Description in The Course Catalog

Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales and cost effectiveness, sales forecasting and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

Focus of The Course

Considering the significant impact of big data and analytics, this course will be focused on understanding and making sense of market data collected at various levels. Students will learn data analysis methods, learn how to use R—one of the fastest growing software programs in business analytics, and have hands-on experience of data analysis by applying those methods to real cases.

Course Objectives

The course will help students achieve the following objectives:

1. Understand the role of analytical techniques and show how they can enhance quality of strategic decision making in Marketing
2. Become comfortable with R
3. Improve ability to think critically and strategically

Course Topics
Learning Method
A weekly session will consist of a lecture, a case analysis, and a data analysis exercise. The lectures will teach basic concepts and methods to analyze the assigned case. Relevant models and theories will be dealt with in the lecture. Then, a case will be introduced to apply the methods taught in the lecture. The case analysis entails hands-on data analysis exercises using R. The case and exercise will be bundled with data to apply concepts learned in class to real marketing situations.

Course Materials

- **Required software 1**: R and RStudio will be used for class exercises, homework assignments and the team project. R is an open source software program that is a calculator, a statistical program, a statistical graphics program, and a programming language at the same time. The most recent version of R can be downloaded for free from [http://cran.rstudio.com](http://cran.rstudio.com). RStudio is a user-friendly free integrated development environment (IDE) for R. RStudio can be downloaded at [http://cb.hbsp.harvard.edu/cbmp/access/51219861](http://cb.hbsp.harvard.edu/cbmp/access/51219861). Installing and operating R and RStudio will be dealt with in the second week. Please bring your notebook PC to the classroom.

- **Required software 2**: For simple computation, Microsoft Excel will be used.

- **Required lecture slides**: Lecture slides will be posted on blackboard during the weekend before the class. Previewing slides before class will help understand the lecture.
• **Required cases and data sets**

The following readings are required for classroom activities and homework assignments. They are included in the course pack, available for purchase at [http://cb.hbsp.harvard.edu/cbmp/access/51219861](http://cb.hbsp.harvard.edu/cbmp/access/51219861).


• **Optional, recommended readings (articles)**

The following readings are also included in the course pack but optional. When you purchase the course pack, you can include each of the optional readings individually in your course pack. Also, most of these articles are accessible through the UMSL library.


Optional, recommended readings (books)


Grading

The final course grade will be determined as follows:

- **Individual**
  - Class participation: 20%
  - Individual assignment: 40%

- **Team**
  - Group assignment: 15%
  - Project report: 20%
  - Project presentation: 5%

  - Class participation (20%)  
    Since case discussions are an important part of the course, your participation is critical. Please read the case assigned to the weekly session before the class starts and be ready for discussion. I will reward your participation when deciding your final letter grade.

  - Assignments (Individual 40%, Group 15%)  
    There will be four individual assignments and three group assignments. Individual assignments are relatively simple and easy than group assignments. These assignments are intended for students to have first-hand experiences in analyzing marketing data. In those assignments, students are expected to demonstrate their competency in using appropriate analysis methods (Don’t worry. They are taught in the classroom.) to analyze a given data set and interpret the results. Group assignments could be slightly more difficult than individual assignments. As such, I suggest all group members meet (either face-to-face or online) and discuss for the assignments. Each assignment’s due can be found in the course schedule section of this syllabus.
- Team Project (25%)
  Final project will be an important part of the course. More details on the project will be provided soon.

### Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>100 – 92</td>
<td>A</td>
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<tr>
<td>91.99 – 90</td>
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<tr>
<td>89.99 – 88</td>
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<tr>
<td>87.99 – 82</td>
<td>B</td>
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<td>D-</td>
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<td>59.99 – 0</td>
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### Computer Policy

Except the first week, students are expected to bring a notebook PC to the classroom as we will use R to analyze data.

