Marketing Analytics I

Course **Marketing Analytics I**; Course contents © Stephan Sorger
UC Berkeley Extension BUS ADM X466.3, 2 semester units; Spring 2016

Instructor Stephan Sorger
Phone: 650.455.4411
email: stephan@StephanSorger.com; www.StephanSorger.com

Meetings February 6, 2016 – March 12, 2016; Spear Campus, San Francisco
Some class meeting dates subject to change

Course Description

This course introduces the principles and strategic concepts of marketing analytics, a high growth area that uses computer-based models and metrics to improve marketing decisions and return on marketing investment (ROMI). Through case studies and applications, participants learn techniques to determine market share and sizing, forecasting and positioning; developing and interpreting surveys; predictive analytics, data mining, data-driven presentations; understand cost concepts (total, fixed, variable); profit margins, and lifetime value of the customer. In a world where senior management demands "marketing accountability" in measuring the effectiveness of dollars spent, participants get a big-picture overview to understand the benefits and objectives of quantitative marketing.

Course Goals and Learning Objectives

On successful completion, participants will:

- Have a high-level understanding of the benefits and objectives of marketing analytics
- Be able to apply metrics-driven techniques to improve marketing decisions
- Understand best practices through case studies
- Learn by doing through hands-on computer spreadsheet models and metrics

Intended Audience

This course is for professionals without a background in Marketing Metrics who need to quantitatively show the impact of their marketing efforts. People who want to break into the field will also benefit from the course.

Prerequisites

- Introduction to Marketing or equivalent
- Computer spreadsheet expertise, e.g., Microsoft Excel

Instructional Methodology

- Lectures on vital areas of marketing analytics
- Case studies of analytics models applied toward practical problems
- Videos highlighting areas of marketing analytics
- Exams to test marketing analytics concepts and terminology
- Analytics project to exercise topics taught in course

Required Reading

Required Textbook:
Print book version: Sorger, Stephan. "Marketing Analytics: Strategic Models and Metrics." Admiral Press/ CreateSpace, 2013. ISBN # 978-1481900300.
Kindle ebook version: Sorger, Stephan. "Marketing Analytics: Strategic Models and Metrics." Admiral Press/ CreateSpace, 2013. ASIN # B00BIVMC6U

Website

Go to StephanSorger.com for course content. Request password from instructor.

Grading and Course Components
Grading is calculated from the components shown below, using standard grading cutoff points:
100 – 94 = A, 93 – 90 = A-, 89 – 87 = B+, 86 – 84 = B, 83 – 75 = B-, 74 – 65 = C

	Percent
Project	30%
Midterm Exam:	35%
Final Exam:	35%
Total	100%

Project
Students apply what they learn in class by forming teams and completing an analytics project.
- The model and its data must be non-confidential.
- Students must create their own original work and not re-purpose an existing model.
- Each person will receive their overall team's grade, using the "Project Grading Sheet".

Follow the steps to complete the project (details will vary by project):

Week 1: Project Selection: Select problem to solve and model to solve it.
Problem: Select one of the five problems listed below, based on your organization's need.
Model: Apply the corresponding model for the problem.
- Market Sizing (Chapter 2): Assess size of existing or proposed market
- Perceptual Map (Chapter 3): Position new or existing product or service
- Forecasting (Chapter 6): Forecast sales of new or existing product or service
- Pricing (Chapter 8): Set prices for new or existing product or service
- Promotion Allocation (Chapter 10): Allocate advertising budget across programs

Week 1: Project Tasks: Assign tasks to team members.
- Task: Project coordination: Assign to person skilled in project management.
- Task: Problem identification: Assign to person with problem in their organization.
- Task: Market research: Assign to person with availability to data and research understanding
- Task: Market understanding: Assign to person who understands market (for calibration)
- Task: Model development: Assign to person(s) with Excel knowledge
- Task: Deliverables: Assign to person skilled in PowerPoint

Week 2: Market Research and Model Development
- Market research: Gather existing organizational data or conduct survey to obtain data.
- Model development: Select relevant model; Begin building spreadsheet

Week 3: Draft Model Development
- Model development: Develop working draft model
- Market research: Complete gathering any required information + market calibration data

