The Wharton School
University of Pennsylvania
Data and Analysis for Marketing Decisions
Professor Gideon Nave

#### **Course Syllabus and Schedule**

Instructor: Professor Gideon Nave

(215) 898-8248 (W)

749 Jon M. Huntsman Hall, 3730 Walnut Street

Philadelphia, PA 19104

email: gnave@wharton.upenn.edu

Please use the Canvas e-mail system for personal communication. For any questions regarding the assignments and class materials,

please use Canvas public discussion boards.

Lectures: Start 2 minutes after the "official" time.

Doors will close 5 minutes later, no class entry after. Seating is fixed during the term, starting the second lecture.

Please bring your name tags.

Partial slides will be available on Canvas the day before lecture.

Lectures will be recorded and available on Canvas. No use of smartphones / laptops during the lectures.

Administrative

Coordinator: Karen Ressler, resslerk@wharton.upenn.edu

Teaching Assistant Joy Lu, tonglu@wharton.upenn.edu

Office Hours: By appointment only - Monday or Wednesday

Recommended Text: Aaker, Kumar, Leone and Day (AKLD)

Marketing Research (11th Ed.), Wiley (ISBN: 978-1118156636)

Required Bulkpack: Please obtain. There are cases and assigned readings.

Software: JMP and Excel.

Course Website: Canvas (lectures will be available under "files" a day before class)

Group Assignments: (i) There will be 5 group assignments due during the semester.

(ii) All assignments are due submitted online on canvass.

(iii) Group formation is discussed below.

Guest Speakers: I will have several Guest Speakers from the industry and academia

during the semester.

Course Syllabus 1 Spring 2018

# **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 involves 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 bulkpack. 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 before coming to class.

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; however, I can't promise you quality support if 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	60%
C. Final Examination (individual)	30%

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 refer to this detailed section before preparing for each assignment.

# **Group Formation**

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

# **Schedule of Class Meetings**

1	1/11	Course Introduction READ: Backward Marketing Research
Research methods		TONE Such ward Manager Costation
2	1/16	Primary Data READ: Communispace case
3	1/18	Secondary Data
4	1/23	Customer Surveys READ: Customer Discovery and Validation for Entrepreneurs
5	1/25	Experiments
Data Analysis		
6	1/30	Simple Statistical Tests
7	2/1	Guest speaker: Jonathan Gordon (McKinsey)
8	2/6	Go/ No Go Decisions READ: Tru Earth Health Foods case READ: "How Optimizely (Almost) Got Me Fired"
-	2/8	No class (parade)
9	2/13	Market Demand – Regression Analysis I READ: Quality Kitchen's Meatloaf Mix case
10	2/15	Guest Speaker: Prof. Sanrda Matz, Columbia Business School Psychographic targeting on social media Noon, room JMHH #G06 (recording will be available online)
11	2/20	Regression Analysis II
12	2/22	Conjoint Analysis I READ: Ofek and Toubia "Conjoint Analysis: A Do It Yourself Guide"
13	2/27	Conjoint Analysis II

- - -	3/1 3/6 3/8	No class Spring break Spring break
14	3/13	Choice Based Conjoint
15	3/15	Guest Speaker: Anand Sairam, Deloitte
16	3/20	Predictive Modeling: A Primer on Logistic Regression
17	3/22	Customer Value Analysis – Acquisition and Retention READ: "Probability Models for Customer Base Analysis" (Fader and Hardie)
18	3/27	Market sizing
19	3/29	Guest Speaker: Noam Schwartz, SimilarWeb Know your competition
20	4/3	Segmentation
21	4/5	Factor Analysis - I
22	4/10	Factor Analysis - II
Current Trends		
23	4/12	<b>Guest Speaker:</b> Dr. Russell Richie, <i>Wharton Marketing</i> Text Analytics
24	4/17	Guest Speaker: Gil Eyal, HYPR Influencer marketing
25	4/19	Ford KA case; Conclusions READ: Ford KA;

Data analytics for innovation

#### **Assessment Details**

#### A. Contribution to Class Discussion (10%)

4/24

<u>I expect you to be on time to class</u> (please do not enter if you are you come later than ten minutes after the official starting time). I expect each class member to be prepared at all times to comment in any class session. <u>I will "cold call" throughout the ensuing discussion</u>. Please be prepared.

Keep in mind that your grade for class participation is not simply a function of the amount of "air time" you take up. 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. In order to obtain a grade for class participation you must attend most of the class sessions and contribute meaningfully.

# B. Group Assignments (60%)

The assignments will be put in Canvas. There will be five assignments, addressing the following five topics:

- (1) Tru Earth -10% (Feb 1st)
- (2) Hypothesis Testing and Regression (March 13<sup>th</sup>) 10%
- (3) Conjoint Analysis (March 20<sup>th</sup>) 15%
- (4) Logistic Regression and CRM (April 5<sup>th</sup>) 15%
- (5) Ford KA (April 18<sup>th</sup>)- 10 %

# C. Final Examination (30%)

#### **Possible Discussion Questions for Applications**

### 1. TruEarth Healthy Foods: Market Research for a New Product Introduction

- (a) Why was Cucina Fresca pasta successful?
- Using the forecast model for pasta shown in Exhibit 5, what is your forecast of the demand for pizza?
   Hints: The necessary data is contained in Table B and Exhibit 7. There is a significant difference in the "likeliness to buy" results for pasta customers and non-customers. Actual penetration of the Cucina Fresca parent brand may range from 5% to 15%, so sensitivity analysis will be useful
- (c) What can the TruEarth team learn from Exhibit 6 about how consumers view pizza?
- (d) How the pizza concept results (Exhibit 7 and 8) compare with the findings for pasta (Exhibits 3 and 4)?
- (e) Is there a first-mover advantage in pizza similar to pasta?
- (f) How do you interpret the findings in Exhibits 9 and 10 to evaluate interest in pizza?
- (g) Would you launch the pizza?

#### 2. Quality Kitchen's Meat Loaf Mix

(a) Prepare for the questions at the end of the reading.

#### 3. Ford Fiesta

- (a) Carefully describe Ford's Marketing Campaign for Fiesta and what are its challenges?
- (b) How is Ford Fiesta performing by metrics reported in the case? Would you use other metrics?
- (b) Are you satisfied with the reach of the campaign?