

1. Course information:

Natural History of Alaska: 1st Summer Session, 2019

Biology 104X, 4 credits,

CRN 51391

Lectures: MTWR 10:00 a.m.-11:50a.m. Murie 103/105

Labs: MW 12:30 p.m.- 4:10 p.m. Murie 309

2. Instructor information: Ronald L. Smith

Office location: TBA

Office hours: TR 9:00 a.m. – 10:00 a.m.

Telephone: 907-978-0843

Email address: rlsmith@alaska.edu

3. Course readings/materials

Readings will be assigned from Interior and Northern Alaska: A Natural History. Assignments and other instructional materials will be posted on blackboard.

4. Course description

Catalog description-The physical environment peculiar to the North and important in determining the biological setting; major ecosystem concepts to develop an appreciation for land use and wildlife management problems in both terrestrial and aquatic situations. May not be used as biology elective credit for a major in biological science.

Content of the course- Exposure to the major plant, and animal species of Alaska, their adaptations, biology and interactions in their ecosystems.

Connections will be made with non-science fields including the arts, economics, cultural issues, and politics.

Expected proficiencies to undertake the course- basic reading and reasoning ability, ability to take multiple-choice and short answer exams, willingness to participate in in-class discussions, lab dissections, lab observations and experiments, and short field trips.

5. Course goals:

The major course goal is for the student to gain familiarity with the landforms, plants and animals that are important in Alaska, either biologically, culturally, economically, or historically.

6. Student learning outcomes:

The student should be able to explain in general terms, to friends, children, co-workers, spouses, or members of the public:

- 1) What are the important animal species in the state?
- 2) What are their general adaptations (ways of coping) with their environment?
- 3) What are the important plant species and how do they cope?
- 4) How does the landscape change, with or without human intervention?
- 5) How does science work?
- 6) What are the potentials for and hazards of climate change in Alaska?

7. Instructional methods:

Lectures and laboratory experiences are the methods of instruction. Lectures will, typically, follow an outline that will be posted beforehand on blackboard. Lectures will allow for questions, and discussion. I encourage both. Illustrations to be used in lecture will almost always be available, beforehand, on blackboard.

The blackboard postings will also include lab exercises. You may want to download and print these materials. I strongly recommend that you print at least the lecture notes and the lab exercises. My advice is to immediately purchase a three-ring binder and immediately put these materials in the binder. Bring the binder to class; bring at least the lab material to lab, preferably the entire binder. If we go on a field trip, bring your binder or, at least, something on which to take notes.

Field trips require some walking. The ground is, mostly, level but you need to wear appropriate footwear. I don't recommend barefoot, high heels, stylish pumps, open-toed sandals or flip-flops. If you have a mobility issue please let me know so we can figure out what to do about it beforehand. If you have other issues of which I need to be aware, let me know early in the course. See Number 12, below.

8. Course calendar:

Lecture

Lab

May 20 Introduction, AK dinosaurs	Field walk, museum
May 21 Landforms, ice ages, vegetation	
May 22 Alaska ice ages, fauna	Skulls, antlers, horns
May 23 Coping with the cold	
May 27 NO CLASS (Memorial Day)	
May 28 EXAM, coping with the cold	
May 29 Boreal forest: trees, shrubs	Birds of Alaska
May 30 Plant succession	
June 3 EXAM, moose, black bear	Foot loading
June 4 Hare, squirrels	
June 5 Grouse, voles, weasels	Parasites
June 6 Nutrient and energy flow	
June 10 EXAM, tundra vegetation, caribou	Hare, grouse anatomy
June 11 Marmot, ground squirrel	
June 12 Pika, grizzly, wolf	Smith Lake field trip
June 13 Sheep, ptarmigan	
June 17 EXAM, Aquatic systems	Salmon lab
June 18 Salmon	
June 19 Pike, grayling, burbot	Fish lab
June 20 Halibut, herring	
June 24 EXAM, Pollock, cod	Forest vegetation field trip
June 25 Climate change	
June 26 Change in Alaska	Climate change
June 27 Exam	

9. Course policies:

I will not take attendance, nor will I penalize students for tardiness. Please be aware, however, that chronic tardiness is a sign of lack of interest and of disrespect for fellow students and the instructor.

Only under very unusual circumstances will I give make-up exams or quizzes. First, your excuse better be good. In 31 years of teaching I've heard them all, most of which I classified as "lame excuses." Second, you will be given a different exam and it will be harder than the original exam.

If you cheat on an exam it will count as a zero % grade for that exam.

10. Evaluation

Your grade for the course will be calculated using the scores on five 1-hour exams (500 points total) and the scores of ten lab quizzes (160 points total). Lecture exams consist of multiple-choice questions, short answer questions and, infrequently, longer answer questions. There will be no true-false, matching or fill in the blank questions. Questions will be drawn both from the lectures, blackboard postings, and from the assigned readings. The lecture exams will be held on Mondays at the beginning of the class period. Lab/field trip questions will include short answer, multiple-choice and identification questions. You will be tested on the previous lab at the beginning of the next lab. It pays to be on time for these exams and quizzes; if you are late you may not have time to finish the exam.

There is a lot of material in this course. Keep up with the reading, look at the lecture notes (posted on blackboard) ahead of class. Come to class; what I say in class may clarify the notes or go way beyond the notes. Also, I respond to questions and, in answering, include additional material. The additional material can show up on the exams.

The grading scale is:

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

Finally, ringing cell phones are not acceptable. Note taking on laptops and/or iPads is acceptable but these devices must be put away for exams.

11. Support services:

See me if you think you require tutoring or other support services.

12. Disabilities services:

I will work with the Office of Disabilities Services (208 Whittaker Building, 474-5655) to provide reasonable accommodation to students with disabilities.