# NR 14 – Wildlife Management

Section # 50139 3 Units Course Syllabus - Fall 2022 Lecture: Monday 7:45am – 9:50am FNR 8 Lab Monday 10:00am –1:05pm FNR 8

*Instructor:* Louie M. Long Jr Office: FEM 4F, Phone: (559) 494-3000, Ext. 3268 Email: louie.long@reedleycollege.edu Office Hours: T 10:00-11:50am, Th 10:00-11:50am, Other Times By Appointment

#### **Required Materials:**

Lab Manual - We will complete a lab assignment each week unless otherwise instructed. The instructions for each lab as well as the data sheets and materials that you will submit for a grade are found in the lab manual. The NR 14 Lab Manual will be provided to you. It is your responsibility to bring it to each lab class. I will not make copies of the day's lab if you forget to bring your lab manual.

Field Notebook – You will need to complete field notes for each lab that we complete whether we are working inside or out in the elements. I will have copies of the field note sheets available for you.

#### **Optional Materials:**

*Wildlife Ecology and Management*, Bolen and Robinson, most recent edition. National Audubon Society Birds: Western Region (Rev. Ed.) National Audubon Society Guide to North American Mammals

#### **Course Description:**

This course will be an examination of plant and animal ecology in relation to wildlife management. There will be a review of wildlife management techniques. Identification of wildlife species found in the western United States and the evaluation of the role of wildlife management in endangered species recovery will be learned. Field trips may be required in this course.

Course Objectives: Upon completion this course you will:

- 1. Evaluate the use of various wildlife management techniques involved in habitat modification and population estimation.
- 2. Evaluate the role of human's impact on wildlife management.
- 3. Describe ecological principles important to wildlife management.
- 4. Evaluate the role of wildlife management in endangered species recovery.
- 5. Demonstrate the basic requirements of fish and wildlife.
- 6. Describe the basic life history of wildlife species.
- 7. Use specific techniques to determine fish and wildlife abundance.
- 8. Identify common wildlife species found in the western United States using keys and reference books.
- 9. Use capture and handling tools correctly.

Student Learning Outcomes: Upon completion this course students will:

- 1. Conduct wildlife population estimates.
- 2. Differentiate several wildlife management concepts and select an appropriate one when given a set of criteria.
- 3. Collect and keep appropriate field notes in a field notebook.
- 4. Identify western mammals, birds, and fish and discuss the basic habitat requirements.
- 5. Safely operate wildlife equipment including traps (both live and kill) as well as sampling equipment such as the LR-20B backpack electrofisher.

## **Essential Information:**

You are expected to treat others as you would want to be treated yourself, even if you disagree with an expressed opinion. Please refrain from using foul language. As a student in the Forestry Program, you are preparing yourself for a professional career in the natural resource field and you are expected to conduct yourself as such at all times.

Be on time! Walking into class late is distracting. Make sure you give yourself plenty of time to make it to school, find a parking spot, and walk to class. It is your responsibility to stay informed on any changes to assignment due dates, readings, test material, etc.

Missing a class doesn't excuse you from this responsibility (i.e. if a due date for an assignment changes, new assignments are given, etc.). This means you should ask a trustworthy classmate for notes if you are absent. Being absent is not an excuse for late work, late assignments, or just not knowing what is happening. Check CANVAS often!!! I recommend checking CANVAS every day and not just for this class.

If for whatever reason you cannot complete the class this semester, make sure that you officially drop the class via Self-Service. If you just stop showing up for class, you may not be officially dropped and end up receiving an "F" in the class when you thought you had withdrawn.

It is important for you to show up for class. While the lecture material is available on CANVAS, we will be discussing the material in depth during class. As per college policy, I have to drop you if you miss 3 or more classes.

Please turn cell phones off during class time. Using these devices during lectures is distracting to you and to students around you as well as to me. Trying to hide your phone under the table doesn't work either. I still see you using it. Don't make me call you out in class.

Cheating and/or plagiarism will not be tolerated. You will not receive credit for an assignment if, in my opinion, you have cheated. Cheating on an exam will result in an "F" on the exam and could result in dismissal from the Forestry Program. While cheating is not tolerated, I encourage you to work together on lab assignments. This makes the lab

more interesting and helps you to learn the material. Even though you are working in groups, you will each be required to submit your own lab sheet unless otherwise instructed.

