
Syllabus

TITLE: Survey Research in Natural Resources Management

NUMBER: NRM 366

CREDITS: 3

PREREQUISITES: NRM F101; STAT F200X

LOCATION: Lectures 305 O'Neill, lab 359 O'Neill

MEETING TIME: Lecture M 5:30 to 7:30; lab W. 2 – 5

COURSE TYPE: Lecture/lab

INSTRUCTOR: Dr. Peter J. Fix

OFFICE LOCATION: 323 O'Neill

OFFICE HOURS: Tues. & Thurs. 1:15 to 2:45 p.m.

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COURSE DESCRIPTION

Catalog description

Research methods to support research and planning in recreation and human dimensions of natural resources management. Course topics include quantitative theories and concepts that have been applied to study human dimensions of natural resource management, study design, survey development and administration, sampling and data analysis.

Additional course description

Social science surveys can be a valuable tool for natural resource management. As such, they are extensively applied to assist in management decisions. However, obtaining valid results requires careful attention to the concepts being measured, design of the questionnaire, and methods used. This course will explore concepts from social psychology that can assist in natural resource management and principles of survey design and analysis, with an emphasis on natural resource-related applications.

COURSE GOALS

The course will provide students with knowledge of the following topics:

- How survey research can support management decisions
- Social psychology topics most often applied in natural resource management
- Defining study objectives and identifying and integrating social science concepts most applicable to study concepts
- Developing a quantitative survey to measure research questions/hypotheses
- Assessing the reliability of a survey and validity of results
- Steps to go from raw survey data to data analysis
- Basic statistical analysis in SPSS
- Documenting results in a report

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Email: uaf-ecampus@alaska.edu

STUDENT LEARNING OUTCOMES

Upon successful completion of this course, the students will have the skills to:

- Evaluate survey-based research projects to determine whether the methods utilized met stated study objectives
- Complete all phases of a survey-based research project, including developing study objectives, selecting the most appropriate survey method and developing the questionnaire, coding data and conducting statistical analysis, and documenting results
- Present results in an appropriate format (e.g., APA, The Chicago Manual of Style)

COURSE READINGS/MATERIALS

Required text: Vaske, J. J. (2008). *Survey research and analysis: Applications in parks, recreation and human dimensions*. State College, PA: Venture Publishing.

Additional readings will be assigned, and are noted in the class schedule. These readings will be posted to Blackboard.

TECHNICAL REQUIREMENTS FOR COURSE

Students must have regular access to a computer and the Internet to access materials in Blackboard. Students will be expected to download course material as well as upload assignments.

Lab sessions will use the software program SPSS. It is installed on the computers in 359 O'Neill. Distance students will be required to secure their own copy. SPSS can be rented for six months for \$39.99 + a \$4.99 download fee from:

<https://estore.onthehub.com/WebStore/OfferingDetails.aspx?o=9d56569b-2d5f-e911-8115-000d3af41938&pmv=304b1dff-5b5d-e911-8115-000d3af41938>

(Google "SPSS onthehub")

INSTRUCTIONAL METHODS

The class will consist of 2 credits of lecture and a 1-credit lab section. The lecture sections will be based on course readings; it is expected you come to class having read the material and are prepared to discuss the material.

The lab will consist of becoming familiar with survey data (level of measurement, coding data, creating data bases, data management), analysis, and creating surveys.

COURSE CALENDAR

Dates	Topics Covered
Week 1 1/13 to 1/17	Course introduction
Lab 1	Introduction to SPSS
Week 2 1/20 to 1/24	No lecture (AK Civil Rights Day; videos will be posted). <ul style="list-style-type: none"> Manfredo, M. J., Vaske, J. J., & Decker, D. J. (1995). Human dimensions of wildlife management: basic concepts. In R. L. Knight & K. J. Gutzweiller (eds). <i>Wildlife and Recreationists: coexistence through Management and Research</i>. Washington D.C.: Island Press. Vaske: ch. 2
Lab 2	Level of Measurement and Coding Data <ul style="list-style-type: none"> Vaske: ch. 5 (pages 79 to 88), ch. 10
Week 3 1/27 to 1/31	Introduction to Measurement <ul style="list-style-type: none"> Vaske: ch. 4
Lab 3	Database creation
Week 4 2/3 to 2/7	More on Attitudes <ul style="list-style-type: none"> Whittaker, D., Manfredo, M. J., Fix, P. J., Sinnot, R., Miller, S., & Vaske, J. J. (2001). Understanding Beliefs and Attitudes About an Urban Wildlife Hunt: Moose Hunting Near Anchorage Alaska. <i>Wildlife Society Bulletin</i>, 29(4), 1114-1124.
Lab 4	Data management <ul style="list-style-type: none"> Vaske: ch. 12
Week 5 2/10 to 2/14	Values orientations <ul style="list-style-type: none"> McFarlane, B. L. & Boxall P. C. (2000). Factors influencing forest values and attitudes of two stakeholder groups: The case of the foothills Model Forest, Alberta, Canada. <i>Society and Natural Resources</i>, 13, 649-661. Teel, T. L., Dayer, A. A., Manfredo, M. J., & Bright, A. D. (2005). <i>Regional results from the research project entitled "Wildlife Values in the West."</i> (project report No. 58). Project report for the Western Association of Fish and Wildlife Agencies. Fort Collins, CO: Colorado State University, Human Dimension in Natural Resources Unit. Pgs: 1-21; 168-175.
Lab 5	Reliability analysis and scale construction
Week 6 2/17 to 2/21	Writing and conducting surveys <ul style="list-style-type: none"> Vaske: ch. 7 Exam 1. Covers material through week 5
Lab 6	Survey design
Week 7 2/24 to 2/28	Writing and conducting surveys, continued <ul style="list-style-type: none"> Example surveys
Lab 7	Survey design

