COURSE SYLLABUS

Website with Readings

http://bear.warrington.ufl.edu/shugan/7666/

Course Content

MAR 7666 is a Ph.D.-level course introducing mathematical models in marketing theory often called marketing science. The course emphasizes recent and traditional applications of mathematical, statistical and economic models related to marketing problems. Course readings cover both classic and state-of-the-art articles in marketing science. Discussion of readings emphasizes model applications while spending some time on model development. However, model development is not the central focus of the course.

Although the course is quantitative, we do adopt a managerial perspective. Moreover, the course covers market science at a level appropriate for students with and without rigorous prior quantitative training.

The course surveys both theoretical and empirical models involving a variety of marketing problems. Topics often include recent methods (including conjoint analysis and Bayesian econometrics), new product design, forecasting demand, market definition, advertising, distribution channels, price promotions, customer response, coupons, models of services, preference analysis, choice analysis, models for entertainment products, pricing decisions, defensive strategy, product-line decisions and branding.

Many sessions provide a multi-disciplinary perspective. The session on defining a market, for example, contrasts the approaches taken by economics, marketing, psychology and the courts when defining markets.

Course Organization and Materials

The course is divided into three sections. The first section covers tools and methods commonly used in marketing science. The second section covers the major areas of marketing modeling. The third section covers applications of marketing models.

Please see the course website for all course materials.

Class Objectives

· To introduce the art and science of mathematical modeling in marketing science.
· To provide a basic understanding of the methods and objectives in marketing science.
· To improve your ability to read and understand the marketing science literature.
· To provide a selective survey of some of the major modeling areas in marketing.
· To show how marketing science can provide insights about marketing problems.

Class Administration

Classes consist of lectures and discussion. Lectures survey the relevant literature and illustrate techniques. Most lectures cover several key articles on the assigned topic. When possible, at least one article is a classic article (e.g., Bass's original paper on diffusion models). This article does not change from year to year. The other articles are contemporary articles on the topic that have appeared recently in the literature (e.g., recent extensions of Bass's diffusion model). The contemporary papers often change from year to year. Note that many articles, in the course, have appeared in only the last few years.

Student Evaluation

Each student should be prepared to discuss the material in class. The student writes two short papers that review marketing science articles. The first short paper (2000 to 3000 words) should critically review an article selected by the student that presents a marketing model. The review should provide a very brief summary of the article’s objectives, a detailed discussion the strengths and weaknesses of the article and topics for related future research. The other short paper (2000 to 3000 words) should survey approximately 4 related articles in a modeling area selected by the student. The survey paper should compare and contrast the findings of the papers, discuss any trend suggested by the papers and provide topics for related research that build on those papers. The instructor should approve the topics of both papers. There is also a presentation of the survey paper. The course activities receive the following weights:

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<th>Weight</th>
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See Course Outline for Due Dates

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<td>Quizzes</td>
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Sample Quiz

How to Review an Article

Link 1 How to Review an Article
Link 2 How to Review an Article
Link 3 How to Review an Article
Link 4 How to Review an Article
Link 5 How to Review an Article
Link 6 How to Review an Article
Link 7 How to Review an Article
Link 8 How to Review an Article
Course Outline

INTRODUCTION

week 1
8/23
Introduction to Models & Marketing Concepts
Lehmann, McAlister, Staelin. 2011. *Sophistication in Research in Marketing*
Lecture Notes: EV Information & Value Up-Front Research, Market Segmentation, Introduction, More

week 2
8/30
Special Topics – Ongoing Research
Christophe Van den Bulte, Emanuel Bayer, Bernd Skiera, Philipp Schmitt 2017
*How Customer Referral Programs Turn Social Capital into Economic Capital*

METHODS

week 3
9/6
Conjoint Models
Wind, Green, et. al. 1989. *Courtyard by Marriott: Designing a Hotel Facility with Consumer-Based*
Hauser, et. al. 2014. *Consideration-set heuristics*
Lecture Note: *Choice Analysis, Conjoint Analysis in SPSS, Slides*

week 4
9/13
Logit Models and Estimation
Guadagni, Little. 1983. *A Logit Model of Brand Choice Calibrated on Scanner Data*
Lecture Note: *Bayes – MCMC Lecture, Maximum Likelihood Estimation, SPSS Output*

week 5
9/20
Structural Models and Estimation
Bagozzi, Yi. 2012. *Specification, evaluation, and interpretation of structural equation models*
Lecture Note: *What Is Structural Equation Modeling, Structural Modeling Approach, Gibbs, Examples*

week 6
9/27
Moderator-Mediator Variables
Baron, Kenny. 1986 *The moderator–mediator variable distinction in social psychological*
Zhao, Lynch, Chen. 2010. *Reconsidering Baron and Kenny: Myths and truths, Factor, Examples*

week 7
10/4
Big Data
McAfee, Brynjolfsson, Davenport, Patil, Barton (2012). *Big data, The management revolution*

ANALYTICAL MODELS

week 8
10/11
Diffusion and Social Contagion
Iyengar, Van den Bulte, Lee 2015. *Social contagion in new product trial and repeat*
Quiz 3
Berger, Milkman. 2012. *What makes online content viral?*
Bass. 1969. *A New Product Growth Model For Consumer Durables, Lecture Note: Diffusion Analysis*

week 9
10/18
Markets Structures
France, Ghose. 2016. *An analysis and visualization methodology for identifying & testing market structure*
Lecture Note: *Urban-Johnson-Hauser Handout, Market Definition*

week 10
10/25
NO CLASS

week 11
11/1
Channels

week 12
11/8
Product Strategy
Bayus. 2013. *Crowdsourcing new product ideas over time: An analysis of the Dell IdeaStorm*
Golder, Tellis. 1993. *Pioneer Advantage: Marketing Logic or Marketing Legend*

 Pricing Strategy
Xie, Shugan. 2001. *Electronic tickets, smart cards, and online prepayments*
Lecture Note: *Advance Selling Handout, Captive Sardines Equations*

APPLICATIONS

week 13
11/15
Promotion:
Ailawadi, et. al. 2007. *Quantifying and improving promotion effectiveness, Lecture Note: CVS Equations*
New Products
Foster, et. al. 2004. *Predicting Sales Takeoff for Whirlpool, Lecture Note: Golder Tellis Tables*

week 14
12/6
No Class – University Holiday

Week 14
12/6
Student Presentations
Survey due
University of Florida Policies

**Academic Honesty:** Our online classes are subject to the same guidelines of academic honesty as on-campus classes. Please carefully review and be familiar with the Student Honor Code, which is at [http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php](http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php). All UF students are bound by the Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code ([http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/](http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/)) specifies a number of behaviors that are in violation of this code, and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult the dean of students.

**Special Note on Plagiarism:** Plagiarism is presenting another’s work as your own. Cheating and plagiarizing are against the University of Florida Student Conduct Code and are not tolerated. Every course submission may be checked via Turnitin.com ([http://www.turnitin.com](http://www.turnitin.com)), an online service that compares documents with each other, webpages on the Internet, and other past assignments. If portions of your document were copied from another student’s assignment (past or present) or from a World Wide Web page, that constitutes plagiarism. Any form of plagiarism investigated as set out by the University of Florida Student Conduct Code. Procedures on investigations can be found at: [http://www.dso.ufl.edu/judicial/](http://www.dso.ufl.edu/judicial/). Students in this course caught cheating or plagiarizing receive a failing grade and are prosecuted in the UF Honor Court. UF policies require you to create original work for each course.

**Late/Make up policy:** This syllabus informs students of all deadlines. Waiting until the last minute to begin working may risk last minute difficulties that are not an excuse for late submissions. Please do not procrastinate. Late assignments and missed quizzes receive no credit. Deadlines are firm: No extensions or makeups are allowed.

**Requirements for class attendance** and make-up exams, assignments, and other work in this course are consistent with university policies. Please refer to the following websites: [https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) [http://shcc.ufl.edu/forms-records/ excuse-notes/](http://shcc.ufl.edu/forms-records/ excuse-notes/) [https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx).

**Course Evaluation:** Students should provide feedback on the quality and administration of this course based on 10 criteria. Evaluations are conducted online at [https://evaluations.ufl.edu](https://evaluations.ufl.edu). Usually evaluations are done during the last two or three weeks of the module, but students are given specific times when they are open. Summary results of these assessments are available to students at [https://evaluations.ufl.edu/results/](https://evaluations.ufl.edu/results/)

**Students with Disabilities:** Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

**Cell phones and computers:** Cell phones must be muted during the class session. If an emergency call or text requires an immediate response, please leave the classroom. Computers (iPads or other electronics) are allowed for note taking and presentations only. I will ask anyone using a computer for any other purpose to surrender the device to me for retrieval after class. Recording the class requires my permission because some materials are copyrighted.

**Attendance:** Please avoid joining the class after the calls as started. Attendance is not required but class participation can influence the final grade.

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**Help with Coping:** Many resources are available for students who need help with stress-related problems or emergencies. Assistance is available both by appointment and after hours by calling 352-392-1575 or visiting the UF Counseling and Wellness Center at 3190 Radio Road on campus [http://www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)

**Emergencies:** Contact the University Police Department: 392-1111 or 9-1-1 for emergencies.

**Extra Credit:** No extra credit is available, no matter the circumstance. However, I may consider class in board-line cases.

**Flexibility:** I reserve the right to adjust the course content, exercises, exams, etc., based on the class’s collective ability to maintain pace and any unforeseen circumstances.