Marketing Analytics: Technology & Applications

Course   **Marketing Analytics: Technology and Applications**; Course contents © Stephan Sorger
University of San Francisco MBA 6322-01; Fall 2016

Professor   Stephan Sorger
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Meetings   August 29 – October 10, 2016; 6PM – 9:35PM; San Francisco Downtown

Course Description
From the USF General Catalog: This course represents a comprehensive examination of data analytics from a marketing perspective on four levels: strategically, functionally, methodologically, and technologically. It is designed for students who might seek employment in the analytics arena as well as for students who want to broaden their understanding of the field.

From the Professor: This course covers essential decision models and strategic metrics that form the cornerstone of marketing analytics. Using the insight gained in the course, students can predict the outcome of marketing plans to boost return on marketing investment (ROMI). The course emphasizes case studies and hands-on learning so students can immediately apply the tools and techniques in their organizations. A variety of relevant topics are discussed, such as market sizing, forecasting and positioning, promotion budget allocation, profit maximization, and communicating to senior executives through data-driven presentations.

Course Outcomes
- Understand the benefits and objectives of marketing analytics
- Learn how to apply quantitative techniques to drive marketing results
- Obtain hands-on experience through application of spreadsheet-based models
- Acquire proficiency in the application of strategic decision models and metrics
- Master the ability to communicate to senior executives through data

Prerequisites
- MBA 6016 Marketing or equivalent

Biography
Stephan Sorger, M.S., M.B.A. is an authority on marketing analytics, practicing it in his role as Partner at consulting firm On Demand Advisors, teaching courses in marketing analytics since 2008, sitting on analytics-related academic boards, advancing the topic through industry webinars, and defining the topic and approach as author of the new textbook, "Marketing Analytics: Strategic Models and Metrics." In addition to his work in marketing analytics, Stephan is an expert in marketing strategy and planning, and is the author of the Pearson Prentice-Hall textbook, "Marketing Planning: Where Strategy Meets Action."

Office Hours
Students are encouraged to meet during office hours to discuss questions about the course or to obtain general information, such as career advice in the field of marketing analytics.
- Monday Evenings: After class in USF Downtown Campus, 101 Howard Street, 5th Floor, San Francisco
- Saturday Afternoons: 12PM-1PM at 160 Spear Street, San Francisco (please contact first via email)

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

Grading and Course Components

Grading is calculated from the components shown below, using standard grading cutoff points:
100 – 94 = A, 93 – 90 = A-, 89 – 86 = B+, 85 – 83 = B, 82 – 75 = B-, 74 – 65 = C; 64 – 60: D; Below 60: F

	Percent
Case Study Project	30%
Midterm Exam	30%
Final Exam	30%
Assignments	10%
Total	100%

Analytics 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".

Analytics Project Focus: Project must involve one of the five situations listed below, based on your organization's need.
- 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

Analytics Project Deliverables: Students will deliver the following elements:
- In-class presentation, covering the areas outlined in the Project Grading Sheet
- Hardcopy for professor, consisting of PowerPoint printout, printed 2 slides per page
- Softcopy files for professor, consisting of PowerPoint presentation & Excel spreadsheet on USB flash drive

Midterm Exam

The midterm is closed-book, and tests the following chapters in the Book: 1, 2, 3B, 5B

Final Exam

The final exam is closed-book, and tests the following chapters in the Book: 6, 8, 10, 12

Homework Assignments

The homework assignments ask students to dive more deeply into essential aspects of marketing analytics, such as the ability to apply and interpret relevant business metrics to typical marketing situations. Two assignments will be given. Each is worth 5 points. Together, they form 10% of the overall grade.
Points for each assignment will be assessed using the following scale, for a maximum of 5 points:
1 point: Completion: Students answer all questions, show calculations, and submit the document in Microsoft Word or Adobe Portable Document Format (PDF) format, starting with a blank page. Please do not copy the instructor's case, cross out the instructor's name, and hand it in as your own. Please do not submit Excel files.
1 point: Accuracy: Students shall calculate answers within 10% of the correct answer.
1 point: Punctuality: Students shall submit assignments by the specified deadline.
2 points: Comments: Students shall include comments in the case that demonstrate they have thought about the situation facing the organization profiled in the assignment. Comments must include comparisons with similar organizations in the industry, along with research citings.
Example industry comparison:
"In the assignment, we calculate the market size as $7.0 billion. By comparison, the Wall Street Journal stated that total U.S. sales of laundry detergents decreased from $7.44 billion to $7.06 billion, which compares relatively well to our estimate."
Source: Ziobro, Paul. "Is Innovation Killing the Soap Business?" Wall Street Journal Online. April 3, 2013.
http://online.wsj.com/article/SB10001424127887323916304578400521297972496.html

Academic Integrity
As a Jesuit institution committed to cura personalis—the care and education of the whole person—USF has an obligation to embody and foster the values of honesty and integrity. USF upholds the standards of honesty and integrity from all members of the academic community. All students are expected to know and adhere to the University's Honor Code. You can find the full text of the code online at http://myusf.usfca.edu/academic-integrity
The policy covers:
- Plagiarism — intentionally or unintentionally representing the words or ideas of another person as your own; failure to properly cite references; manufacturing references.
- Working with another person when independent work is required.
- Submission of the same paper in more than one course without the specific permission of each instructor.
- Submitting a paper written by another person or obtained from the internet.
- The penalties for violation of the policy may include a failing grade on the assignment, a failing grade in the course, and/or a referral to the Academic Integrity Committee.

Student Disability Services
If you are a student with a disability or disabling condition, or if you think you may have a disability, please contact USF Student Disability Services (SDS) at 415 422-2613 within the first week of class, or immediately upon onset of disability, to speak with a disability specialist. If you are determined eligible for reasonable accommodations, please provide me with your SDS Verified Individualized Services and Accommodations (VISA) form, and we will discus your needs for this course. For more information, please visit: http://www.usfca.edu/sds or call (415) 422-2613.

Behavioral Expectations:
All students are expected to behave in accordance with the Student Conduct Code and other University policies (see http://myusf.usfca.edu/fogcutter/student-conduct) Open discussion and disagreement is encouraged when done respectfully and in the spirit of academic discourse. There are also a variety of behaviors that, while not against a specific University policy, may create disruption in this course. Students whose behavior is disruptive or who fail to comply with the instructor may be dismissed from the class for the remainder of the class period and may need to meet with the instructor or Dean prior to returning to the next class period. If necessary, referrals may also be made to the Student Conduct process for violations of the Student Conduct Code.

Learning & Writing Center
The Learning & Writing Center provides assistance to all USF students in pursuit of academic success. Peer tutors provide regular review and practice of course materials in the subjects of Math, Science, Business, Economics, Nursing and Languages. Other content areas can be made available by student request. To schedule an appointment, log on to TutorTrac at https://tutortrac.usfca.edu. Students may also take advantage of writing support provided by Rhetoric and Language Department instructors and academic study skills support provided by Learning Center professional staff. For more information about these services contact the Learning & Writing Center at (415) 422-6713, email: lwc@usfca.edu or stop by our office in Cowell 215. Information can also be found on our website https://www.usfca.edu/student-life/learning-writing-center.

Counseling and Psychological Services
Our diverse staff offers brief individual, couple, and group counseling to student members of our community. CAPS services are confidential and free of charge. Call 415-422-6352 for an initial consultation appointment. Having a crisis at 3 AM? We are still here for you. Telephone consultation through CAPS After Hours is available between the hours of 5:00 PM to 8:30 AM; call the above number and press 2.

Confidentiality, Mandatory Reporting, and Sexual Assault
As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. I also have a mandatory reporting responsibility related to my role as a faculty member. I am required to share information regarding sexual misconduct or information about a crime that may have occurred to a USF student with the University. Here are other resources:
- To report any sexual misconduct, students may visit Anna Bartkowski (UC 5th floor) or see many other options by visiting our website: http://myusf.usfca.edu/student-health-safety/safer
- Students may speak to someone confidentially, or report a sexual assault confidentially by contacting Counseling and Psychological Services at 415-422-6352.

- To find out more about reporting a sexual assault at USF, visit USFs Callisto website at: www.usfca.callistocampus.org
- For an off-campus resource, contact San Francisco Women Against Rape (SFWAR) (415) 647-7273 (www.sfwar.org).

Student Accounts - Last day to withdraw with tuition reversal
Students who wish to have the tuition charges reversed on their student account should withdraw from the course(s) by the end of the business day on the last day to withdraw with tuition credit (census date) for the applicable course(s) in which the student is enrolled. Please note that the last day to withdraw with tuition credit may vary by course. The last day to withdraw with tuition credit (census date) listed in the Academic Calendar is applicable only to courses that meet for the standard 15-week semester. To find what the last day to withdraw with tuition credit is for a specific course, please visit the Online Class Schedule at www.usfca.edu/schedules.

Schedule

August 29, 2016:   **Meeting 1**
- Administration   Review syllabus; Set up teams; Review analytics project
- Project   Model Development; Sample Project
- Chapter 1   Introduction
- Chapter 2   Market Insight
- Video   Business Research Basics (9:59); Finding NAICS Codes (2:24)
- Case 1 (Ch. 1)   Introduction: Project selection
- Case 2 (Ch. 2)   Market sizing: U.S. laundry detergent market

September 9, 2016:   **Meeting 2**
- Chapter 3B   Market Segmentation: Positioning; Pages 83 - 91; Kindle: "Positioning" section
- Video   Malcolm Gladwell on segmentation (17:33)
- Case 3A (Ch. 3A)   Market positioning: Smartphone market
- Project   Time during class to work on analytics project

September 12, 2016:   **Meeting 3**
- Chapter 5B   Business Strategy: Strategic Metrics; Pages 150 – 166; Kindle: "Strategic Metrics" part
- Chapter 8   Price Analytics
- Video   Business strategy metrics dashboard (0:56); Balanced scorecard (10:54)
- Assignment 1   Case 5B: Strategic Metrics: Footwear market
- Assignment 2   Case 8: Pricing analytics: Lamp market

September 19, 2016:   **Meeting 4**
- Chapter 6   Business Operations
- Video   Mass market backlash on adoption (4:31)
- Case: Chap. 6XL   Forecasting: Real estate market: Excel
- Exam   Midterm Examination (Ch. 1, 2, 3B, 5B); Students may leave class when finished

September 26, 2016:   **Meeting 5**
- Chapter 10   Promotion Analytics
- Technology   Social Media Measurement Technology
- Video   Allocating Marketing Budget (4:30)
- Case 10 (Ch. 10)   Promotion analytics: Restaurant market (Solver-based linear optimization)
- Assignments Due   Assignments 1 and 2 due

October 3, 2016:   **Meeting 6**
- Technology   Statistical Analysis Software: SAS, SPSS, and R (not on exam)
- Case: Chap. 6R   Forecasting: Real estate market: R
- Video   Getting Started with R (16:30)
- Exam   Final Examination (Ch. 6, 8, 10, 12): Students may leave class when finished

October 10, 2016:   **Meeting 7**
- Project   Student presentations of analytics projects

Marketing Analytics
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   1 2 3 4 5   _____
   Comments: _____
5. Model Selection: Selected appropriate model type   1 2 3 4 5   _____
   Comments: _____
6. Solution Process: Explained step-by-step process; diagrammed model   1 2 3 4 5   _____
   Comments: _____
7. Research Method: Showed how data gathered: data sources, relevant data   1 2 3 4 5   _____
   Comments: _____
8. Research Analysis: Structured results, interpreted data   1 2 3 4 5   _____
   Comments: _____
9. Market Comparison: Model results compared against actual market behavior   1 2 3 4 5   _____
   Comments: _____
10. Scenarios: Model executed for typical scenarios   1 2 3 4 5   _____
    Comments: _____
11. Model Results: Results documented, including simulations and "what-if's   1 2 3 4 5   _____
    Comments: _____
12. Results Interpretation: Interprets findings in context of market situation   1 2 3 4 5   _____
    Comments: _____
13. Conclusion: Presentation indicates how problem was solved; insights   1 2 3 4 5   _____
    Comments: _____
14. Layout: Presentation emphasizes graphs and tables; Limits use of text   1 2 3 4 5   _____
    Comments: _____

Microsoft Excel Spreadsheet Model

15. Demo: Demonstration of model in class goes smoothly, no problems   1 2 3 4 5   _____
    Comments: _____
16. Procedure: Spreadsheet describes how to use model   1 2 3 4 5   _____
    Comments: _____
17. Inputs: Spreadsheet indicates user input area(s)   1 2 3 4 5   _____
    Comments: _____
18. Outputs: Spreadsheet indicates model output area(s)   1 2 3 4 5   _____
    Comments: _____
19. Calibration: Spreadsheet indicates calibration procedure, if any   1 2 3 4 5   _____
    Comments: _____
20. Structure: Spreadsheet is logically laid out for ease of use   1 2 3 4 5   _____
    Comments: _____

Total

Total Score: 20 criteria x 5 pts each = 100 points max   100 max   _____
Comments: _____