

## MOD500 – Group Report

### Objectives

- a) To provide an opportunity for students to apply the analytical and modeling skills and AI tools learned in this course to a selected real-world decision context to help decision-makers and stakeholders make clear and defensible decisions.
- b) To discuss and criticize real-world decisions described via a decision analysis approach.

### Teams

Each team will have two members. Please self-select the teams among the other students in the class. If an uneven number of students take the class, there will be three members in one group and one group only.

### The Proposal

You (the team) choose the project to work on. It could be any decision context you find relevant and interesting, but it needs to be rich enough so that it makes sense to use the decision analysis process and modeling discussed in class. It could be a business, corporate, public, or personal decision.

The one-page proposal should contain at least the following information:

- Name, student numbers, and email addresses.
- Project title (tentative)
- Problem description
- Main objectives
- Possible alternatives
- Major uncertainties
- Possible sources of data/information
- Integration of AI and of ML in the DA/DQ process

As high-quality decision-making is an iterative process, these elements could be changed later upon your further reflection on the decision opportunity.

Name your proposal: < surname1\_ surname2>\_proposal.docx

### The Final Report (max 10 pages)

The report should contain at least the following:

- Cover Page
- Executive Summary
- Table of Contents
- Flowchart/mindmap
- Appendixes (LLMs outputs, if any)

Evaluation criteria:

1. Introduction and Problem Description
2. Framing & Formulation
3. Deterministic Structuring
4. Probabilistic Evaluation
5. What-If, Scenario & Options Analysis
6. Model Appraisal (decision quality using the DQ chain)
7. Recommendations & Conclusions
8. Reflection on the process and any potential limitations
9. Comparison with LLMs output (how your decision analysis would differ when using mostly a LLM tool?)
10. References (must have)

Other Deliverables:

- Decision models and supporting code (DPL, Python, Excel).
- Softcopy of Report (Word).

Format

ZIP all your files into one file and name it: [< surname1\\_ surname2 >\\_report.zip](#)

### **The Review Report (video)**

Once all reports have been turned in, a report from a randomly selected group (not yours) will be assigned to your group to review. Your task will be to evaluate the instruments of Decision Analysis & Decision Quality and the adopted decision protocol. The review must be done in a video format, with a comment/critique that follows items 1-10 of the “Evaluation criteria” section of “the final report.”

Please also prepare an Excel sheet on which your group assigns a score from 1 to 10 (10 being the maximum) for each of the items 1 to 10 in the section “Evaluation criteria” of “the final report.”

Recorded video presentation:

- a. 10 minutes long (+/- 1 min)
- b. Both group members should present – roughly 50% each
- c. Minimum resolution 1080p
- d. Clear audible sound
- e. MP4 or MOV format
- f. AI animations

Format

ZIP all your files into one file and name it:

[<original authors1\\_ original authors2>\\_report.< surname1\\_ surname2 >\\_review.zip](#)

### **Deadlines**

- The “Proposal” is due Wednesday, October 9<sup>th</sup>, *at midnight*. It should be uploaded to Canvas under the “Projects” folder.
- The “final report” is due on Wednesday, October 30<sup>th</sup>, *at midnight*. It should be uploaded to Canvas under the “Projects” folder.
- The “Review report” is due on Wednesday, November 13<sup>th</sup>, *at midnight*. It should be uploaded to Canvas under the “Projects” folder.

**Final Report Assessment Criteria**

- DA/DQ content mastery
- The extent to which you have effectively, appropriately, and innovatively utilized decision analysis tools to achieve decision quality
- Creativity and engagement
- Clarity and organization of the report

**Review Report Assessment Criteria**

- DA/DQ content mastery
- The extent to which you have effectively, appropriately, and innovatively utilized decision analysis tools to achieve decision quality
- Creativity and engagement
- Clarity and organization of the report and video
- Teamwork and work coordination
- Quality of feedback in the review process
- Point out missing things
- Praise the standing out elements

**Grade**

- 50% from the Final report
- 50% from the Review report. On top of the evaluation of the video, we will compare the score you assigned in your review with ours. The closer your score for each of the previously listed 10 “Evaluation criteria” of “the final report” will be, the more points your assessment will get.