MARKETING DEPARTMENT
The Wharton School
THE UNIVERSITY OF PENNSYLVANIA

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

FALL 2018

Course Syllabus and Schedule   (Version: 7/29/2018)

THIS IS A FULL CLASS: ATTENDANCE AT THE FIRST DAY OF CLASS IS MANDATORY!

Instructor:	Professor Jehoshua (Josh) Eliashberg STE 700 JMHH; Tel. 215-898-5246 Email: eliashberg@wharton.upenn.edu
Office Hours:	Wednesday 5-6pm and by appointment
Grader:	Yi Liu liuyliuy@wharton.upenn.edu
Office Hours:	Monday 5-6pm and by appointment
Administrative Coordinator	Mary Spratt <mspratt@wharton.upenn.edu>
Recommended Text	Iacobucci and Churchill (**IC**) Marketing Research: Methodological and Foundations (11th Edition). Publisher: Earlie Lite Books
***Required** Reading Pack (**RP**):*	Available via **Study.net**
Student Referred Reading Material:	Feel free to post on Canvas interesting articles that relate to the course for your colleagues to read
Course Website:	https://canvas.upenn.edu

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 involves formulating critical managerial problems, analyzing data, drawing inferences and telling evidence-based 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 discussed in class will be based on Excel and JMP software. Instructions how to run the software will be posted on Canvas. 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.**

Assessment

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

Group assignment	10%
Individual assignments	20%
Group project presentation	10%
Group written project report	40%
Class etiquette, attendance, participation	15%
Guest speakers engagement	5%

Assessment Details

<u>*Assignments*</u>

The purpose of these assignments is to give you "hand-on" experience with designing research and employing data analyses. These assignments will help clarify the concepts and techniques discussed in the classroom. The assignments will be placed in Canvas folder. It will clearly be stated there whether it is a **group or individual** assignment. **Each assignment should be submitted as:** (i) two hard copies and (ii) a soft copy to be place in the Canvas Assignments folder by the beginning of the class. The **due dates** are given in the class schedule as well as on the assignments sheets. Please note the type of the assignments (group vs individual) and if in doubt, please check with me or the grader. ***<u>No late assignment will be accepted. Plagiarized work will result in severe penalty.</u>***

<u>*Academic Integrity*</u>

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

<u>Please also review Penn's Plagiarism Policy:</u>
<u>http://gethel.library.upenn.edu/PORT/documentation/plagiarism policy.html</u>

<u>*Group Project: Scope and Expectations*</u>

Group size should be **five or six.** I expect class members to select their own project groups and to be responsible for managing the division of labor within the group. In case you don't know other members of the class, you will be assigned by us to a group.

The group project is the culmination of the class to see if you truly have grasped the class concepts and methods in total, and if you *applied them to a real world situation*. Team members typically receive the same grade, although adjustments will be made, if necessary, based on instructor and peer assessment of contributions to team work. Outside executives will also provide me with inputs. Peer assessment forms are available at the end of the course syllabus. In previous years, most, if not all, the projects involved startups ideas. However, your team should feel free to work on any real-world problems that require data and analytics for solutions. **I may have some projects sponsors.** I will share them and they should be considered **optional** rather than mandatory.

The group projects involve considerable amount of time and effort. It is expected that whatever project you and your group will select to pursue (your own choice or a sponsored project), it will:

(1) be non-overlapping and different from the homework assignments, (2) address key managerial questions related to consumers segments, attitudes, perceptions, preferences, purchase intent, market size, revenue projections, (3) require gathering secondary and primary data, (4) demonstrate applications of the concepts and techniques covered in the class, and (5) provide evidence based on at least 30 usable respondents. If in doubt, please consult with the instructor. Progress status reviews will be conducted on a regular basis. Your project status report is a one-page document summarizing what you have done, key findings, and what you are planning to do next.

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 an opportunity to practice it (Approximately 20 minutes per presentation). Each group will be asked to make an in-class **final project presentation** in these sessions. The other members of the class are expected to participate and act as the client. 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). **The presentation deck and the final report are due on the last class meeting.**

Class Etiquette, Attendance, Participation

Please bring your name plate to class and stay in the same seat every class meeting.

Per Wharton recent policy on electronics in the classroom, the use of electronic devices (smartphones, laptops, tablets) in the classroom during class time is not allowed.
Do NOT bring laptops, tablets, iPads, iPods, etc. into class. Presentation decks will be available on the course site before class. Download, print, bring hard copies to the class, and hand write any notes on them.
Cell phones must be turned off and put away. If you must keep a phone on by reason of a personal emergency, you must inform the instructor before class begins, but you will lose class participation points if you use your mobile device to surf and answer email, etc.

You are expected to treat fellow classmates with respect and are expected to arrive for class on-time. Unexcused absence or chronic lateness will decrease your grade for the course. Every session of the course will involve some discussion. Please be prepared. Some class sessions in this course follow a case discussion format. The case provides a vehicle by which to apply the theories, concepts, and analytical techniques discussed in a class or in the reading materials. 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.

__Guest speakers engagement__

I will have various outsiders from different industries visit our class and present on how they approach data-based issues (that we discuss in class as well as others) in the real world. Students will also earn class participation points by attending all guest presentations and by getting involved in the discussion (by asking and responding to insightful questions). It is highly recommended that you familiarize yourself with the guest speaker's firm and its clientele prior to the presentation.

As part of the guest speakers engagement, 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 since these are high-level executives, there may be some *changes* in the dates they are scheduled to visit the class.

Student-Faculty Meals:

I will be glad to chat with you over lunch. Signup sheet is available on the course Canvas. Group size should be at least three students and no more than seven.