Week 4: Draft Model and Presentation: Show draft model and presentation to instructor (optional)

Week 5: Project Presentation: Present model in class. Give instructor two deliverables to keep:
- Hardcopy: PowerPoint presentation, printed 2 slides per page
- Softcopy: PowerPoint presentation and Excel spreadsheet on CD, DVD, or USB flash drive

Exams
The midterm is closed-book, and tests the following chapters in the Book: 1, 2, 3B, 5B
The final exam is closed-book, and tests the following chapters in the Book: 6, 8, 10, 12

Academic Ethics Honor Code
All members of the UC Berkeley Extension community are expected to act with honesty, integrity, and respect for others. For further information, please refer to:
Tips for maintaining academic integrity: http://extension.berkeley.edu/upload/academic_integrity.pdf
UC Berkeley Extension Code of Student Conduct: http://extension.berkeley.edu/upload/studentconduct.pdf

Disabled Student Services
If you require academic accommodations for this course, you should obtain approval from Extension Disabled Student Services. Please contact them at dss-unex@berkeley.edu or (510) 643-5732. If you already have a letter of accommodation from Extension Disabled Student Services, please make an appointment with your instructor to have a confidential discussion of what you will require for this course.

Schedule

February 6, 2016: Meeting 1

- Administration — Review syllabus; Introduce class members; Set up teams
- Chapter 1 — Introduction
- Project — DIY modeling; Sample project; Select project topic
- Case: Intro. — Introduction: Project selection and course preparation
- Lunch
- Chapter 2 — Market Insight
- Video — Business Research Basics (9:59); Finding NAICS Codes (2:24)
- Case: Chap. 2 — Market sizing: U.S. laundry detergent market

February 13, 2016: No class; Holiday

February 20, 2016: Meeting 2

- Chapter 3B — Market Segmentation: Positioning; Pages 83 – 91; Kindle: "Positioning" section
- Video — Malcolm Gladwell: Segmentation and spaghetti sauce
- Case: Chap. 3B — Market positioning: Smartphone market
- Lunch
- Chapter 5B — Business Strategy: Strategic Metrics; Pages 150 – 166; Kindle: "Strategic Metrics" part
- Video — Business Strategy Metrics Dashboard (0:56)
- Case: Chap. 5B — Strategic Metrics: Footwear market
- Project — Time to work on team project

February 27, 2016: Meeting 3

- Chapter 6 — Business Operations
- Technology — Statistical Analysis Software: SAS, SPSS, and R
- Video — Backlash of mass market on early adopters (4:31)
- Video — Getting Started with R (16:30)
- Case: Chap. 6 — Forecasting: Real estate market: Excel and R
- Lunch
- Chapter 8 — Price Analytics
- Case: Chap. 8 — Pricing analytics: Lamp market
- Exam — Midterm Examination (Ch. 1, 2, 3B, 5B); Students may leave class when finished

March 5, 2016: Meeting 4

- Chapter 10 — Promotion Analytics
- Technology — Social Media Measurement Tools
- Video — Allocating Marketing Budget (4:30)
- Case: Chap. 10 — Promotion analytics: Restaurant market
- Lunch
- Chapter 12 — Analytics in Action
- Technology — Data Visualization: Tableau
- Video — Presentations: Pimp My PowerPoint (2:58)
- Case: Chap. 12 — Pivot Table: Multi-channel pharmacy

March 12, 2016: Meeting 5

- Projects — DUE: Present group projects
- Lunch
- Exam — Final Examination (Ch. 6, 8, 10, 12): Students may leave class when finished

Marketing Analytics
Project Grading Sheet

Date: _____
Topic: _____
Members: _____

No.	Grading Criterion	Score: 1-5	Total
Deliverables			
1.	Time: 15 min. max; Start: _____; End: _____; ____min	1 2 3 4 5	____
2.	Softcopy of Excel-based model and presentation on CD/DVD/USB flash drive	1 2 3 4 5	____
3.	Hardcopy of presentation, printed two slides per page	1 2 3 4 5	____
Microsoft PowerPoint Presentation			
4.	Problem Statement: Described problem clearly & completely; success criteria Comments: _____	1 2 3 4 5	____
5.	Model Selection: Selected appropriate model type Comments: _____	1 2 3 4 5	____
6.	Solution Process: Explained step-by-step process; diagrammed model Comments: _____	1 2 3 4 5	____
7.	Research Method: Showed how data gathered: data sources, relevant data Comments: _____	1 2 3 4 5	____
8.	Research Analysis: Structured results, interpreted data Comments: _____	1 2 3 4 5	____
9.	Market Comparison: Model results compared against actual market behavior Comments: _____	1 2 3 4 5	____
10.	Scenarios: Model executed for typical scenarios Comments: _____	1 2 3 4 5	____
11.	Model Results: Results documented, including simulations and “what-if”s Comments: _____	1 2 3 4 5	____
12.	Results Interpretation: Interprets findings in context of market situation Comments: _____	1 2 3 4 5	____
13.	Conclusion: Presentation indicates how problem was solved; insights Comments: _____	1 2 3 4 5	____
14.	Layout: Presentation emphasizes graphs and tables; Limits use of text Comments: _____	1 2 3 4 5	____
Microsoft Excel Spreadsheet Model			
15.	Demo: Demonstration of model in class goes smoothly, no problems Comments: _____	1 2 3 4 5	____
16.	Procedure: Spreadsheet describes how to use model Comments: _____	1 2 3 4 5	____
17.	Inputs: Spreadsheet indicates user input area(s) Comments: _____	1 2 3 4 5	____
18.	Outputs: Spreadsheet indicates model output area(s) Comments: _____	1 2 3 4 5	____
19.	Calibration: Spreadsheet indicates calibration procedure, if any Comments: _____	1 2 3 4 5	____
20.	Structure: Spreadsheet is logically laid out for ease of use Comments: _____	1 2 3 4 5	____
Total			
	Total Score: 20 criteria x 5 pts each = 100 points max Comments: _____	100 max	____

MARKETING ANALYTICS: Case Study

Name: _____
Date: _____

Case No.	Chapters	Case Title
1A	**1**	**Introduction: Project Selection I and Course Preparation**

1. Consider several candidate options for your term project. Select a favorite option.

Category	Example Project Ideas	Interest/Need for Your Group
Market Sizing	Size a potential new market for your company's service. Process: Search relevant articles and industry analyst reports, perform "top down" and "bottom up" sizing approaches (explained in Chapter 2), and then triangulate on data to arrive at final market size estimate.	
Perceptual Map	Determining a positioning strategy for an existing or new product or service. Process: Search existing literature for background on market. Conduct market research survey to determine most important evaluation criteria. Conduct another survey to assess how competitors perform against those criteria. Build perceptual map and interpret it (explained in Chapter 3).	
Forecasting	Estimating future sales of a new or existing product or service. Process: Collect data on sales and marketing variables. Execute time series and causal analysis forecasts if existing products. Execute Bass diffusion model (and perhaps also trial rate approach) for new products (explained in Chapter 6).	
Pricing	Set price for new or existing product/service Process: Select potential pricing technique, based on strategic role of pricing in company. Test financial viability of candidate prices using Break-Even, Net Present Value, and Internal Rate of Return models (explained in Chapter 8).	
Promotion Allocation	Allocate budget across different media, based on their historical effectiveness Process: Estimate total promotion budget. identify goal of promotion efforts. Calculate contribution delivered by each promotion vehicle (email, SEO, PPC, social, etc.). Execute promotion allocation model (explained in Chapter 10)	

2. Test the feasibility of completing the project using your favorite option by completing a draft outline.

Section	Description	Your Project
Problem Statement	Specify the problem you intend to solve	
Model Selection	Select a model and approach to solve the problem, and indicate why	
Solution Process	Show the step-by-step process to solve the problem; include diagrams	
Research Method	Explain how data was gathered and the data sources used	
Research Analysis	Structure the data in a logical way, such as by market segment	
Market Comparison	Identify sources of external data; How are others doing it?	
Scenarios	Execute model for typical scenarios	
Model Results	Document results of model	
Results Interpretation	Interpret findings in context of market situation	
Conclusion	Show how the problem was solved. Identify further research needed.	