NRM 366 Survey Research in Natural Resources Management, spring 2017

M & W 5:30 to 7:00 p.m.
305 O'Neill / 359 O'Neill

Instructor:	Dr. Peter J. Fix
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Office hrs:	M & W 3:00 to 4:30 p.m., or by appointment

Overview

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:
- 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
- Strengths and weaknesses of different survey methods
- Steps to go from raw survey data to data analysis
- Basic statistical analysis in SPSS
- Writing up results in a report

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 writing up results
- Present results in an appropriate format (e.g., APA, The Chicago Manual of Style)

Class structure / Instructional Methods

The class will consist of classroom lecture/discussion sections and classes in which we will work with the Statistical Package for Social Science (SPSS). If everyone has a laptop they can bring to class, a student version of SPSS can be purchased through SPSS [http://www.onthehub.com/spss/] for $39.99 + a $4.99 download fee for 6 months. Download the IBM SPSS Statistics 23, Statistics Base Grad Pack. If that is not feasible, we can hold class in the computer lab. Case studies will be incorporated throughout the semester.

Course Readings
- Vaske, J. J. (2008). Survey research and analysis: Applications in parks, recreation and human dimensions. State College, PA: Venture Publishing.
- If additional readings are assigned, they will be posted to Blackboard.

Grading
Students will be evaluated on four exams and several assignments. Exams and assignments will be evaluated in comparison to the correct answer as indicated by the course readings. The first three exams will have an in-class and take home component; the final will be take home only.

Expectations
- Points, equivalent to one letter grade per day late, will be deducted for late assignments.
- Students are expected to come to class having read the assigned material.
- Students are expected to be at class and participate in discussion.

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

Weight for final grade		Requirements for letter grade		
Exams	60%	A + > 96%	C+ 77 to 79	F < 60%
Assignments	40%	A 93% to 96	C 73 to 76	
		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	

Plagiarism & Cheating
According to the UAF code of conduct "Students will not collaborate on any quizzes, in-class exams, or take-home exams that will contribute to their grade in a course, unless the instructor of the course grants permission. Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses, and other reports. No work submitted for one course may be submitted for credit in another course without the explicit approval of both instructors." Students are expected to abide by the UAF Student Code of Conduct. You are encouraged to review the UAF Student Code of Conduct at: http://www.uaf.edu/catalog/current/academics/regs3.html and http://www.alaska.edu/bor/policy-regulations/.

Plagiarism will not be tolerated. Please read the following document that explains what constitutes plagiarism: http://library.uaf.edu/ls101-plagiarism.

Also, please read following document that explains how to properly cite sources: http://library.uaf.edu/ls101-citing. Plagiarism is a major ethical violation and is grounds for course failure.

Disability Services
If you have a disability that you believe will affect your performance in this course, please speak with me directly AND contact the Disability Services director Mary Matthews (474-5655; mcmatthews@alaska.edu). Every effort will be made to accommodate you in accordance with the Americans with Disabilities Act. Further information is available at their website at http://www.uaf.edu/disability/about/.

Writing Center
The writing center in the eight floor of the Gruening Building can assist with your writing skills.

Tentative Class Schedule (Will be revised as necessary)

Date	Topic Covered
Introduction	
1/18	Why study Human Dimensions? • Manfredo, M. J., Vaske, J. J., & Sikorowski, L. (1994). Human dimensions of wildlife management. In A. Ewert (ed). *The Human/Environment Interaction" Human Dimensions Research in Natural Resource Management.* Westview Press. • Listen to the podcast: How to know it when you see it: human dimensions of natural resource management: http://digitalmedia.fws.gov/cdm/singleitem/collection/audio/id/94/rec/10 • *Assignment (due in class on 1/23): find example of find example of Human Dimensions of Natural Resources survey.*
1/23	Common topics in survey-based human dimensions research • 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). *Wildlife and Recreationists: coexistence through Management and Research*. Washington D.C.: Island Press. • Vaske: chs 1, 2
Brief overview of data considerations (necessary to understand measurement and survey design)	
1/25 (359)	Introduction to SPSS • Vaske: chs. 9 & 11
1/30 *(359)*	Level of Measurement and Coding Data • Vaske: ch. 5 (pages 79 to 88), ch. 10 *Assignment: constructing datasets*
2/1 *(359)*	Data manipulation • Vaske: ch. 12 *Assignment: recoding, means*
2/6	More on Attitudes • 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. Wildlife Society Bulletin, 29(4), 1114-1124. • Additional reading TBA

