

Wildlife 355/555: Wildlife Diseases (sections 1 and 2)

Fall 2022

Professor: Shelli Dubay (CNR 325; 346-4178; sdubay@uwsp.edu)

Office hours: Mon. and Fri.. 11 – 12 or by appointment.

<https://uwsp.zoom.us/j/9269849384>

Lecture: Section 1 is 1:00 PM Tuesday and Thursday in TNR 359

Section 2 is 2:00 PM Tuesday and Thursday in TNR 359

Textbooks:

Wobeser, G. A. 2006. Essentials of Disease in Wild Animals. Blackwell Publishing, Ames, IA, 243 pp.

Botzler, R. G., and R. N Brown. 2014. Foundations of Wildlife Diseases. University of California Press, Oakland, CA, 449 pp.

Other readings as handouts, Canvas.

Course Goal and Description: The overall goal of this course is for you to become familiar with techniques used to study wildlife health and with a variety of diseases that affect wildlife populations. Some of these pathogens also infect humans and we will discuss these as well. Keep in mind that we will be unable to cover all of the potential infectious and non-infectious diseases of free-ranging animals. During the semester, we will investigate several diseases, determine how disease is diagnosed, and also explore how disease influences wildlife.

Course Objectives: Specifically, the course is designed to provide students opportunities to:

- 1) become familiar with terminology and techniques used in the wildlife disease field;
- 2) become familiar with diseases that affect wildlife, particularly animals in the Great Lakes region;
- 3) gain understanding of some diseases that can be transmitted from wildlife to humans and visa-versa;
- 4) understand how knowledge and management of wildlife diseases contributes to wildlife conservation and management; and
- 5) become familiar with the scientific literature focused on diseases of wildlife.

Grading:

Assignment	Points
Examinations: Exam I	100
Exam II	100
Final	100
Research	
Presentation	75
Literature critique	50
TOTAL	425

Grade	%
A	92+
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	63-66
D-	60-62
F	≤59

All course materials are in files on Canvas. I will occasionally add new materials to the site so check it often.

Recorded lectures and labs: All materials and recordings for Wildlife 355 are protected intellectual property at UW-Stevens Point. Students in this course may use the materials for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record the event 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.

Content: Readings and lectures are your responsibility. Students are responsible for and may be tested on all information presented in lectures, the books, and additional assigned readings.

Academic Dishonesty: Trust between students and instructors is of paramount importance in academic settings. Academic dishonesty will not be tolerated (e.g., cheating on exams) or in research efforts (e.g., plagiarism). Students found cheating will be punished to the fullest extent that University policy permits.

TENTATIVE LECTURE SCHEDULE

DATE	TOPIC	Wobeser book	B and B book
Sept 6	Course Introduction, vocabulary list	Chapter 2	Pgs 1-9
Sept 8	Causes of Disease	Chapter 3	Pgs. 12-13
Sept 13	Causes of Disease continued, begin Techniques	Chapters 3, 4	Pgs 9-12
Sept 15	Techniques to study wildlife diseases	Chapter 4	
Sept 20	Environmental factors and Transmission	Chapter 7, 8	Chapter 8
Sept 22	Pathobiology	Chapter 10	
Sept 27	Immunology	Chapter 6	Chapter 2
Sept 29	Continued		
Oct 4	EXAM – cheat sheet allowed		
Oct 6	Viruses – Coronavirus	Handout	
Oct 11	Viruses – Hemorrhagic disease		Parts of Ch. 10
Oct 13	Viruses – Rabies		Parts of Ch. 10
Oct 18	Bacteria – Bovine Tuberculosis		Parts of Ch. 9
Oct 20	Bacteria – Tularemia and Plague		Parts of Ch. 9
Oct 25	Prions – Chronic Wasting Disease in Wisconsin		Pgs 358-362
Oct 27	Parasites - General, mange Literature critique due		Most of Ch. 5
Nov 1	Parasites – Meningeal worm and liver flukes		Pgs. 62-65, 86-90
Nov 3	EXAM through Oct 27 – cheat sheet allowed		
Nov 8	Fungi – White-nose syndrome		Pgs 221-224
Nov 10	Toxins	Chapter 9	Pgs 354-356
Nov 15	Trauma and malnutrition	Chapter 9	
Nov 17	Disease Investigations – Dr. Wright		
Nov 22	Catch up		
Nov 24	No class – Thanksgiving		
Nov 29	Use of eDNA in wildlife health – Dr. Erickson	Handout	
Dec 1	Disease effects on populations, conservation	Chapter 11	Pgs. 9-12; 13-17
Dec 6	Disease management (Take home final given out)	Chapter 13	
Dec 8	Presentations – 2 student groups		
Dec 13	Presentations – 2 student groups		
Dec 15	Presentations – 2 student groups		
Dec 19	Final Examination Take home DUE 10:00 AM		