MKTG 3228 (Sec 001): Marketing Analytics (MA)

Semester: Spring 2013  
Time & Room: Fri 9:30am-12:15pm @ Friday Building 116  
Course Website: Moodle 2 (moodle2.uncc.edu)  
Instructor: Associate Professor Sangkil Moon  
Office: Friday Building 359  
Office Hours: Thu 2:00pm-3:00pm, right after each class, and by appointment  
(In most cases, the best time to talk to me would be right after each class, even for the evening class.)  
E-mail: smoon13@uncc.edu  
Office Phone: 704-687-7672

[Course Description]  
This course is the science and art of developing and utilizing quantitative marketing decision models to plan, implement, and analyze marketing strategies and tactics. Ever-changing marketplaces and the related computing environment are making an impact on the structure and content of the marketing manager's job. Concurrently, marketing is so rapidly evolving that it is no longer based on its conceptual content alone. Even though many still see traditional marketing as an art, the new and emerging marketing increasingly looks like engineering by effectively combining art and science to solve marketing problems. Marketers need more than concepts to fully make use of various and rich data available to them.

Therefore, this course is designed to help students move from qualitative marketing to quantitative marketing focusing on consumers’ perspectives. The course is primarily designed for students who have already acquired basic data analysis skills. Using quantitative marketing cases and related exercises tied to SAS, students will develop marketing plans in various decision contexts. Specifically, this course will introduce a variety of quantitative models to improve marketing decision making in such areas as market response, consumer segmentation/targeting, and price/promotion. It will help students learn how to use SAS as a data analysis tool when they make strategic and tactical marketing decisions, skills that are in increasing demand in profit and non-profit organizations alike today. Therefore, it is hoped that the course can be of value to students planning careers in practical marketing/consumer research or consulting.

This is a heavily numbers-oriented course that covers data analyses and result interpretations. It should be understood that data analyses and result interpretations are two primary ways to understand marketing/consumer phenomena and solve marketing/consumer problems.

[Course Objectives]  
The pedagogical philosophy in this course embraces the principle of learning by doing. Most concepts that we cover have software (SAS) implementation and a case whose solution can be enhanced through empirical analysis. Students are expected to struggle at
times, attempting to apply SAS, which is the *learning by doing* process. Unlike most marketing courses that focus on conceptual materials, this course provides *quantitative skills* to translate conceptual understanding into specific operational plans. Specifically, the course objectives are to:

- help you understand how quantitative models can enhance decision-making by converting data and information to insights and decisions,
- help you learn to view marketing/consumer phenomena and processes in ways that are agreeable to quantitative modeling, and
- expose you to a number of examples of the successful use of marketing analytics focusing on consumer problems.

A major requirement is that students apply marketing/consumer analytics techniques to their group project to solve typical marketing and consumer problems of their own choice. The semester-long project is intended to train students for various aspects of data analysis.

**[Course Requirements]**

- You should have some basic statistics knowledge (e.g., frequency table, linear regression).
- The course is a combination of lecture and hands-on SAS operation. Therefore, you are required to bring a laptop to each class for effective learning.

**[Course References]**


- You are responsible for obtaining the part of Ch.4 (Multiple Regression Analysis) from the book.
- Ch.5 (Discriminant Analysis), Ch.6 (Logistic Regression), and Ch.9 (Cluster Analysis) are relevant and useful, too.
- Its previous editions are useful and acceptable.


- The software CD that accompanies the book is NOT necessary for the course.
- Textbook Resources Website: www.mktgeng.com

**[Academic Integrity]**

The UNC Charlotte Academic Integrity Policy will be followed. The student is responsible for reading and understanding the policy:

Students have the responsibility to know and observe the requirements of The UNC Charlotte Code of Student Academic Integrity. This code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any special requirements or permission regarding academic integrity in this course will be stated by the instructor, and are binding on the students. Academic evaluations in this course include a judgment that
the student’s work is free from academic dishonesty of any type, and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

[BCOB Statement of Diversity]
The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

**[Course Requirements]**

<table>
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<tr>
<th>Task</th>
<th>Points</th>
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<tbody>
<tr>
<td>[1] SAS Exercises</td>
<td>500</td>
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<tr>
<td>[2] Team Project</td>
<td>500</td>
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<td></td>
<td>(= Proposal Presentation 100 + Final Presentation &amp; Report 400)</td>
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<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
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[1] SAS Exercises
There will be multiple exercises throughout the semester. The exercises will be a combination of take-home and in-class exercises. These exercises will be given roughly once every two or three weeks in the first half, but less often in the second half to allow students to spend more time for their team project. In each exercise, students are expected to solve specific marketing analytics problems relevant to corresponding lectures using SAS. Here are our tentative SAS Exercise Plans.

Ex 1: SAS Basic Statistics (50 points)
Ex 2: Linear Regression: Restaurant Patronization (100 points)
Ex 3: Linear Regression: Airfare (50 points)
Ex 4: Logit Regression (100 points)
Ex 5: Cluster & Discriminant Analysis (100 points)
Ex 6: Perceptual Mapping (100 points)

- Using the SAS program (www.sas.com) is a great way to acquire analytical skills. These exercises will be designed to familiarize you with this powerful statistical software. The instructor will provide hands-on sessions to help students learn how to use SAS primarily through the SAS Enterprise Guide (EG). The EG provides a convenient user-friendly interface to make using SAS easier. You should be able to access SAS using your own laptop.
[2] Team Project
The team project is a major requirement of this course. You need to make up a team who will jointly work on it. Each team will be composed of 4 or 5 members. The objective of this task is to have students apply some marketing concepts and analytics techniques to the project. Your team wants to select a project of interest. While a variety of projects are acceptable, I would encourage you to do the following. Develop a project plan to address a specific marketing problem (e.g., consumer segmentation & targeting, promotion campaign, prospective new customer identification) for a specific brand or organization. It is your responsibility to identify a suitable brand or organization and suitable marketing problems. Importantly, you need to consider data availability for the project in selecting your research topic and determining research problems. One place to start with may be your employer. Other possibilities include contacting local companies. Alternatively, you can develop your own survey to collect data customized to your case. Some project examples include:

- a customer segmentation model for a local retailer,
- designing and targeting customer service options for a phone service provider,
- a promotion planning model for a small business,
- a pricing model for a university resident theater company, and
- developing new products for an on-campus sports services unit.

There are three distinct stages in this team project.

- First, you will have an opportunity to find your team members and explore potential topics for your team project. You want to determine your topic well ahead of your proposal presentation.
- Second, your team needs to present a proposal to the entire class. Each team will have approximately 30 minutes for the presentation. Be prepared to deal with questions and criticisms from your classmates and me. My formal feedback will be provided afterwards. What should be included in the proposal presentation will vary project to project. Generally, you want to determine what object (i.e., brand or organization) and topic (e.g., target market identification, promotional campaign) you want to work on. You also need to describe your data and analysis models as much as possible. You should submit a hard copy of your PowerPoint slides to me before your presentation. Your work will be graded based on content quality and presentation performance. All the members on the team should participate in the presentation in order to receive your team presentation points.
- Finally, your team will present the whole project work to the entire class. Your presentation is expected to last approximately 30 minutes. Be prepared to deal with questions and criticisms from your classmates as in your earlier proposal presentation. You should submit a hard copy of your PowerPoint slides to the instructor before your presentation, too. All the members on the team should participate in the presentation in order to receive your team presentation points. Furthermore, your team should complete and submit a final report not exceeding 30 double-spaced pages including tables, figures, and appendices to the instructor. The final report should include analysis results and an actionable marketing strategy arising from the empirical results.
* More details on each step will be provided as each step nears.
** At the end of the semester, you will be asked to evaluate each of your members’ contribution to the team project. You should be honest and impartial in your evaluations. (Please, no free-riders!)

[Grade Breakdown]
The final course grade will be determined by your total score based on all the class activities above. Your course grade will be assigned according to the following table. Once the course grades are released, unfounded requests for better grades would be denied.

A (900 – 1000); B (800 – 899); C (700 – 799); D (600 – 699); F (0 – 599)

[Tentative Course Schedule]
- This is a loose and tentative schedule and the instructor reserves the right to change it according to course development and student progress.

<table>
<thead>
<tr>
<th>Week (Fri)</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Week 1 (8/23)</td>
<td>Course Overview; LR Ch.1: Introduction</td>
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<td>(SAS &amp; EG) Installations &amp; Operations</td>
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<tr>
<td>Week 2 (8/30)</td>
<td>Basic Statistics</td>
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<td>Week 3 (9/6)</td>
<td>Linear Regression (LR Ch.2: Market Response Models)</td>
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<td>Week 4 (9/13)</td>
<td>Linear Regression (LR Ch.2: Market Response Models)</td>
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<td>Project Team Makeup</td>
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<td>Week 5 (9/20)</td>
<td>Linear Regression (LR Ch.2: Market Response Models)</td>
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<td>Week 6 (9/27)</td>
<td>Linear Regression (LR Ch.2: Market Response Models)</td>
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<td>Week 7 (10/4)</td>
<td>Project Proposal Presentations</td>
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<td>Week 8 (10/11)</td>
<td>Logit Regression (LR Ch.2: Market Response Models)</td>
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<td>Week 9 (10/18)</td>
<td>Cluster &amp; Discriminant (LR Ch.3: Segmentation &amp; Targeting)</td>
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<td>Week 10 (10/25)</td>
<td>Cluster &amp; Discriminant (LR Ch.3: Segmentation &amp; Targeting)</td>
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<td>Week 11 (11/1)</td>
<td>Perceptual Mapping</td>
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<td>Week 12 (11/8)</td>
<td>Project Data Analysis Meetings</td>
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<td>Week 13 (11/15)</td>
<td>Perceptual Mapping</td>
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<tr>
<td>Week 14 (11/22)</td>
<td>Final Project Presentations &amp; Report Due</td>
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* LR indicates the textbook by Lilien and Rangaswamy.