Marketing 212/712
Fall 2018
J. Eliashberg
Tentative Course Schedule

Date	Session	Topics and Assignments	Readings and Preparations
W. August 29	1	**Introduction** • Objective of this course • What you will learn in this course • Course administrative issues • Getting to know each other	
M. Sept. 3	2	**No Class—Labor Day**	
W. Sept. 5	3	**Applying Data Science to Marketing Problems: The Process** **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**	" 'Backward' Market Research" (**RP**) Chapters 1,3 (**IC**)
M. Sept. 10	4	**No Class--Holiday**	
W. Sept. 12	5	**Client/consultant interaction and some recent technology-based data collection/ analysis techniques**	
M. Sept. 17	6	**Primary Data Collection and Survey Design** **Case: "Compact Lemon" (in RP)** **"Canterbury Travel" (in RP)** **Due: Hard and soft copies: Group Members**	Chapters 8,9 (**IC**)
W. Sept. 19	7	**No Class—Holiday**	
M. Sept. 24	8	**Analytics in the books industry**	
W. Sept. 26	9	**Secondary Data in Marketing Research (#4)**	Chapter 7 (**IC**) "What Makes Doctors Value Patient Feedback" "Turning Loyal Patients"
M. Oct. 1	10	**Causality and Experimentation** **Due: Hard and soft copies: Group Assignment #1** **Due: Hard and soft copies: One page group project topic, issues to be addressed, data sources, action plan**	Chapter 6 (**IC**)
W. Oct. 3	11	**Projects Reviews**	
M. Oct. 8	12	**Qualitative Data and Decision-Making Applications**	
W. Oct. 10	13	**Examining the Data: Scales of Measurement and Data Vetting** **Marketing Problems: Review of Commonly Employed Hypotheses Testing and Basic Data Analysis**	Chapter 10, 15,16 (**IC**)
M. Oct. 15	14	**Data Analyses: Chi Square and ANOVA**	Appendix to Chapter 14 pp.352-354 and Appendix to Chapter 16 pp.395-398 (**IC**)
W. Oct. 17	15	**New Approaches to Collecting Primary Data: Neurophysiology and Biometrics**	

Date	Session	Topics and Assignments	Readings and Preparations
M. Oct. 22	16	**Data Analysis: Regression** **Case: "Colonial Broadcasting Company" (in RP)** **Due: Hard and soft copies: Individual Assignment #1**	"Forecasting with Regression Analysis"(**RP**) Chapter 17 (**IC**)
W. Oct. 24	17	**Real-world applications of conjoint analysis**	
M. Oct. 29	18	**Conjoint Analysis** **Due: Hard and soft copies: One page group project status report—what has been done and plan for November**	"Conjoint Analysis: A Do It Yourself Guide" (**RP**) Appendix to Chapter 17
W. 0ct. 31	19	**Projects Reviews**	
M. Nov. 5	20	**Data Analysis: Factor Analysis**	"Analyzing Consumers Perceptions" (**RP**) Chapter 18 pp.452-467 (**IC**)
W. Nov. 7	21	**Market Analysis for New Product Opportunities** **Case: E. T. Phone Home Inc.: Forecasting Demand (in BP).** **Discussion Issues: Evaluation of Digitron's Survey Methodology and Forecasting Model.**	
M. Nov. 12	22	**Text Mining and Analysis**	"Practical Text Analytics" by Steven Struhl. Chapters 1 and 2 (**RP**)
W. Nov. 14	23	**Guidelines and tips for presentations**	
M. Nov. 19	24	**Analytics in the retailing industry** **Due: Hard soft copies: Individual Assignment #2**	
W. Nov. 21	25	**No class—Happy Thanksgiving!**	
M. Nov. 26	26	**Analytics in the media industry** **Due: Hard soft copies: One page project status report: current key findings and conclusions**	
W. Nov. 28	27	**Project reviews**	
M. Dec. 3	28	**Course wrap up** **Due: Hard soft copies: One page project status report: final findings, conclusions, and presentation format**	
W. Dec. 5	29	**Project presentations**	
M. Dec. 10	30	**Projects presentations** **Due: 2 hard copies in class and soft copies: Groups project final report and presentation deck.** **Peers evaluations should be submitted in sealed envelopes in the instructor mailbox.**	

Mktg 212 and 712
Data and Analysis for Marketing Decisions --Fall 2018
Professor Jehoshua Eliashberg

Course Readings Pack in Study.net: Table of Contents

"Backward' Market Research" (HBR, No. 85301)
"The Coop: Market Research" (HBS, 9-599-113)
"Compact Lemon" Case
"Canterbury Travel" Case
"Forecasting with Regression Analysis," (HBS, 9-894-007)
"Colonial Broadcasting Co. (A)," (HBS, 9-894-011)
"Conjoint Analysis: A Do It Yourself Guide (HBS, 9-515-024)
"Analyzing Consumer Perceptions," (HBS, 9-599)
"Practical Text Analytics" by Steven Struhl. Chapters 1 and 2
"What Makes Doctors Value Patient Feedback"
"Turning Loyal Patients"
"E.T. Phone Home Inc.: Forecasting Business Demand," (HBS, 9-583-121)
"Portland Trail Blazers" (Darden Business Publishing, UVA-M-0773)

Jehoshua (Josh) 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 and Peers 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. Please leave the form in a sealed envelope in my mailbox on the last day of the class.

Course:_____

Project Title:_____

	Group Member	**Points**
Your Name:	_____	_____
Other Members:	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
Comments (if any):	_____	
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