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Required Course Materials:

1. **MKT 566 Lecture Notes** at <http://blackboard.usc.edu> under COURSE DOCUMENTS
2. **MKT 566 Course Reader**

Optional Course Materials:

1. **Principles of Marketing Engineering**, 2nd Edition, by Gary Lilien, Arvind Rangaswamy and Arnaud De Bruyn (DecisionPro, Inc. 2012), ISBN: 978-0985764807
2. **Database Marketing: Analyzing and Managing Customers**, by Robert C. Blattberg, Byung-Do Kim, and Scott A. Neslin (Springer, 2009), ISBN: 978-1441903327

Course Goals

This 3-unit course is aimed at providing managers with skills needed to make intelligent and critical use of marketing data, and reports based on those data. It is also aimed at providing students with the background needed to begin to work in a marketing analytics position within a corporation, a consulting firm, or a marketing research firm. The course employs a combination of lectures, cases, and exercises. This course takes a very hands-on approach with real-world databases and equips students with tools that can be used immediately on the job.

Specifically, my objectives for this course are:

1. To familiarize students with data-driven marketing strategies and to help them understand the process of converting data to marketing decisions. After taking this class, the student will feel comfortable making data-driven marketing decisions independently as well as in a group setting.
2. To provide a working knowledge of data handling and modeling techniques using widely-used commercial software. All these techniques are tools of a modern marketer. As a result, the student will gain competency to utilize the commonly-used software tools for his/her marketing-related data analysis needs.

3. To present applications of the techniques to new product design, consumer segmentation, targeting customers, pricing, search engine advertising, and sales force allocation. Student will be able to carry out these techniques independently after practicing on several full-length cases.
4. To provide students with an opportunity, through the final course project, to work on a marketing analytics project as a team. Student will gain fundamentals of tackling a marketing analytics related project from scratch to finish.
5. To gain a working knowledge of choice-based conjoint models, logit models, RFM analysis, consumer segmentation models, predictive modeling, and an acquaintance with optimization, response models, machine learning, and the use of big data in marketing analytics. All these are integral components of modern marketing analytics. Student will be able to leverage these invaluable skills to enhance his/her marketability as a marketing/business analyst, as well as his/her competency to interact with and manage a marketing/business analytics team.

I believe in the philosophy that enjoyable learning is the most effective way to learn. I will work to stimulate your interest and learning, but you are expected to display initiative and a program of self-study. In that sense, a complementary objective of this course is to provide you with an environment that will encourage and reward your own intellectual effort, while simultaneously maintaining rigorous standards that identify those who are motivated to pursue excellence in their own educational preparation for a successful career.

Preparing For Class

It is required that you read and work on the assigned cases *before* each class and think about how to apply the materials for class discussion. These assigned cases will help you to reinforce the knowledge you have learned from the lectures and will enable you to participate in class discussions productively. It is also required that you read the assigned readings from the course reader *before* class. Sometimes we will need to use laptops for some in-class exercises. The instructor will inform you to bring a laptop to class when needed.

Formal Course Assessment

Individual Assignments (5 required)	60%
Group Project	30%
Class Participation	10%

Your final course grade represents how you perform in the class relative to other students. Your grade will not be based on a mandated target, but on your performance. Historically, the average grade for a graduate elective class at USC Marshall is about a B+/A-. Three items are considered when assigning final grades:

1. Your weighted score as a percentage of the three components listed above.
2. The overall average score within the class.
3. Your ranking among all students in the class.

More details of my grading policy are provided below:

1. **Individual Assignments (5 required, 12% each):** Students need to develop their own competence in dealing with the subject matter of this course. To accomplish this, students will be asked complete 5 assignments covering material discussed in the course. To complete each assignment, students need to carry out data analyses and interpret managerial insights. Each assignment will contain 3-4 short answers questions, with questions covering both analyzing marketing data and discussing managerial insights. Each assignment is worth 12% of your course grade. The instructor will post the assignments on the course web site along with detailed instructions two weeks before the due date of each assignment. The due dates of these assignments are provided in the syllabus. A late submission will result in a loss of 10% of the assignment grade immediately, plus 5% per day late, irrespective of the excuse. Individual assignments that are sufficiently late so as to have benefited from class discussion get no credit. The instructor will give out the assignments along with detailed instructions.
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. As a first step, you have to select a project of interest to your group. It would be useful if the project involves a real problem facing a specific company, but this is not absolutely necessary. The project should be related to material covered in the course and employ at least one technique covered in the course. Its scope should be limited enough that it can be completed by the end of the quarter.

To make sure that you are on track, I would like each group to submit a power point proposal outlining the problem that you propose to study, and your general approach to the problem, by xx date. On this day, I would like each group to present a 5-10 minute proposal outlining the objectives of the project, data to be employed, how it is to be analyzed, how this might solve the problem you are analyzing, and any problems you are encountering in the conduct of the project. It is expected that this will be rough, and that the class and I will have suggestions for how to proceed. The objectives of this exercise are to make sure that each project is feasible, for me to provide direction, and for the class to get a feel for the range of projects being proposed.

During the last class session, each group will make a brief presentation to the entire class lasting about 15-20 minutes. The presentation should include: 1) a statement of the problem; 2) a brief description of the analyses that were performed; 3) a brief summary of the results; and 4) recommendations. At the beginning of this class, you will hand in a hard copy of your slides with 1 slide on each page.

3. **Class Participation (10%):** This course is intended to be an active learning experience. Your learning is greatly enhanced by actively being a part of each lecture. The grading of class participation will be determined by the quality and quantity of your participation during each lecture.

I will take attendance at the beginning of every class. I realize that occasionally it is not possible to attend class. It is your responsibility to get all the notes and handouts for the class you miss. You can miss one class session without it affecting your class participation grade. However, if you miss more than one session, your class participation grade will be negatively affected.

Course Conduct

There are certain rules that I hope will help all of us to have a good experience in the classroom.

- Don't be late or leave early, otherwise we will all feel like we are at the airport – 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 laptop in classroom, unless special permission from the instructor.
- No food in the classroom.
- No cell phones, iPods, or other electronic devices in the classroom.

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

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 xx date**. Each group should include about 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 (Appendix C of this syllabus) for your team assignment. Failure to make equitable contributions to group work will be penalized with lower individual grade.

Student Information Sheet

To facilitate my knowledge of each student so that I can accurately evaluate your class participation, I would like to obtain a student information sheet from you. This sheet will be distributed in class.

Feedback to the Instructor

At the Marshall School of Business, we are committed to continuous improvement in the quality of teaching and learning. 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 several 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, group project information, 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 the Blackboard course website.***

Schedule

A tentative schedule is presented below. The syllabus schedule and contents are subject to revision at the instructor's discretion. Additional readings may be provided by the instructor. **The dates for the group presentations, individual assignments, and quiz will not change.**

<u>Date</u>	<u>Subject</u>	<u>Submit</u>
Week 1	Introduction Overview of Marketing Analytics	
Week 2	Conjoint: Intro and Methodology Choice-based Conjoint Models	
Week 3	Conjoint Implementation: Sawtooth Software	Group list due
Week 4	Conjoint Analysis: Interpretation & Consumer Segmentation	
Week 5	Conjoint Analysis: Market Simulation & Product Design Consumer Analytics I: Discrete Choice Models & RFM Analysis	
Week 6	Bookbinder Book Club Case Consumer Analytics II: Consumer Segmentation Models	Individual assignment #1
Week 7	Pricing Analytics: New Product Pricing	Individual assignment #2
Week 8	Group project consultation	PPT Research Proposal for Group Project Due
Week 9	Guest Speaker Digital Analytics I: Online Advertising Analytics	
Week 10	Machine Learning, Big Data, and Marketing Analytics	
Week 11	Zach's Garage Case Big Data Visualization (Tableau)	Individual assignment #3
Week 12	Digital Analytics II: Google Adwords & Internet Media Selection	
Week 13	Tableau Case Collaborative Filtering, Text Mining, and Marketing Analytics	Individual assignment #4
Week 14	Group presentations	Team Evaluation Due
Week 15	Course Recap: Beyond Marketing Analytics Individual assignment #5 (in class)	

APPENDIX A: Group Project

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. As a first step, you have to select a project of interest for your group. It would be useful if the project involves a real problem facing a specific company, but this is not absolutely necessary. The project should be related to material covered in the course and employ at least one technique covered in the course. Its scope should be limited enough that it can be completed by the end of the quarter.

Interim Deliverables

To make sure that you are on track, I would like each group to submit a power point project proposal by xx date. A general format of the proposal is as follows:

- An outline of the problem that you propose to study
- Your proposed approaches to solve it
- Data to be employed and how you plan to obtain the data
- Marketing models to be used for analyses
- Anticipated managerial implications

On xx date, I would like each group to prepare a 5-10 minute presentation outlining the objectives of the project, data to be employed, how they are to be analyzed, how this might solve the problem you are analyzing, and any problems you are encountering in the conduct of the project. It is expected that this will be rough, and that the class and I will have suggestions for how to proceed. The objectives of this exercise are to make sure that each project is feasible, for me to provide direction, and for the class to get a feel for the range of projects being proposed.

Final Deliverables

During the last class session on xx date, each student group will make a 15-minute presentation to the entire class, followed by 5 minutes for Q&A. The 15-minute limit of your presentation is a strict limit. Please rehearse your presentation a few times to make sure that you can complete your talk within this time limit. Your order of presentation will be determined randomly. The dress code of the group presentation is business casual.

The presentation should include:

- A statement of the problem
- A brief description of the data, model(s), and analyses;
- A brief summary of the results
- Recommendations and managerial implications.

Please give me a copy of your PowerPoint slides (1 slide per page) at the beginning of the class on December 3. In addition to your slides, it is required that you include technical appendices outlining details of the marketing analytics used. It is also required that you provide all the relevant references for your research. Such supplementary material will provide useful guidance for me to judge the quality of your work.

Grading: Your group project is worth 100 points. I will evaluate you based on the following criteria:

1) Completeness and coherence

- Answered all questions provided by the instructor
- Information is very organized; chain of thought is easy to follow

Needs improvement (10 points)	Pass (14 points)	OK (16 points)	Good (18 points)	Excellent (20 points)
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2) Quality of research

- Conducted your research thoroughly
- Collected relevant evidence to support your propositions

Needs improvement (10 points)	Pass (14 points)	OK (16 points)	Good (18 points)	Excellent (20 points)
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3) Quality of discussions and/or recommendations

- Demonstrated a clear and logical relationship between your research and your conclusions
- In-depth thinking was evident with specific recommendations

Needs improvement (10 points)	Pass (14 points)	OK (16 points)	Good (18 points)	Excellent (20 points)
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4) Preparedness & Props

- Students are completely prepared and have obviously rehearsed.
- Students use several props (such as charts, figures, tables, video/audio representations) that show considerable work/creativity and make the presentation excellent.

Needs improvement (10 points)	Pass (14 points)	OK (16 points)	Good (18 points)	Excellent (20 points)
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5) Posture, Volume, and Eye Contact

- Students look relaxed and confident; volume is loud enough to be heard by all audience members throughout the presentation.
- Not reading of the slides or note cards ; establish eye contact with everyone in the room

Needs improvement (10 points)	Pass (14 points)	OK (16 points)	Good (18 points)	Excellent (20 points)
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Comments:

APPENDIX B: MARSHALL GUIDELINES

Add/Drop Process

In compliance with USC and Marshall's policies classes are open enrollment (R-clearance) through the first week of class. All classes are closed (switched to D-clearance) at the end of the first week. This policy minimizes the complexity of the registration process for students by standardizing across classes. I can drop you from my class if you don't attend the first two sessions. Please note: If you decide to drop, or if you choose not to attend the first two sessions and are dropped, you risk being not being able to add to another section this semester, since they might reach capacity. You can only add a class after the first week of classes if you receive approval from the instructor.

Further, if you are absent from the first three weeks of classes, I will ask you to withdraw by 1/31. These policies maintain professionalism and ensure a system that is fair to all students.

Students with Disabilities

The Office of Disability Services and Programs (www.usc.edu/disability) provides certification for students with disabilities and helps arrange the relevant accommodations. 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.

Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own (plagiarism). 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. All students are expected to understand and abide by the principles discussed in the SCampus, the Student Guidebook (www.usc.edu/scampus or <http://scampus.usc.edu>). A discussion of plagiarism appears in the University Student Conduct Code (section 11.00 and Appendix A).

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>. Failure to adhere to the academic conduct standards set forth by these guidelines and our programs will not be tolerated by the USC Marshall community and can lead to dismissal.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity <http://equity.usc.edu/> or to the Department of Public Safety <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report or can initiate the report on behalf of another person. The Center for Women and Men

<http://engemannshc.usc.edu/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage <https://sarc.usc.edu/reporting-options/> describes reporting options and other resources.

Support Systems

Students whose primary language is not English should check with the American Language Institute <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs (www.usc.edu/disability) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information (<http://emergency.usc.edu/>) will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Emergency Preparedness/Course Continuity

In case of a declared emergency if travel to campus is not feasible, the USC Emergency Information web site (<http://emergency.usc.edu/>) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of Blackboard, teleconferencing, and other technologies.

Please make sure you can access this course in Blackboard and retrieve the course syllabus and other course materials electronically. You should check Blackboard regularly for announcements and new materials. In the event of an emergency, the ability to access Blackboard will be crucial. USC's Blackboard learning management system and support information is available at blackboard.usc.edu.

APPENDIX C: PEER EVALUATION FORM

MKT 566 Marketing Analytics

Instructor: Lan Luo

Your name _____

Use this form to evaluate yourself and your team members on the listed criteria:

1. Attended all meetings - was there on time and ready to work for every meeting.
2. Completed all tasks - tasks were finished when promised and were done well.
3. Contributed to group effort - volunteered for work, assisted teammates when needed, and did his/her fair share.
4. Contributed to group process - helped keep meetings on track, did not stray from subject, and settled conflict.

Team Member

Points

___ **Yourself** _____

TOTAL = 100 Points

Specific comments about the group effort on the project:
