

MANAGERIAL DECISION MAKING
MGT 2518 - WINTER 2004 (THURSDAY 1:45 – 3:45 PM)
SYLLABUS

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He who has a choice has trouble

- Danish Proverb

1) OVERVIEW AND GOALS

In some business situations, we can make decisions analytically and "optimally." But more often than not, we do not have the time or the information to engage in analytical decision-making, and have to rely on our intuition and experiences to resolve important decisions. This course teaches you how to make decisions in both types of situations. With respect to the first type of situation, I will share with you analytical tools and methods and teach you how to use them to reach optimal solutions. With respect to the second type of situation, I will help you discover many errors people commonly make when they make decisions intuitively and therefore guide you on how to overcome these errors. Throughout the course, you will participate in many in-class exercises and demonstrations so that you can experience these effects first-hand.

The specific goals of this course are for you to be able to:

- 1) Structure decision situations using simple analytical tools
- 2) Understand the psychology of decision-making, specifically be aware of systematic pitfalls in human cognition; and hence be able to detect these pitfalls and correct them in your own behaviour
- 3) Learn about group decision-making, and formats for enhancing group effectiveness
- 4) Develop simple decision support systems using techniques like regression analysis
- 5) Understand and practice techniques for creative problem solving

This course is different from the first year course on decision-making in several ways, and it is meant to complement and build-upon the first course rather than serve as a refresher. In particular:

- 1) It is relatively more grounded in economic and psychological theory, not as much in organizational theory.
- 2) It relies more on specific tools and frameworks
- 3) The focus is more on decision quality, effectiveness and efficiency; and not as much on the role of values and purpose.

2) COURSE FORMAT

The course is composed of a mixture of lectures, exercises and case discussions. The purpose of the lectures is to present and discuss theories, concepts, analytical techniques and empirical findings. We will discuss a few comprehensive business cases. The goal of the case discussion is to apply the concepts to the context provided by the case and to make decisions based on both qualitative and quantitative analysis. In some classes, we will also supplement the lectures with exercises and videos.

3) PREREQUISITES AND EXPECTATIONS:

3.1 If you have completed the required classes in the first year of the Rotman MBA curriculum, you have met the prerequisites for this course.

3.2 I have several expectations of you, and you should have several expectations from me. The most salient and important ones are listed below:

3.2.1. My Expectations:

- 1) *Class Preparation:* I do not expect you to have read the articles assigned against each class meeting prior to class (but please do read them after class). I do expect you to have prepared all assignments, cases and discussion articles assigned for a given session.
- 2) *Punctuality and Deadlines:* I expect you to be on time for classes. I understand that due to unforeseen circumstances, you may be occasionally late. If possible, please let me know in advance if you are going to be late. Being habitually late is a good way of losing goodwill (i.e., not performing well on class participation). Also, deadlines will always be strictly enforced and no exceptions of any kind will be made without prior approval.
- 3) *Class Participation:* Please see specific guidelines on expectations in section 4 of syllabus.

3.2.2. Your Expectations

- 1) *Responsiveness and Feedback:* You should expect that questions and concerns that you raise with me would be answered, addressed and responded to. Besides formal feedback mechanisms, feel free to jot me an e-mail with any question or feedback. I will try my best to respond as speedily as I possibly can.
- 2) *Punctuality:* You should expect me to start and finish classes on time. If we need extra time to cover materials, or need to organize an extra session, I will only do so if the majority of the class agrees.
- 3) *Preparation and Rigor:* You should expect the most up-to-date and rigorous materials to be covered in class.
- 4) *Guidelines and Expectations:* For all assignments, exams and other course materials, I will state my expectations as clearly as possible.

If either of us finds that the other party has been violating expectations, it is our duty to inform the other party as promptly, and in a fair manner as possible.

4) GRADING PLAN

The assignments and exam in this class have been designed to maximize how much you learn in the course, not the precision with which we measure how much you have learned. You will often not be asked a question for which there is a specific right answer; therefore, most of the grading is necessarily subjective.

Your final grades will be based on four components:

a) Individual Papers (3 out of 4)	30 points
b) Group Project	40 points
c) Class Participation	20 points
d) Homework	10 points

4.1. Individual Papers

I will announce four paper topics with specified deadlines (see Tentative Schedule) throughout the term. You will need to submit an individually written, short paper for any three out of these five topics. If you choose to submit all 4 papers, the best 3 will count towards your final grade.

The primary reason for the short papers is to get you thinking seriously about the topics for the week so that the class discussion is more informed and sophisticated. These papers have a strict 600 word limit. Please print the word count on your paper. All papers should be double spaced with wide margins and 12 point font. The short papers are graded using a five point system. The grades can be interpreted as follows:

- 1= Some evidence of reading, but little understanding of the psychology or how it works, and minimal application of the course concepts to the actual question that was asked.
- 2 = An attempt at applying the course material, but with little or no depth of analysis (possibly just repeating ideas from the reading).
- 3 = A solid application of the course material, with some good points but few creative insights; the majority of papers will receive this grade.
- 4 = A deeper level of thinking than the obvious answer, clearly written, perhaps with creative examples.
- 5 = An exceptional paper, with an original insight and clear analysis. Such papers make us say "I wish I had thought of that!" Very few of these grades are given.

