MKT 6337.502, Call Number 83994
BUAN 6337.502, Call Number 83993
Marketing Predictive Analytics Using SAS (3 Credits)
Fall 2016

Meeting Time: Tuesday 7:00 pm - 9:45 pm
Classroom: JSOM 11.210
Instructor: Ernan Haruvy   Email: eharuvy@utdallas.edu
Office Hours: JSOM 13.506   Tuesday 2:00 pm – 4:00 pm

Required text: Handbook of Statistical Analyses Using SAS by Der & Everitt, 3rd edition, CRC Press

Course Description

This course is designed for a career in marketing analytics in which students analyze data from large databases to make important marketing decisions. These methods are commonly employed in online marketing, in grocery stores, and in financial markets. Students will acquire knowledge about the tools and software that are used to understand issues such as who the profitable customers are, how to acquire them, and how to retain them. The tools can also be used to manage brand prices and promotions using scanner data as is done in supermarkets.

Course Policy

Attendance is important. Participation is even more important. Participation is not attendance. It is based on your level of involvement in discussion, leadership in the group, level of preparedness, and demonstrated knowledge. Please ensure that project submissions are made on time. *In fairness to the other groups, late submissions will be penalized.*
Peer Evaluation: Your share in the group's grade will be determined by your peer evaluation score. Please abide strictly by the Academic Honor Code.

Course Evaluation and Grading

Participation	10%	Based on involvement in the class discussions.
Assignments	20%	
Project Write-up	20%	Each group will submit a final written project report.
Project Presentation	10%	Each group will present its project to the class.
Midterm	20%	Closed book
Final Exam	20%	Closed book
	100%	

Individual Assignments

These are simple problems from the book. Solutions will be submitted online. Copying will be punished severely.

Group Project Write-up. I have several sample datasets which I will divide among the groups, with groups getting some limited choice in the datasets they work on. Additionally, each group will collect survey data or other data related to their dataset and will present both sets of results in one project. For data collection, a minimum of 150 individual observations is expected. Both of these data sets will be analyzed in accordance with the material we cover in class.

COURSE PLAN

COURSE SCHEDULE

Dates   Topics

Aug 23   Introduction to the Course. Basic Concepts in Statistics and SAS.
                    Creating SAS data set, data and procedure steps. **CHAPTER 1.**

Aug 30   *The Marketing Research Process.* Data types.

Sep 6   *Presenting data.* Data formats and manipulations. Sorting, merging,
                    conditionals. Presenting Data: Writing simple reports, Descriptive statistics
                    and summaries, correlation, Boxplot, histogram, probability plots, Breaking
                    into subgroups, bar charts. Graphics: Charting and plotting data. Frequency
                    tables.   **CHAPTER 2.**

Sep 13   *Basket composition analysis.*

Sep 20   *Segmentation.* Principal components, factor analysis, clustering,
                    RFM analysis. **CHAPTERS 16-17.**

Sep 27   Hypothesis testing and **ANOVA. CHAPTERS 3-5**

Oct 4   Simple Linear Regression. **CHAPTER 6**

Oct 11   **EXAM 1**

Oct 18   Multiple Regression**, CHAPTER 7**

Oct 25   Logistic Regression. **CHAPTER 8.**

Nov 1   Generalized Linear Models: Binomial, Poisson, and Gamma. **CHAPTER 9.**

Nov 8   Longitudinal data. **CHAPTERS 12-14.**

Nov 15   Survival analysis. **CHAPTER 15.**

Nov 22   **FALL BREAK (Thanksgiving) No Class**

Nov 29   **STUDENT PRESENTATIONS**

Dec 6   EXAM 2