Tentative Plan:
Decision Analysis
TMP 291 DA
Class: Tuesday & Thursday 3:30 - 4:45pm
Room: Phelps 1425
Office Hours: 4:45 - 5:45 pm
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AS IT IS IN LIFE, EVERYTHING BELOW IS SUBJECT TO CHANGE

Course Overview:
Should I launch my own business? Should I marry him? Should I accept the job or hold out for something better? Should I report what I saw? Save or spend? Stocks or bonds? Lease or buy? Bacon double-cheeseburger or salad?

From the life altering to the mundane, we make thousands of decisions a day, and must live with their consequences, forever. At the crossroads of philosophy, economics, statistics, psychology, technology, business and the life we lead, exists the decision.

This course explores how decisions are made, key factors affecting the decision making process, biases we must account for and the tools available for improving our decisions, as well as predicting those of others.

We begin with an introduction to how decisions should be made (normative), followed by an exploration of how decisions are actually made (descriptive) before leading into an examination of choice architecture and the movement it has launched in an effort to help people make better decisions for themselves (prescriptive). Above all else, the goal of this course is to introduce practical applications of the concepts covered so that students can effectively become the choice architects of their own lives.

Course Objectives:
Through a combination of lectures, decision logs and case studies, students will develop an understanding of how decisions are made, the factors and biases that affect them, the tools that have been developed as a result, and the limitations that remain. The goal is to provide students with a solid foundation in the fundamentals of decision theory. By introducing real world applications that have a direct connection to the students’ lives, they will be inspired to apply what they have learned to their own decisions and further explore the topic well into the future.

Grading and Deliverables:

Class (30%): We will meet for the full hour and fifteen minutes. Students are expected to have read the assignments posted on Gaucho Space BEFORE each class and prepared to ask / answer related questions. This course is meant to deliver actionable intelligence, as such it is essential that students challenge themselves in real time in order to become comfortable with applying abstract concepts to the actual decisions they are facing on a regular basis. iClicker will be used to take attendance and register participation throughout the lectures.

Decision Logs (30%): Prior to class every Tuesday, students will submit via Gaucho Space, a decision log related to the reading assignments and/or topics discussed in class. Individual logs may become the topic of class discussions, so be prepared to discuss / defend your decision.
Logs should include:
1. Your Name (also in the file name) & Date
2. The most interesting idea and/or concept from the reading material or lecture.
   a) Explain WHY you selected it.
   b) Did you find an association to your own life, other courses, something you’ve read, or seen in the media?
3. Relate Something from the Material Covered to Your Own Experience in Making Decisions
   a) Describe how the material can be applied to an actual decision you have faced or are facing. The decision discussed need not be a momentous one. It may be a decision you face every day and want to re-examine. While doing this assignment, remember that its purpose is to help you to become more mindful of the decisions you are facing, now and in the future. The more effort you put in, the greater your return. Be sure to include formal decision making terminology, concepts, visualizations, etc.

Quizzes (40%): 5 cumulative quizzes will be given over the course of the semester. You will be given at least 1 week notice ahead of each quiz. All quizzes carry equal weight.

Reading Material:
An Introduction to Decision Theory by Martin Peterson
Thinking, Fast & Slow by Daniel Kahneman
Case Studies & more via Harvard Business Publishing
Additional reading material will be provided via GauchoSpace as needed.

Supplemental Material: For those who would like access to Bija Advisors' publications, Click Here and fill out the Student Subscription Application. It is free for the quarter, but will not affect your grade in any way.

Schedule:
Check GauchoSpace regularly for details and updates. We will begin by covering normative decision theory using the Peterson book. We then will spend time focusing on descriptive decision theory using the Kahneman book. The remainder of the quarter will be focused on prescriptive decision theory and in particular, the concept of becoming our own choice architects.

Week 1: Introductory Discussion
Week 3: Quiz, Decisions Under Risk, Probability Calculus & Bayes Theorem
Week 4: Decision Tree Case Studies, Problem Structuring, Introduction to Heuristics
Week 5: Quiz, Two Systems
Weeks 6: Two Systems (cont)
Week 7: Heuristics & Biases
Week 8: Quiz, Overconfidence
Week 9: Choices, Quiz
Week 10: No Class
Week 11: Deconstructing a Big Decision - LPE, Going Public with Your Plans
Week 12: Last Quiz