NRM 601: RESEARCH METHODS IN NATURAL RESOURCES MANAGEMENT

Fall Semester 2015

COURSE SYLLABUS

CLASSES

Lectures and discussions, Wednesday, 3:00 pm to 5:00 pm, AHRB 183

INSTRUCTOR AND COORDINATOR

Dr. Jenifer Huang McBeath
Office: 130 Arctic Health Research Building (AHRB)
Telephone: 474-7431
Email: jhmcbeath@alaska.edu

OFFICE HOURS

Tuesday and Thursday 11:30 am—1:30 pm. and by appointment

SCOPE AND LEARNING OBJECTIVES

This course is designed as an introduction for graduate students to the research methods employed in various fields of natural resources management, including agriculture, forestry, pathology, entomology, ecology, climatology and the social sciences. This course is intended to acquaint students with the relationship between theory and research, the nature of scientific inquiry, approaches to research, the sequence of steps involved in scientific investigation, obtaining grant funds to support research, analysis and interpretation of research results, and presentation of results.

The primary objectives of this course are:

1) introduce students to the concepts of scientific research,
2) instruct students in rules and guidelines of research ethics,
3) expose students to diverse methods and instruments in biological and social science research,
4) instruct students in grant writing.

This course will be taught by experts on the subject matters and disciplines.

GRADING SYSTEM

Final grades will be assigned based on merit. The bottom and top three percentage points of each letter grade below will be assigned a '-' and '+', respectively.
A = 90% or higher
B = 80-90%
C = 70 -79%
D = 60-69%

F = <60%

REQUIREMENTS

1. Attendance and Participation. Regular attendance is essential and good attendance will be rewarded. Attendance counts for 20 percent of the course grade. Active participation in class by asking questions and engaging in discussion improves the learning environment for all students, and is strongly encouraged. Please avoid distracting classmates (and instructor) by open cell phones, texting in class, and surfing the web.

2. Write a grant proposal for a research project in natural resources. Each student will develop a proposal by selecting a research topic

aTJETBT1 0 0 1 402493 847.42 Tm[ )]TJ ET BT1 0 0 1 ... -5(rc10(r)4(n)-9(

Oct. 14	Animals in Research: Animal care and research design	J. Rowe, and J. Blake
Oct. 21	Weed Science Research	S. Seefeldt
Oct. 28	Entomological Research	D. Sikes
Nov. 04	GIS Technology	D. Verbyla
Nov. 11	Modeling the Arctic Climate System	J. Walsh
Nov. 18.	Environmental microbiology research methods	M. Leigh
Nov. 25	Ag-bioresearch—integrating science with practical Experience—plant pathology	J. McBeath M. Karlsson
Dec. 02	Ag-bioresearch—integrating science with practical Experience—horticulture	M. Karlsson J. McBeath
Dec. 9	Proposal Presentation (25 minutes per presenter)	
Dec. 16	Proposal submission	

LIST OF LECTURERS

Dr. Ronald Barry, Professor of Mathematics and Statistics, CNSM
Dr. John Blake, Associate Vice Chancellor for Research, Director of Animal Resource Center, Attending Veterinarian.
Ms. Sandra Boatwright, Manager, Proposal and Publication Office, Institute of Northern Engineering.
Dr. Elaine Drew, Assistant Professor of cultural anthropology, Department of Anthropology, CLA
Dr. Peter Fix, Associate Professor of Outdoor Recreation, Department of Natural Resources, School of Natural Resources and Extension (SNRE)
Dr. Meriam Karlsson, Professor of Horticulture, AFES, and Department of Agriculture and Horticulture, SNRE
Dr. Mary Beth Leigh, Associate Professor, Institute of Biology and Wildlife. CNSM
Dr. J. H. McBeath, Professor of Plant Pathology and Biotechnology, AFES and Department of Agriculture and Horticulture, SNRE
Dr. Jan Rowe,