USCMarshall

School of Business

MKT/DSO 566: Marketing Analytics
Spring 2020
Tue and Thu 11-12:20pm in JKP 204
Tue and Thu 2-3:20pm in JKP 104

Professor:	Kalinda Ukanwa, Ph.D. in Marketing (Quantitative)
Office:	Hoffman Hall (HOH) 321
Office Hours:	Tue and Thu 3:30 – 4:30pm and by appointment
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COURSE DESCRIPTION

The new age of marketing requires an understanding of data. This course will give you the right tools to stay relevant. This goal of this course is to provide you the skills needed to make intelligent use of marketing data to make business recommendations and decisions. This course also provides students with the background needed to begin working in a marketing analytics position within a corporation, a consulting firm, or a marketing research firm. The course employs a combination of lectures, articles, and "hands-on" exercises. By the end of the course, you will be able to walk into any company and help make data-driven marketing decisions.

COURSE OBJECTIVES

Upon successful completion of this course, students will be able to:

- Demonstrate an understanding of marketing data collection, analysis, and interpretation.

- Understand the roles of data technologies in marketing.

- Use data visualization to gain marketing insight.

- Communicate a story to an audience using data and analytics.

- Acquire introductory knowledge of the programming tools R and SQL.

- Conduct cluster analysis for marketing segmentation, targeting, and positioning

- Earn certificates of completion in Google Analytics.

- Design field experiments in digital environments, including A/B testing.

- Develop marketing mix models.

- Gain exposure to artificial intelligence and machine learning.

- Apply marketing analytics skills to a real marketing issue of interest.

COURSE MATERIALS

Required Course Materials:

1. **Marketing Analytics** by Brennan Davis (Edify Publ., May 2019), ISBN: 978-0-9987138-8-5
   To get the book, click below on the appropriate link for your section. Follow the instructions to purchase the digital textbook only:
   Section 16542R (11am – 12:20pm): https://home.stukent.com/join/58C-3AB
   Section 16546R (2pm – 3:20pm): https://home.stukent.com/join/1F1-591

2. **Topical Articles** by various media outlets.   All articles assigned in class are accessible at the USC Library online portal: https://libraries.usc.edu/. You can also find these articles through Google or Google Scholar searches.

3. **MKT 566 Lecture Notes** at http://blackboard.usc.edu under COURSE DOCUMENTS

Required Equipment:

It is ***required*** that you download and install all the required software ***before*** class as per the instructions of the instructor. Often times we will use laptops for in-class exercises. ***Please make sure that you bring a fully charged laptop to every class.***

Required Software and Online Resources:

Throughout the course, we will make use of **Excel** because it is widely used both in industry and for other courses you will take at Marshall. ***Proficiency with Excel is required to successfully complete this course.***

However, for some parts of the course, we will also utilize **R** (statistical programming language**)** along with **RStudio** (an integrated development environment for **R. R** has become one of the default pieces of software for data science and analytics in general. It is also open source software so you will be able to use it both at Marshall and in any future positions after you graduate.). ***No prior experience with R is required for the course.***

*Please install these on your laptop **before** the first day of class:*
   Excel
   R (go to https://cran.rstudio.com/. **R** must be installed before **RStudio**)
   RStudio Desktop (go to https://rstudio.com/products/rstudio/download/#download)
   Tableau Desktop (go to https://www.tableau.com/academic/students)

Optional Course Materials:

1. **MKT 566 Course Reader**

2. **Principles of Marketing Engineering and Analytics**, 3rd Edition, by Gary Lilien, Arvind Rangaswamy and Arnaud De Bruyn (DecisionPro, Inc. 2017), ISBN: 978-0985764821

3. **Database Marketing: Analyzing and Managing Customers,** by Robert C. Blattberg, Byung-Do Kim, and Scott A. Neslin (Springer, 2009), ISBN: 978-1441903327

GRADING

Your final course grade represents how you perform in the class relative to other students. Historically, the average grade for a graduate elective class at USC Marshall is about a B+/A-. Three factors are considered:
1. Your weighted score as a percentage of the three components listed in the table below.
2. The overall average score within the class.
3. Your ranking among all students in the class.

