BIOL 805

Range and Wildlife Management

SUMMER 2020 SYLLABUS

Instructor: Dustin Ranglack, BHS 343, ranglackdh@unk.edu

Office hours: By appointment. 308-865-8545

Learning objectives:

1) Ability to apply ecological and behavioral concepts and principles to the management of wildlife populations and habitats to achieve a diversity of objectives including restoration, conservation, sustained harvest, and control.

2) Understanding of key ecological principles that apply to wildlife at organism, population, community, and ecosystem levels, with understanding of their relevance to wildlife management practices.

3) Understanding of the policy framework, decision-making processes, and social and political considerations that influence wildlife management at the state and federal levels.

4) Skills in critical thinking, synthesis, use of literature, and scientific writing.

Textbook:

There is no required text for this course. However, I do have a few recommendations for those of you who are interested in the topic. The recommended book for this course is by Anthony R.E. Sinclair, John M. Fryxell, and Graeme Caughley (2014, Wildlife Ecology, Conservation, and Management, 3rd Edition).

Another text that you should consider (not required) if you are serious about a career in the wildlife field is The Wildlife Techniques Manual, 7th Edition, edited by Nova J. Silvy. This two volume set covers just about everything you will ever need for study design, techniques, planning, etc.

Also, we should not overlook the book that literally gave rise to the science-based management of wildlife: Aldo Leopold's Game Management, published in 1933. Aldo Leopold is generally acknowledged as the 'father' of wildlife management, so anyone planning a career in this profession should have a copy of his book on their shelf.

Additional Readings

I will occasionally post additional related readings on Canvas. We will also occasionally examine current wildlife and environmental issues by reading and discussing articles from the High Country News. This excellent publication has been covering western issues (politics, environment, science, etc.) since 1970 and has been gracious enough to provide free subscriptions to the entire class. To access the material, follow the instructions below. While I will require you to read some articles and come prepared to discuss them, I hope that you will take full advantage of this subscription and explore the great content this provides. Not only do you have access to the current and recent content online, but you can get access to their archive going all the way back to 1970.

Visit hcn.org/subscribe
Under "Student Subscription", choose "Student - Digital Subscription"
Enter Code: "HCNstudent" to change term and pricing to $0 for 6 months.

Course scope and format:

This course integrates animal behavior, population dynamics, habitat relationships, ecosystem processes, and the social and political aspects of wildlife management. In keeping with current thinking, wildlife management is presented as a tool for nurturing the resilience of social-ecological systems. Case studies are presented to illustrate the application of basic management principles to the stewardship of wildlife resources in real-world scenarios.

The format is a combination of lectures, discussions, and writing assignments. All PowerPoint presentations and other course materials will be accessible in Canvas.

Grading:

The final course grade will be based on two exams, one writing assignment, and Canvas discussion boards. Class participation is strongly encouraged and will be rewarded at the end of the semester by adding 1-5 bonus points to the final percentage scores of those who contribute regularly and constructively to discussions beyond the regular expectation.

Exams:

Both exams are open-book, open-note, open-anything-but-another-human. Exam I will be distributed on Friday 14 June and is due on Friday 21 June. Exam I will cover everything in the course to that point. Exam II is fully comprehensive in that it covers all the material presented in the entire course, but will focus more on the material that was not included in Exam I. Exam II will be distributed on Friday 5 July and is due on Friday 12 July.

Writing assignment:

Assignments must be submitted before or on the deadline dates, which are clearly stated in this syllabus.

1) The first assignment requires a report (4 pages minimum, double-spaced, 12- point font, formatted according to the Journal of Wildlife Management style guide) supported by at least five relevant references. Do not use website URLs as references. The topic is:

Select any wildlife species of your choice and write a report on how scientific research (biology and ecology) has resulted in improved management of one or more populations of that species.

Due on Canvas **Friday June 7**.

Lab Exercises:

There will be 8 labs, each worth 10 points. Full details for each lab will be available on Canvas. Lab attendance is necessary for this course. A total of 3 unexcused lab absences will result in an F for the entire course.

Discussions:

You will be broken into groups and expected to participate in at least 4 group video discussions via Zoom to discuss the material we have gone over in the lectures. You will be divided into groups based on you general availability (weekdays, weekends, morning, afternoon, evening) and are expected to record your discussions and submit them for credit. I will try to join at least 1 discussion from each group during the semester.

