MKTG 3228: Marketing Analytics

(Spring 2020)

Instructor: Ashish Sharma
Class location: Room 339, Friday Building
Office: 250B, Friday Building
Office hours: Wednesdays, 1:30pm – 2:30 pm or by appointment
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Section 3228-002	Section 3228-001
Class time: Mon & Wed, 2:30 pm – 3:45 pm	Class time: Mon & Wed, 4:00 pm – 5:15 pm

Course Description and Objectives

Marketing is continuously evolving from an art to a science. Recent years have witnessed increasing competitive pressures along with an explosion in the quantity and quality of data available. Big Data is rapidly changing how we view and analyze marketing problems to make decisions in the marketplace. Whether a firm is consumer, business or service-oriented, acquiring and using information on its customers, competitors, and markets is critical for business planning and decisions. This analytical case-based course will emphasize how to analyze data to support and guide marketing decisions.

Many firms have extensive information, but far fewer have the expertise to act intelligently on such information. Data must be synthesized, analyzed and interpreted before sound marketing strategies and tactical plans can be developed. For example, marketers often need to understand/explain and predict the response to one or more marketing variables such as price, advertising, competitors' actions, or product changes. Beyond predicting response, it is vital to assess the financial impact of marketing decisions and programs. This course will help you develop the skillset required by big corporations in the marketplace.

This course will emphasize the following key marketing foundations:

1. *Product Analytics* including test marketing, segmentation, and response modeling.
2. *Customer Analytics* including customer profitability and lifetime value, retention and loyalty.
3. *Marketing Mix Analytics* including the impact of marketing decisions and plans on fundamental financial measures such as return on marketing investments.

The course uses a combination of lectures, cases, exercises and group work to learn the material. You are required to undertake the necessary readings assigned for a class or case discussion before the class commences. Analysis will involve learning of statistical software packages. By the end of the course, you should be proficient with basic commands in these software tools and appreciate its usefulness to address a wide variety of business questions.

This course has the following principal objectives:
- To increase analytical skills through hands-on analysis of marketing data with commonly used marketing analytics techniques.
- To link the analyses to key marketing decisions and profit impact.
- To build your 'numerical fluency' and facility with common marketing metrics.
- To improve your ability to think logically, analytically, and critically.

Changes to the Syllabus
The course syllabus is a general plan for this course. Deviations announced to the class, as and when required, may be necessary.

Course References
This course uses a combination of lectures and course material. You're not required to buy any specific textbook as I'll post all lectures on Canvas. Additionally, I may circulate extra material through Canvas or in the classroom as the course progresses. It is your responsibility to regularly check Canvas for additional materials/e-mails. Also, coordinate with your peers for any materials circulated in the class while you were absent. However, if you would like to attain a deeper learning of the topics, you're encouraged to refer to the following texts:
- Hair, Joseph, F. Jr., William C. Black, Barry J. Babin, and Rolph E. Anderson (2010), *Multivariate Data Analysis*, 7th Edition, Prentice Hall.
- Venkatesan, Rajkumar, Paul Farris, and Ronald T. Wilcox (2015), *Cutting-Edge Marketing Analytics: Real World Cases and Data Sets for Hands on Learning*, Pearson.

I encourage you to buy older editions or used copies at lower cost and share with your peers.

Classroom Etiquette
Please ensure to get to the class on time. Late arrivals are disruptive and show disrespect to those who are on time. If you are unavoidably late, please be as quiet as possible and do not walk across the front of the classroom. Once class has started, you are expected to remain in the classroom until the end of our meeting time. Leaving and reentering the room should be strictly limited to emergencies. Please do not conduct side conversations during class time.

Please turn off your mobile phones before entering the classroom. You are permitted to use computers or tablets during class for note-taking and other class-related work only. The use of computers or tablets during class for activities not related to the class, such as surfing the web, Facebook, Twitter, Snapchat, Instagram, etc., is distracting and is not allowed.

Exam Etiquette
This course will have two exams. Both exams will be held in the classroom. The exams will begin at the start of the class period and you will be told the total duration of the exam in advance. If you're late to the exam, I will allow you to take the exam. However, you will not be given any extra time after the end of the class period. During exam, use of phones, laptops, smart watches, and any other electronic devices is prohibited. I retain the right to remove a student who fails to abide by this policy.

Class Participation and Attendance
You are expected to actively participate in all class discussions and other class activities. This course will build upon peer discussions and active learning from the class as a whole. In some instances, there may not be a correct or incorrect answer. However, you are expected to support your answers with logical and analytical reasoning based upon the discussion and material provided.

I'll take attendance randomly on various occasions throughout the semester. If you are absent on more than two occasions without advance notice and sufficient reason to support your absent, it will negatively affect your overall course grade.

Course Structure
Below is the breakdown of course activities and their grade percentage throughout the course.

Quizzes	10%
Assignments	20%
Group Project (Proposal + Final Presentation)	30%
Exam 1	20%
Exam 2	20%

Quizzes – There will be multiple quizzes during the course and each student is required to complete them. These quizzes will be given through Canvas. I will give you clear instructions on where to access these quizzes and assigned dates. You will have a pre-determined time window to attempt each quiz. You cannot retake or reschedule the quiz. Each quiz is weighed equally.

Assignments – There will be multiple assignments throughout the semester. These assignments include all individual analytical exercises as well as any case related group exercises given in the classroom. For individual analytical exercises, you will be asked to solve specific marketing analytics problems relevant to corresponding lectures by using statistical software tools. For case studies, you'll work in groups to analyze the case and answer questions. Your individual grade for any group assignments is a function of the overall group grade. Hence, I encourage you to jointly work with your teammates.

Group Project – This course builds on extensive group work. You are required to form a team of four members to work jointly on a group project. For this project, your team will select an interesting topic, which gives you an opportunity to test the marketing concepts and analytical skills learned through this course. You will develop a plan to address specific marketing problems related to product/customer/marketing mix analytics for a brand/product of your choice. It is your responsibility to identify and select a brand/product to suit the objectives.

You should consider the availability of data before selecting a final brand/product for your project. It is your responsibility to collect data for your research question(s). I would recommend looking into secondary data sources as collecting primary data can be a time consuming and frustrating process. However, if you can design your own survey and collect the required data within the time-frame of this course, I encourage you to do so.

Once you have selected the context for your project, you are required to make a proposal presentation to the class. Your group project proposal is 10% of the total group project grade. Hence, I recommend that you identify your group members as soon as possible and schedule group meetings to collectively start identifying the brand/product and data sources. As a general guideline, you should include the following in your project proposal:

- A brief background on the brand/product.
- Research topic, such as customer segmentation, identifying potential markets, etc.
- Nature of data you will collect and the data collection procedure.
- Analytics tools and methodology you will use.

I will provide you my feedback on your proposal. The final group project presentation will include the analyses based on your research questions, results, and your recommendations. You are also expected to incorporate any changes based on the proposal feedback.

I will circulate more information related to the group project as the course progresses.

Exams – There will be two in-class exams. Both exams will test your knowledge on the materials covered in class and any assigned cases and exercises. There will be no make-up exams.

Grading Policy
The final grade will be determined by your performance on all activities mentioned above. You will be assigned a full letter grade. No +/– grades will be assigned. The grade distribution is as below:

A	90.0% and above
B	80.0% -- 89.9%
C	70.0% -- 79.9%
D	60.0% -- 69.9%
F	Less than 60%

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.

Disability Accommodations
UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office at Fretwell 230.

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.

Tentative Course Schedule (subject to changes)

Week	Day/Date	Topic
1	Wed, Jan 08	Course Overview
2	Mon, Jan 13 Wed, Jan 15	Introduction to Marketing Analytics Programming Basics
3	Mon, Jan 20 Wed, Jan 22	MLK Day (No Class) Programming contd.
4	Mon, Jan 27 Wed, Jan 29	Segmentation, Targeting, Positioning
5	Mon, Feb 03 Wed, Feb 05	Cluster Analysis, Case – Sticks Kebob
6	Mon, Feb 10 Wed, Feb 12	A/B Testing
7	Mon, Feb 17 Wed, Feb 19	**Exam 1** Market Response Models – Linear Regression
8	Mon, Feb 24 Wed, Feb 26	Linear Regression contd.
9	Mon, Mar 02 Wed, Mar 04	Spring Break (No Class)
10	Mon, Mar 09 Wed, Mar 11	Dichotomous variables and Moderation Analysis Case – SVEDKA Vodka
11	Mon, Mar 16 Wed, Mar 18	Project Proposal Presentations
12	Mon, Mar 23 Wed, Mar 25	Choice Models - Logistic Regression
13	Mon, Mar 30 Wed, Apr 01	Logistic Regression contd. Guest Speaker
14	Mon, Apr 06 Wed, Apr 08	Customer Lifetime Value, Case – Netflix
15	Mon, Apr 13 Wed, Apr 15	**Exam 2** Project Meetings
16	Mon, Apr 20 Wed, Apr 22	Project Presentations
17	Mon, Apr 27	Presentations contd.