The formal course assessment is as follows:

Assignments	Points	% of Overall Grade
Individual Assignments (5 required)	500	50%
Group Project	300	30%
In-Class Exercises	150	15%
Class Participation	50	5%
TOTAL	1000	100%

More details of the grading policy are provided below:
1. **Assignments (5 required, 10% each)**: Students need to develop their own competence in dealing with the subject matter of this course. To accomplish this, students will be asked to complete five (5) assignments covering material discussed in the course. To complete each assignment, students need to carry out data analyses and provide managerial insights. Each assignment is worth 10% of your course grade. The instructor will post the assignments on the Blackboard website along with detailed instructions. The course schedule section of this syllabus provides the due dates of these assignments.

    Later on in the semester the instructor will give out the assignments along with detailed instructions. All assignments are due at the beginning of class on the scheduled due date. Each assignment will have instructions on how it is to be submitted (i.e., per assignment instructions, submission is either a hard copy in class or digital copy through Blackboard). A late submission will result in a loss of 10% of the assignment grade immediately, plus 5% per day late up to a limit of the next class day, irrespective of the excuse. After that, the assignment receives no credit. For example, if an assignment was due on Tuesday and the next class day is Thursday of the same week, then you must submit the assignment by the beginning of Thursday's class to receive any partial credit. The assignment will receive a grade deducted by 10% +5% = 15% in this example. Assignments that are sufficiently late where they benefited from class discussion get no credit.

    Additionally, for individually completed assignments, while inter-personal discussions are okay, it is essential that students complete these assignments independently. If the instructor detects any plagiarizing behavior (even for only part of the assignment), the student will receive a severe penalty on his/her course grade.

2. **Group Project (30%)**: The objective of the group project is to provide you with an opportunity to apply what you learn to a real marketing issue of interest. To make sure that you are on track, you and your team will submit and present a power point presentation for each of the three phases of your project during the course: proposal, analysis/results, and insights/recommendations. Early in the semester, you will receive a handout with more details on requirements and deadlines.

3. **In-Class Exercises (15%)**: This course is designed to be an active learning experience. This includes hands-on in-class exercises. To receive credit for in-class exercises, all in-class work must be turned into the instructor *before* you leave class. If you miss class, there will be no opportunity to do the in-class work assignments outside of class. However, at the end of the semester, I will drop the exercises with your two lowest grades before calculating your final grade. Therefore, you can miss up to two in-class exercises without it affecting your in-class work grade. If you miss more than two sessions, your in-class work will receive no credit for that session.

4. **Class Participation (5%)**: Your learning is greatly enhanced by actively participating in each lecture. Your

interactive participation also improves the learning experience for your classmates. Grading will be determined by the quality and quantity of your participation in each lecture. See Appendix A for more details about how class participation is assessed.

Group Project

You have one group project in this class. Students should form groups and have the names of the group members submitted to me **by the end of the class on Tue., Jan. 21**. Each group should include about five (5) students. The instructor might provide some guidance on the ideal formation of the student groups.

At some point in your career, you will be asked to evaluate the work of others. So as part of the team assignment experience, you will be required to submit a peer evaluation form (see Appendix B for an example) for your team assignment. Failure to make equitable contributions to group work will be penalized with lower individual grade.

Course Conduct and Class Participation

- Arrive to class on-time and remain throughout the class. Arriving late or periodic exits is disruptive to the class and unfair to your fellow classmates – not a place conducive to learning.
- When you come to class, be prepared to participate actively. This is not the place to sleep, chat with your friends, read the newspaper, text messaging, etc. There are more comfortable places for those activities than this classroom.
- No use of cell phones, iPods, tablets or other electronic devices in the classroom for non-class purposes
- Laptop or tablets can be used for class purposes such as in-class exercises or note-taking

Violation of course conduct will considerably affect your class participation grade.