2/8	Pete at Alaska Forum on the Environment – (no class) • Watch: What does it matter? Attitudes & values make a difference for conservation. US Fish and Wildlife Service National Training Center Human Dimensions of Natural Resources Conservation Broadcast Series 2013. Found at: https://nctc.fws.gov/resources/knowledge-resources/video-gallery/human-dimensions.html (scroll down about half way to find the video) • Listen to: This American Life: The Psychopath Test. Found at: https://www.thisamericanlife.org/radio-archives/episode/436/the-psychopath-test *Assignment: constructs*
2/13	Values orientations • 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. *Society and Natural Resources, 13*, 649-661. • Teel, T. L., Dayer, A. A., Manfredo, M. J., & Bright, A. D. (2005). *Regional results from the research project entitled "Wildlife Values in the West."* (project report No. 58). Project report for the Western Association of Fish and Wildlife Agencies. Fort Collins, CO: Colorado State Univeristy, Human Dimension in Natural Resources Unit. Pages: 1-21. 168-175.
2/15	**Exam 1 in class; take home passed out**
More on measurement	
2/20	Introduction to Measurement • Vaske: ch. 4 • Vaske: ch. 16 pgs. 411-421 (note relatively dense) Watch: https://www.youtube.com/watch?v=ugd4k3dC_8Y
2/22	Introduction to measurement continued *Assignment: concepts of measurement*
2/27	Measurement, continued
Survey design and implementation	
3/1	Writing and conducting surveys • Vaske: ch. 7
3/6	Writing and conducting surveys, continued *Assignment: developing a survey*
3/8	Writing and conducting surveys, continued • Handouts example surveys
3/13 & 3/15	Spring Break – **no class!**
3/20	Implementation: possible errors, survey administration • Vaske: ch. 8 • Social Desirability bias: https://fivethirtyeight.com/features/shy-voters-probably-arent-why-the-polls-missed-trump/ • http://fivethirtyeight.com/features/voters-really-did-switch-to-trump-at-the-last-minute/
3/22	Web surveys

3/27	Implementation: sampling • Vaske: ch. 8 • Case study Denali National Park and Preserve • Case study ARSP sampling issues • Coverage error: https://fivethirtyeight.com/features/registered-voters-who-stayed-home-probably-cost-clinton-the-election/ *Assignment: sampling*
3/29	Implementation: response rate and more on margin of error • Vaske: ch. 8 • https://fivethirtyeight.com/features/what-a-difference-2-percentage-points-makes/https://fivethirtyeight.com/features/what-a-difference-2-percentage-points-makes/ • https://fivethirtyeight.com/features/election-update-clinton-gains-and-the-polls-magically-converge/ • http://fivethirtyeight.com/features/final-election-update-theres-a-wide-range-of-outcomes-and-most-of-them-come-up-clinton/
4/3	**Exam 2 in class (take home passed out earlier)**
4/5	Weighting data • Vaske: ch. 8 • http://www.nytimes.com/interactive/2016/09/20/upshot/the-error-the-polling-world-rarely-talks-about.html?_r=0 Case study ARSP analysis issues
4/10	Project evaluation • Yale Program on Climate Change Communication: Global Warming's Six Americas: http://climatecommunication.yale.edu/about/projects/global-warmings-six-americas/ *Assignment: project evaluation*
Analysis	
4/12 (359)	Basic analysis • Vaske: ch 5 pgs. 89-94, ch. 6 *Assignment: analysis*
4/17 (359)	Crosstabs • Vaske: ch. 13
4/19 (359)	t-test: • Vaske: ch. 14 *Assignment: analysis*
4/24 (359)	ANOVA (tentative) • Vaske: ch. 15
4/26	**Exam 3 in class (take home passed out earlier)**
Bringing it all together…	
5/1	Integrating analysis and survey design, writing up results, IRB
5/3	**Final Exam due at 9 a.m.**