NRM 666: Survey Research in Human Dimensions of Natural Resources
fall 2018

T&R 5:30 p.m. – 7:00 p.m.
305 O'Neill

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Office hrs:	M & W 3 to 4:30 pm or by appointment

Overview

Social science surveys are a valuable tool to advance our understanding of the interaction between humans and the environment. As such they are extensively applied to academic research and to pressing management issues. However, obtaining valid results requires careful attention to defining research constructs, design of the questionnaire, sampling, and analysis. This course will provide an advanced exploration of the principles of survey design and analysis, with an emphasis on natural resource-related applications. The course will present an overview of social science research programs that are commonly applied in human dimensions of natural resources survey research, provide insight into their associated measurement concerns, and detail how to appropriately construct a survey and analyze results with respect to study objectives.

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, sampling and data analysis.

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
- Developing a quantitative survey to measure research questions/hypotheses
- Assessing reliability and validity of results
- Strengths and weaknesses of different survey methods
- Coding data
- Statistical analysis in SPSS; students will become familiar with a wide range of analysis in SPSS

Learning Objectives

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

- Evaluate the survey-based methods presented in academic journals, technical reports, scientific presentations, etc.
- Complete all phases of a survey-based research project, including:
    - developing study objectives,
    - selecting the most appropriate survey method,
    - developing a questionnaire,
    - coding data and conducting statistical analysis, and
    - reporting results

Class structure / Instructional Methods

The class will consist of classroom lecture/discussion. SPSS will used throughout the class. Students will be expected to purchase the student versions of SPSS [http://www.onthehub.com/spss/, $50 for 6 months]. Case studies will be incorporated throughout the semester.

Course Readings

The second ½ of the course will use the following book. It will be necessary to purchase or rent.

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

Chapters from the following will be posted to Blackboard:

- Manfredo, M. J. (2008). Who cares about wildlife? Social science concepts for exploring human-wildlife relationships and conservation issues. New York, NY: Springer.
- Morgan, G. A., Gliner, J. A., & Harmon, R. J. (2006). Understanding and evaluating research in applied and clinical settings. Mahway, NJ: Lawrence Erlbaum.

Additional readings will be posted to Blackboard.

Grading

Students will be evaluated on three exams and several assignments. The first exam will have an in-class component and take-home section, all other exams will be take-home. The final exam will be a comprehensive take home exam.

Each question on the homework and exams will be assigned a point values. The points you receive on each question will be based on the following rubric.

Full credit to 90%: The answer demonstrates a mastery of concepts presented in class; the answer provides novel insights into the question's topic and/or compares and contrasts to other concepts.
89 to 80%: The answer reveals an understanding of the relevant concept, but is not sufficiently developed to convey mastery of the topic.
79 to 70%: The answer demonstrates a weak understanding of the topic. This may be due to insufficient detail, lack of clarity in the response, and/or inclusion of an incorrect component.
69% to 60%: The answer includes a few relevant items, but contains many incorrect components.
< + 59%: The answer contains no correct aspects.

In addition, when noted (i.e., writing assignments, certain parts of the take home exams) grammar will be incorporated into the grade as follows: occasional errors (i.e., one or two per page) points deducted = .25% of total points (e.g., a 40 point question = -1 pt); moderate errors (three or four per page) points deducted = 5% of total points; consistent errors (more than 4 per page) points deducted = 15% of total points.

Expectations

- Points, equivalent to one letter grade/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. Absolute points will be used.

Weight for final grade		**Requirements for letter grade**	
Exams	60%	A + > 96%	C+ 77 to 79
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
			F < 60%

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, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an "I" grade."

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/register/services/#conduct

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 Disability Services http://www.uaf.edu/disability/. Every effort will be made to accommodate you in accordance with the Americans with Disabilities Act.

Writing Center

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

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/

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

Tentative Class Schedule

The following topics will be covered. However, given the graduate level of the course, I intend to be flexible in how much time we spend on each topic. More or less time will be spent on topics depending on students' knowledge of the topic area or need related to research projects.

