METHODS IN ENVIRONMENTAL SCIENCE AND RANGE MANAGEMENT

COURSE INFORMATION:

Title: Methods in Environmental Science and Range Management

Department/Number: HLRM 205 Credits: 2

Prerequisites: HLRM 201/ESCI 201

Recommendation: HLRM 101/ESCI 101 or 100 level biology, chemistry or geology

Location: distance delivered via Blackboard and E-Live from BBC or NWC

Meeting Dates/Time: Fall 2008, Monday and Wednesdays 5:10-6:40 pm for first 9 weeks of semester

INSTRUCTOR INFORMATION:

TODD RADENBAUGH
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UAF Bristol Bay Campus
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LOCAL CONTACT INFO:

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Pouch 400
Nome, AK 99762
907-443-2201
800-478-2202

COURSE READINGS/MATERIALS:

Course Textbook:

Author: Publisher:

Supplementary Readings (Indicate whether required or recommended):

Students will be provided with course related handouts prior to the start of the course.
Any Supplies Required:

**COURSE DESCRIPTION:**

This course provides students with the interdisciplinary research tools needed to analyze, interpret, and report on environmental field and laboratory data incorporating skills, knowledge, and abilities learned in previous ESCI/HLRM required courses (including field data previously collected in ESCI/HLRM 201) into a capstone research project that is presented in scientific meeting format.

**COURSE GOALS:**

General Description of Goals: Upon completion of this course, students will:

- Design a research project proposal in the environmental science
- Understand the concepts of interdisciplinary data analysis and interpretation for ecological sciences
- Write a complete scientific report using actual data collected in the field
- Present research finding in a scientific meeting format

Student Learning Outcomes/Objectives (Provide Examples): Students will demonstrate an understanding of field research techniques by completing the following:

- Use the scientific method and critical thinking to understand environmental problems and discoveries
- Collect and interpret quantitative scientific data
- Employ statistical analysis to quantify data into results
- Create relevant figures and tables of scientific data
- Be able to prepare a standard science report
- Develop effective oral and poster scientific presentations

**INSTRUCTIONAL METHODS:**

Distance delivery – using e-mail and Blackboard students will interact to analyze and interpret field and laboratory data, and then write scientific report culminating their capstone project for the HLRM or ESCI certificate programs.
SYLLABUS / COURSE CALENDAR:

Week 1
  How to conduct a literature review
Week 2
  Writing introductions
Week 3
  Analyzing data I: basic statistics
Week 4
  Analyzing data II: figures and tables
Week 5
  Analyzing data III: basic parametric and nonparametric statistics
Week 6
  Writing results
Week 7
  Writing Conclusions
Week 8
  Ways to present scientific data
Week 9
  Student presentations and capstone reports due

COURSE POLICIES:

Participants will read assigned materials, contribute to the class discussions, and complete data analysis assignments. The web sites of reference and reading materials will be reviewed before the class so participants can share their learning and insights during the course.

EVALUATION:

Grades in this course will be determined as follows:
10% Class Participation
20% Oral or poster presentation
70% Capstone Report
The grading scale in this course will be determined as follows:
A = 90%-100%, B = 80%-89%, C = 70%-79%, D = 60%-69%, F = 0%-59%
SUPPORT SERVICES:

Barbara Oleson, Student Services Program Manager, 443-8402 or Bob Metcalf, Records & Registration, 443-8403.

DISABILITIES SERVICES:

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. State that you will work with the Office of Disabilities Services (203 WHIT-7043) to provide reasonable accommodation to students with disabilities:

DISABILITIES SERVICES TEXT FOR DISTANCE FACULTY SYLLABI
(Approved by Mary Matthews, UAF Disability Services, June 16, 2004)

UAF DISABILITY SERVICES FOR DISTANCE STUDENTS

UAF has a Disability Services office that operates in conjunction with the College of Rural Alaska's (CRA) campuses and UAF’s Center for Distance Education (CDE). Disability Services, a part of UAF's Center for Health and Counseling, provides academic accommodations to enrolled students who are identified as being eligible for these services.

If you believe you are eligible, please visit http://www.uaf.edu/chc/disability.html on the web or contact a student affairs staff person at your nearest local campus. You can also contact Disability Services on the Fairbanks Campus at (907) 474-7043, fydso@uaf.edu.