GRADING RUBRIC:

1) Exam I	200 pts
2) Exam II	250 pts
3) Writing Assignment	200 pts
4) Discussions	200 pts
	850 pts

The grading scale used for this class is as follows:

A (93-100%), A- (90-92%), B+ (88-89%), B (83-87%), B- (80-82%), C+ (78-79%), C (73-77%), C- (70-72%), D+ (68-69%), D (63-67%), D- (60-62%), and F (below 60%).

In general, grades for the course will be assigned as:

A – Indicates that the work is markedly superior and is without major problems. It is an honors grade denoting that the goals for the assignment.

B – Indicates that the work has met all of the requirements of the assignment or course at a level that is consistently above average.

C – Indicates satisfactory work that is consistently average and that meets the course goals at a sufficient level to pass.

D – Indicates the minimal achievement in order to earn credit, even though the work is below the standard required for good academic standing.

F – Indicates failure to complete an assignment or course, or work that does not fit into the requirements of the assignment or course.

COURSE POLICIES:

Classrooms (even online) should be considered sanctuaries for the pursuit of knowledge. Those who enter them should be committed to learning and to respect the ideas and opinions of others. Undesirable behavior will lead to dismissal from the lecture session and even expulsion from the course. Undesirable behavior includes (but is not limited to), harassment of any kind, off-topic discussion posts, etc.

Plagiarism and cheating: Anyone found plagiarizing or cheating will receive a 0 for that assignment; subsequent violations will result in referral to the Vice Chancellor for Academic Affairs for dismissal from the university.

Late assignments: Without a valid excuse, any assignment not turned in on time is a Late Assignment. Late assignments will be docked 10% of its total possible points per day, holidays and weekends excluded. So if a 40-point Report was due on Tuesday, you will receive 36 pts (maximum!) if you turn it in on Wednesday and 32 pts if you turn it in on Thursday.

Students with Disabilities or Those Who are Pregnant
Students with disabilities or those who are pregnant are encouraged to contact me for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students with documented disabilities or those who are pregnant. To receive accommodation services for a disability, students must be registered with UNK Disabilities Services Coordinator, David Brandt, in the Academic Success Office, 163 Memorial Student Affairs Building, 308-865-8214 or by email unkdso@unk.edu. For those needing accommodation due to pregnancy, you need to visit with Student Health. The following link provides information for students and faculty regarding pregnancy rights. http://www.nwlc.org/resource/pregnant-and-parenting-students-rights-faqs-college-and-graduate-students

Reporting Student Sexual Harassment, Sexual Violence or Sexual Assault
Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible.

Any student who believes she or he may be the victim of sexual misconduct is encouraged to report to one or more of the following resources:

Local Domestic Violence, Sexual Assault Advocacy Agency 308-237-2599

Campus Police (or Security) 308-865-8911

Title IX Coordinator 308-865-8655

Retaliation against the student making the report, whether by students or University employees, will not be tolerated.

SUBJECT TO CHANGE: This syllabus and schedule are subject to change in the event of extenuating circumstances. If you are absent from class, it is your responsibility to check on announcements or assignments made while you were absent.

Above all:

Your objective should be to enjoy this course and come away from it having gained a firm understanding of the underlying principles that govern the wise management of wildlife resources. Participate in class discussions, ask questions, make use of revision opportunities, and consult the instructor after class if there is anything you need clarified.

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Course Schedule

Week	Topics
1	Goals and decisions
	Logic of wildlife management
	Food and nutrition
	Effects of body size: Jarman-Bell Principle
2	Body condition
	Foraging models
	Territoriality and home range
	Quantifying behavior in the wild
3	Quantifying diet composition and selection
	Habitat Selection
	Animal behavior and wildlife management
	Wildlife capture and telemetry
	Dispersal, dispersion, distribution
4	Populations and metapopulations
	Is K relevant for wildlife management?
	Wildlife harvesting
	Competition and facilitation
5	Resource partitioning
	Wildlife and Ecosystem Services
	Wildlife and livestock
	Range Management
6	Stocking Rate
	Predator-prey interactions
	Predator guild relations
	Wildlife disease
7	Adaptive management of wildlife
	Wildlife management and restoration
	Human-wildlife conflict
	Evolution of wildlife policy
8	Managing wildlife inside protected areas
	Outside protected areas
	Global connections in wildlife management