Syllabus for Wildlife Management Techniques

Biol 3424: Spring 2009
www.wtamu.edu/~rmatlack/bio3424.htm

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Meeting times: Lecture – TTh 1:00-1:50 (ANS 320) Lab – TTh 3:00-4:50 (ANS 310)

NOTE: Class will occasionally meet from the start of lecture (11:00) and run through the end of lab (4:50) to allow us to take field trips and work on techniques in the field.

Office Hours: T 11:00-1:00, W 11:00-12:00, Th 11:00-12:00 and by Appointment. I am happy to schedule an appointment to meet with you anytime I am available. You may schedule an appointment to meet with me via email or phone. I check my email and voice mail several times each day and will promptly reply to your messages.

Text Book: *Techniques for wildlife investigations and management, 6th ed.* This text is an indispensable reference and I recommend that each Wildlife Biology major keep this book after this class. Additional supplemental readings will be provided throughout the semester.

Course Content: This course will examine techniques and equipment used to study and manage wildlife populations.

Course Objectives:

1. Develop a understanding of techniques used to manage wildlife
2. Become familiar with the equipment used by wildlife biologists
3. Become familiar with the format and style of scientific writing by reading articles in peer-reviewed scientific literature
4. Further your ability to think analytically and critically about information presented to you in class and in your readings
5. Practice interpreting graphs and understanding data sets

Class Policies:

Attendance - I cannot imagine that you will find it possible to master this material without regular class attendance in the lecture and the laboratory. Regardless of whether you are in class or not, however, you are responsible for everything which is discussed in lecture, any announcements made in class, everything that is assigned as class reading, and any handouts given out in class. If you miss class, you must make your own arrangements for access to class notes or handouts from classes that you miss. I will not provide copies of my class notes except under very rare circumstances (serious injury, surgery, etc.) and by PRIOR arrangement only.

Grading –

Lecture:

3 Exams	200 pts each	600 total
4 Article Reviews	40 pts each	160 total
Summary of Journal types	20 pts	20 pts
*Other Lab Assignments	?	Up to 200 pts

*Additional assignments will be given, as necessary, to facilitate learning of the material or to help meet the course objectives.

Exams: Exams will cover all of the material discussed in my lectures, all assigned readings, and all of the material covered in the laboratory. As a result, the exams will have written sections and hand-on sections. Expect to be responsible for identifying structures, species, and equipment. Be prepared to perform calculations and answer questions regarding anything we do in lecture or lab. For example, I will ask questions about field trips, guest speaker presentations, my presentations in lecture and lab, and assigned readings.

Overall class grade will be based on the percentage of the points you make out of the total number of points available (Class grade = (points made/total points available) x 100). Letter grades will be assigned using the grade scale presented below.

Grade scale: A= 90-100%
B= 80-89%
C= 70-79%
D= 60-69%
F= 0-59%

Tentative Exam Dates:

Exam 1	12 February
Exam 2	26 March
Final Exam (Exam 3)	Thursday, May 7 @ 1:00 pm

Due dates:

Library assignment	20 January
Review 1	27 January
Review 2	17 February
Review 3	10 March
Review 4	31 March
Summary	7 April

Makeup exams – All exams must be taken at the times announced in class or in the syllabus. Make up exams will be given at the instructor's discretion unless the student has a doctor's letter or letter of absence for a school-sponsored event. If you have a serious reason for missing an exam, you must contact me **BEFORE** the scheduled exam period to notify me that you cannot take the exam. You are then responsible for arranging with me to make up the test or quiz **within two days** of your return to campus. **If you are late to an exam and students have completed their exam and left the classroom you have missed the exam**. If you miss a laboratory quiz or exam you may not be able to make up the assignment or you may be given a test or quiz that differs in format, number of questions, etc. from that given to the rest of the class on the assigned date.

Note: Exams are subject to change and I reserve the right to change any and all information contained in the syllabus.

Academic dishonesty - If you are uncertain about what constitutes academic dishonesty, please read the appropriate sections in the Code of Student Life. I will have zero tolerance for academic dishonesty. Instances of dishonesty will be punished to the fullest extent possible, including the receipt of a failing grade for the course. Take care to avoid the appearance of cheating! During exams keep your eyes on your own paper, keep books and bags closed, and put all paper away.

Tentative course content:

Lecture	Lab
Introduction; Scientific literature; Data collection and handling; design of experiments	Library exercise
	Personal field equipment
Proper care and handling of wildlife; Capturing wildlife; Chemical immobilization	Capture and handling wildlife (traps, noose poles, snake tongs, mist nets, remote cameras, bags (herps and bats), etc.)
	Map and compass skills; GPS use; laser range finders, other measuring devices
	Marking techniques
Wildlife marking techniques	Genetic tools for wildlife management
	Optics and auditory equipment
Sex and age determination	Sex and age determination
Waterfowl management	Identify, sex and age duck wings
Estimating numbers of animals	Capture-Mark-Recapture
Population analysis	

Wildlife radio telemetry	Radio telemetry – equipment (trip to BLNWR)
Wildlife damage control	Wildlife damage control equipment and techniques (WT Horse Center)
Determining home range	Extended lecture; Open lab
Wildlife use of habitats and foods	Diet analysis
Spatial tools in wildlife management	GIS demonstration (including home range, habitat selection, etc.)
Habitat management	Measuring fire weather and fire tools

Note: Other topics will be added if time permits

The above schedule is tentative and you should expect changes to occur. I will keep you informed in class of upcoming events and changes to the schedule.

