

MARKETING DEPARTMENT
The Wharton School
THE UNIVERSITY OF PENNSYLVANIA

Data and Analysis for Marketing Decisions (MKTG 212/712)

Fall 2016

Course Syllabus and Schedule—08-30-2016

<i>Instructor:</i>	Professor Jehoshua (Josh) Eliashberg STE 700 JMHH; Tel. 215-898-5246 Email: eliashberg@wharton.upenn.edu
<i>Office Hours:</i>	Wednesday 4:30-5:30pm and by appointment
<i>Grader:</i>	Yupeng Chen: yupengc@wharton.upenn.edu Office Hours: Thursday 5-6pm and by appointment
<i>Administrative Assistance</i>	Kate Molt: katemolt@wharton.upenn.edu
<i>Required Text</i>	Iacobucci and Churchill (IC) Marketing Research (11th Edition)
<i>Required Reading Pack:</i>	Available via Study.net
<i>Course Website:</i>	https://canvas.upenn.com/login

Overview and Objectives

Firms have access to various data of customers. Such data may include in-store and online customer transactions, customer surveys as well user generated textual and biometric data. Using real-world applications from various industries, the goal of the course is to familiarize students with several types of managerial problems as well as data sources and analytical techniques, commonly employed in making effective marketing decisions. The course would involve formulating critical managerial problems, analyzing data and, most importantly, drawing inferences and telling convincing narratives, with a view of yielding actionable results. (Former course title Marketing Research).

Prerequisites: For MKTG 212: MKTG 101, STAT 101. Students are highly encouraged to take statistics in the semester immediately preceding this course. For **MKTG 712**: MKTG 611; STAT 613 strongly recommended.

Course Materials and Approach

In the course we will use a variety of readings, cases, and applications. The most important readings and complete list of cases (RP) are contained in the **Study.net**. In addition, lecture notes will be made available on the **Course Canvas** throughout the semester. The readings are designed to introduce key concepts and principles. Cases will allow examining, in detail, the applications of particular data sources and analytical approaches and techniques. The course emphasizes applications and marketing decision making. To gain a practical experience, you will work on a group project involving data collection, analyses, and telling your story, whose progress will be monitored throughout of the semester. Statistical analyses in lecture will be demonstrated using the JMP statistical software.

There will also be a number of guest lecturers who will share perspectives into the practice of data-based decision making. **Please note that there may be some changes in the dates the guests are scheduled to visit the class. For updating, please check the course syllabus' date on the course Canvas.**

Assessment

Your final grade in the course will be based on both individual and group work. The evaluation is as follows:

Exam	30%
Group and Individual Assignments	30%
Oral Presentation of the group project	5%
Group project written report—paper due last day of class	25%
Class Participation	10%

Please note the type of the assignments (**group vs individual**) and if in doubt, please check with me or the grader. **No late assignment will be accepted.** The due dates for the assignments are listed on the course schedule, and a more detailed outline of the evaluation procedure and requirements is included at the end of this document.

Marketing Research (212/712)
Fall 2016
Professor J. Eliashberg
Tentative Course Schedule

Date	Session #	Topic, Readings, Cases, Assignments	IC
W. August 31	1	Introduction <ul style="list-style-type: none"> • Overview of the course • What you will learn • Course administrative issues 	
W. Sept. 7	2	Applying Data Science to Marketing Problems: The Process Readings: <ul style="list-style-type: none"> • “ A Tale of Three Researchers” (in RP) • Case: The Coop (in RP) Discussion Issues: (1) What are the factors that might be causing the decline in sales within stores (2) Evaluate the marketing research proposals: pros and cons	Read Ch.1,3
M. Sept. 12	3	Primary Data Collection and Survey Design Case: “Compact Lemon” (in RP) “Canterbury Travel” (in RP)	Read Ch. 8,9
W. Sept. 14	4	Secondary Data in Marketing Research Case: Promotion of Rocket Soups (in RP) Due 2 Hard Copies in Class: List of Groups Members	Read Ch. 7
M. Sept. 19	5	Examining the Data: Scales of Measurement and Data Vetting Marketing Problems, Hypotheses Testing, and Review of Basic Data Analysis	Read Ch.10 Read Chs.15 and 16
W. Sept. 21	6	Qualitative Data and Decision-Making	
M. Sept. 26	7	Regression Analysis Readings: “Forecasting with Regression Analysis”(in RP) “Movie Stars and Box Office” (in RP) Case: “Colonial Broadcasting Company” (in RP) Due 2 Hard Copies in Class: Group Assignment #1	Read Ch. 17

