UNIVERSITY OF PENNSYLVANIA THE WHARTON SCHOOL ECONOMIC/OR MODELS FOR MARKETING DECISIONS MKTG 954 Doctoral Seminar

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This doctoral seminar reviews analytical models relevant to improving various aspects of marketing decisions such as new product launch, pricing strategy, advertising decisions, sales force organization and compensation, distribution channel design and promotion decisions. As the title suggests, the primary focus will be on models that use economics and OR based approaches. However, the course will include papers that have an empirical component either to test the predictions of the models or to apply these models to a real world problem.

The purpose of this seminar is two-fold.

- 1. Introduce the students to various types of economic/OR models used in research in marketing. These include game theory models for competitive analysis, agency theory models for improving organization design and incentives within organizations, and optimization methods to improve decision making and resource allocation.
- 2. Become familiar with applications of these techniques in the marketing literature and prepare the students to apply these and other analytical approaches to research problems that are of interest to the students.

Most class sessions will start with a lecture/discussion session led by the instructor that provides an essential introduction to the methodology used in models being covered in that session. For example, a session on sales force compensation will start with an introduction to agency theory, and a session understanding consumer choice may start with a basic introduction to Markov models of buyer behavior. This will be followed by a student led discussion of papers assigned for that day. In addition, the instructor might assign short homework problems that students might work on to gain a better understanding of techniques being applied.

This is mini-course (0.5 CU) and consists of six sessions. Topics to be discussed are outlined in the attached List of Topics. This list is subject to change partly in response to input from students taking the course. We shall study a number of papers in each topic area. Papers are posted on CANVAS. Some of these papers will be marked as Required Readings. In addition, students are encouraged to read several other papers, marked as Optional Readings, posted on CANVAS.

Requirements:

- 1. The participants are required to prepare for class and be ready to discuss all required papers on CANVAS. Each students is expected to prepare a one page summary of each assigned paper and bring it to class. Several optional papers are also posted on CANVAS. Students may want to read these also.
- 2. Term Paper: Each student will identify a research topic and write a term paper. The paper should identify a problem, and analyze it using the methods covered in the course.

Grading Criteria:

1. Class Participation, Preparation and Problem Sets	: 40%
2. Term Paper.	60%

Course Materials

A list of papers will be provided approximately two weeks before each session. Student input will also be used as an input to arrive at the final reading list.

TENTATIVE LIST OF TOPICS COVERED

- 1. Sales force Organization and Design
- 2. Pricing and Short Term Price Discounts
- 3. Strategies for Information goods
- 4. Markov models
- 5. Networks and cascades
- 6. Distribution channel design and contracting.
- 7. Advertising Strategies