

Course Outline

RSM341H1S L0101

Foundations of Integrative Thinking

Winter 2015

Course Meets: Friday / 1pm~3pm / Location WO 20

Instructor: Byung Soo Lee, RT8018

E-mail: <u>byungsoolee@rotman.utoronto.ca</u>

Webpage: http://portal.utoronto.ca

Phone: 416-978-5261

Office Hours: Monday / 10am~noon / RT8018
Teaching Assistants: Owen Ma & Kyung Sun Kim

Course Scope and Mission

Today's managers face increasingly complex decisions. What are the choices available to us? What do we know when we choose? What are the factors that affect the outcomes of our choices? What is the relationship between those factors and what we know? What do we learn from our past choices? Even if we can answer these questions, assembling their answers into a single coherent model of the decision problem is a difficult task. In this course, we will learn about the paradigms, conventions, theories, assumptions, and tools that make abstract modeling and analysis of complex decisions less daunting. Furthermore, we will discuss the scientific philosophy and intellectual history underlying the development of these ideas.

Course Prerequisites

ECO204Y1/ECO206Y1, ECO220Y1/ECO227Y1/(STA250H1, STA255H1)/(STA257H1, STA261H1) Completion of 10.0 Full Course Equivalents.

Required Readings

There is no required textbook for this class. Required pre-class preparation and associated materials (documents and videos) will be posted on the course webpage.

Evaluation and Grades

The components of each student's course grade are broken down as follows:

<u>Work</u>		<u>Due Date</u>
Class Participation	10%	N/A
Quizzes 1~3	30%	See Calendar
Assignments 1~5	40%	See Calendar
Group Project	20%	See Calendar

COURSE FORMAT AND EXPECTATIONS

For All Graded Material:

Please note that you must use <u>the precise notation</u> and conventions introduced in this course to solve and answer the problems. Any deviation from the notational conventions of this course will result in deduction of points.

Class Participation:

In each session, multiple students will be called upon to participate in various activities. If a student participates, then the quality of the participation will be marked as "Plus" or "Minus". You will receive a "Minus" mark if I judge that you have not adequately done the required pre-class preparation.

Quizzes and Assignments

Quizzes and assignments will be used to test different types of understanding. The quizzes will primarily test accurate knowledge of fundamental concepts and techniques. The assignments will primarily test applications of those concepts and techniques to problems. Furthermore, each assignment will be related to an intermediate stage of developing the <u>Group Project</u>.

All quizzes will be administered at the beginning of class. Quizzes are NOT midterm exams and will last 30 minutes.

All assignments will be collected at the beginning of class. You may discuss the problems with your classmates, but the work you submit must ultimately be your own.

Group Project:

For the Group Project, the class will be divided into teams. Each group will have to present in class and submit the slides to be used in the presentation. Each member's grade will be adjusted based on evaluations of his/her contributions by both his/her peers and the instructor.

Please note that <u>clear</u>, <u>concise</u>, <u>and correct writing</u> will be considered in the evaluation of the Group Project. That is, you may lose points for writing that impedes communication: poor organization, weak paragraph development, excessive wordiness, hard-to-follow sentence structure, spelling mistakes and grammatical errors. Students who require additional support and/or tutoring with respect to their writing skills are encouraged to visit the Academic Success Centre (www.asc.utoronto.ca) or one of the College Writing Centres (www.writing.utoronto.ca/writing-centres). These centres are teaching facilities – not editing services, where trained staff can assist students in developing their academic writing skills. There is no charge for the instruction and support.

Learning to work together in teams is an important aspect of your education and preparation for your future careers. That said, project-based teamwork is often new to students and you are therefore reminded of the following expectations with respect to behaviour and contributions to your team project.

- 1. Read the document entitled, "Working in Teams: Guidelines for Rotman Commerce Students" which is available on the RC portal under the Academic Services tab.
- 2. When working in a team, Rotman Commerce students are expected to:
- 3. Resolving conflicts:
 - Conflicts are part of the team's process of learning how to work together effectively and when handled well can generate creativity and bring-multiple perspectives to the solution.
 - Student teams are collectively expected to work through their misunderstandings <u>as soon</u> <u>as they arise</u> (and prior to submission of the final project). In cases where teams are unable to arrive at a solution that works for all members, the team must meet with the

Rotman Commerce Team Coach** as soon as possible. The Coach will listen to the team and help develop options for improving the team process. All members of the project team must commit to, and, utilize their action plans.

WEEKLY SCHEDULE

Session	Date	Topic	Due
1	Jan 9	Scientific philosophy, mathematical preliminaries	
2	Jan 16	Basic probability theory	Assignment 1
3	Jan 23	Bayesian inference and learning	Assignment 2
4	Jan 30	Decision trees (perfect information)	Quiz 1
5	Feb 6	Decision trees (imperfect information)	Assignment 3
6	Feb 13	Logical positivism, lexicographic rejection of theories	Quiz 2
7	Feb 27	Preference relations, revealed preference	Assignment 4
8	Mar 6	Decisions under risk and Knightian uncertainty	Quiz 3
9	Mar 13	Behavioral economics and prospect theory	Assignment 5
10	Mar 20	Interactive decision theory	Group project presentations
11	Mar 27	Presentations	

For an appointment with a Rotman Commerce Team Coach, please contact Nikoleta Vlamis at nikoleta@nikoletaandassociates.com or Elaine Zapotoczny at elaine@nikoletaandassociates.com. Nikoleta and Elaine are highly skilled at facilitating team dynamics and collaboration. Note that the Team Coach's s role is to provide guidance, support and advice on team matters – not to formally evaluate or assess teamwork for academic purposes.

POLICY AND PROCEDURE

Missed Tests and Assignments

Students who miss a quiz or assignment for reasons entirely beyond their control (e.g. illness) may submit a request for special consideration. Provided that notification and documentation are provided in a timely manner, and that the request is subsequently approved, no academic penalty will be applied.

In such cases, students must notify Rotman Commerce on the date of the missed test (or due date in the case of course work) and submit supporting documentation (e.g. <u>Verification of Student Illness or Injury form</u>) to the Rotman Commerce Program Office within **48 hours** of the originally scheduled test or due date. Students who do not provide Rotman Commerce or the instructor with appropriate or sufficient supporting documentation will be given a grade of 0 (zero) for the missed test or course deliverable.

Note that the physician's report must establish that the patient was examined and diagnosed at the time of illness, not after the fact. Rotman Commerce will not accept a statement that merely confirms a report of illness made by the student and documented by the physician.

If a student who has missed a quiz provides sufficient supporting documentation in the manner described above, then that quiz will be dropped from the calculation of his/her grade and the other components will be reweighted.

Late Assignments

All assignments are due at the beginning of class on the date specified in the course outline. Late submissions will NOT be accepted except under circumstances described below.

Students who, for reasons beyond their control, are unable to submit an assignment by its deadline must obtain approval from the instructor for an extension. Supporting documentation will be required as per the policy on missed tests and assignments.

Accessibility Needs

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: disability.services@utoronto.ca or http://www.accessibility.utoronto.ca/.

Academic Integrity

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarships at the University of Toronto. Participating honestly, respectively, responsibly, and fairly in this academic community ensures that the UofT degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously.

The University of Toronto's Code of Behaviour on Academic Matters
http://www.governingcouncil.utoronto.ca/policies/behaveac.htm outlines the behaviours that constitute academic misconduct, the process for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

On test and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

Misrepresentation:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to), medical notes.

All suspected cases of academic dishonesty will be investigated by the following procedures outlined in the *Code of Behaviour on Academic Matters*. If you have any question about what is or is not permitted in the course, please do not hesitate to contact the course instructor. If you have any questions about appropriate research and citation methods, you are expected to seek out additional information from the instructor or other UofT resources such as College Writing Centres or the Academic Success Centre.

Email

At times, the course instructor may decide to communicate important course information by email. As such, all UofT students are required to have a valid UTmail+ email address. You are responsible for ensuring that your UTmail+ email address is set up AND properly entered on the ROSI system. For more information please visit http://help.ic.utoronto.ca/category/3/utmail.html

<u>Forwarding</u> your utoronto.ca email to a Hotmail, Gmail, Yahoo or other type of email account is <u>not advisable</u>. In some cases, messages from utoronto.ca addresses sent to Hotmail, Gmail or Yahoo accounts are filtered as junk mail, which means that important messages from your course instructor may end up in your spam or junk mail folder.

Blackboard and the Course Page

The online course page for this course is accessed through Blackboard. To access the course page, go to the UofT Portal login at https://portal.utoronto.ca/ and log in using your UTORid and password. Once you have logged in, look for the My Courses module where you'll find the link to all your course websites. If you don't see the course listed here but you are properly registered for the course in ROSI, wait 48 hours. If the course does not appear, go to the Information Commons Help Desk in Robarts Library, 1st floor, for help, or explore the Portal Information and Help at www.portalinfo.utoronto.ca/students and review the Frequently Asked Questions.

Recording Lectures

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Canadian Copyright Act. Students wishing to record a lecture or other course material in any way are required to ask the instructor's explicit permission, and may not do so unless permission is granted (note: students who have been previously granted permission to record lectures as an accommodation for a disability are, of

course, excepted). This includes tape recording, filming, photographing PowerPoint slides, Blackboard materials, etc.

If permission is granted by the instructor (or via Accessibility Services), it is intended for the individual student's own study purposes and does not include permission to "publish" them in anyway. It is absolutely forbidden for a student to publish an instructor's notes to a website or sell them in any other form without formal permission.