Communication Policy

- To promote independence and critical thinking, students are encouraged to work through the following process for obtaining answers to course-related questions before contacting the instructor. First, consult the course syllabus. If you do not find the answer you need, next consult the class site on Blackboard. If you are still not satisfied with the answer after you have exhausted these methods, students are encouraged to email me at **Kalinda.Ukanwa@marshall.usc.edu**.
- Students are encouraged to email me from your USC email account. Because of the deluge of spam, phishing, and marketing emails I often receive, I generally do not respond to emails sent from non-USC accounts.
- The email's Subject Line should include your class, section, and brief description of the topic of your email: **MKT/DSO 566 Section XXX**. Replace the **XXX** with what time your section starts. For example, if you are in the T/Th 11am section and you are emailing me a question about Assignment 1, then your email subject line could say "MKT/DSO 566 Section T/Th 11am: Question about Assignment 1".
- I will reply to emails within 72 hours. Emails sent to me after 5pm, on weekends, or on holidays/school breaks will get responses on the longer end of the spectrum.
- Questions received too soon before an assignment or project due date may not get a response until after the deadline. **Students are strongly encouraged to plan ahead and ask questions days before the due date of an assignment or project.**

Course Evaluations and Feedback to the Instructor

At the Marshall School of Business, we are committed to continuous improvement in the quality of teaching and learning. The student course evaluations are valuable. This course is continuously improved, based on feedback from students and instructor observations. Please feel free to speak to me at any time regarding any aspect of this course, including things that you think are going well, or things that need to be improved. During the semester, I will also give you opportunities to submit written feedback to me anonymously. These will help me gauge how the course is progressing and make it a worthwhile experience for you.

Class Web Site: http://blackboard.usc.edu

The Blackboard login uses your USC ID and password. The website will include the syllabus, lecture notes, grades, and announcements related to this class, etc. By default, email from the instructor will arrive at your USC email account. Students are required to maintain this e-mail address as Blackboard uses this address to send course related e-mail. *Please make sure that you check this email account on a regular basis so that you will not miss the messages posted from me on the Blackboard course website*.

COURSE OUTLINE AND ASSIGNMENTS

The schedule presented below is tentative. This schedule and syllabus is subject to change at the instructor's discretion. Additional readings may be provided by the instructor. **The dates for the individual assignments and group presentations will not change. BD = "Marketing Analytics" textbook by Brennan Davis**

Week	Date	Subject	Assignments Due
1	1/14 Tue	Course Introduction	Intro Survey (Blackboard)
	1/16 Thu	Overview of Marketing Analytics **Readings**: 1. BD – Chapter 1 2. "Models Will Run the World," Wall Street Journal (2018) 3. "Sure, Big Data is Great. But So Is Intuition," New York Times (2012)	
2	1/21 Tue	An Introduction to Programming Tools: Part I **Readings**: BD – Chapter 2.Intro to 2.2	Submit Project Team List
	1/23 Thu	An Introduction to Programming Tools: Part II **Readings**: BD – Chapter 2.3 to Conclusion	
3	1/28 Tue	Accessing Marketing Data using SQL **Readings**: BD – Chapter 4	
	1/30 Thu	Data Visualization: Part I **Readings**: 1. BD – Chapter 11 2. "How to Properly Tell a Story with Data — and Common Pitfalls to Avoid." Towards Data Science (2017)	