Date	Topic Covered
8/28	Class introduction
8/30	Attitudes: Manfredo (2008) Ch 4. Attitudes and the study of human dimensions of wildlife • *Assignment: How can the attitude concept apply to current issue?*
9/4	Attitudes *continued* • Alcok, I, White, M. P., Taylor, T., Coldwell, D. F., Gribble, M. O., Evans, K. L., Corner, A., Vardoulakis, S., & Fleming, L. E. (2017). Green on the ground but not in the air: Pro-environmental attitudes are related to household behaviours but not discretionary air travel. *Global Environmental Change, 42*, 136-147. • Slagle, K., Bruskotter, J. T., Singh, A. S., & Schmidt, R. H. (2017). Attitudes towards predator control in the Unites States: 1995 and 2014. *Journal of Mammalogy, 98*, 7-16.
9/6	Norms: Manfredo Ch 5. Norms: social influences on human thoughts about wildlife
9/11	Values: Manfredo Ch. 6. Values, ideology, and value orientations; • Teel, T. L. & Manfredo, M. J. (2009). Understanding the diversity of public interests in wildlife conservation. *Conservation Biology, 24*, 128-139. • *Assignment: How can the value orientation concept apply to current issue?*
9/13	Values *continued* • Manfredo, M. J., Bruskotter, J. T., Teel, T. L., Fulton, D., Schwartz, S. H., Arlinghaus, R., Oishi, S., Uskul, A. K., Redford, K., Kitayama, S., & Sullivan, L. (2017). Why social values cannot be changed for the sake of conservation. *Conservation Biology, 31*, 772-780. • Anderson, M. W. (2012). New Ecological Paradigm (NEP) Scale. Berkshire Publishing.

- Kiatkawsin, K. & Han, H. (2017). Young travelers' intention to behave pro-environmentally: merging the value-belief-norm theory and the expectancy theory. *Tourism Management, 59*, 76-88.
- *Assignment: Distinctions among attitudes, norms, and values*

9/18 Developing constructs: Vaske (2008) ch. 4
- *Assignment: define the construct(s) being measured in your thesis*

9/20 Measurement Reliability: Morgan, Gilner, & Harmon (2006) ch. 8 Measurement reliability

9/25 Measurement Validity: Morgan, Gilner, & Harmon (2006) ch. 9 Measurement validity
- *Assignment: understanding reliability/validity and exercises*

9/27 Internal and external validity: Morgan, Gilner, & Harmon (2006) ch. 17 Internal validity; ch. 18 Sampling and external validity; ch. 19. Evaluating the validity of a research study: An introduction

10/2 **Exam 1**

10/4 Work on take home exam (Pete out of town)

10/9 Linking the survey to analysis and coding data: Vaske ch. 5
- *Assignment: level of measurement and coding*

10/11 Writing and conducting surveys: Vaske ch. 7

10/16 Writing and conducting surveys: Vaske ch. 7
- *Assignment: evaluation surveys*

10/18 Implementation: Vaske ch. 8 - possible errors, survey administration
- *Assignment: sampling*

10/23 Implementation: Vaske ch. 8 - sampling
- Case study Denali National Park and Preserve
- Case study ARSP sampling issues

10/25 Implementation: Vaske ch. 8 - Response rate

10/30 Weighting data: Vaske ch. 8
- Case study ARSP analysis issues

11/1 Introduction to SPSS & Data files: Vaske chs. 9, 10, 11, 12
Bring laptop to class, have SPSS downloaded
- In-class exercises on data manipulation

11/6 Revisit topics of sampling and weighting using SPSS
- *Assignment: weighting*

11/8 Hypothesis testing and effect size: Vaske ch. 6; Morgan, Gilner, & Harmon (2006) ch. 20 Introduction to inferential statistics and hypothesis testing; ch. 21 Problems with null hypothesis significance testing, ch. 22 Using effect sizes and confidence intervals to interpret the results of a statistical test
Exam 2

11/13 Crosstabs, T-test, ANOVA: Vaske chs. 13, 14 & 15
- *Assignment: analysis*

11/15	Correlation and regression: Vaske ch. 16 *Assignment: analysis*
11/20	Reliability analysis: Vaske ch. 18
11/22	Thanksgiving – No class
11/27	Factor analysis: Morgan, Gilner, & Harmon (2006) ch. 33 Interpretation of alpha, factor analysis, and principle components analysis; additional handouts on factor analysis *Assignment: understanding reliability and validity analysis*
11/29	Cluster analysis: handouts on cluster analysis
12/4	Moderation & mediation: Vaske ch. 20
12/6	Recap of factor analysis, cluster analysis, moderation, and mediation
Dec. 15	**Final Exam due at 9 a.m.**