

Wildlife 355/555: Wildlife Diseases (section 1)

Fall 2019

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

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

Lecture: 1:00 PM Tuesday and Thursday (TNR 255)

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.

Attendance: Material and class attendance 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 in the classroom (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. Cell phones must be turned off and texting in class is not allowed.

TENTATIVE LECTURE SCHEDULE

DATE	TOPIC	Wobeser book	B and B book
Sept 3	Course Introduction, vocabulary list	Chapter 2	Pgs 1-9
Sept 5	Causes of Disease	Chapter 3	Pgs 12-13
Sept 10	Causes of Disease continued, begin Techniques	Chapters 3, 4	Pgs 9-12
Sept 12	Techniques to study wildlife diseases	Chapter 4	
Sept 17	Environmental factors and Transmission	Chapter 7, 8	Chapter 8
Sept 19	Pathobiology	Chapter 10	
Sept 24	Immunology	Chapter 6	Chapter 2
Sept 26	Immunology continued	Chapter 6	
Oct 1	Use of eDNA in wildlife health – Dr. Erickson	Handout	
Oct 3	EXAM – cheat sheet allowed		
Oct 8	Viruses – Hemorrhagic disease		Parts of Ch. 10
Oct 10	Viruses – Rabies		Parts of Ch. 10
Oct 15	Bacteria – Bovine Tuberculosis		Parts of Ch. 9
Oct 17	Bacteria – Tularemia and Plague		Parts of Ch. 9
Oct 22	Prions – Chronic Wasting Disease in Wisconsin		Pgs 358-362
Oct 24	Catch up, Literature critique due		
Oct 29	Parasites – General, mange		Most of Ch. 5
Oct 31	Parasites – Meningeal worm and liver flukes		Pgs. 62-62, 86-90
Nov 5	Fungi – White-nose syndrome		Pgs 221-224
Nov 7	EXAM through Nov 1 – cheat sheet allowed		
Nov 12	Toxins – lead toxicity, avian botulism	Chapter 9	Pgs 354-356
Nov 14	Trauma and malnutrition	Chapter 9	
Nov 19	Capture Myopathy		
Nov 21	Disease effects on populations, conservation	Chapter 11	
Nov 26	Catch up		
Nov 28	No class – Thanksgiving		
Dec 3	Disease management (Take home final given out)	Chapter 13	
Dec 5	Presentations – 2 student groups		
Dec 10	Presentations – 2 student groups		
Dec 12	Presentations – 2 student groups		
Dec 17	Final Examination Take home – Due by 10:00 am	Tu. of finals	