Department of Biology and Wildlife
Wildlife Disease – WLF 305, Spring 2007
Syllabus, Course Objectives, & Necropsy Protocol
Original Documents provided courtesy of Dr. John Blake, Attending Veterinarian
(Adapted by O’Hara), draft version January 13, 2007

Lecture Tuesday 2 to 4PM (2 lectures per day will be presented)
Room: Arctic Health Research Building 183
Laboratory Thursday 2-5PM in Necropsy Suite or Irving I 208
(Will require escort into secured facility, meet at main entrance to BiRD on 1st floor, BiRD is new building behind the museum)

3 credits, Prerequisites: Biol 310 or Biol 111 and 112.
Instructor, Dr. Todd O’Hara
474-1838, fftmo@uaf.edu
AHRB 144, Office Hours Noon- 2PM MWF
Associate Professor of Wildlife Toxicology

To contact Dr. Todd O’Hara: Room 144 or Laboratory 157 Arctic Health Research Building (AHRB). Phone 474-1838: fftmo@uaf.edu


Course policies

Attendance/tardiness: Attendance is vital to the grade. Much, if not all, of the exam information will be based on information from lectures, notes, discussion, etc. during class. These notes from lectures must be obtained from another student when absence is unavoidable. Attendance is recorded occasionally to maintain an idea of who is actually attending. Repeated tardiness will be noted. Out of respect for the instructor and classmates please be on time. Laboratories cannot be missed without prior permission.

Making up an Exam
An exam may be taken ahead of schedule if a suitable time can be agreed upon if there is a good reason. Exams can be made up after the scheduled day but this is at the discretion of the instructor (i.e., it is not guaranteed). The make-up exam, or the early exam, will not be the same exam given to the other students. There will only be one make-up exam offered. Students who miss more than one exam will have difficulty passing the course.
**Plagiarism**
Simply will not be tolerated in any form. When in doubt cite and quote your sources.

**Academic integrity**
Examinations are to be performed by the individual and any attempts to gain assistance or knowingly provide assistance during an examination will be punished according to University policy towards “cheating.” Those taking early or make up exams are to not request assistance with the exams nor provide it. The exams should not be discussed until ALL members of the class have taken a specific exam.

**Disabilities Services**
The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. The Instructor will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities. Please make the Instructor aware of any disabilities that may affect access or performance.

**OBJECTIVES**
The primary objective of this course is to introduce the wildlife biology and/or biology student to disease processes at the individual animal and population level. This course is intended to impart a basic understanding of disease processes and a basic knowledge of some common disease entities with a focus on the Arctic and sub-arctic regions (marine and terrestrial). Effects on populations and diseases of human health significance are emphasized.

The objectives for the laboratory include: 1) To develop a standard technique for the post-mortem examination (necropsy) of vertebrates. 2) To become familiar with the instruments needed to conduct a satisfactory field necropsy. 3) To learn how to collect and preserve suitable specimens for submission to a diagnostic and/or research laboratory. 4) To learn the importance of a history and the proper description of lesions. 5) To develop an understanding of zoonotic diseases and the importance of a "clean" technique while handling diseased and decomposing tissues.

**APPROACH**
The course starts out with a lecture series introducing the mechanisms of disease ending with a discussion on epidemiology. This is followed by lectures on common diseases of mammals and birds using a structure based on disease causing agents (etiology). Using a variety of diseases occurring in wildlife we will discuss the cause, species affected, occurrence, ecology, clinical disease, pathology, differential diagnoses, specimens for diagnosis, and the significance to the animal and population. It is impossible to discuss all causes of disease but our review of certain disease causing agents will emphasize the importance of proper diagnostics and how the wildlife biologist can facilitate this. The focus is on mammals with some time spent of avian species (mostly waterfowl).

The laboratory is divided into 2 parts allowing students to obtain hands on experience in the necropsy suite and to better understand basic biosampling and laboratory techniques (e.g., hematology).

**WHAT THE COURSE CANNOT DO:**
A single semester course in wildlife diseases cannot impart diagnostic skills nor research
capacity to address wildlife diseases for an individual. Work that requires diagnostics or research tools must involve trained diagnosticians/researchers, for diagnostics usually veterinary pathologists with wildlife experience and consultation from experienced wildlife biologists. This by no means limits wildlife disease work to individuals with diagnostic training. Wildlife diagnostics is only one part of wildlife disease work and may or may not be necessary in all research projects. In fact, the best wildlife disease work is generally done by teams that include wildlife biologists, population biologists, ecologists, pathologists, toxicologists, microbiologists, parasitologists, etc! We hope to emphasize that with guest lecturers and examples for discussion.

Wildlife Disease – WLF 305 - Grades

Laboratory performance and lecture attendance: 15%
Presentations: 15%
Examination #1: 20%
Examination #2: 20%
Final examination: 30%

Letter grades: no +/- grades given.
A = 85-100%, B = 75-84%, C = 60-74%, D = 50-59%, F <50%

Wildlife Disease – WLF 305- Reference List

General Texts on Wildlife Disease:

**General Veterinary Pathology/Epidemiology Texts:**

**General Wildlife/Exotic Animal Disease Journals:**
- Journal of Wildlife Diseases
- Journal of Zoo and Wild Animal Medicine

**Veterinary Journals:**
- Veterinary Pathology
- Journal of the American Veterinary Medical Association
- American Journal of Veterinary Research
- Canadian Veterinary Journal
- Canadian Journal of Veterinary Research

**Biology/Wildlife Journals:**
- Journal of Wildlife Management
- Wildlife Society Bulletin
- Journal of Mammalogy
- Journal of Parasitology
- Many, many more!

**Species Journals:**
- Alces
- Rangifer
- Etc.