Week 8 3/2 to 3/6	Writing and conducting surveys, continued <ul style="list-style-type: none"> • Web surveys
Lab 8	Crosstabs <ul style="list-style-type: none"> • Vaske: ch. 13
Week 9 3/9 to 3/13	Spring Break – no class!
Week 10 3/16 to 3/20	Implementation: possible errors, response rate, survey administration <ul style="list-style-type: none"> • Vaske: ch. 8
Lab 9	Sampling
Week 11 3/23 to 3/27	Implementation: sampling, margin of error <ul style="list-style-type: none"> • Vaske: ch. 8
Lab 10	Sampling
Week 12 3/30 to 4/3	Implementation: weighting <ul style="list-style-type: none"> • Vaske: ch. 8
Lab 11	Weighting <ul style="list-style-type: none"> • Vaske: ch. 8
Week 13 4/6 to 4/10	Project evaluation <ul style="list-style-type: none"> • Yale Program on Climate Change Communication: Global Warming's Six Americas: http://climatecommunication.yale.edu/about/projects/global-warmings-six-americas/ Exam 2. Covers material from week 6 through week 12
Lab 12	T-test: <ul style="list-style-type: none"> • Vaske: ch. 14
Week 14 4/13 to 4/17	Writing up results, IRB and your responsibilities as a researcher
Lab 13	ANOVA <ul style="list-style-type: none"> • Vaske: ch. 15
Week 15 4/20 to 4/24	Case study <ul style="list-style-type: none"> • TBA
Lab 14	Linking survey design to analysis
May 1	Final exam due

COURSE POLICIES

This course will adhere to the following policies.

- Points, equivalent to one letter grade per day late, will be deducted for late assignments (unless arrangements have been made, see below).
- Due dates for assignments can be adjusted and exams can be rescheduled/made up for legitimate reasons (illness, family issues, UAF athletic travel, conference travel) if prior arrangements are made. If absolutely unforeseen circumstances occur and prior arrangements have not been made, exceptions might be granted on a case by case basis.
- It is expected that you attend all lectures, complete all lecture-based assignments, attend lab, and participate in all lab assignments.

EVALUATION POLICIES

Students will be evaluated on weekly lecture-based assignments (viewing/reading supplemental material and posting to discussion forums, written assignments, and quizzes), lab assignments, and three exams. Some discussions and assignments might have a class participation component. Exams and assignments will be evaluated in comparison to the correct answer as indicated by the course readings and online lecture material. Discussion forums will be evaluated based on evidence of critical thinking about the topic, contribution to the overall discussion, and respect for other students. Successful participation will require you to complete the discussions in a timely and professional manner. Lecture-based assignments will vary in tasks and expectations. I will provide grading rubrics with the assignments.

Plus and minus grades will be used. Grades will utilize absolute score. The components of the final grade and their contribution to the overall grade are as follows.

Weight for final grade ¹		Requirements for letter grade		
Weekly lecture-based assignments ²	35%	A + > 96 ⁵	C+ 77 to 79	F < 60
Lab assignments ³	35%	A 93 to 96	C 73 to 76	
Exams ⁴	30%	A- 90 to 92	C- 70 to 72	
		B+ 87 to 89 B 83 to 86 B- 80 to 82	D+ 67 to 69 D 63 to 66 D- 60 to 62	

¹It is important to note the weights are applied to your average score within each category. Thus, the absolute point value is not the appropriate metric to determine the relative worth of any one assignment.

²Includes discussions, written assignments, and quizzes. While there will be weekly assignments, the assignments on weeks with exams will be less intense than other weeks.

³Each lab will have an assignment.

⁴There will be two exams during the semester and a final exam.

⁵These numbers represent percentages.

ACADEMIC INTEGRITY

As described by UAF, scholastic dishonesty constitutes a violation of the university rules and regulations and is punishable according to the procedures outlined by UAF. Scholastic dishonesty includes, but is not limited to, cheating on an exam, plagiarism, and collusion. Cheating includes providing answers to or taking answers from another student. Plagiarism includes use of another author's words or arguments without attribution. Collusion includes unauthorized collaboration with another person in preparing written work for fulfillment of any course requirement. Scholastic dishonesty is punishable by removal from the course and a grade of "F." For more information go to [Student Code of Conduct](#).

EXPLANATION OF NB/I/W GRADES

This course adheres to the UAF regarding the granting of NB Grades *The NB grade is for use only in situations in which the instructor has No Basis upon which to assign a grade. In general, the NB grade will not be granted.*

Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy:

"The letter "I" (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student's control, such as sickness, he has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an "I" grade."

Successful, timely completion of this course depends on committing yourself early and maintaining your effort. Failure to submit assignments in a timely manner may result in faculty-initiated Withdrawal from the course, which can result in a **W** on your transcript.

INSTRUCTOR RESPONSE TIME

If you email me with a question during weekday daytime hours I will try to reply promptly. However, I have meetings and other constraints that might delay my response time. Although I do check email and respond to students in the evening and over the weekend, occasionally I purposely do not check email during those times. If I know I will have limited contact during the week (travel, other commitments), I will let you know. My goal is to grade assignments and exams within a week.

EFFORT AND STUDENT INVOLVEMENT

This is a 3 credit lab course, with 2 credits associated with lecture and 1 credit for lab. The weekly contact hours and student effort requirements for a traditional face to face class are 2 hours of lecture, 3 hours of lab, and 4 hours of student work outside of the lecture/lab (9 total hours per week).

A rough approximation as to how you will allocate the 9 hours per week is as follows.

- "Lecture" material and lecture-based assignments: 44%
- Course readings and studying for exams: 23%
- Lab assignments: 33%

STUDENT PROTECTIONS AND SERVICES STATEMENT

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans' services, rural student services, etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. As required, if I notice or am informed of certain types of misconduct, then I am required to report it to the appropriate authorities. For more information on your rights as a student and the resources available to you to resolve problems, please go the following site: www.uaf.edu/handbook

SUPPORT SERVICES

Go to the Student Handbook (www.uaf.edu/handbook) for things like: academic advising, tutoring, library and academic support, disability services, computing and technology, veteran and military support, academic complaint and appeals, late withdrawals, "classroom" behavior expectations and more.

UAF eCampus Student Services helps students with registration and course schedules, provides information about lessons and student records, assists with the examination process, and answers general questions. Our Academic Advisor can help students communicate with instructors, locate helpful resources, and maximize their distance learning experience. Contact the UAF eCampus Student Services staff at 907.455.2060 or toll free 1.800.277.8060 or contact staff directly with our [directory listing](#).

UAF Help Desk

Go to <http://www.alaska.edu/oit/> to see about current network outages and technology news. For technical questions, contact the Help Desk at:

- e-mail at helpdesk@alaska.edu
- phone: 450.8300 (in the Fairbanks area) or 1.800.478.8226 (outside of Fairbanks)

Effective Communication

Students who have difficulties with oral presentations and/or writing are strongly encouraged to get help from:

- [UAF Department of Communication's Speaking Center](#) (907.474.5470, speak@uaf.edu)
- [UAF English's Department's Writing Center](#) (907.474.5314, Gruening 8th floor)
- [CTC's Learning Center](#) (604 Barnette Street, 907.455.2860).

NOTICE OF NONDISCRIMINATION

UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/titleIXcompliance/nondiscrimination

Template for lecture-based assignments								
Week	Topics Covered	Discussion	Assignment	Quiz	Exam			
Week 1	Course introduction	Find complex issue / respond						
Week 2	Common topics in survey-based human dimensions research		1) Build on complex issues, and 2) Bears in Anchorage					
Week 3	Introduction to Measurement		Diagram a theory	Basic concepts				
Week 4	More on Attitudes		Potential beliefs & specificity, duck hunting TLRA					
Week 5	Values orientations		Mgt. application of the case studies we've looked at	Id components from case study				
Week 6	Writing and conducting surveys: intro		Find and critique a survey		Exam 1			
Week 7	Writing and conducting surveys: examples		Survey evaluation	Pros and cons of different survey methods				
Week 8	Writing and conducting surveys: web surveys		Transfer lab survey to web					
Week 9	Spring Break – no class!		Have fun :)					
Week 10	Implementation: possible errors, response rate, survey administration	How do these errors compare to other science disciplines? Discussion thread		Errors				
Week 11	Implementation: Sampling, margin of error		Sampling situations	Margin of error				
Week 12	Implementation: Weighting	Thoughts on the use of the weights		Concepts of weighting				
Week 13	Project evaluation: Yale Climate change	Strengths / weaknesses, discussion thread			Exam 2			
Week 14	Writing up results, IRB	Discussion about research ethics	IRB certification					
Week 15	Case study: Elk in RMNP		Strength/weaknesses					
	Points assigned							
	5 Discussions @ 50 pts ea.	250						
	11 assignments @ 50 pts ea.	550						
	6 quizzes @ 30 pts ea.	180						
		980						