Course Syllabus and Schedule

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Administrative Coordinator:	Karen Ressler, resslerk@wharton.upenn.edu	
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Office Hours:	Mondays, 3:15PM-4:15PM, JMHH 756	
Recommended Text:	Aaker, Kumar, Leone and Day (AKLD) <u>Marketing Research (12th Ed.)</u> , Wiley	
Required Bulkpack:	Please obtain. There are cases and assigned readings.	
Software:	JMP and Excel.	
Course Website:	Canvas	
GroupAssignments:	(<i>i</i>) There will be 5 group assignments due during the semester.(<i>ii</i>) Group formation is discussed below.	
Guest Speakers:	I will have 4-6 Guest Speakers during the semester.	

Overview and Objectives

Firms have access to detailed data of customers and past marketing actions. Such data may include in-store and online customer transactions, customer surveys as well as prices and advertising. 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 techniques, commonly employed in making effective marketing decisions. The course would involve formulating critical managerial problems, developing relevant hypotheses, analyzing data and, most importantly, drawing inferences and telling convincing narratives, with a view of yielding actionable results.

Course Materials and Approach

In the course we will use a variety of readings, cases and computer-based exercises. The readings and complete list of cases are contained in the course bulk pack. Lecture notes and additional handouts will be made available throughout the semester. The readings and cases are designed to introduce concepts and principles. Please read the assigned reading and cases <u>before</u> coming to class.

My overall philosophy is there is no better way of developing an understanding of marketing analytics other than "learning by doing". The computer and data-based exercises are designed to give you hands-on experience with making effective marketing decisions.

Course Software

I will demonstrate statistical analyses using Excel or JMP. You are <u>not</u> required to do your assignments in these two software packages. You can use R, Python or any other language you are comfortable in. I, however, cannot promise you quality support in case you choose a package that I do not know.

Assessment

Your final grade in the course will be based on class participation (case preparation and general contribution), written assignments, and a final examination. The evaluation is as follows:

A. Class Participation	10%
B. Group Assignments	50%
C. Final Examination (individual)	40%

Please note that <u>no late assignments will be accepted</u>. All written work is due on the specified date. The due dates for the assignments are listed on the course schedule. A more detailed outline of the evaluation procedure and requirements for A through C is included at the end of this document. Please also read Schedule D – Concert rules.

Group Formation

Students must organize themselves into **groups of 3 to 5** people in order to do the group assignments.

<i>Lecture #</i>	Topic, Readings, Cases	
Descriptive Analytics		
	1	Course Introduction
		READING: Backward Marketing Research
	2	Primary Data
		APPLICATION: Communispace
	3	Secondary Data
	4	Surveys READING: Customer Discovery and Validation for Entrepreneurs
	5	A / B Tests READING: Perils of Proactive Churn Prevention
	6	Simulated Test Markets - Go/ No Go Decisions APPLICATION: Tru-Earth Healthy Foods
	7	Statistical Tests READING: "How Optimizely (Almost) Got Me Fired" (BlogPost)
		Guest Speaker #1 (URBN)

Schedule of Class Meetings

Predictive and Prescriptive Analytics

9	Multiple Regression -I APPLICATION: Quality Kitchen's Meatloaf Mix
10	Multiple Regression – II APPLICATION: L'Occitane (Story Telling with Analytics, On Canvas)
11	Categorical Regression (Logistic) READING: Advanced Regression Models (On Canvas)
12	Machine Learning Models for Prediction

	13	Conjoint Analysis - I
	14	Conjoint Analysis - II
	15	Categorical Regression (Multinomial) READING: Advanced Regression Models (On Canvas)
	16	Choice Based Conjoint Models
	17	Guest Speaker #2 (Deloitte)
Market Structu	re	
	18	Segmentation
	19	Factor Analysis – I
New Trends	20	Factor Analysis – II
	21	Social Network Analytics READING: How Social Networks and Opinion Leadership Affect the Adoption of New Products
	22	Guest Speaker # 3 (Annalect)
	23	Text Analytics – NLP
	24	Social Media Advertising APPLICATION: Advertising Experiments at RestaurantGrades
	25	Guest Speaker #4
	26	CLV and Firm Valuation READING: Probability Models for Customer Base Analysis
Wrap Up		
	27	Application: Ford KA
	28	Conclusions

Assessment Details

A. Contribution to Class Discussion (10%)

I will evaluate you on how well you respond to questions and on how effectively you take into account the comments and analyses of your classmates. Please do not simply take up air time. In order to obtain a grade for class participation you must <u>attend</u> the class sessions and <u>contribute</u> meaningfully. I will cold call throughout the ensuing discussion. Please be prepared. I will take attendance (likely not every session but randomly).

B. Group Assignments (50%)

The assignments will be put in Canvas. There will be five assignments. Deadlines will be strictly enforced. You will receive a 0 on an assignment if you submit after the deadline.

- (1) Go / No Go Decisions (January 29th) 10%
- (2) Hypothesis Tests and Regression (Feb 26^{th}) 10%
- (3) Conjoint Analysis and Segmentation (March 21st) 10%
- (4) Logistic Regression and CRM (April 9th) 10%
- (5) Ford KA (April 23rd) 10%

C. Individual-level Final Examination (40%)

D. Classroom Expectations – Concert Rules

(1) Class starts and ends on time. I expect you to come on time. As with any concert, please do not leave during the session unless there is an emergency.

(2) Phones, tablets, laptops and all other electronic devices turned off. I will have slides on Canvas in advance of each class session. Please print out the slides in advance if you wish to take notes directly on them.

(3) Name tents displayed. I will have assigned seating once the adds/ drops have settled.

<u>Electronic Device Policy (rule 2 above)</u>: The Wharton School's policy is not to allow the use of Electronic Devices in MBA classes, unless specifically permitted. Please see the electronics in the classroom policy: <u>https://mba-</u> <u>inside.wharton.upenn.edu/wharton-mba-academic-policies/</u>. If you have documentable special circumstances that require you to use an electronic device in class, you may petition the MBA Program Office to work with me to find a resolution. The MBA Program Office will require documentation of your special circumstance.

Violation of concert rule 2 listed above will depress your grade beyond the weight given to contribution to class discussion. Specifically, -**10%** per violation of #2. I take the electronic devices policy seriously. Please do the same.