

YORK UNIVERSITY
Liberal Arts & Professional Studies
Decision Analysis
Winter 2023, AP/ADMS 3300 Section M

Course Director: Shamim Abdullah,

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Time: Tuesday, 2:30 pm – 5:30 pm

Location: DB 007

Office Hours: Prior or after the lecture by appointment.*

Course Description:

This course provides an introduction to decision analysis under conditions of certainty, uncertainty, risk and competition. Both single person and group decision making are covered. Problems from many areas of managerial decision making are considered.

Prerequisite: AK/ADMS 2320 3.00 or AK/ADMS 3320 3.00 (prior to Summer 2005).

Course Website: <https://eClass.yorku.ca/>

Required Textbook:

Clemen, R. and T. Reilly, Making Hard Decisions with Decision Tools, Duxbury, 3rd Edition, 2014.

Marking Scheme:

Term Test I	25%
Term Test II	25%
Participation/Attendance	5%
Final Exam	<u>45%</u>
Total	100 %

Mode of Delivery

1. This class has been announced for **in-person delivery (LECT)**.
2. In-person sessions will **NOT** be recorded and posted on eClass.

NOTE:

When class sessions are conducted in person, the use of electronic gadgets such as laptops/notebooks/tablets, smart phones, or cell phones is NOT allowed in the classroom.

- Please keep your electronic gadgets in your bag, They should not be on your desk.
- If there is anything urgent requiring your attention, you may leave the classroom quietly, without disturbing your classmates, and use your gadget outside.
- No excuses (e.g., use of e-book, use of slides or taking notes directly on the gadget) will be accepted.

*Send email at least 24 hours before the office hours to make an appointment.

Technical requirements for taking the course:

Here are some useful links for student computing information, resources and help:

- [Student Guide to eClass](https://lthelp.yorku.ca/student-guide-to-moodle)
(<https://lthelp.yorku.ca/student-guide-to-moodle>)
- [Computing for Students Website](https://student.computing.yorku.ca/) (<https://student.computing.yorku.ca/>)
- [Student Guide to eLearning at York University](http://elearning-guide.apps01.yorku.ca/) (<http://elearning-guide.apps01.yorku.ca/>)

Academic honesty and integrity

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing SPARK's [Academic Integrity module](#) at the beginning of the course. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another's work, the representation of another's ideas as your own, etc.). All instances of academic dishonesty in this course will be reported to the appropriate university authorities, and can be punishable according to the [Senate Policy on Academic Honesty](#).

Attendance

Attendance will be taken during six out of the 11 scheduled class sessions (refer to Course Schedule). Those six sessions will be selected at random, and attendance may be taken at any time within the session. Attendance may be taken twice in one session as well. Once attendance has been taken, no name may be added to the attendance record. Every instance of unrecorded attendance beyond the first will lead to a one percentage point reduction to the Participation/Attendance component (5%) of the grade. No replacement for the attendance if it is missed then it is missed.

General Policy

1. **WARNING: Distribution or uploading of course content is STRICTLY PROHIBITED. All material is copyright protected.**
2. Concerns regarding marks **will not be entertained after a week** from the release of the marks/result.
3. Students will not be allowed to write the term tests, or the final exam, unless they are on the class list.
4. Due to unavoidable circumstances if any lecture is missed due to technical reason, date for make-up lecture will be announced on course web site.
5. Please ensure you read all documentation on the course eClass site.
6. It is your responsibility to visit course eClass site on a regular basis.
7. If you have a query about the questions solved in any tutorial session, communicate directly with the tutor, if you are not satisfied with the reply of your tutor, then contact your professor.
8. Due to high volume of emails, it might be possible that replies to your email queries might take longer than usual. Please expect no (or limited) response to your e-mails during the weekends.
9. Please note that this is an in-class teaching course.
10. For some common language about academic integrity, and the online tools used to promote it, please see the text in blue font above.

Technology requirements/Information for eClass can be found here:

<https://www.yorku.ca/eclass/>

*While all individuals are expected to satisfy the requirements of their program of study and to aspire to achieve excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to perform at their best. The university encourages students with disabilities to register with **Student Accessibility Services** to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors as necessary. **Please let me know as early as possible in the term if you anticipate requiring academic accommodation so that we can discuss how to consider your accommodation needs within the context of this course.***

Students registered with Student Accessibility Services are instructed to deliver the letter of accommodation to each of their course directors via email or in person within the first two weeks of class.