### Weekly Readings (R: Required, O: Optional)

- **Week 1: Introduction to Analytics**

- **Week 2: Introduction to R**
• Week 3: Summarizing and Visualizing Market Data

• Week 4: Research Design

• Week 5: A/B Testing for Marketing Problems

• Week 6: Identifying Drivers of Market Outcome: Regression Analysis

• Week 7: Identifying Drivers of Market Outcome: Regression Analysis
• Week 8: Understanding Consumer Choice

• Week 9: Questionnaire Development

• Week 10: Understanding Competitive Landscape Using Survey

• Week 11: Identifying Market Segments Using Survey
• Week 12: Developing Successful New Products Using Survey

• Week 13: Text Mining and Sentiment Analysis
  - To be announced

• Week 14: Thanksgiving Holiday Week (No Class)

• Week 15: Research Presentation
**Course Schedule (Subject to Change)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
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</thead>
</table>
| 1 8/24 | Course Overview: Introduction to Analytics | (R) Big Data: The Management Revolution  
(O) Keep Up with Your Quants  
(O) Beware Big Data's Easy Answers  
(O) SAS, R, or Python Survey 2016 |  |
| 2 8/31 | Introduction to R | (O) Thriving in a Big Data World  
(O) Why Your Analytics Are Failing You  
(R) A (Very) Short Introduction to R | Assignment #1 (Individual): Finding and Reading “A (Very) Short Introduction to R” by Torfs and Brauer |
| 3 9/7 | Summarizing and Visualizing Market Data | (O) A Picture’s Worth a Thousand Numbers  
(R) Quality Alloys | Assignment #2 (Individual): R Basics |
| 4* 9/14 | Research Design | (R) Run Field Experiments to Make Sense of Your Big Data  
(O) Iacobucci and Churchill (2009), Chapters 4 through 6 | Assignment #3 (Individual): Quality Alloys |
| 5 9/21 | A/B Testing for Marketing Problems | (R) RestaurantGrades  
(R) Vungle  
(O) Iacobucci and Churchill |  |
| 6 9/28 | Identifying Drivers of Market Outcome: Regression Analysis | (R) Quality Alloys  
(O) Regression Analysis  
| 7 10/5 | Continue from Week 6 | (R) Sarah Gets a Diamond  
(O) Regression Analysis  
(O) Diez et al (2015), Chapter 7 |  |
| 8 10/12 | Understanding Consumer Choice | (R) QWE, Inc.  
(O) Diez et al (2015), Chapter 8 | Assignment #5 (Group): Ohio Art Company |
| 9* 10/19 | Questionnaire Development | (R) Big Data is Only Half the Data Marketers Need  
(O) Iacobucci and Churchill (2009), Chapter 9 |  |
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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Text</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>10 (10/26)</td>
<td>Understanding Competitive Landscape Using Survey</td>
<td>(O) Perceptual Mapping: A Manager’s Guide</td>
<td>Assignment #6 (Group): Sarah Gets a Diamond</td>
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<td>11 (11/2)</td>
<td>Identifying Market Segments Using Survey</td>
<td>(R) TiVo</td>
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<td>(O) Cluster Analysis for Segmentation</td>
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<td>12 (11/9)</td>
<td>Developing Successful New Products Using Survey</td>
<td>(R) Portland Trail Blazers</td>
<td>Assignment #7 (Group): TiVo</td>
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<td>(O) Conjoint Analysis: A Manager’s Guide</td>
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<td>(O) Conjoint Analysis: A Do It Yourself Guide</td>
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<td>13 (11/16)</td>
<td>Text Mining and Sentiment Analysis</td>
<td>(R) To be announced</td>
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<td>(O) To be announced</td>
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<td>14 (11/23)</td>
<td>Thanksgiving Holiday (No Class)</td>
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<td>15* (11/30)</td>
<td>Research Presentation</td>
<td>(O) Broadway Meets Wall Street</td>
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<td>(O) Presentations 101</td>
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<td>(O) Basic Presentation Checklist</td>
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<td>(O) How to Deliver a Disastrous Presentation</td>
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<td>(O) How to Give a Data-Heavy Presentation</td>
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<td>(O) Iacobucci and Churchill (2009), Chapter 19</td>
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<td>16 (12/7)</td>
<td>Group Project Presentation</td>
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<td>Group Project Report</td>
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<td>17 (12/14)</td>
<td>Final Exam Week (No Class)</td>
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* Provided online using the Blackboard learning system