Assignments:

All assignments must be typed and double-spaced using 12 pt font (except for math problems). If there are separate pages, staple them together BEFORE they are due! Take care to be neat and to present your work in a logical and organized manner. Remember, your work is a reflection of your work ethic, attention to detail, and ability to follow directions.

Article Reviews:

You are to read 4 articles that relate to wildlife or wildlife management from **refereed journals** (see examples below). You will then write a review of the article that contains the following:

1. Your name and the date
2. Type of article (see below)
3. Correct citation for the article that you reviewed
4. Summary of the Introduction
5. Summary of the Methods
6. Description of the study area (location, habitat, etc)
7. Summary of the Results
8. Summary of the Discussion
9. A critique of the paper

The reviews will be no longer than 5 pages and must be typed and double-spaced. The format for the citation of the review and any references (references are not required) should follow the format for the Journal of Wildlife Management. For information on the correct format see the Manuscript Guidelines for the Journal (Available on line at http://www.wildlife.org/publications/journalguidelines.pdf).

One article (and only 1) should be from a state or regional journal, one from a taxon-specific journal, and two should come from national or international journals (not taxon-specific).

Choosing your articles is very important. Do not select articles simply because they are short (**only select articles that are > 5 pages in state/regional journals and >= 8 pages in taxon specific and national**

journals). Make sure all of your articles are fairly current (**no articles older than 1995**). Select articles with topics that are of interest to you personally and that will allow you to write a good review. If you have any questions regarding the acceptability of an article, ask me before you begin your review.

When you finish your 4th review, write a summary discussing the differences between the different types of journals you read. All journals are not alike. Some journals are relatively easy to publish in and others have a very low acceptance rate. The acceptance rate is often related to the perceived quality of a journal or at least the amount of prestige associated with a publication in that journal (This does not mean that local/regional journals are not important). Things to look for include the amount of data (sampling effort, length of study), quality of study, length of publication, uniqueness of study (has it been done before), quality of writing, quality of graphs and tables etc. You do not have to address all of these items and you may choose to discuss things not mentioned here.

Some suggested wildlife journals (not a complete list):

Local/State/Regional Journals:
- Southwestern Naturalist
- Prairie Naturalist
- Texas Journal of Science
- American Midland Naturalist

Taxon-Specific Journals:
- Journal of Mammalogy
- Auk
- Condor
- Journal of Herpetology
- Copeia
- Herpetological Review

National/International (non taxon specific):
- The Journal of Wildlife Management
- Wildlife Society Bulletin
- Ecology
- Canadian Journal of Zoology
- Ecological Applications
- Conservation Biology
- Biological Conservation
- Journal of Range Management
- Oikos
- Oecologia

Students with Disabilities:

WTAMU seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Disability Support Services and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

Copyright:

Safety:

Safety is everyone's responsibility. Material Safety Data Sheets (MSDSs) are provided for all chemicals used in this class. MSDSs provide information about physical properties, health risks, fire and explosion data, and other important information associated with these chemicals. Before handling or using a chemical, you should refer to the MSDS for that chemical. It is your responsibility to inform the instructor in writing of any health conditions that may prevent you from safely using a chemical (pregnancy, auto immune deficiency, etc.). It is also the responsibility of the student to report any spills or problems found while storing or using a chemical. If you are unsure about a chemical, always ask. If you see any unsafe condition, notify your instructor immediately. If you are unsure about the proper and safe operation of any piece of equipment, ask your instructor for proper instruction. All injuries, spills of materials and unsafe conditions must be reported to the instructor immediately.

Evacuation:

When you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicating all exits, outside assembly area, location of fire extinguishers, fire alarm pull stations, and emergency telephone numbers (651-5000 or 911). In the event an evacuation is necessary, evacuate immediately; do not use elevators; take all personal belongings with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

Scholastic Dishonesty:

It is the responsibility of students and instructors to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty. Commission of any of the following acts shall constitute scholastic dishonesty. This listing is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the examination is given in subsequent sections of the course or as a makeup; plagiarism, submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so. (2008-2009, CODE OF STUDENT LIFE, Rules and Procedures for Students, West Texas A&M University).

A complete statement regarding scholastic dishonesty can be found in the Student Code of Life at http://www.wtamu.edu/administrative/ss/code/code.html#procedures.