

MKT/DSO 566: Marketing Analytics

Fall 2020, Mon and Wed via Zoom

Sections 16546R/16562D: 2:00 - 3:20pm PST

Sections 16547R/16563D: 3:30 - 4:50pm PST

Professor: Kalinda Ukanwa, Ph.D. in Marketing (Quantitative)
TA (2:00pm sec.): Rachel Rodrigues - rachelr0@usc.edu
TA (3:30pm sec.): Donnie Schroth - donnie.schroth.2021@marshall.usc.edu
Office Hours: Mon and Wed 5 – 6pm PST via Zoom -- by appointment only
Phone: (213) 740-1421
Email: Kalinda.Ukanwa@marshall.usc.edu

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.

This class will be entirely online. Students should ensure that they can access all of the online tools via Blackboard prior to the start of classes. Zoom is the platform used for all online sessions and online office hours. A link and instructions to join the Zoom sessions will be posted in the Blackboard Course Pages. For more information about Zoom, go to: [Zoom Support Tutorials](#)

COURSE OBJECTIVES

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

- Demonstrate an understanding of marketing data collection, analysis, and interpretation.
- Use data visualization to gain marketing insight.
- Communicate a story to an audience using data and analytics.
- 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. **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.
2. **MKT 566 Lectures** 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.

Please install these on your laptop before the first day of class:

Excel

Tableau Desktop (go to <https://www.tableau.com/academic/students>)

Optional Course Materials and Software:

1. **Marketing Analytics** by Brennan Davis (Edify Pub., 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 16546R/16562D (2pm – 3:20pm): <https://home.stukent.com/join/FAC-B30>
Section 16547R/16563D (3:30pm – 4:50pm): <https://home.stukent.com/join/82E-183>
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
4. **R for Marketing Research and Analytics**, by Chris Chapman, Elea McDonnell Feit (Springer, 2019), ISBN 978-3-030-14316-9
5. **R** (go to <https://cran.rstudio.com/>). R must be installed before **RStudio**)
6. **RStudio Desktop** (go to <https://rstudio.com/products/rstudio/download/#download>)

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:

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

More details of the grading policy are provided below:

1. **Assignments (5 required, 50% total):** 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. 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 Monday and the next class day is Wednesday of the same week, then you must submit the assignment by the beginning of Wednesday'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 two phases of your project during the course: project proposal and results/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 by the specified deadline, which will often be **within 24 hours of the class session**. If you miss class, there will be an opportunity to do the in-class work assignments within the time window after the session posts on Blackboard. 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. One specific requirement is to give a presentation on Marketing Analytics in the Real World (See Appendix A for details). For students who are unable to attend sessions due to time zone or internet access limitations, please contact me as soon as possible at the beginning of the semester. An alternative way to participate will be provided to you. 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 by the due date specified in the schedule. 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

1. Class attendance and participation is important in developing a coherent view of the materials covered in the course. Unless accommodated as described in (c) below, attendance and active participation is expected at the synchronous Zoom class sessions.
 - a. The hours from 7am to 10pm in your local time zone are considered as “reasonable” times for students to attend synchronous sessions or engage in synchronous learning activities or assessments. Normal attendance, participation, assignment and assessment expectations hold for any student for whom the class time falls within those reasonable learning hours in their time zone.
 - b. Students are expected to have cameras on during the synchronous Zoom sessions, and preferably use headsets or earphones to ensure the best audio quality. *Please advise me if you have circumstances under which you will not be able to meet these expectations.*
 - c. For students where the synchronous class sessions or exams fall outside the window of 7 a.m. to 10 p.m. in your local time zone, please contact me for an alternate method of contribution to the class. You will not be penalized for not attending the live Zoom class sessions. The Zoom sessions will be recorded and posted on Blackboard, and you will be responsible for watching the recorded sessions. Exercises and other synchronous assessments will be scheduled for students to be able to complete the assessment between 7 a.m. and 10 p.m. in your local time zone.
2. During synchronous Zoom sessions, the following netiquette is expected, as if you were in a physical classroom.
 - a. Please do:
 - i. Log into class early or promptly

- ii. Arrange to attend class where there is a reliable internet connection and without distractions
 - iii. Dress respectfully. Video conference business meetings are and will be the norm, so practice your professional telepresence.
 - iv. If you use a virtual background, please keep it respectfully professional.
 - v. Display both your first and last name during video conferencing and synchronous class meetings.
 - vi. Respectfully minimize distractions by muting and or turning off video if necessary and when appropriate.
 - vii. Engage in appropriate tone and language with instructors and classmates.
- b. Please try not to:
 - i. Engage in a simultaneous activity not related to the class.
 - ii. Interact with persons who are not part of the class during the class session.
 - iii. Leave frequently or not be on camera for extended periods of time.
 - iv. Have other persons or pets in view of the camera.
- 3. All Zoom sessions will be recorded and posted in the Blackboard Course pages.

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 M/W 2pm section and you are emailing me a question about Assignment 1, then your email subject line could say "MKT/DSO 566 Section M/W 2pm: 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. **BD = "Marketing Analytics" textbook by Brennan Davis**

<u>Week</u>	<u>Date</u>	<u>Subject</u>	<u>Assignments Due</u>
1	8/17 Mon	Course Introduction	Intro Survey (Qualtrics)
	8/19 Wed	Overview of Marketing Analytics Readings: 1. BD – Chapter 1 (optional) 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	8/24 Mon	Extracting Meaning from Data on the Web Readings: 1. BD – Chapter 6 (optional) 2. “How Companies Learn Your Secrets,” New York Times Mag. (2012)	
	8/26 Wed	Data Visualization and Data Storytelling: Part I Readings: 1. BD – Chapter 11 (optional) “How to Properly Tell a Story with Data – and Common Pitfalls to Avoid.” Towards Data Science (2017)	
3	8/31 Mon	Data Visualization and Data Storytelling: 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)	
	9/2 Wed	Marketing Analytics Metrics: Part I (Overview) Readings: BD – Chapter 12 (optional)	
4	9/7 Mon	NO CLASS – LABOR DAY HOLIDAY	
	9/9 Wed	Marketing Analytics Metrics: Part II (Google Analytics) Readings: BD – Chapter 12 (optional)	Assignment 1: Data Visualization
5	9/14 Mon	GUEST SPEAKER: Jin Kang from Amazon Web Services	
	9/16 Wed	Analytics of Segmentation, Targeting and Positioning: Part I Readings:	

		BD – Chapter 7 (optional)	
<u>Week</u>	<u>Date</u>	<u>Subject</u>	<u>Assignments Due</u>
6	9/21 Mon	Analytics of Segmentation, Targeting and Positioning: Part II	
	9/23 Wed	Analytics of Segmentation, Targeting and Positioning: Part III	Submit Project Team List
7	9/28 Mon	Guest Speaker- Matt Curran/Steven Fuller USC Trademarks and Licensing	Assignment 2: Cluster Analysis
	9/30 Wed	Marketing Mix Models Readings: BD – Chapter 14 (optional)	
8	10/5 Mon	Marketing Mix Models with Moderation Readings: BD – Chapter 15 (optional)	
	10/7 Wed	Artificial Intelligence Readings: BD – Chapter 10 (optional)	Assignment 3: Marketing Mixed Models
9	10/12 Mon	Group project preliminary presentation	Team Project Proposal
	10/14 Wed	Group project preliminary presentation	Team Project Proposal
10	10/19 Mon	Guest Speaker: Professor Maria Rodas Implications of Consumer Behavior	
	10/21 Wed	A/B Tests and Experimental Design in the Digital Age Readings: BD – Chapters 8 & 9.Intro through 9.2 (optional)	
11	10/26 Mon	A/B Tests and Experimental Design in the Digital Age Readings: BD – Chapters 9.3 to Conclusion & 13 (optional)	
	10/28 Wed	WORK ON COMPLETING PROJECTS	Assignment 4: A/B Experimental Design and Testing
12	11/2 Mon	Group presentations	Team Project Analysis and Recommendations
	11/4 Wed	Group presentations	Team Project Analysis and Recommendations
13	11/9 Mon	Group presentations	Team Project Analysis and Recommendations Team Evaluation Due
	11/11 Wed	Course Recap: Beyond Marketing Analytics	

Finals	11/20 Fri	Final Submission 2pm – 4pm (for 2pm class)	Assignment 5: Google Analytics for Beginners & Advanced Google Analytics
	11/23 Mon	Final Submission 2pm – 4pm (for 3:30pm class)	Assignment 5: Google Analytics for Beginners & Advanced Google Analytics

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:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call
studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED)- (213) 740-5086 / Title IX – (213) 821-8298
equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by 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 which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298

usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

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 Support and Advocacy - (213) 821-4710

uscsa.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

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

dps.usc.edu, emergency.usc.edu

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.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Appendix A

CLASS PARTICIPATION ASSESSMENT

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, 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.

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

Marketing Analytics in the Real World

One deliverable that will count towards your class participation is giving a brief presentation on Marketing Analytics in the Real World. Each person will pick a date during the semester (list of available dates will be posted on Google docs) to briefly (~ 3 min) present to the class a real-world example that hit the news within the last month and that relates to marketing analytics either pre-purchase, during the purchase or consumption, or post purchase or consumption. In your discussion, you should make it clear which “phase” or “phases” of the marketing process you think your example best fits in, how it relates to marketing analytics and why marketing analytics is important to take into account in that context. Examples presented/learned in other classes are not eligible! You cannot use more than 30 seconds of video material.

If you have limitations due to time zone or internet access that prevents you from presenting in class, please contact me as soon as possible. You have the alternative of recording your presentation for playback during class time to fulfill the requirements for this deliverable. Within 48 hours after your presentation, please upload any slides you used or a brief 1-page summary of your presentation (if you did not use slides) on Blackboard.

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: