# FRE 518 (1.5) Survey Design and Data Analysis

#### **Course Outline**

Class Time: TBA Room: TBA

### **Description**

This course focuses on exploring the methods and techniques in applied survey research and data analysis with concentration on the food, agribusiness and resource sector. Content includes the design of questionnaires, best practices of conducting surveys, sample selection and design, compiling and organizing data, survey data analysis using Excel, writing reports and managing the research process.

### **Learning Objectives**

- Understand the business and ethical issues associated with survey based research
- Demonstrate best practices approaches to survey preparation, interpretation and analysis
- Recognize the issues involved in deciding on sample size
- Articulate and apply approaches to sample design and selection that support quality data and results
- Design, format and pretest a traditional and online survey questionnaire.
- Develop evaluation knowledge and procedures to assess survey questions, format and process
- Identify potential sources of error in survey research
- Design and test a survey questionnaire
- Understand and apply statistical analysis and pivot table techniques to survey data using Excel
- Communicate survey findings in an effective and professional oral and written format

### Instructor

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## **Prerequisite**

FRE 516 (3): Financial and Marketing Management in Agri-food Industries

# **Course Requirements**

Your grade shall be determined as follows

<b>Exams and Project</b>	Date	Percent of Grade
Midterm	To be announced.	20 %
Survey Research	To be announced	40 %
Final Paper		
Survey Research	To be announced	10 %
Oral Presentation		
Final Exam	To be announced.	20 %
Class Participation	Contributions to class discussions and	10 %
	feedback to other students' project	

#### Exams

Students will take two exams: one midterm, and one final. The midterm will be held in class, lasting 80 minutes. The final exam will be comprehensive (it shall cover all material taught in class), and will last two (or more) hours.

## Survey Research Project and Presentation

This project will include the development of a research plan and timeline; development of a sample; design, pretesting and administration of a survey; coding, cleaning and inputting of data; analyzing survey data; and reporting the results via presentation and written report. The survey research project will allow the students to practice approaches to survey preparation, interpretation and analysis. They will be asked to design, format and pretest a traditional and online survey questionnaire; to design a sample and selection that support quality data and results; to apply statistical analysis to the data collected using Excel; to identify potential sources of error in their survey research; and to communicate their findings in an effective and professional way, both in oral and written formats.

The objective is to develop and present a well-researched and well-organized survey research project that allows students to apply the methods and techniques of applied survey research and data analysis to a real-world setting in the areas of food, agribusiness or resources. Emphasis will be placed upon the research process; development of survey; analysis and interpretation of data; best practices of survey design and presentation of findings. Students are required to complete this survey research project and present the results in two formats: final report and presentation. The survey research project group should ideally consist of two people who will work together as a team in developing all components of the research project. Students will form their groups themselves. In addition, each group will be paired with another group and will be required to workshop and provide feedback on the research proposal, questionnaire, sampling and data analysis components of that group during the course. The instructor will pair the groups.

The oral presentation will provide an overview of the survey research project. Students will provide a power point presentation (8 to 10 slides – 20-minute presentation time) and take questions from the class after the presentation.

Students will be asked to confidentially peer review the contribution of each of their group members for the project by providing a multiplier value of .9, .95 or 1. This value will be considered when individual grades are assigned for the final project and presentation. All values will remain confidential.

# **Class Participation**

The class participation grade depends on contribution to class discussions. In addition, students will be asked to review and provide feedback to their classmates' survey design and data analysis projects throughout the class time, which will allow them to develop evaluation knowledge and procedures to assess survey questions, format and process. The instructor will determine the class participation grade.

# **Academic Dishonesty**

Please review the UBC Calendar "Academic regulations" for the university policy on cheating, plagiarism, and other forms of academic dishonesty. Academic dishonesty will be dealt with very seriously in this course.

#### **Online Course Material**

Available at Connect: <a href="http://www.connect.ubc.ca">http://www.connect.ubc.ca</a>. The syllabus, course-lecture slides, additional material, announcements, assignments, and grades are made available via connect.

#### **Class Format**

6 lectures of 3 hours, once a week for 6 weeks.

### **Textbooks**

Business Research Methods, Canadian Edition

Alan Bryman, Emma Bell, Albert J. Mills and Anthony R. Yue

Oxford University Press

Chapter 1 and 2: Planning a Research Project & Formulating Research Questions

Chapter 8: Ethics in Business Research

Chapter 9: Sampling

Chapter 10: Self Completed Questionnaires

Chapter 11: Asking Questions

Chapter 23: Quantitative Data Analysis

Chapter 23: Writing up the Business Research

## Analyzing Business Data with Excel

Gerald Knight

O'Reilly Publishing

Chapter 1: Excel and Statistics

Chapter 2: Pivot Tables and Problem Solving

Chapter 10: Importing Data

Chapter 11: The Trouble with Data

Chapter 12: Effective Display Techniques

# Readings

• Frerichs, RR, & Shaheen, MA. Small Community Based Surveys. Annu. Rev. Public Health 2001, 22:231-47.

- Teitler JO, et al. (2009). Costs and Benefits of Improving Response Rates for a Hard to Reach Population. Public Opinion Quarterly. 67:126�138
- Martin E. (2009) Can a Deadline and Compressed Mailing Schedule Improve Mail Response in the Decennial Census. Public Opinion Quarterly 73(3): 361-367
- Fricker S, Galesic M., Tourangeau R, Yan T. An Experimental Comparison of Web and Telephone Surveys. Public Opinion Quarterly 69 (3), 370-392
- Christian LM, Parsons NL, Dillman DA (2009). Designing Scalar Questions for Web Surveys. Sociological Methods Research 37:393-425

# Tentative Lecture Schedule (to be finalized).

Week 1	Research process for survey development and design	
Week 2	Questionnaire design, format and question development	
Week 3	Sampling size, error, error and design	
Week 4	Basic statistical analysis used in survey research	
	Data coding and analysis	
Week 5	Excel analytics for survey data: descriptive and statistical	
Week 6	Excel analytics for survey data: pivot tables and graphing	
Week 7	Evaluation Frameworks for Survey Research and Design	
	Report writing and presentation.	