Spring 2010
COURSE DESCRIPTION FOR
JUDGMENT AND CHOICE PROCESSES AND
DECISION MAKING (OR/SYST 671-01)

Instructor: Dr. Leonard Adelman
Office: Long and Kimmy Nguyen Engineering Building, Room #2223
Phone # 993-1624; E-Mail Address: ladelman@gmu.edu
Office Hours: Wednesdays, 3:30 - 4:10 (or by appointment)

Texts:

Hastie, R., & Dawes, R.M. (2001). Rational Choice in an Uncertain World. Thousand Oaks, CA.

Hoffman, R.R. (ed.) (2007). *Expertise Out of Context: Proceedings of the Sixth International Conference on Naturalistic Decision Making*. Mahwah, NJ: Lawrence Erlbaum.

Prerequisite: *STAT 344 and STAT354* or equivalent or permission of instructor.

The purpose of this course is to overview the scientific literature on judgment and decision making processes. The first part of the course reviews research within the context of behavioral decision theory, which has primarily been conducted within controlled, laboratory settings. The second part of the courses focuses on the naturalistic decision making approach that has become prevalent in non-laboratory settings, such as the military, aviation, and nuclear industries.

There is a mid-term exam, a final exam, and a student project. I use the full grading scale, including pluses and minuses. Each of the two exams is worth 30% of your grade; the student project is worth 20%. The exams will be based on questions that I handout in class. The questions will cover material presented in the texts and class. The exams are closed-book and closed-notes. I will tell you which questions have the highest probability of being on the exams during the review period. I will not review written answers to questions prior to the exams. So, please use the review period to make sure you know the answers to questions that might be on the exams. Laptops cannot be used to take the exams.

I expect students to read the material for each week's class before the class so that they can answer questions about it. Since I will be teaching the class using a seminar format, class participation is critical to its successful implementation. Therefore, I will grade class participation after each class session. Please notify me if you are not able to attend class. You are permitted to miss 2 classes, with notification. After that, you will receive a "F" for a missed class session. Class participation is worth 20% of your grade.

The purpose of the student project is to give students an opportunity to apply what they have learned in class to a real world problem or to conduct an experiment investigating judgment and decision making hypotheses. You are required to use statistical tests to support your conclusions. You may use material from work and/or other classes. Just make sure that I can clearly see how you are effectively applying what you have learned in this class to your selected problem. The result of the project will be a 10 minute presentation (with viewgraphs) on the last day of class.

SYLLABUS: JUDGMENT AND CHOICE PROCESSES (OR/SYST 671-01, Spring 2010)

Week 1 (1/20) Introduction to Course: Thinking and Deciding (H&D, Chap. 1)

Week 2 (1/27) What is Decision Making & a Framework for Judgment (H&D, Chaps 2 & 3)

Week 3 (2/3) Judgments from Memory & Anchoring & Adjustment (H&D, Chaps. 4 & 5)

Week 4 (2/10) Judgments by Similarity, Scenarios, & Explanations (H&D, Chaps. 6 & 7)

Week 5 (2/17) Thinking about Randomness, Causation, & Uncertainty (H&D, Chaps. 8 & 9)

Week 6 (2/24) Consequences: Simple Values (H&D, Chap. 10) & Review for Mid-Term

Week 7 (3/3) Mid-Term Exam

Week 8 (3/10) No Class (Spring Break)

Week 9 (3/17) Review Mid-Term & Complex Values and Attitudes (H&D, Ch. 11)

Week 10 (3/24) Decision Theory (H&D, Chap. 12)

Week 11 (3/31) Psychological Decision Theory (H&D, Chaps. 13 & 14)

Week 12 (4/7) Naturalistic Decision Theories (Hoffman, Chaps. 5 & 20)

Week 13 (4/14) Dialogue as Medium (Hoffman, Chap. 10)

Week 14 (4/21) A Data-Frame Theory of Sensemaking (Hoffman, Chap. 6)

Week 15 (4/28) Student Presentations [turn in paper copy of viewgraphs; there is no paper]

Week 16 (5/5) Final Exam (only on material after the mid-term)