

# Bemidji State University

## **BIOL 4530: Ecology and Management of Large Mammals**

### **A. COURSE DESCRIPTION**

Credits: 3

Lecture Hours/Week: 0

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Large mammals are socially and ecologically important components of the landscape and are intensively managed by wildlife agencies and private landowners. The primary focus of the course will be on life-histories, investigative techniques, and management of the major large mammals in Minnesota; white-tailed deer, black bear, wolves, moose, and elk. Biology, management, and research of large mammals from the western United States (i.e., mule deer, cougar, bison, pronghorn antelope, bighorn sheep, brown bear, etc.) will also be discussed. Students will be introduced to current issues concerning the political and social aspects of big game management. Prerequisite(s): BIOL 3610.

**B. COURSE EFFECTIVE DATES:** 05/15/2020 - Present

### **C. OUTLINE OF MAJOR CONTENT AREAS**

1. Introduction: taxonomy & distribution in North America
2. History of management: pre-European, overexploitation, regulation
3. Ecology, behavior, & reproduction: ungulates
4. Ecology, behavior, & reproduction: carnivores
5. Nutrition & condition
6. Predator-prey interactions
7. Estimating population parameters
8. Harvest: state/federal agency management & public trust
9. Harvest: selective harvest & intensive private management
10. Overabundance, social carrying capacity, & human conflicts
11. Climate change & disease
12. Chronic Wasting Disease: past, present, future
13. Captive breeding & reintroductions
14. Management outside of North America

### **D. LEARNING OUTCOMES (General)**

1. gain an understanding of the life history of white-tailed deer, black bears, and other large mammal species.
2. enhance their understanding of ungulate diseases, captive wildlife facilities, and current issues facing managers of big game species.
3. gain an appreciation and understanding of large mammals from the western United States and from outside of North America.

**E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted