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| YORKUNIVERSITY  School of Administrative Studies |
| **AP/ADMS 3300 3.0, Section A; Summer (SU) 2019**  **Decision Analysis** |
| *VIRTUAL \*Location: ONLINE Time: 7:00-10:00pm Day: THURSDAY* |
| Instructor: Dr. Hassan Qudrat-Ullah Email: hassanq@yorku.ca |
| Office hours: Virtual |
| Course web site on Moodle: <https://moodle.yorku.ca> |

**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).

**Required Textbook:**

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

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| **Marking Scheme:** |  |
| Term Test- I | 25 % |
| Term Test- II | 25% |
| Final Exam | 50 % |
| Total | 100 % |

**Classroom Conduct**

* As this is an Internet based class, you are expected to be self-motivated.
* There are **no audio or video lectures** available for this course. You have lecture slides,

textbook, discussion forum, peers learning, and myself at your disposal to learn in this course.

* You are encouraged and required to participate actively in our weekly discussion forum at the course website
* You are encouraged to post your questions but only in the respective week’s Forum.
* Your comments and responses will show your active participation
* We will follow Thursday schedule, lecture slides will be posted on or before this day.

\**virtual time and day is for your planning purposes. You can view the lectures at any time during the week.*

**Term Tests/ Final Exam**

1. Students are NOT allowed to bring a reference/formula sheet. **Formula sheets will be provided by me.**
2. Students **MUST** mark their student numbers on the scantron sheet properly.
3. There are two term tests counting for 25% each towards the overall grade.
4. Both term tests and the final examination may consist of multiple choice questions and worded questions (problem solving).
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 75%.
6. **The regular final exam (duration 2.5 hours) will be *non cumulative***. **However, the 75% worth final exam (duration 3 hours) will be *CUMULATIVE***. Exams are **closed** book and notes.
7. Do not write a test/exam if you do not feel well. Any student who started writing a test/exam and then became sick and left his/her exam will be marked and mark/s you receive will be used.
8. Term tests and final exams are held on campus, unless you need to make arrangements with distance education to write in another location. See Point 10.
9. If you are writing exams off-site students must contact elexams@yorku.ca and include the Course ID/Section, City, Country, Name and student number at the start of the term if you would like info about off-site exams. A minimum of 3 weeks’ lead time is best to contact elexams@yorku.ca as the form is due 10 business days before the exam date.
10. Term Tests will be scanned and returned by distance education once available to them to your YU email account on record. **They will not send emails to non-YU accounts.**

**General Policy**

1. Distribution, sharing or uploading of course content is **STRICTLY PROHIBITIVE**. All material is **copy write protected Use of material is for registered students of this Online section only.**
2. Concerns regarding marks **will not be accepted after a week** from the releasing of the marks/result.
3. In case of a fire alarm, students are to get up instantly, collect their personal belongings and leave the building. (They should not wait until a Professor or an invigilator tells them to do so.)
4. Students will not be allowed to write the term tests, or the final exam, unless they are on the class list / sign in sheet. There will be no exceptions. It is the student’s responsibility to ensure that they are properly enrolled.
5. It is your responsibility to visit course website on regular basis and read all documents.
6. In this course marked term tests are returned to the students by eServices Office. After final exam is over, work will not be available.
7. You can communicate with eServices Office via email **esohelp@yorku.ca**

**Course Outline:**

The following tentative course outline (all inclusive) is subject to "in class" changes as considered necessary by the Course Director.Sections related to the use of the software that comes with the textbook are optional, students won’t be tested on this material, but the software can be usefully used in the assignments.

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| **Week** | **Date** | **Topic** | **Readings** | |
| 1 | May 2 | Introduction; Elements of Decision Problems | Chapters. 1, 2 | |
|  |  | **Structuring Decision Problems** | Chapter. 3 | |
| 2 | May 9 | Decision Trees and Influence Diagrams |
|  |  |  | Chapter. 4 | |
| 3 | May 16 | Decision Trees and Influence Diagrams (Cont'd) |
|  |  |  | Chapter. 5 | |
| 4 | May 23 | Model Building and Sensitivity Analysis |
|  | **May 26**  **SUNDAY** | **Term Test 1, 3:30pm – 5:00pm,**  **(1.5 hrs)Location : TBA** | **Coverage :**  **Chapter 1,2,3, and 4** | |
|  |  | **Uncertainty and Preference Modeling** | Chapter. 8 | |
| 5 | May 30 | Subjective Probability |
| 6 | Jun 6 | Probability Basics and Bayesian Statistics  Value of Information | Chapters. 7,12 | |
|  | June 13 | Reading Week (No Class) |  | |
| 7 | June 20 | Value of Information | Chapter. 12 | |
|  |  | **Utility Theory** |  | |
| 8 | June 27 | Risk Attitudes , Utility Axioms and Paradoxes | Chapter. 14 & 15 | |
|  | **June 30**  **SUNDAY** | **Term Test 2, 3:30pm – 5:00pm,**  **(1.5 hrs) Location : TBA** | **Coverage :**  **Chapter 5,7,8, and 12** | |
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|  |  |  | Chapter. 16 | |
| 9 | July 04 | Dealing with Conflicting Objectives-1 |
|  |  |  | Chapters. 16, 17 | |
| 10 | July 11 | Dealing with Conflicting Objectives- 1 and 2 |
|  |  |  | Chapter. 17 | |
| 11 | July 18 | Dealing with Conflicting Objectives and Review |
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| **13** |  | **Final Examination**  **(Date, time & location to be announced on registrar/university website)** | **Coverage :**  **Chapter 14, 15,16, and 17** | |

**RELEVANT UNIVERSITY REGULATIONS**

**Deferred Exams:**Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. Details can be found at <http://myacademicrecord.students.yorku.ca/deferred-standing>

Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a “Doctor’s Note” will not be accepted.

DSA Form: <http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf>

Attending Physician's Statement form: <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>

In order to apply for deferred standing, students must register at

<http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf>

Followed by handing in a completed DSA form and supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson) and add your ticket number to the DSA form. The DSA and supporting documentation must be submitted no later than five (5) business days from the date of the exam. These requests will be considered on their merit and decisions will be made available by logging into the above mentioned link. No individualized communication will be sent by the School to the students (no letter or e-mails).

**Students with approved DSA will be able to write their deferred examination during the School's deferred examination period. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not. Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a “Doctor’s Note” will not be accepted.**

NOTE: To clarify the deferred standing final exam coverage above, the deferred examination will be cumulative 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 2.

**Academic Honesty**: The Faculty of Liberal Arts and Professional Studies considers breaches of the Senate Policy on Academic Honesty to be serious matters. The Senate Policy on Academic Honesty is an affirmation and clarification for members of the University of the general obligation to maintain the highest standards of academic honesty. As a clear sense of academic honesty and responsibility is fundamental to good scholarship, the policy recognizes the general responsibility of all faculty members to foster acceptable standards of academic conduct and of the student to be mindful of and abide by such standards. Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Students should review the York Academic Honesty policy for themselves at:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

Students might also wish to review the interactive on-line Tutorial for students on academic integrity, at:

<https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

**Grading Scheme and Feedback Policy:** The grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) shall be announced, and be available in writing, within the first two weeks of class, and, under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for ‘full year’ courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade, with the following exceptions:

*Note: Under unusual and/or unforeseeable circumstances which disrupt the academic norm, instructors are expected to provide grading schemes and academic feedback in the spirit of these regulations, as soon as possible.* For more information on the Grading Scheme and Feedback Policy, please visit: <http://www.yorku.ca/univsec/policies/document.php?document=86>

**In-Class Tests and Exams - the 20% Rule**: For all Undergraduate courses, except those which regularly meet on Friday evening or on a weekend, tests or exams worth more than 20% will not be held in the two weeks prior to the beginning of the official examination period. For further information on the 20% Rule, please visit: <http://secretariat-policies.info.yorku.ca/policies/limits-on-the-worth-of-examinations-in-the-final-classes-of-a-term-policy/>

**Reappraisals**: Students may, with sufficient academic grounds, request that a final grade in a course be reappraised (which may mean the review of specific pieces of tangible work). Non-academic grounds are not relevant for grade reappraisals; in such cases, students are advised to petition to their home Faculty. Students are normally expected to first contact the course director to discuss the grade received and to request that their tangible work be reviewed. Tangible work may include written, graphic, digitized, modeled, video recording or audio recording formats, but not oral work. Students need to be aware that a request for a grade reappraisal may result in the original grade being raised, lowered or confirmed. For reappraisal procedures and information, please visit the Office of the Registrar site at: <http://myacademicrecord.students.yorku.ca/grade-reappraisal-policy>

**Accommodation Procedures:** LA&PS students who have experienced a misfortune or who are too ill to attend the final examination in an ADMS course should not attempt to do so; they must pursue deferred standing. Other students should contact their home Faculty for information. For further information, please visit: <http://ds.info.yorku.ca/academic-support-accomodations/>

**Religious Accommodation**: York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. For more information on religious accommodation, please visit:  
<https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

**Academic Accommodation for Students with Disabilities (Senate Policy)**

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit the Counselling and Disability Services website at <http://www.yorku.ca/dshub/>

York’s disabilities offices and the Registrar’s Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus. For more information on alternate exams and tests please visit <http://www.yorku.ca/altexams/>

Please alert the Course Director as soon as possible should you require special accommodations.