	
Week 2 9/7-9/10	Lecture	NO CLASS (Labor Day)	
	Discussion	Introduction to the Course	Ch. 1, Gregory
Week 3 9/13-9/17	Lecture	Why Integrated Resource Management?	Introduction & Ch. 1, Knight
	Discussion	-Practice case -Form teams/select problem	-pp. 77-82, Knight -Ch. 3, Gregory
Week 4 9/20-9/24	Lecture	Natural Resource Agencies	Ch. 2, Knight
	Discussion	-Case 2 -Decision sketching	-pp. 83-88, Knight -Ch. 4, Gregory
Week 5 9/27-10/1	Lecture	Public Lands	Ch. 3, Knight
	Discussion	-Case 3 -Objectives	-pp. 89-95, Knight -Ch 5, Gregory
Week 6 10/4-10/8	Lecture	Parks & Protected Areas	Ch. 4, Knight
	Discussion	-Case 4 -Performance measures	-pp. 96-102, Knight -Ch. 6, Gregory
Week 7 10/11-10/15	Lecture	Conservation Planning	Ch. 5, Knight
	Discussion	-Case 5 -Uncertainty	-pp. 170-176, Knight -Ch. 7, Gregory
Week 8 10/18-10/22	Lecture	Midterm Exam	
	Discussion	-Case 6 -Creating alternatives	-pp. 177-184, Knight -Ch. 8, Gregory
Week 9 10/25-10/29	Lecture	Community Planning	Ch. 6, Knight
	Discussion	-Case 7 -Consequences	-pp. 185-190, Knight -Ch. 9, Gregory

Week 10	Lecture	Economic Incentives	Ch. 7, Knight
11/1-11/5	Discussion	-Case 8	-pp. 235-242, Knight
	Discussion	-Trade-Offs	-Ch. 10, Gregory
Week 11	Lecture		Ch. 8, Knight
	Lecture	Ecosystem Services	CII. 8, KIIIgIIL
11/8-11/12	Discussion	-Case 9	nn 242 248 Knight
	Discussion		-pp. 243-248, Knight
		-Learning	-Ch. 11, Gregory
Week 12	Lecture	The Rural-Urban Divide	Ch. 9, Knight
11/15-11/19			
	Discussion	-Case 10	-pp. 249-255, Knight
		-Implementation	-TBA
Week 13	Lecture	Land Health	Ch. 10, Knight
11/22-11/23			
	Discussion	-Case 11	-pp. 256-262, Knight
		-SDM application exercise 1	
Week 14	Lecture	Reciprocity	Ch. 11, Knight
11/29-12/3			
	Discussion	-Case 12	-pp. 263-271, Knight
		-SDM application exercise 2	-TBA
Week 15	Lecture	Course	Ch. 12 & Conclusion, Knight
12/6-12/10		Conclusion/Evaluations	_
	Discussion	Wrap-up/Review	
Week 16		FINAL EXAM	
12/13-12/17		Tue., 12/14 12:30 – 2:30 PM	

Emergency Procedures:

If you see/hear something, say something.

In the event of a medical emergency call 9-1-1 or use Red Emergency Phone. Offer assistance if trained and willing to do so. Guide emergency responders to victim.

In the event of a tornado warning, proceed to the lowest level interior room without window exposure. See <u>www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx</u> for floor plans showing severe weather shelters on campus. Avoid wide-span structures (gyms, pools or large classrooms).

In the event of a fire alarm, evacuate the building in a calm manner. Meet at location 200 yards from building. Notify instructor or emergency command personnel of any missing individuals.

Active Shooter/Code React – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Call 9-1-1 when it is safe to do so. Follow instructions of

emergency responders.

See UW-Stevens Point Emergency Procedures at <u>www.uwsp.edu/rmgt/Pages/em/procedures</u> for details on all emergency response at UW-Stevens Point. (Source: UWSP Risk Management Dept.)