MARK 7397 Digital Marketing Analytics
C.T. Bauer College of Business, University of Houston
Fall 2018

This syllabus outlines the some of the important topics covered through the semester with a tentative schedule and grading components. There might be changes in the syllabus depending on the class composition, the logistics or the overall progress. Most evaluation dates would not change once the semester starts, unless there is any extreme unanticipated event. Changes in the syllabus will be announced in the class and a copy of the latest syllabus would be found under the syllabus section of Blackboard.

Class hours: Tuesday 6:00pm -9:00pm

Instructor: Seshadri Tirunillai

Prerequisites: The focus of the course is on data analysis for digital marketing. There is no prerequisite for the class. However, students would have to become comfortable with data analysis (mostly using Microsoft Excel). It would be easier if students have taken some statistics or digital marketing courses prior to this. For students lacking business background, familiarity with terminologies used in marketing and business is desirable.

Office hours: Friday 1:30 - 2:30 pm. If this time does not work, email me to set up a mutually convenient time. [Office location: Melcher Hall 385C]

 Preferred contact: email: seshadri@bauer.uh.edu [If you need to contact me, use the email. I will try and get back to as soon as possible. Please do not leave voice messages on my office phone if you need immediate attention.]

Course Description and Objectives

This is a graduate course in Digital Marketing Analytics. The course covers some of the important tools and techniques in marketing analytics with a focus on digital marketing applications. The digital marketing topics revolves around the three broad areas popularly referred to as - owned (e.g. company website), paid (e.g. online advertising) and earned media (e.g. social media). The important analytical techniques for managerial decisions in these areas would emphasized throughout the course. At the end of the course, you are expected to 1. Develop data wrangling skills (cleaning data and getting it ready for analysis, e.g. pivot tables, cross-tabulations), 2. become comfortable with data visualization (e.g. charting using appropriate graphs) and 3. become familiar with data mining and statistical methods (e.g. correlation, predictive modeling with regression) that are popularly employed by consultants and practitioners.

The course is structured around cases. Each case would present managerial problems relating to specific topic in digital marketing and you would have data to arrive at the solutions. The cases provide a background to illustrate concepts and issues in digital marketing and at the same time introduce the data analytic technique suitable for answering the questions. We would be covering (almost) one case every week. The primary tool for data analysis is Microsoft Excel - it is a must-know and generalized number-crunching software that is widely adopted in the industry. At the end of the semester, the students are expected to have a strong understanding concepts in digital marketing and also become proficient in data analysis in Excel. We might also be using specialized software such as Solver (add-in to MS Excel) and/or Tableau for specific topics (e.g. advanced analytics or visualization). Students would need a student version of the licenses (more information would be given in the class).

NOTE: In case you are interested in using R programming language, you are welcome to do so. Please discuss with me before you begin working on the assignments. You will have to submit a working version of your code along with the results/outputs.

Course Material

- A set of cases and readings: Most cases and reading would be costing $4.25 each. This packet can be purchased from Harvard Business School Press at <URL to be provided later> (expected approximate total: $50.00 - $75.00)
- It is expected that the students have access to Excel (2016) in their computer for data analysis (it is available through the Office 365 through the university).
- Excel Solver Add-in (do not purchase it before I discuss in the class) – expected cost - $25.00
- Any other material (such as lecture slides, notes, links, etc.) would be posted on Blackboard. You can login through the UH Access Gateway (http://accessuh.uh.edu) to Blackboard system.

Grading

The following table gives you the tentative components you will be evaluated upon and the corresponding percentage distribution.

Component	Percentage
Case Assignments *	60%
Term Assignment: (Topic &Proposal: 4% + Presentation: 6% + Report: 10%)	20%
In-class participation	20%

* The deliverables for cases assignments would typically be a short write-up answering a few important questions on the case and excel file(s) (or equivalent) outlining the analysis and results.

Course Organization

The course uses lectures and cases for illustrating the topics.

Case Discussions: All students are expected to come to class ready to discuss each case. At a minimum, you should be able to state the problems, know the factual elements presented in the case and have some thoughts on the possible solutions. It is expected the students also familiarize with the spreadsheet data for each of the cases **before coming** to the class discussion. In case you do not read the cases and become familiar with the data you might not be comfortable in keeping your pace with the discussions. You are not expected to complete all the analysis on your own or get the perfect solutions. You would have opportunity to work on the cases in the class. Please bring your laptops with the case data. For most cases, you would be required to submit the deliverables after the case is discussed in the class. The specific deadlines and instructions for each of the cases would be given in the completed syllabus. You are strongly encouraged NOT to miss any case discussion sessions.

Lecture sessions are devoted to discussion of theories, concepts and analytical techniques in digital marketing or data analysis. The sessions are often accompanied by assigned readings. You are expected to read the relevant materials <u>before </u>the session. Assigned readings are not a substitute for the class nor is the class designed to summarize the readings. You will find a lot of materials in lecture that are not there in your readings (and vice-versa).

Tentative Schedule

1. **The topics, cases or the schedule might change till we are into the second week of classes.**
2. **Each meeting is divided into two 75 minutes (approximate) sessions. First half session is from 6pm to 7:15pm. Second half session is from 7:30pm to 8:45pm.**
3. **The cells marked in yellow are cases and involve data analysis by the students either as homework of in-class exercise.**

Date	Topics
21-Aug-18	Introduction to the course logistics
	Marketing Analytics Topics – scope and coverage
28-Aug-18	Case Discussion 1: Correlation and Excel Exercises - Formulae, Pivot Table
	Lecture: Introduction to Digital Marketing and Analytics
4-Sep-18	Lecture: Economics and Technology of Advertising
	Lecture: Measuring Search Engine Advertising Effectiveness
11-Sep-18	Case Discussion 2: Air France
	Lecture: Discussion of Search Engine Advertising Issues
18-Sep-18	Case Discussion 3: Measuring ROI on Sponsored Search Ads
	Lecture: Measuring Online Advertising Effectiveness: Digital Advertising and Attribution
25-Sep-18	Case Discussion 4: Restaurant Grade
	Lecture: Measuring Online Advertising Effectiveness by Experiments
2-Oct-18	Case Discussion 5: Rocket Fuel
	Lecture: Issues with Display Advertising
9-Oct-18	Lecture: Assessing Impact of Marketing Investments using Regression Analysis
	Case Discussion 7: Predicting Customer Churn at QWE Inc
16-Oct-18	Lecture: Owned Media and Web Analytics
	Case Discussion 8: HomeZilla - Attracting Homebuyers through better Photos
23-Oct-18	Data Visualization: Introduction to Tableau
	Data Visualization 1
30-Oct-18	Lecture: Social Media Analytics - Tool and Techniques
	Class Demo: Social Media Analytics: Text Mining Demo
6-Nov-18	Data Visualization 2
	Group Meetings for Projects
13-Nov-18	Customer Privacy
	Group Meetings for Projects
20-Nov-18	Presentations
	Presentations
27-Nov-18	Case Discussion 10: Target
	Course Review