W. Sept.28	8	New Approaches to Collecting Primary Data: Neurophysiology and Biometrics	
W. Oct. 5	9	Conjoint Analysis Readings: “Conjoint Analysis: A Manager’s Guide” (in RP) Due 2 Hard Copies in Class: One-page Group Project Topic	Read Appendix to Chapter 17
M. Oct. 10	10	Reporting Research Results: Telling the Story	Read Ch. 19
M. Oct. 17	11	Factor Analysis: The Fundamental Issues Readings: “Analyzing Consumers Perceptions” (in RP) “Designing Better Products by Coordinating Marketing and Engineering” (in RP) Due 2 Hard Copies in Class: Group Assignment #2	Read Ch. 18- pp. 452-467
W. Oct. 19	12	Applications of Consumer Measurement Methodologies	
M. Oct. 24	13	Causality and Experimentation Due 2 Hard Copies in Class: Individual Assignment #1	Read Ch. 6
W. Oct. 26	14	Analytics of Customer Experience	
M. Oct. 31	15	Projects progress review	
W. Nov. 2	16	Analytics in the Pharmaceutical Industry	
M. Nov. 7	17	Chi-Square Tests ANOVA Tests Review	Read Appendix to Chapter 14 pp. 352-354 and Appendix to Chapter 16 pp. 395-398
W. Nov. 9	18	In Class Exam (No Makeups. No electronic devices except for a calculator)	

M. Nov. 14	19	The Media and Entertainment Industry: Problems and Challenges	
W. Nov.16	20	Data Mining, Text Analytics, and User Generated Content Reading: Practical Text Analytics Chapters 1,2 https://www.technologyreview.com/s/601848/data-mining-reveals-the-six-basic-emotional-arcs-of-storytelling/	
M. Nov. 21	21	Analytics in the Gaming Industry Due 2 Hard Copies in Class: Individual Assignment #2	
M. Nov. 28	22	Case: E. T. Phone Home Inc.: Forecasting Demand (in RP) Discussion issues: (1) Evaluate and propose, if necessary, improvements for the primary data collection employed by Digitron.(2) Evaluate the forecasting model developed by Digitron	
W. Nov.30	23	The State of the Book Industry	
M. Dec. 5	24	Summary and Preparation for the Projects Presentations	
W. Dec.7	25	Projects Presentations	
M. Dec.12	26	Projects Presentations Due on Dec 12: 2 hard copies in class and 2 soft copies to be emailed to: (eliashberg@wharton.upenn.edu; yupengc@wharton.upenn.edu): Groups project report and presentation deck.	

University of Pennsylvania
The Wharton School
Mktg 212 and 712
Data and Analysis for Marketing Decisions --Fall 2016
Professor Jehoshua Eliashberg

Course Bulk Pack in Study.net: Table of Contents

- “A Tale of Three Researchers” (Marketing Research Magazine)
- “The Coop: Market Research” (HBS, 9-599-113)
- “Compact Lemon” Case
- “Canterbury Travel” Case
- “Promotion of Rocket Soups” Case
- “Forecasting with Regression Analysis,” (HBS, 9-894-007)
- “Colonial Broadcasting Co. (A),” (HBS, 9-894-011)
- “Movie Stars and Box Office”
- “Conjoint Analysis: A Manager’s Guide (HBS, 9-590-059)
- “Analyzing Consumer Perceptions,” (HBS, 9-599-110)
- “Designing Better Products by Coordinating Marketing and Engineering”
- “Practical Text Analytics” by Steven Struhl. Chapters 1 and 2
- “E.T. Phone Home Inc.: Forecasting Business Demand,” (HBS, 9-583-121)
- “Portland Trail Blazers” (Darden Business Publishing, UVA-M-0773)

Assessment Details

Assignments

The purpose of these assignments is to give you “hand-on” experience with designing research and data analyses. These assignments will help clarify the concepts and techniques discussed in the classroom. **The assignments will be put in Canvas.** It will clearly be stated there whether it is a **group or individual** assignment. The **due dates** are given in the class schedule as well as on the assignments sheets.

Group Project

Group size should be **four-six (4-6)**. I expect class members to select their own project groups and to be responsible for managing the division of labor within the group. Please submit a typewritten list of the persons comprising your group to me at the end of the fourth class session. In case you don't know other members of the class, you will be assigned by us to a group.

The group project will give you an opportunity to design and conduct a full-fledged market analysis project. Many, if not all, recent projects involved **startups** ideas. I prefer to stay in this space. It is in line with Penn students interests and careers objectives (see Penn Wharton Entrepreneurship website) and it facilitates comparisons across groups. Since the research project will involve, however, a considerable amount of time and effort, it is vitally important that you work on a project that you find exciting and I will be receptive to special requests. It is expected that whatever project you and your group will select to pursue, will be: **(1) non-overlapping and different from the homework assignments, (2) relevant for marketing decision-making, (3) require gathering of primary data, and (4) demonstrates applications of the principles and techniques covered in the class.** The group should clearly identify the marketing problem it is working on and translate this problem into a set of sharply posed and answerable research questions and design. The projects progress will be reviewed throughout the semester. Presenting research results convincingly to an audience is, in my opinion, a critical task. We will spend some time on it in the class. The last two sessions will give you such an opportunity (Approximately 20 minutes per presentation). Each group will be asked to make an in-class **final project presentation** in these sessions. (**Chapter 19** in the text provides some useful guidelines for successful presentations). The other members of the class are expected to participate and act as the client. **Remember the “10/20/30 rule of PowerPoint”—10 slides, 20 minutes and no font smaller than 30 point.** I will let you know the sequence of the presentations prior to December. The final written report should be no longer than **twenty** double-spaced pages in total (excluding exhibits, appendices, and other attachments) and it should follow the report format described in the text (again, please see **Chapter 19**). **The presentation deck and final report is due on the last class meeting.**

At the end of the course syllabus you will find a Group Project Self-Evaluation Form which will give you an opportunity to share with me your evaluation of the relative contributions made by your groupmates.

Exam

The exam is open-book. No electronic devices other than calculator are allowed. **No make-up exams.**

CLASS ATTENDANCE AND ETIQUETTE

You are expected to treat fellow classmates with respect and are expected to arrive for class on-time. Every session of the course will involve some discussion. Please be prepared. Some class sessions in this course follow a case discussion format. The assigned cases are intended to give you practice to support a decision. Further, the case method provides a vehicle by which to apply the theories, concepts, and analytical techniques discussed in a class or in the reading materials. You will also find them helpful in working on your group project. Keep in mind that your grade for class participation is not simply a function of the amount of "air time" you take up. You will be evaluated on how well you respond to questions and on how effectively you take into account the comments and analyses of your classmates. In order to obtain a grade for class participation you must attend the class sessions and contribute meaningfully. **Presentation decks will be available on the course site before class.**

In light with the Wharton recent guidelines, at this point the use of electronic devices (smartphones, laptops, tablets) in the classroom during class time is strongly discouraged.

The various **guest lectures** are intended to provide the class with an opportunity to get exposure to real-world problems and their research-based solutions. It is highly recommended that you familiarize yourself with the guest speaker's firm and its clientele.