Week	Date	Subject	Assignments Due
4	2/4 Tue	Data Visualization: Part II **Readings**: 1. "Data Visualization: How To Tell A Story With Data," Forbes (2018) 2. "How Do You Tell A Story With Data Visualization?", Forbes (2019)	
	2/6 Thu	Extracting Meaning from Data on the Web **Readings**: 1. BD – Chapter 6 2. "How Companies Learn Your Secrets," New York Times Mag. (2012)	Assignment 1: Data Visualization
5	2/11 Tue	Marketing Analytics Metrics **Readings**: BD – Chapter 12	
	2/13 Thu	Google Analytics Overview	
6	2/18 Tue	Analytics of Segmentation, Targeting and Positioning: Part I **Readings**: BD – Chapter 7	
	2/20 Thu	Analytics of Segmentation, Targeting and Positioning: Part II	
7	2/25 Tue	Marketing Mix Models **Readings**: BD – Chapter 14	Assignment 2: Cluster Analysis
	2/27 Thu	NO CLASS: WORK ON PROJECTS	
8	3/3 Tue	**Guest Speaker- Matt Curran/Steven Fuller** **Trademarks and Licensing**	
	3/5 Thu	Marketing Mix Models	
9	3/10 Tue	Marketing Mix Models with Moderation **Readings**: BD – Chapter 15	
	3/12 Thu	Pricing Analytics	Assignment 3: Marketing Mixed Models
	3/15 –22	**Spring Break**	
10	3/24 Tue	**Guest Speaker: Maria Rodas** **Implications of Consumer Behavior**	
	3/26 Thu	**Group project preliminary presentation**	Team Project Proposal Presentation
11	3/31 Tue	**Group project preliminary presentation**	Team Project Proposal Presentation
	4/2 Thu	A/B Tests and Experimental Design in the Digital Age **Readings**: BD – Chapters 8 & 9.Intro through 9.2	

	Date	Subject	Assignments Due
12	4/7 Tue	A/B Tests and Experimental Design in the Digital Age **Readings**: BD – Chapters 9.3 to Conclusion & 13	
	4/9 Thu	Mobile Marketing	Assignment 4: A/B Experimental Design and Testing
13	4/14 Tue	Artificial Intelligence **Readings**: BD – Chapter 10	
	4/16 Thu	NO CLASS: WORK ON COMPLETING PROJECTS	
14	4/21 Tue	**Group presentations**	Team Project Analysis Presentation
	4/23 Thu	**Group presentations**	
15	4/28 Tue	**Group presentations**	
	4/30 Thu	Course Recap: Beyond Marketing Analytics	Assignment 5: Google Analytics for Beginners & Advanced Google Analytics
Finals	5/7 Thu	**Final Presentations 2pm – 4pm (for 2pm class)**	Team Project Recommendations Team Evaluation Due
	5/12 Tue	**Final Presentations 11am – 1pm (for 11am class)**	Team Project Recommendations Team Evaluation Due

EMERGENCY PREPAREDNESS

In case of a declared emergency if travel to campus is not feasible, the USC Emergency Information web site (https://emergency.usc.edu/) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Blackboard learning management system (blackboard.usc.edu), teleconferencing, and other technologies. If you have any questions or need assistance with the Blackboard Course Pages, please contact the Marshall Help Desk at 213-740-3000 (select option 2) or HelpDesk@marshall.usc.edu. Alternatively, (213) 740-5555 will get you the USC ITS Help Desk.

STATEMENT ON ACADEMIC CONDUCT AND SUPPORT SYSTEMS

Academic Conduct:
Students are expected to make themselves aware of and abide by the University community's standards of behavior as articulated in the Student Conduct Code. Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct at http://policy.usc.edu/scientific-misconduct.

Support Systems:

Student Health Counseling Services (SCS) - (213) 740-7711 – 24/7 on call
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. https://engemannshc.usc.edu/counseling/

National Suicide Prevention Lifeline - 1-800-273-8255 – 24/7 on call
Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. http://www.suicidepreventionlifeline.org

Relationship & Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender-based harm. https://studenthealth.usc.edu/sexual-assault/

Office of Equity and Diversity (OED)/Title IX compliance – (213) 740-5086
Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic that may be specified in applicable laws and governmental regulations.
https://equity.usc.edu/; titleix.usc.edu

Bias Assessment Response and Support (213) 740-2421
Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. https://uscsa.usc.edu/trojans-care-4-trojans

The Office of Disability Services and Programs - (213) 740-0776 dsp.usc.edu
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to your TA) as early in the semester as possible. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

USC Support & Advocacy – (213) 821-4710
Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. https://uscsa.usc.edu/about/

Diversity at USC – https://diversity.usc.edu/

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24/7 on call.
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. dps.usc.edu; emergency.usc.edu

USC Department of Public Safety – Non-Emergency: UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information. dps.usc.edu

CLASS PARTICIPATION ASSESSMENT

Class participation is an extremely important part of the learning experience in this course as the richness of the learning experience will be largely dependent upon the degree of preparation by *all* students prior to each class session.

