

MGMT 264A – MARKET RESEARCH

Fall 2023 – 4 Units

Course Syllabus

09/26/2023

Instructor Information

<i>Faculty of Record:</i>	Professor Constança Esteves-Sorenson
<i>Email:</i>	constanca.esteves-sorenson@anderson.ucla.edu
<i>Office hours:</i>	Mondays: 11:40-12:40 pm in suite D-420 Thursdays: 12:00-1:00 pm over Zoom: schedule with https://264a-office-hours-fall-2023.youcanbook.me If none of these times work, I am happy to schedule other times in my office or over Zoom.
<i>Teaching Assistant</i>	Zitong Zeng
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Course meeting times and location

<i>Course Day & Time:</i>	Class meets on Mondays, 1:00pm – 3:50pm PT. Please see schedule for specific dates.
<i>Course Location:</i>	B-313
<i>Course Site:</i>	https://bruinlearn.ucla.edu/courses/171917/files

Pre-requisites/Co-requisites

Requisite: MGMT 411.

Course Description

The objective of this course is to provide a fundamental understanding of the marketing research methods employed by well-managed firms. The course is aimed at the manager who is the ultimate user of the research and is thus responsible for determining the scope and direction of research conducted. The course comprises two main parts: **(1) optimal survey question and questionnaire design and implementation**, as this is often the most important part of primary market research and **(2) quantitative data analysis**. For the second part of the course, emphasis will be on the interpretation and use of results rather than on mathematical derivations. The course focuses on helping managers recognize the role of systematic information gathering and analysis in making marketing decisions, in addition to developing an appreciation for the potential contributions and limitations of market research data. The course will have **guest speakers** to discuss its topics.

Note: This course is also the Marketing faculty's recommended preparatory course for Marketing-oriented AMR/GAP projects. Students with Marketing-oriented BCP projects also found 264A helpful. The course can also be used to fulfill the foundations requirement for Anderson's Marketing Track and Marketing Certificate. Other courses that can also be used to fulfill the Track or Certificate requirements are 260A Customer Assessment and Analytics and 263A Consumer Behavior.

Course Objectives

At the end of the course, students will be able to:

1. **Optimally design, test and implement survey questions and questionnaires using current best practices.**
For example, know when to use open-ended versus closed-ended questions; which types of scales to use; the optimal number of items on a scale; the best font and visual display for questions; how to sequence questions optimally; understand the primary ways to pre-test a survey, such as expert reviews, focus groups, cognitive interviewing and field pre-tests; know how to craft persuasive messaging to increase response rates; know the optimal number of contacts and types of rewards that maximize response rates.
2. **Use surveys to triangulate willingness to pay**, using the Van Westendorp method.
3. **Understand/implement the following data analysis techniques:**
 - i. Hypotheses testing, A/B testing, and multi-armed bandit approaches, frequently used for testing website designs, products and email marketing;
 - ii. Linear regression, stepwise regression, robust regression, Breusch-Pagan and related tests, to deal with linear regression issues in many marketing applications;
 - iii. Logistic regression, discriminant analysis, and related classification criteria, frequently used for one-to-one marketing and targeting;
 - iv. Cluster analysis, hierarchical clustering, distance measures, dendrograms, statistical tests for optimal cluster numbers (Caliski and Duda statistics), and cluster stability with k-means clustering, used for market segmentation and determination of the competitive set;
 - v. Factor analysis and principal component analysis, unrotated and rotated factors, and factor scores, used for dealing with multicollinearity and to map the positioning a brand.

Course Materials

Course materials comprise a mixture of lectures and hands-on examples, many of them using STATA. Assignments, readings, in-class handouts, and lecture notes will be posted on the course website.

Required:

- **Readings.** Lecture notes, lecture slides and a few articles (posted on Bruinlearn). There are no cases or extensive readings to prepare for class. However, post-class there will be several problem sets to solve in groups (see more on this below).
- **Software.** Stata 18, a program that is very powerful but easy to use. The user interface is simple and it allows users to easily run or change analyses via dialog boxes. Stata is employed by organizations using advanced data analysis techniques, such survey organizations, consulting firms, tech firms (e.g., Meta, Amazon) and universities. Former students have found the program fairly easy to use and the exposure to it worthwhile. There will be Stata licenses for each student in the class so you can install Stata in your machine. But students

can use other software programs such as R, XLStat, SPSS etc. as long as the software runs the analyses taught in the class.

Optional:

- **Textbooks.**
 - *Modern Marketing Research: Concepts, methods and Cases* (2nd Edition), Fred Feinberg, Thomas Kinnear, James Taylor, South Western Cengage Learning
 - *Marketing Research* (12th Edition), David Aaker, V. Kumar, R. Leone and George Day; John Wiley & Sons.
 - *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method*, 3rd edition, Don A. Dillman, Jolene D. Smyth and Leah Melani Christian, Wiley, 2009
 - *A Gentle Introduction to Stata*, Sixth Edition, Alan Acock, Stata Press, 2018
 - *Market Research: The process, Data and Methods Using Stata*, Erik Mooi, Marko Sarsted, Irma Mooi-Reci, Springer Texts in Business and Economics
- Links and references to optional readings may be posted on the course site.

Course Outline

Date	Module /Week	Weekly Title, Key Topics, Assignments	Pre-class reading/media
10/02	Week 1a	Syllabus and introduction to survey methodology. Topics include, <ul style="list-style-type: none"> • overview of survey conceptualization, design and implementation; • choosing types of question for your survey (e.g., open-ended versus closed-ended, ordered versus unordered) and the advantages and disadvantages of each; • types of scales and the optimal number of points on a scale; • trade-offs when using neutral response options. 	Week 1 lecture notes (posted on Course Site) Skim in-class exercises
	Week 1b	Guidelines for crafting good survey questions. Topics include, <ul style="list-style-type: none"> • main principles for writing good questions (e.g., common wording and question-structure pitfalls and how to avoid them); • the optimal way to write different types of questions, such as close-ended unordered questions and open-ended questions 	
10/09	Week 2a	Survey questions to gauge willingness to pay <ul style="list-style-type: none"> • Overview of methods to gauge willingness to pay • Van Westendorp method 	Week 2 lecture notes (posted on Course Site)
	Week 2b	From questions to questionnaire. Topics include, <ul style="list-style-type: none"> • principles for optimal sequencing of questions so that the survey is easy to answer, answers are not biased by previous questions, and subjects feel motivated to respond; • optimal layout, design and types of fonts to use in surveys to optimize readability. 	Skim in-class exercises
	Week 2c	Evaluating survey questions: ensuring survey yields desired information. Topics include, <ul style="list-style-type: none"> • types of survey evaluation tools: (1) expert reviews, (2) focus groups, (3) cognitive interviewing, (4) field pre-tests; • how to implement each method; • advantages and disadvantages of each method. 	

10/16	Week 3a	<p>Survey implementation strategies to maximize survey responses.</p> <p>Topics include,</p> <ul style="list-style-type: none"> • how non-response may seriously bias survey results; • the optimal number of contacts to maximize response rates; • when and how to use rewards; • how to craft persuasive survey materials (e.g., cover letter, reminder emails) to maximize response rates. <p>Homework #1 due survey critique</p>	<p>Week 3a lecture notes (posted on Course Site)</p> <p>Skim in-class exercise</p> <p>Stata Mini-Tutorial and Stata download guidelines</p>
	Week 3b	<p>Introduction to Stata's user interface; overview of Stata's functionality.</p>	
10/23	Week 4a	<p>Marketing research and hypothesis testing</p> <ul style="list-style-type: none"> • Tests of one and two population means and population proportions, paired samples <p>Homework #2 on Survey Critique due</p>	<p>Week 4 lecture notes (posted on Course Site)</p>
	Week 4b	<p>Hypothesis testing (continued)</p> <p>Linear Regression I</p> <ul style="list-style-type: none"> • Recap of linear regression 	<p>Skim in-class exercises</p>
10/30	Week 5a	<p>Linear Regression II</p> <ul style="list-style-type: none"> • Multicollinearity, dummy variables • Stepwise linear regression <p>Homework #3 due</p>	<p>Week 5 lecture notes (posted on Course Site)</p>
	Week 5b	<p>Linear Regression III</p> <ul style="list-style-type: none"> • Testing for and dealing with heteroskedasticity (Breusch-Pagan and robust regression) • Non-linear relationships and transformations 	<p>Skim in-class exercises</p>
11/06	Week 6a	<p>Logistic Regression</p> <ul style="list-style-type: none"> • Stepwise logistic regression, odds ratios and interpretation, classification accuracy • Connection to Neural Networks and ChatGPT4 <p>Homework #4 on Regression due</p>	<p>Week 5 lecture notes (posted on Course Site)</p> <p>Skim in-class exercises</p>
	Week 6b	<p>Machine learning: Discriminant Analysis (DA)</p> <ul style="list-style-type: none"> • Implementation, classification criteria, comparison with logistic regression 	
11/13	Week 7a	<p>Machine Learning: Cluster Analysis</p> <ul style="list-style-type: none"> • Methodologies for hierarchical clustering, distance measures, dendrograms, statistical tests for cluster number (Caliski /Duda statistics), testing cluster stability using k-means clustering, ANOVA and non-parametric cluster profiling (Kruskall-Wallis) methods <p>Homework #5 on Logistic Regression and DA due</p>	<p>Week 6 lecture notes (posted on Course Site)</p> <p>Skim in-class exercises</p>
	Week 7b	<p>Machine Learning: Factor Analysis I</p> <p>Keiser-Meyer-Olkin measure for factors analysis, factor extraction via principal components analysis, screeplots, unrotated and rotated factors; computing factor scores</p>	
11/20	Week 8a	<p>Guest speaker Lin Qin – Principal Data Scientist CVS (former Amazon, Microsoft and Nordstrom)</p> <p>Homework # 6 on Clustering due</p>	<p>Week 6 lecture notes (posted on Course Site)</p>
	Week 8b	<p>Machine Learning: Clustering factor scores resulting from factor analysis</p> <p>In class Workshop Factor Analysis – start of homework 7</p>	

			Skim in-class exercise
11/27	Week 9a	Guest speaker: Philip Leslie, VP, Chief Economist, Amazon Homework #7 on Factor Analysis due	Week 7 lecture notes (posted on Course Site)
	Week 9b	Machine Learning: Factor Analysis II – Application to brand positioning	Skim in-class exercise
12/04	Week 10a	A/B testing and multi-armed bandits <ul style="list-style-type: none"> How to implement A/B testing: research plan, power analysis, data analysis Facebook A/B testing and replication of A/B test: matching (“synthetic twins”) etc. Multi-armed bandits: getting most out of A/B testing 	
	Week 10a	Next steps in Market Research and course wrap-up <ul style="list-style-type: none"> Sampling (simple, stratified, clustered, systematic, convenience, snowball, etc.) New directions in market research (neuromarketing, eye-tracking, social media analysis, ChatGPT4) 	

Evaluation and Grading

Required Assignments and Weighted Percentages

This course will be graded using the following weighted percentages for each of the assignments in the course.

Assignments	% of Grade	Due date
Assignments/Problem Sets (Best 6 out of 7) [Group]	25%	See dates on course schedule.
Survey Design Project [Individual]	30%	Due November 22 at 11:59 pm, at the latest
Data Analysis Project [Individual]	30%	Due December 10 by 11:59 pm, at the latest
Class Attendance & Participation [Individual]	15%	
Total	100%	

Note: If an assignment is turn in late, each extra hour beyond the deadline will have a 5-point penalty (I do not do this to be mean but rather to be fair to all students). If you need an extension on an assignment, please request it before the assignment is due.

Grades

Your overall course grade will be determined by how your performance on graded assignments ranks in comparison with other students in the class according to the grade distribution model at Anderson. Note that courses in which an overall grade of C is received must be offset by higher grades in the same term for students to remain in good academic standing at UCLA.

Assignment Descriptions

The following are descriptions of your required assignments for this course. Specific instructions, submission information, and any accompanying rubrics are detailed on the course site.

Assignments/Problem Sets

These are group assignments with 2-4 main questions. Their goal is to help you understand to topics you learned in class and to practice them. Each group should have a maximum of three students. I can help in group formation. Only the five best grades on the assignments will count, just in case you cannot turn in an assignment or experience a mishap.

Survey Design Project

Design a short survey, on the topic of your choice with, at most, 30 questions using the learnings in the class. State using, at most, 1.5 pages, (1) the overall goal of the survey and its measurement objectives, (2) the target audience, (3) how you would implement it (e.g., by phone, by internet, in-person), (4) what is good about the survey, and (5) whether you have pre-tested the survey (and if not, how you would pre-test it). Then show the survey, including any supporting materials (e.g., cover letter/email, reminder letters etc.). If an internet survey, please share the survey link and any related materials). I can give three comments on the survey draft before it needs to be turned in.

Data Analysis Project

Gross Point Associates and the Microvan capstone case. This is an excellent quantitative market research case, where you will need to apply the quantitative tools learned in the class for the marketing recommendation.

Class Attendance & Participation

Class participation and discussion is valued. There will also be mini-questions to solve in groups of 2-3 three students in class to apply the tools learned in course. Although the answers have no letter grade, you will need to turn them in to get attendance/participation credit.

Anderson and Course Policies

Netiquette

The written language has many advantages: more opportunity for reasoned thought, more ability to go in-depth, and more time to think through an issue before posting a comment. However, written communication also has certain disadvantages, such a lack of the face-to-face signaling that occurs through body language, intonation, pausing, facial expressions, and gestures. As a result, please be aware of the possibility of miscommunication and compose your comments in a positive, supportive, and constructive manner.

UCLA Policies

Code of Conduct

All participants in the course are bound by the **UCLA Student Conduct Code**:
(<https://deanofstudents.ucla.edu/individual-student-code>)

Academic Integrity

UCLA is an institution of learning, research, and scholarship predicated on the existence of an environment of honesty and integrity. As members of the academic community, instructors, students, and administrative officials are all responsible for maintaining this environment. It is essential that all members of the academic community practice academic honesty and integrity and accept individual responsibility for their work. Academic misconduct is unacceptable and will not be tolerated in this course. Cheating, forgery, dishonest conduct, plagiarism, and collusion in academic misconduct erode the University's educational, research, and social roles.

Students who knowingly or intentionally conduct or help another student engage in acts that violate UCLA's expectations of academic integrity will be subject to disciplinary action and referred to the Dean of Students' Office.

Please familiarize yourself with **UCLA's Academic Integrity Policy:**

<https://www.deanofstudents.ucla.edu/Academic-Integrity>. Speak to your instructor if you have any questions about what is and is not allowed in this course.

Integrity in Research

Integrity in research includes not just the avoidance of wrongdoing, but also the rigor, carefulness, and accountability that are hallmarks of good scholarship. All persons engaged in research at the University are responsible for adhering to the highest standards of intellectual honesty and integrity in research.

Please familiarize yourself with the **University of California Policy on Integrity in Research**

(https://www.ucop.edu/academic-personnel-programs/_files/apm/apm-190-b.pdf)

Accessible Education & Inclusive Education

Disability Services

UCLA is committed to providing a barrier-free environment for persons with documented disabilities. If you are already registered with the Center for Accessible Education (CAE), please request your Letter of Accommodation in the Student Portal. If you are seeking registration with the CAE, please submit your request for accommodation via the CAE website. Students with disabilities requiring academic accommodations should submit their request for accommodations as soon as possible, as it may take up to two weeks to review the request. For more information, please visit the CAE website (www.cae.ucla.edu), visit the CAE at A255 Murphy Hall, contact CAE by phone at (310)825-1501, or by telecommunication device for the deaf at (310) 206-6083.

Equity, Diversity, and Inclusion

Please familiarize yourself with UCLA Anderson's commitment to maintaining an equitable, diverse, and inclusive community:

(<https://www.anderson.ucla.edu/about/equity-diversity-and-inclusion>)