4.2. Group Project

Groups of 4 or 5 students are required to submit two documents. First, each group will write a case involving a real business situation in which there was a particularly tricky, difficult, complicated or otherwise worth-remembering decision(s). Second, they will also provide a

written solution to the case. The solution should have two parts, one part illustrating how the decision *should* have been made, and a second part discussing how the decision was *actually* made; and linking this with some of the concepts discussed in class. More details will be provided in class. Each group will also make a short in-class presentation at the end of the term.

4.3. Class Participation

The learning and quality of this class are directly related to your willingness and ability to contribute to the case and other discussions. Please feel free to raise an opinion or offer an analysis no matter how different it is from the emerging theme in the classroom, or how unusual it may be. However, focus on quality and not on quantity while contributing to the discussion. Thus, your comments should illuminate rather than inundate the rest of us in the classroom. Also, civility and respect for others' opinions are important attributes to possess in the give and take of classroom debate.

4.4. Homework

There are two homework assignments. These will not be graded for content or accuracy, but points will be awarded simply for attempting and submitting the assignments in time.

5) MATERIALS

There are two sources of materials for this course:

- 1) A packet of readings that will contain articles from several sources.
- 2) *Judgment in Managerial Decision Making*, by Max Bazerman, John Wiley and Sons
[Bazerman]

In addition, we will also discuss *Into Thin Air* (Jon Krakauer). I have not ordered this book officially because it is a paperback bestseller and available cheaply everywhere. Many of you may have read the book already; if so, you should quickly reread it later in the quarter. I think you will find that the book has new meaning in light of what you have learned about decision making in this class. For those of you who have not read it, please do so if you can make the time. For those who do not want to read the entire book there is a longish article published in *Outside Magazine* that is included in the course packet, but I strongly recommend reading the book.

6) CONTACTING ME

I don't have formal office hours, but am generally around most afternoons if you'd like to see me. If you're around on campus, just stop by, but if you're making an effort to come, make an appointment just to be sure I'm around. My office is Rm. 500, and my office phone is 946-0195. However, you will find that it is easier to contact me by sending me an e-mail.

7) COURSE ADMINISTRATION ISSUES

- 7.1 Please ***bring your name tents*** to class so that it is easy for all of us to refer to others by name. This is especially useful for me since I have to assign class participation grades.
- 7.2 We will begin class ***on time*** and endeavour to finish on time. Any thumb rules about “starting 10 minutes late” ***do not*** apply to this class
- 7.3 Slides / materials for any given class will be ***posted to the portal by the Tuesday*** of the corresponding week. Files for a given day will be named according to the date of the class – for example, the materials for class on Jan 8 will be called Jan8.pdf. For some classes, we may have multiple files – e.g., Jan8.pdf, Jan8.xls, Jan8worksheet.pdf – so please keep an eye out for this.
- 7.4 Announcements and updates, if any, will be posted to the portal periodically.
- 7.5 Please ***do not hesitate to send me an e-mail*** at any point in time if I can be of help! At the very worst, I will be busy and unable to respond immediately, but you should not hesitate to ask.

TENTATIVE SCHEDULE

Session Details, Reading Assignment and Preparation Questions Provided in the Next Section

Date	Topics	Assignment
Session 1 (Jan 8)	Course Overview The Psychology and Economics of Decision Making	Complete Decision-Making Quiz and return to me
Session 2 (Jan 15)	Economic Approaches Multi-attribute Decisions Decision Trees	
Session 3 (Jan 22)	Economic Approaches	HW1 Due: Canonical Decision Problems (Problems 3, 5, 7)
Session 4 (Jan 29)	Psychological Approaches: Heuristics and Biases	<i>Short Paper 1 due</i>
Session 5 (Feb 5)	Judgments Under Uncertainty and Framing Effects	
Session 6 (Feb 12)	Overconfidence, Learning from Feedback	<i>Short Paper 2 due</i>
Session 7 (Feb 26)	Modelling Decisions and Preferences	HW2 Due: Complete Regression Exercise and Submit
Session 8 (Mar 4)	Intertemporal Choice and Mental Accounting	<i>Short Paper 3 due</i>
Session 9 (Mar 11)	Group Decision-Making	Read the Case of the Unhealthy Hospital and Growing Pains
Session 10 (Mar 18)	Group Decision-Making	<i>Short Paper 4 due</i>
Session 11 (Mar 25)	Creativity and Innovation	
Session 12 (Apr 1)	Applications: a) Business: Marketing, Finance, Economics, Strategy b) Life: Into Thin Air c) Improving Decision-Making	Read / Skim / Refamiliarize yourself with the “Into Thin Air” book
Session 13 (Apr 8)	Project Presentations	Final Reports Due

Session 1: The Psychology and Economics of Decision Making (January 8, 2004)

This session will provide an overview of approaches to study and model human decisions. We will talk about normative, descriptive and prescriptive approaches to studying decision-making. We will also discuss course content and course administrative issues.

