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## **NRES 474: Integrated Resource Management (spring 2023)**

**Instructor:** Dr. Michael Rader

**Office:** TNR 378

**Office hours:** Tue 10-11 AM & Thu 10-11 AM, or by appointment

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### **Course Time/Location:**

Lecture- Monday 11:00 – 11:50 AM, TNR 320

Discussion- Wednesday 1:00 – 2:50 PM, TNR 320

### **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 readings and management problems. A major component of the course will involve student teams developing and presenting a management project for a selected natural resource problem to gain practical experience with the integrated nature of natural resource management and to develop oral communication abilities.

### **Course Objectives:**

1. You will develop natural resource management problem-solving and decision-making skills.
2. You will develop and demonstrate oral and/or written communication, and critical thinking skills.
3. You will collaborate and work effectively in a team.
4. You will understand and be able to describe the role of public agencies, private landowners, and non-government organizations in contemporary natural resource management.

### **Readings:**

- *Required Text:* R. Gregory, L. Failing, M. Harstone, G. Long, T. McDaniels, D. Ohlson. 2012. *Structured Decision Making- A Practical Guide to Environmental Management Choices*. John Wiley & Sons, Ltd.
- Other required readings will be posted on the Canvas course page.
- Assigned readings are testable material.

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**Grading:**

Your course grade will be based on the following components:

Exams (two or three):	50%
Discussion/Participation:	25%
Management Project:	25%

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

Grade	%
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	65-66
F	Below 65

***\*I will not adjust your grade up at the end of the semester just because you are “close” to the next grade. I do not give extra credit at the end of the semester. You must do the work during the semester to earn the grade you want and are capable of. I will round up from .5 to the next higher whole number.***

**Exams:** There will be two midterms and an optional final exam. Exams must be taken on the scheduled dates or a score of zero will be assigned. See “Due Dates/Late Policy” for absence policy.

**Discussion:** The goal of discussion is to reinforce topics covered in lecture and to give students practical application in integrated resource management (IRM). We will accomplish this through *discussion of readings and management scenarios* and a *group natural resource management project*. Participation is required. Each week during Discussion we will analyze a reading and/or a management topic (see Schedule). You must complete assigned readings prior to class and be prepared to discuss the reading in class. Each student is expected to contribute to the discussion each week. Twenty-five percent of your course grade is dependent on your discussion participation. Contributions in class will be 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).

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**Management Project:** For each Discussion section, I will assign students to teams to work on a group natural resources management project. The project includes the major steps of the structured decision-making process and will culminate in a group oral presentation. Peer evaluation will be utilized to assess individual effort and weight task grades. Group members will independently and confidentially assign each group member (including themselves) a percentage to indicate group member contribution. For example, a group of four people would have a total of 400% to divide amongst the group members. I will take the average of the percentages assigned to each group member and multiply that number by the group's score to get an individual grade. Groups can remove a member by majority vote in consultation with the instructor. Dropped members have four options: 1) persuade their original group to re-accept them; 2) find another group willing to accept them; 3) complete the project on their own; or, 4) receive a failing grade for the project.

**Attendance:** Attendance is mandatory for Discussion. I will only excuse absences for University-sanctioned events. You have one "free absence"; use it wisely.

**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. Late assignments will incur a **10% penalty the first week they are late and a 20% penalty the second week they are late. Late assignments will not be accepted after two weeks. 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>

Lecture materials and recordings for NRES 474 are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal

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use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or share lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

**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.

### **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 [www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx](http://www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx) 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 [www.uwsp.edu/rmgt/Pages/em/procedures](http://www.uwsp.edu/rmgt/Pages/em/procedures) for details on all emergency response at UW-Stevens Point.

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(Source: UWSP Risk Management Dept.)

**Tentative Schedule**

		<b>Topic</b>	<b>Reading</b>
<b>Week 1</b> <b>1/23-1/27</b>	<i>Lecture</i>	Syllabus/Introductions	
	<i>Discussion</i>	Intro to Discussion	Introduction
<b>Week 2</b> <b>1/30-2/3</b>	<i>Lecture</i>	Introduction to Integrated Resource Management	Coffey & Major 2005; INRMP Fact Sheet
	<i>Discussion</i>	-Intro to SDM -Case #1 (practice)	Ch. 1
<b>Week 3</b> <b>2/6-2/10</b>	<i>Lecture</i>	Ecological Considerations	Dale et al. 2000
	<i>Discussion</i>	-Decision Making & Problem Solving -Case #2	Ch. 2
<b>Week 4</b> <b>2/13-2/17</b>	<i>Lecture</i>	Economic Considerations	
	<i>Discussion</i>	-Decision Sketching -Case #3	Ch. 3
<b>Week 5</b> <b>2/20-2/24</b>	<i>Lecture</i>	Stakeholder Considerations	Decker et al. 1996
	<i>Discussion</i>	-Determining Objectives -Case #4	Ch. 4
<b>Week 6</b> <b>2/27-3/3</b>	<i>Lecture</i>	<b>EXAM 1</b>	
	<i>Discussion</i>	-Performance Measures -Case #5	Ch. 5
<b>Week 7</b> <b>3/6-3/10</b>	<i>Lecture</i>	Management Philosophies	Yaffee 1999
	<i>Discussion</i>	-Uncertainty -Case #6	Ch. 6
<b>Week 8</b> <b>3/13-3/17</b>	<i>Lecture</i>	Regional Management: Partnerships	Trauger et al. 1995
	<i>Discussion</i>	-Developing Alternatives -Case #7	Ch. 7
<b>3/18-3/26</b>		<b>SPRING BREAK</b>	
<b>Week 9</b> <b>3/27-3/31</b>	<i>Lecture</i>	Public Lands (Federal)	Video: Lakes States Bat HCP
	<i>Discussion</i>	-Characterizing Consequences -Case #8	Ch. 8

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<b>Week 10</b> 4/3-4/7	<i>Lecture</i>	Public Lands (State/County)	WIDNR website: County Deer Advisory Councils
	<i>Discussion</i>	-Making Trade-Offs -Case #9	Ch. 9
<b>Week 11</b> 4/10-4/14	<i>Lecture</i>	Private Lands (Forest)	Wisconsin's Forests
	<i>Discussion</i>	-Learning -Case #10	Ch. 10
<b>Week 12</b> 4/17-4/21	<i>Lecture</i>	Private Lands (Rangeland)	Fuhlendorf et al. 2012; TNC Beef Roadmap
	<i>Discussion</i>	-Implementation -Case #11	Ch. 11
<b>Week 13</b> 4/24-4/28	<i>Lecture</i>	Private Lands (Agriculture)	Scherr & McNeely 2008
	<i>Discussion</i>	Presentation prep.	
<b>Week 14</b> 5/1-5/5	<i>Lecture</i>	Private Lands (Non- Industrial Parcels)	Mir & Dick 2012
	<i>Discussion</i>	Project Presentations	
<b>Week 15</b> 5/8-5/12	<i>Lecture</i>	<b>EXAM 2</b>	
	<i>Discussion</i>	Project Presentations	
<b>Week 16</b> 5/15-5/19		<b>FINAL EXAM (Optional)</b> Wednesday, 5/17, 12:30-2:30 PM	