Tobacco products are **NOT** permitted in the classroom or laboratory setting. Reedley College is a smoke free campus.

"If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible."

#### **Important Dates:**

Monday, January 16	Martin Luther King Jr Day – No Class
Friday, January 20	Last day to drop a spring full-term class for full refund
Friday, January 27	Last day to register for a full-term lass in person
Friday, January 27	Last day to drop a spring class to avoid a "W" in person
Sunday, January 29	Last day to drop a spring class to avoid a "W" on Self-Service
Friday, February 10	Last day to change class to/from Pass/No-Pass grading basis
Friday, February 17	Lincoln Day - No Class
Monday, February 20	Washington Day - No Class
Friday, March 10	Last day to drop a full-term class. Letter grade assigned after this date
Monday – Friday, April 3 – 7	Spring Break
Monday - Friday, May 15 - 19	Finals Week
Final Exam: Wednesday, May 17	<sup>/th</sup> , 8:00am – 9:50am in FNR 8

## Modules:

You will find modules that you must complete on the Canvas page for this course. Embedded in the modules are quizzes. Modules are sequential and mandatory. Failure to complete the modules could result in an unsatisfactory grade.

## **Grading Philosophy:**

The purpose of this course is to teach students the history of and basic principles involved in modern wildlife management. Historically a student's understanding of the subject and mastery of skills has been based on traditional multiple-choice exams and quizzes, and labs that are assigned a point value. Students acquire points over the course of the semester and earn a grade based on a 100% scale. While easy to use, this type of grading system does not accurately assess a student's understanding of the subject matter. I am not interested in how well you can take a test. I am, however, interested in how well you understand the material that we will be covering over the course of the semester.

In an effort to accurately assess your mastery of the subject matter and field protocols, we will be using a Skill Mastery Scale to determine your level of understanding. The Student Learning Outcomes (SLO) and skills that we will be learning and assessing are listed below;

#### SLO1: Conduct population estimates of birds and small mammals.

Skill 1.1: Demonstrate an ability to prepare for and conduct population estimates in the field. Skill 1.2: Demonstrate an ability to estimate wildlife population sizes using the Mark & Recapture technique.

Skill 1.3: Demonstrate an ability to estimate wildlife population sizes using the Exponential Growth model.

Skill 1.4: Demonstrate an ability to estimate wildlife population sizes using the Logistic Growth model.

Skill 1.5: Properly use binoculars to conduct wildlife surveys.

Skill 1.6: Collect proper field notes while conducting wildlife surveys.

# SLO2: Differentiate several wildlife management concepts and select an appropriate one when given a set of criteria.

Skill 2.1: Describe and identify Direct Manipulation techniques used in wildlife management.

Skill 2.2: Describe and identify Indirect Manipulation techniques used in wildlife management.

Skill 2.3: Describe and identify Preservation techniques used in wildlife management.

Skill 2.4: Implement when applicable techniques used in Direct Manipulation of wildlife populations

Skill 2.5: Implement when applicable techniques used in Indirect Manipulation of wildlife populations

# SLO3 Identify western mammals, birds, and fish and discuss the basic habitat requirements.

Skill 3.1: Demonstrate an ability to identify at least the 35 birds included on the class list. Skill 3.2: Demonstrate an ability to identify at least the 35 mammals included on the class list. Skill 3.3: Demonstrate an ability to identify fish we discuss and/or work with in class.

# SLO4 Safely operate wildlife equipment including traps (both live and kill) as well as sampling equipment such as the LR-20B backpack electrofisher.

- Skill 4.1: Demonstrate an ability to properly identify, set, and check various live & kill traps used in class.
- Skill 4.2: Demonstrate an ability to properly and safely assemble, program, and use the LR20B and LR24 backpack electrofishers.
- Skill 4.3: Properly handle wildlife species captured during surveys (i.e. collecting biological data from fish captured during Mark & Recapture studies).
- Skill 4.4: Properly operate Radio Telemetry Equipment used in wildlife studies.
- Skill 4.5: Properly operate Wildlife Cameras used in wildlife studies.

Each lab assignment will reinforce a topic we've discussed in class and help students master one or more of the skills listed above. Each assignment will be graded using a Skill Mastery Scale that ranges from 0 - 4 where a 0 means that the student has not demonstrated any comprehension of the skill and a 4 means that the student has mastered the skill (see Table 1 below). As with anything, **practice makes improvement**. Your job is to learn the skill and demonstrate mastery. If you fail to demonstrate mastery of a skill during any of the individual labs there will be opportunities to re-do the lab or portions of the lab to get more experience and practice with the skill in order to demonstrate mastery.

We will take 1 midterm and a final exam this semester. Exams will be graded using the same Skill Mastery Scale that is used to grade lab assignments. Once again, practice makes improvement. While the exam is a test of your level of understanding, it is also an opportunity to improve your level of understanding. As such, you will be given the opportunity to re-do any exam questions that you do not answer satisfactorily. The only exception would be the final exam. Since the final exam

is given during the last week of the semester, there won't be any time available to re-do any missed questions.

Score	Mastery Scale				
4	Exceptional Competence	А	3.50 - 4.00	87.50% - 100%	
3	Clear Competence	В	2.75 - 3.49	68.75% - 87.40%	
2	Adequate Competence	С	2.00 - 2.74	50.00% - 68.74%	
1	Basic Competence	D	1.25 - 1.99	31.25% - 49.90%	
0	No Evidence of Progress Towards the Learning Target	F	0-1.24	<31.25%	

Table 1: Skill Mastery Scale used for grading in this course.

**Important Note:** One of the intangible skills that you should be learning during your time in the Forestry & Natural Resources Program is initiative. **Initiative:** *noun* **1. the ability to assess and initiate things independently.** <u>It will be your responsibility to schedule re-do work.</u> I will make time available for the re-do work but <u>you must schedule in a timely manner</u> the time to complete the re-do work.

## Quizzes:

You will complete multiple quizzes throughout the semester. Most of them will be embedded in the Modules that you are expected to complete thus they will be completed online as homework. You may also be asked to complete additional quizzes during the class period should I feel that they are necessary.

## Exams:

All exams will be essay type answers. You will be asked to explain in your own words everything you know about the topic of the questions. Example: *In your own words describe the two types of germination that we discussed in class. What is the primary difference between the two?* If you miss an exam, it is your responsibility to schedule a make-up exam. You can keep track of your grades by logging onto CANVAS from the Reedley College Homepage. I encourage you to check CANVAS daily for announcements as well as to keep track of your grade.

# Tentative Schedule (Subject to change)

Week	Date	Lecture Topic	Lab Topic	
1	1/9/2023	1st Day Stuff	Birds & Mammals Identification	
2	1/16/2023	No Class - Martin Luther King Day		
3	1/23/2023	Module 1: Introduction to Wildife Management	Binoculars and Birds	
4	1/30/2023	Module 2: N.A. Model of Wildlife Conservation	Collecting Biological Data - Living Streams	
5	2/6/2023	Module 3: Neglect & Exploitation	Building Nest Boxes	
6	2/13/2023	Module 4: Success in Managing Wildlife	Installing Nest Boxes	
7	2/20/2023	No Class - Washington Day		
8	2/27/2023	Midterm #1	Birds & Mammals ID Exam	
9	3/6/2023	Module 5: Ecosystems & Natural Communities	Mark & Recapture Day 1	
10	3/13/2023	Module 6: Population Ecology	Mark & Recapture Day 2	
11	3/20/2023	Module 8: Techniques in Radio Telemetry	Radio Telemetry Techniques	
12	3/27/2023	Module 9: Techniques in Electrofishing	Electrofishing Application	
	4/3/2023	Spring Break		
13	4/10/2023	Module 11 Remote Cameras - Field Trip: Deploy Cameras - School Forest		
14	4/17/2023	Module 10: Predators & Predation	Wood Duck Nest Boxes Day 1	
15	4/24/2023	Field Trip: Collect Camera - School Forest		
16	5/1/2023	Module 7: The Ebb and Flow of	Habitat Work in the NR Pond	
17	5/8/2023	Review for Final	Wood Duck Nest Boxes Day 2	
18	5/16/2020	Final Exam: 8am - 9:50am		