A course that incorporates the frequent use of analyses to illustrate the practical application of concepts and practices requires the student to diligently and thoroughly prepare and actively offer the results of the analyses and conclusions derived as well as recommendations during each class session. My expectation and that of your classmates are that you are prepared for *all* classes and will actively participate in and meaningfully contribute to class discussions.

In-class participation is also a critical part of this course's learning experience. Cold calling may take place to encourage active participation and to gain multiple perspectives and points of view, thus lending itself to the richness of the learning experience. In-class participation grading will be based on students' demonstrated willingness to participate and the quality of the comments expressed, rather than quantity. While some students are far more comfortable than others with class participation, *all* students should make an effort to contribute meaningfully.

Students will offer their opinions in group settings many times in their careers; thus, class participation serves to prepare students for this business experience.
The evaluating of in-class participation is based on the following:

- *Relevance* – Does the comment or question meaningfully bear on the subject at hand? Irrelevant or inappropriate comments can detract from the learning experience.
- *Responsiveness* – Does the comment or question connect to what someone else has said?
- *Analysis* – Is the reasoning employed consistent and logical? Has data from course materials, personal experience, or general knowledge been employed to support the assertions/findings?
- *Value* – Does the contribution further the understanding of the issues at hand?
- *Clarity* – Is the comment concise and understandable?

During class sessions, I frequently assume the role of a facilitator to encourage a discussion that includes perspectives from a variety of viewpoints and, secondly, to help pull together prevailing analyses and recommendations. The direction and quality of a discussion is the *collective responsibility of the class*.

For each in-class session two (2) points will be awarded to a student for relevant and meaningful participation, one (1) point for modest contributions to the class and zero (0) points for no participation or absence.

Five (5) percent of the course grade or 50 points are allocated to class participation.

Class Participation—Behavioral Anchor Rating Scale:

Excellent Performance
- Initiates information relative to topics discussed
- Accurately exhibits knowledge of assignment content
- Clarifies points that others may not understand
- Shares personal experiences or opinions related to topic
- Offers relevant / succinct input to class
- Actively participates in class exercises
- Demonstrates ability to apply, analyze, evaluate & synthesize course material.
- Demonstrates willingness to attempt to answer unpopular questions
- Builds on other students' contributions
- Attends class regularly

Average Performance
- Participates in group discussions when asked
- Demonstrates knowledge of course material
- Offers clear, concise, "good" information on class assignments
- Offers input, but tends to reiterate the intuitive
- Attends class regularly

Unacceptable Performance
- Fails to participate even when directly asked
- Gives no input to discussions
- Does not demonstrate knowledge of the readings
- Shows up to class: does nothing
- Distracts group / class
- Irrelevant discussion
- Does not attend class regularly

Appendix B

SAMPLE PEER EVALUATION FORM (actual evaluation given in class may be different)

Please identify your team and team members for the _____ Project(s) that you worked on. Then rate all your team members, *including yourself,* based on the **contributions** of each team member for the selected assignment according to the criteria listed below. On a scale of 0 – 2 with 0 indicating does not meet expectations, 1 meets expectations and 2 exceeds expectations, rate each person on each of the five criteria. Lastly, add up the points for each person with the maximum number of points for each person being 10. In the box below, describe the exact contributions of each team member, including yourself.

Team Members/ Assessment Criteria of Team Contributions	Team Member 1	Team Member 2	Team Member 3	Yourself
1. Role Performance				
2. Assists Team Members				
3. Listening and Discussing				
4. Research and Information Sharing				
5. Time Management				
Total				

Contribution details: