



NRM 469 Syllabus, spring 2024

TITLE: Survey Research in Human Dimensions of Natural Resources

NUMBER: NRM 469

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. 1:00 - 3:00 p.m., and by appointment

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COURSE DESCRIPTION

Catalog description

Social science concepts applied to survey-based human dimensions research. Survey research methods including operationalizing research questions into measurable variables, designing survey instruments, assessing reliability and validity, developing a sampling plan, data management, data analysis, and reporting results.

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 instrument to measure research questions/hypotheses
- Assessing the reliability of a survey and validity of results
- Steps to progress from raw survey data to data analysis
- Basic statistical analysis in SPSS
- Documenting results in a report
- Institutional Review Board

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 resulted in study objectives being met.
- 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. (2019). *Survey research and analysis: Applications in parks, recreation and human dimensions, 2nd*. State College, PA: Venture Publishing.

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

TECHNICAL REQUIREMENTS FOR COURSE

Students must have regular access to a computer and the Internet to access materials in Canvas. 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 \$45.95 + a \$4.99 download fee from: <https://onthehub.com/products/4089c65e-9133-ed11-814e-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 1/16 to 1/19	Course introduction. No lecture (AK Civil Rights Day; videos will be posted). Assignment to introduce yourself in chat.
Lab 1	Introduction to SPSS
Week 2 1/22 to 1/26	Introduction to key topics <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 1/29 to 2/2	Introduction to Measurement <ul style="list-style-type: none"> • Vaske: ch. 4
Lab 3	Database creation
Week 4 2/5 to 2/9	More on Attitudes <ul style="list-style-type: none"> • Whittaker, D., Manfredo, M. J., Fix, P. J., Sinnott, 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 2/12 to 2/16	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 2/19 to 2/23	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 2/26 to 3/1	Writing and conducting surveys, continued <ul style="list-style-type: none"> • Example surveys
Lab 7	Survey design
Week 8	Writing and conducting surveys, continued

3/4 to 3/8	<ul style="list-style-type: none"> • Web surveys
Lab 8	Crosstabs <ul style="list-style-type: none"> • Vaske: ch. 13
Week 9 3/11 to 3/15	Spring Break – no class!
Week 10 3/18 to 3/22	Implementation: possible errors, response rate, survey administration <ul style="list-style-type: none"> • Vaske: ch. 8
Lab 9	Sampling
Week 11 3/25 to 3/29	Implementation: sampling, margin of error <ul style="list-style-type: none"> • Vaske: ch. 8
Lab 10	Sampling
Week 12 4/1 to 4/5	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 4/8 to 4/12	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 4/15 to 4/19	Writing up results, IRB and your responsibilities as a researcher
Lab 13	ANOVA <ul style="list-style-type: none"> • Vaske: ch. 15
Week 15 4/22 to 4/26	Case study <ul style="list-style-type: none"> • TBA
Lab 14	Linking survey design to analysis
May 2	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. A general rubric is on the next page, the ratio of critical thinking to written communication will be posted with each assignment/discussion.

Plus and minus grades will be used. Grades will not be curved. 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	D+ 67 to 69	
		B 83 to 86	D 63 to 66	
		B- 80 to 82	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.

	Assignment Rubric and General Letter Grade (specific points will be determined based on the degree meeting the standards for the letter grade)			
	A	B	C	D
Critical thinking - applies to discussions and written assignments	Issue/problem clearly & comprehensively stated; position is soundly supported; problem identified and supporting material correctly follow from lecture materials; creative in identifying an application.	Issue/problem statement not seriously impeded by omissions; position is adequately supported; problem identified and supporting material follow from lecture materials with few errors; application is moderately novel.	Issue/problem statement not fully developed; position has weak support; problem identified and supporting material loosely follow from lecture materials with some errors, and/or application lacks novelty.	Issue/problem statement lacks clarity; position has weak support; problem identified and supporting material loosely follow lecture materials but contain several key errors, and/or application lacks novelty.
Written Comm. for discussion post	Clear, error-free language; language is professional in tone; response to posts is constructive, relevant, respectful, and contributes to the class's understanding of the topic.	Clear language, but may contain some errors; language is professional in tone; response to posts is constructive, relevant, respectful, and moderately contributes to the class's understanding of the topic.	Language contains errors and is difficult to follow; response to posts contains some extraneous material that limits the contribution to the class's understanding of the topic.	Language contains errors and is difficult to follow; response to posts mostly irrelevant with limited contribution to the class's understanding of the topic.
Written Comm. for written assignments	Clear, error-free language; highly effective organization; positions are clearly identified; no extraneous material; cited as appropriate.	Clear language, but may contain some errors; effective organization; positions are clearly identified, might contain some extraneous material; cited as appropriate.	Language contains errors and is difficult to follow; organization limits presentation of positions; contains irrelevant material; inconsistent citations.	Language contains errors and is difficult to follow; positions are not clear; lacks organization; does not cite sources.
Lab assignments	Completed all sections; followed instructions; calculations accurate; write up is concise and error free, and conclusions follow from data/results.	Completed all sections; followed instructions; minor errors in calculations; write up is concise and error free, and conclusions mostly follow from data/results.	Missed some sections, but mostly complete; errors in calculations or following instructions; demonstrates some understanding of procedures; write up lacks connection to data/results.	Few sections completed or responses indicate misapplication of procedures; write up lacks connection to data/results or is not complete.

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. It is expected that students are engaged in 2 hours of independent work outside of the lecture, per lecture credit. Thus, expectations for this class are 2 hours of lecture, 3 hours of lab, and 4 hours of student work outside of the lecture (9 total hours per week).

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

- Attending classes and lecture-based assignments: 44%
- Course readings and studying for exams: 23%
- Lab assignments: 33%

PLEASE See Syllabus Addendum for information about student rights and responsibilities and support services.



DEPARTMENT OF NATURAL
RESOURCES AND ENVIRONMENT

University of Alaska Fairbanks

COLLEGE OF NATURAL SCIENCE & MATHEMATICS

Template for lecture-based assignments							
start	end	Week	Topics Covered	Discussion	Assignment	Quiz	Exam
16-Jan	19-Jan	Week 1	Course introduction	Find complex issue / respond			
22-Jan	26-Jan	Week 2	Common topics in survey-based human dimensions research	Build on complex issue / respond	Bears in Anchorage - ID topics		
29-Jan	2-Feb	Week 3	Introduction to Measurement		Diagram a theory	Basic concepts	
5-Feb	9-Feb	Week 4	More on Attitudes		Specificity related to issue identified in discussions 1 & 2		
12-Feb	16-Feb	Week 5	Values orientations	What is the utility/mgt. application of the case studies we've looked at?		Id components from case study	
19-Feb	23-Feb	Week 6	Writing and conducting surveys: intro	Find and critique a survey			Exam 1
26-Feb	1-Mar	Week 7	Writing and conducting surveys: examples		Survey evaluation	Pros and cons of different survey methods	
4-Mar	8-Mar	Week 8	Writing and conducting surveys: web surveys		Transfer lab survey to web		
11-Mar	15-Mar	Week 9	Spring Break – no class!		Have fun :)		
18-Mar	22-Mar	Week 10	Implementation: possible errors, response rate, survey administration	How do these errors compare to other science disciplines? Discussion thread		Errors	
25-Mar	29-Mar	Week 11	Implementation: Sampling, margin of error		Sampling situations	Margin of error	
1-Apr	5-Apr	Week 12	Implementation: Weighting	Thoughts on the use of the weights		Concepts of weighting	
8-Apr	12-Apr	Week 13	Project evaluation: Yale Climate change	Strengths / weaknesses, discussion thread			Exam 2
15-Apr	19-Apr	Week 14	Writing up results, IRB	Discussion about SPE & research ethics	IRB certification		
22-Apr	26-Apr	Week 15	Case study: TBA	Strengths / weaknesses, discussion thread			
			Points assigned				
			9 Discussions @ 40 pts ea.		360		
			7 assignments @ 50 pts ea.		350		
			6 quizzes @ 30 pts ea.		180		
			Total		890		