Term Tests and Final Exam Policies

1. Both tests (T1 & T2) and final exam will be done **IN-PERSON on Campus**.
2. Information concerning the Term Tests and Final Exams will be posted on course eClass site.
3. There are two common term tests counting for 25% each towards the overall grade.
4. Both term tests and the final examination may consist of multiple-choice/short questions and worded questions.

Answers for Multiple Choice and True/False Questions must be recorded on a SCANTRON sheet by pencil within the designated time of the testing components. NO EXTRA time will be granted to “bubble in” the Scantrons. No Excuses (e.g., “I answered all questions. Just need to transfer to Scantron.”) will be accepted.

It is your responsibility to correctly bubble on Scantron the quiz/exam version under “Test Form”. Multiple choice and True False will not be returned to the students, you will get your marks. Questions paper for the midterm will not be returned to the students, you will get answer book which will have your MCQs portion of marks. However, you can review on individual basis during office hours. To review you must submit your request via email within five days from the return date not from your collection date. When reviewing you are not allowed to take notes, pictures or copy any part of the testing instrument.

5. If you miss a term test, the weight of one and only one missed test (25%) will be automatically (no documents such as doctor notes needed) transferred to the final examination. If you miss both term tests, your final examination will only weigh 70%.
6. The final examination will be comprehensive if you miss any one or both term tests. That is, if you miss one term test, or both you will be writing a final exam that includes material from the entire semester. Duration of Comprehensive Final Exam might be different than the Regular Final Exam.
7. A Cumulative Formula Sheet will be posted on your course eClass site. You can use this formula sheet in all of your Tests/Exam.
8. **There are no alternative exam dates and times for Term Tests.**
9. If students miss the Final Examination and have to defer the exam, the deferred exam will be a **comprehensive** examination.
10. If you need religious accommodations, please follow the York University policy/procedure and once approved, update your professor at least 10 days prior to the testing component.

Tutorial:

TBA

Course Outline:

Note that the course schedule below is subject to change as deemed appropriate/necessary by the Professor during the semester.

All lectures will be covered in person, attend the lectures.

Week	Date	Topic	Readings
1	Jan 10	Introduction; Elements of Decision Problems	Chapters. 1, 2
		Structuring Decision Problems	
2	Jan 17	Decision Trees and Influence Diagrams	Chapter. 3
3	Jan 24	Making Choices	Chapter. 4
4	Jan 31	Model Building and Sensitivity Analysis	Chapter. 5
		Uncertainty and Preference Modeling	
5	Feb 07	Subjective Probability	Chapter. 8
	Feb 12 SUNDAY	Term Test 1, Time Slot: 10:00am – 1:00pm Location: TBA Details: TBA	Coverage: Chapter 1,2,3, and 4
6	Feb 14	Probability Basics and Bayesian Statistics Value of Information	Chapters. 7,12
	Feb 21	No-Class: Reading Week	
7	Feb 28	Value of Information	Chapter. 12
		Utility Theory	
8	Mar 07	Risk Attitudes, Utility Axioms and Paradoxes	Chapters. 14, 15
9	Mar 14	Dealing with Conflicting Objectives-1	Chapters. 16
	Mar 19 SUNDAY	Term Test 2, Time Slot: 10:00am – 1:00pm Location: TBA Details: TBA	Coverage: Chapter 5,7,8, and 12
10	Mar 21	Dealing with Conflicting Objectives- 1 and 2	Chapters. 16, 17
11	Mar 28	Dealing with Conflicting Objectives and Review	Chapter. 17
13		Common Final Examination** (Apr 12-27) (Date and time to be announced on registrar's/university website)	Coverage: Chapter 14, 15, 16, and 17

Two Term Tests scheduled on Sundays are counted as Lecture 12.

RELEVANT UNIVERSITY/LA&PS/SCHOOL REGULATIONS

Applicable to all ADMS and DEMS courses

RELEVANT UNIVERSITY REGULATIONS

[University & School Policies](#)

NOTE: The deferred examination will be cumulative/comprehensive and cover all material for the semester. This applies to all students writing a deferred Final Exam, including those who wrote both Test 1 and Test 2.