It is expected that you email me at the end of the guest speaker's day your three key takeaways from the session. In particular, I would like to hear from you how the takeaways are connected with this class, other classes that you have taken, and/or any of your real-world experience. Please note that there may be some *changes* in the dates they are scheduled to visit the class.

ACADEMIC INTEGRITY

Please familiarize yourselves with the University Code of Academic Integrity:
http://www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html

Please also review Penn's Plagiarism Policy:
http://gethel.library.upenn.edu/PORT/documentation/plagiarism_policy.html

JEHOSHUA ELIASHBERG

Jehoshua (Josh) Eliashberg is the Sebastian S. Kresge Professor of Marketing and Professor of Operations and Information Management, at the Wharton School of the University of Pennsylvania. He also held visiting scholar positions at the Business Schools of The University of Chicago, Chulalongkorn University (Bangkok, Thailand), Penn State University, INSEAD (Fontainebleau, France), Erasmus University (Rotterdam, The Netherlands), Singapore Management University, Carnegie-Mellon University, The University of British Columbia, UCLA, Time Inc., and at the Operations Research Department at AT&T Bell Laboratories.

Professor Eliashberg's research interests are in developing models and methodologies to solve business problems. His research has focused on various issues including new product development and feasibility analysis, marketing/manufacturing/R&D interface, and competitive strategies. He has particular interest in the media and entertainment, pharmaceutical, and the hi-tech industries. He has authored numerous articles appearing in major academic journals. His work in the entertainment industry has been the subject of articles appearing in *BusinessWeek*, *The Christian Science Monitor*, *The Financial Post*, *Financial Times*, *Forbes*, *Fortune*, *Los Angeles Times*, *The Philadelphia Inquirer*, *The New York Times*, *Variety*, *Newsweek*, *The Wall Street Journal*, and *The Washington Post*.

He is currently the Series Editor of Springer's International Series in Quantitative Marketing and the Editor-in-Chief of *Foundations and Trends in Marketing*. He was elected a Fellow of the INFORMS Society for Marketing Science for his contributions to the field in June 2010 and was named a Fellow of The Institute for Operations Research and the Management Sciences in November 2010. His other professional services have included membership on the advisory boards of the National Science Foundation, the American Councils for International Education, and the academic liaison committee of the CMO Council.

Professor Eliashberg has been teaching various courses at Wharton. Prior to joining academia, he was employed for a number of years as an electronic engineer and marketing. He has participated extensively in various executive education programs. His executive education and consulting activities include AccentHealth, AstraZeneca, AT&T, Booz, Allen & Hamilton, Bell Atlantic, Campbell Soup, Cheil Communications, CTV Television Network (Canada), Domino's Pizza, Franklin Mint, General Motors, Givaudan, HBO, IBM, Independence Blue Cross, Inmar, Janssen Pharmaceutica Inc., Johnson & Johnson, L G Electronics, Lucent Technologies, Multimedia Development Corp. (Malaysia), Pathe Cinema (Holland), Philip Morris, The Siam Cement Group (Thailand), Sirius Satellite Radio, Warner Home Video, Weave Innovations Inc., Woodside Travel Trust, and Wyeth/Pfizer Pharmaceuticals. He also serves as an advisor to a number of startup companies.

Group Project Self-Evaluation Form

The purpose of this evaluation form is to communicate the contribution of each individual in the group. Do this by allocating points among group members: give more points to individuals who did more work or for some reason deserve more credit; give fewer points to individuals who did less work or for some reason deserve less credit. The total points available for the entire group **including you** are 100. Therefore, if there are five members in your group, and if you feel that each member did their fair share of the work, then give 20 points to each member. If you give one or more members more than 20 points, then one or more other members must receive less than 20 points. I will consider confidentially all of the evaluations turned in by the group and any other relevant information that emerges during the term in assigning points for the Individual Effort component of the project. (Of course, you may as a group decide jointly how you will make the point allocations, if you so desire.)

Project Title:

	Group Member	Points
Your Name:	_____	_____
Other Members:	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

Comments (if any):