Please complete the decision-making quiz (to be handed out) individually and submit your responses to me after the first class. Remember, there are no right or wrong answers and the idea is simply to collect a database of examples that will serve to illustrate concepts that we will cover during the course.

Readings: Bazerman, Chapter 1

Session 2: Economic Approaches (January 15, 2004)

We will cover economic approaches for structuring and solving decision making situations. Under the riskless choice domain, we will look at models of multi-attribute decision making and examine factors like conflict and emotional tradeoffs. We will also introduce the concept of decision trees for studying risky decisions.

Reading: Multicriteria decision making: Soman (in packet)
The Emotional Nature of Decision Tradeoffs: Luce, Payne and Bettman (in packet, skim)
Decision Analysis: Wu (in packet)

Session 3: Economic Analysis (January 22, 2004)

Homework 1 is due in class today. We will use the problems in HW1 to illustrate how to structure and solve risky decisions using trees.

Reading: Decision Trees for Decision Making: Magee (in packet)

Homework 1 Due: Canonical Decision Problems (in packet) – Problems 3, 5, 7.

Session 4: Psychological Approaches: Heuristics and Biases (Decision Trap I)
(January 29, 2004)

In this session, we will develop the idea that managers (and humans, in general) are cognitive misers and are often unable or unwilling to comply with the cognitive demands that an “economically rational” approach requires of them. Instead, they follow some simplifying strategies – heuristics, that sometimes lead to systematic errors – or biases, in decisions. In particular, we will study biases due to the so-called availability, representativeness, anchoring and adjustment and hindsight biases. The study of these biases will be our first in a series of understanding, and trying to correct, systematic decision traps.

Reading: Bazerman, Chapter 2

Short Paper 1 due today.

Session 5: Judgment Under Uncertainty, and Framing Effects (Decision Trap II)

(February 5, 2004)

Continuing on the study of psychological approaches to decision-making, we will explore judgments and decisions involving uncertainty, and study the effect of decision frames – the manner in which a decision is structured – on the quality of decisions. Framing effects constitute a second class of decision traps.

Readings: Bazerman, Chapter 3

Framing, Loss Aversion and Mental Accounting: Soman (in packet, skim)

Session 6: Overconfidence (Decision Trap III), Learning from Feedback

(February 12, 2004)

Continuing with our series on decision traps, we will study the phenomenon of overconfidence, explore its causes and study its effects in an organizational setting. We will also study the effects of feedback on decision quality.

Reading: 1) Overconfidence in Judgment: Einhorn (in packet)

2) On Learning Relations: Hogarth (in packet)

Short Paper 2 due today

Session 7: Modelling Decisions and Preferences (February 26, 2004)

This session will introduce the concepts of decision support systems and decision engineering. Using the simple tools of regression, we will learn how to a) use models to enhance the quality of decisions, b) how to construct bootstrap models of the manager that can handle routine decision tasks, and c) issues in combining the outputs from model and manager to optimize decision quality.

Homework 2 Due: Regression Exercise (in packet)

Readings: 1) Combining Models with Intuition to Improve Decisions: Hoch (in packet)

2) Bazerman, 170-174

3) A Case Study of Graduate Admissions: Dawes (in packet)

Session 8: Intertemporal Choice and Mental Accounting (March 4, 2004)

In many cases, managers and individuals need to make decisions whose consequences spread over time. Standard models of decision making do not handle these situations very well, because the value of most outcomes (including money) is time sensitive. We will discuss issues in Intertemporal choice in this session. We will also review issues in mental accounting – more popularly known as the “psychology of money”.

Readings: 1) Intertemporal Choice: Thaler and Loewenstein (in packet)
2) Mental Accounting Matters: Thaler (in packet)

Short Paper 3 due today

Session 9: Group Decision Making (March 11, 2004)

The bulk of today's class will involve an exercise in which groups will debate two separate cases following specific instructions given to them. At the end of the exercise, you will be asked to complete a questionnaire; results from which will be used as the basis of discussion for the next session. We will begin a preliminary discussion on issues specific to groups (vs. individuals).

Cases: 1) The Case of the Unhealthy Hospital (in packet, prepare to discuss in groups)
2) Growing Pains (in packet, prepare to discuss in groups)

Note: Please do not discuss the cases with anyone prior to the group exercise. Detailed instructions will be distributed during the class.

Session 10: Group Decision Making (March 18, 2004)

We will develop on the exercise from last week to discuss different approaches for group decision processes

Reading: Bazerman, Chapter 9

Short Paper 4 due today

Session 11: Creativity and Innovation (March 25, 2004)

Using several exercises and small caselets, we will explore the principles of creative thinking. Our goal will be to a) try and understand what makes something creative, b) how creative decisions are different from routine ones, and c) what techniques one may use to develop creativity/

Session 12: Applications (April 1)

We will discuss applications of principles covered in this course to finance and marketing, study the concept of Fairness, and also discuss the "Into Thin Air" book.

Readings: 1) Myopic Loss Aversion and the Equity Premium Puzzle (in packet)
2) Are Investors Reluctant to Realize their Losses? (in packet)
3) Bazerman, Chapters 5 and 10

Session 13: Project Presentations (April 8, 2004)