**HIGH LATITUDE RANGE MANAGEMENT (HLRM)**

**HLRM F120  History of Domesticated Alaskan Ungulates  (a)**
1 Credit
Offered Spring
Review the history of domesticated ungulate populations, free-ranging and fenced systems, in Alaska beginning from the 1890s to present. Emphasis will be placed on traditional activities on the Seward Peninsula.
**Prerequisites:** WRTG F111X.
**Lecture + Lab + Other:** 1 + 0 + 0

**HLRM F130  Research Field Logistics**
2 Credits
Offered Summer
Learn the skills, techniques, and equipment used in remote scientific fieldwork in Alaska. Course includes methods for processing and storing animal/plant tissue samples, orienteering, navigation, GPS, wilderness first aid, Arctic survival, bear safety, boat safety, as well as ATV, boat, and snowmachine operation, maintenance and repair.
**Lecture + Lab + Other:** 1 + 3 + 0

**HLRM F140  High Latitude Range Management  (a)**
2 Credits
Offered Fall
Policies and terminology of range and range management specific to Alaska and the Arctic. Review current vegetation inventory techniques used by federal and state agencies. Identify and sample Alaska forage plants. Examine range production systems in Alaska for a variety of species; domesticated and wild. Development of a high latitude range management plan.
**Prerequisites:** BIOL F104X; NRM F101.
**Lecture + Lab + Other:** 1.5 + 0 + 1.5

**HLRM F150  Alaskan Ungulate Husbandry  (a)**
2 Credits
Offered Summer
Students will be introduced to management skills, facilities design and nutritional needs for domesticated ungulates in Alaska. Provides exposure and examines traditional knowledge combined with contemporary research in herding and husbandry for open range and fenced systems. Field trips to reindeer, elk, bison, and/or cattle operations will demonstrate husbandry techniques and data collection procedures.
**Prerequisites:** HLRM F140.
**Lecture + Lab + Other:** 1.5 + 0 + 1.5

**HLRM F160  Meat Production**
2 Credits
Offered Spring
A study of the meat animal processing sequence. The production of meat-type domesticated ungulates in Alaska and the science and technology of their conversion to food, value-added products and by-products. A review of the current state regulations and methods on proper field slaughtering, and the preparation, handling and storage of meat will be introduced.
**Prerequisites:** HLRM F140.
**Lecture + Lab + Other:** 1.5 + 0 + 1.5

**HLRM F170  Health Issues in Domesticated Ungulates**
2 Credits
Offered Fall
Ruminant anatomy and physiology specific to high latitude ungulates. Overall health issues and problem solving techniques for domesticated ungulates, including a review of indicators for disease or parasitic infections. Vaccinations and Rx treatments; including use in food animals. Field necropsy techniques and blood and tissue collection procedures. State monitoring and identification policies.
**Prerequisites:** HLRM F150.
**Lecture + Lab + Other:** 1.5 + 0 + 1.5

**HLRM F201  Field Techniques for Range Management**
2 Credits
Offered Summer
Provides hands-on instruction in field and laboratory techniques in range evaluation for domesticated ungulates. Basic methods for sampling and studying grazing systems at the high latitudes will be introduced. Students will participate in data collection and analysis procedures as part of an independent research project.
**Prerequisites:** ABUS F155 or MATH F113X; HLRM F130; HLRM F140.
**Lecture + Lab + Other:** 1 + 3 + 0

**HLRM F205  Report Writing in Range Management**
2 Credits
Offered Fall
Provides the basic technical reporting methods, writing, and research skills necessary to analyze, interpret, and document field and laboratory data. Incorporating field data collected in HLRM F201 and the skills, knowledge, and techniques learned in other required courses, the student will produce a written technical report and make a presentation.
**Prerequisites:** WRTG F111X; HLRM F201.
**Lecture + Lab + Other:** 2 + 0 + 0