

BA 4518/5518 – Decision Analysis: Behavioral and Psychological Perspectives
TBA

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Course Web Page:	https://odtuclass.metu.edu.tr
Course Description:	
Decision analysis is an interdisciplinary field that aims to provide a structured and systematic approach to guide the decision making activities involved in complex problems. This is generally achieved through a set of formal methods, models and analytical tools. In addition to this, decision analysis also attempts to understand the preliminary mechanisms underlying human judgment as well as the cognitive and psychological factors that affect the mental processes behind managerial decision making. In this aspect, this discipline incorporates both quantitative and qualitative perspectives and, in fact, is an effective combination of both. This course will attempt to provide a preliminary understanding on the latter perspective. In other words, it will convey the basic concepts and theories related with the psychological and behavioral approach to decision making and judgment. Topics to be covered include rationality & managerial decision making, analysis of judgment, heuristics and biases, prospect theory, preference & choice, optimism, the perception of risk and group decision making.	
Course Student Learning Objectives: (CSLOs)	
Upon successful completion of this course, students should be able to: Course Specific Skills: 1. Attain an understanding on the major concepts and theories related with psychological & behavioral approaches to decision making and judgment 2. Make sense of rationality, bounded rationality, dual-system theories, social judgment theory, and probabilistic mental models 3. Identify and explain major heuristics and biases 4. Identify and apply the principles of various theories: expected value theory, expected utility theory and prospect theory 5. Explain psychological processes underlying risk perception and decision making under uncertainty 6. Make sense of major theories and findings related to group decision making 7. Apply course concepts to real-world and research-based decision making problems 8. Become aware of the theories and methods in decision analysis applied to business life Discipline Specific Skills: 9. Gain the necessary information and skills to conduct systematic keyword searches using academic databases and online research resources on a particular subject 10. Learn about recent academic literature in judgment and decision making 11. Learn and recall different experimental designs, research paradigms and empirical findings from experimental and behavioral studies 12. Understand decision analysis: behavioral and psychological perspectives 13. Comprehend the significance of different perspectives related to decision analysis in business environments Personal and Key Skills: 14. Develop communication and problem-solving skills 15. Develop writing, academic literacy and discussion skills	

16. Aware of the theories and methods applied to business life
 17. Work effectively in teams to perform class activities and assignments

Learning and Teaching Methods:

Formal lectures, discussions, exercises, case studies, applications, oral presentations, written reports and exams in class.

Required Reading:

Hardman, D. (2009). *Judgment and Decision Making: Psychological Perspectives*. UK: BPS Blackwell.
 Readings provided by the instructor in class.

Suggested Reading:

Bazerman, M. H. and Moore, D. A. (2013). *Judgment in Managerial Decision Making*. New York: John Wiley & Sons Ltd.
 Kahneman, D. (2015). *Thinking, Fast and Slow*. England: Penguin.
 Plous, S. (1993). *The Psychology of Judgment and Decision Making*. New York: McGraw-Hill.

Assignment and Grading (tentative):

Form of Assessment	% Contribution	Size of the Assessment	CSLOs Covered by the Assessment	Feedback Method
Midterm 1	20	Individual	1-3,7-16	Written
Midterm 2	20	Individual	1,4-16	Written
Term project presentation and report	25	Group, written report and in-class presentation	1-17	Written and oral
In-class exercises, assignments, etc.	25	Homework problems, quizzes and exercises	1-17	Written and oral
Attendance, participation	10	Class participation during lectures	1-17	Written and oral

Course Policies:

ATTENDANCE& PARTICIPATION: Students are expected to attend the regular lectures and be active in the discussions.

TERM PROJECT: The goal of this project is to develop students' research, critical thinking, analytical and communication skills through the critical evaluation of an empirical research article related to behavioral decision making and the application of decision analysis concepts to real-world business contexts. This project will be performed with groups of 4-5 students. Each group should select a recent, peer-reviewed empirical research article from a reputable academic journal. The article should address a topic covered in the course and focus on decision making in a business-related context, and provide an opportunity to apply decision analysis concepts, theories, or frameworks discussed in this course. Students have to produce a structured critical review and perform an oral presentation addressing the following components:

1. Article Selection:

- Choose a recent (published within the last five years), peer-reviewed empirical research article from a reputable academic journal.
- The article should be directly related to the topics covered in this course and have a clear connection to a business-related field.
- Students must get their selected article approved by the instructor by the date to be announced.

- **Written Report (Approx. 1600–2200 words):** The report must include a cover page with each group member's name, student IDs, course name, article title and date. Students should provide the complete citation of the selected article in the report. Students should cite all references appropriately. If you need to write slightly more than the specified number of words in each section, that's fine as long as it's not excessive. The review should include the following sections:
 - a. **Summary (Approx. 300–400 words):** Provide a concise summary of the article's objectives, research question(s), key arguments, methodology and main findings.
 - b. **Methodology Overview (Approx. 400–500 words):** Identify and describe the research method(s) used in the study. Explain how the authors collected and analyzed their data. Discuss whether the methodology is appropriate for addressing the research question(s). Provide the research question(s), hypotheses, the variables and how they are measured. Outline the experimental design (give some details about the experiment), characteristics of the sample, the procedure, and the methods used to conduct and analyze the experiment. If surveys are used, please include them similarly.
 - c. **Critical Evaluation of Findings (Approx. 500–600 words):** Indicate main findings. Analyze the significance and reliability of the findings. Are the results expected? Are the findings consistent with the hypotheses and research questions? Are there any strengths, limitations, biases, or gaps in interpretation? Make a critique based on logical reasoning and evidence. If relevant, support your evaluation by comparing the findings with other studies.
 - d. **Open Questions and Further Research and Business Applications (Approx. 400–500 words):**
Open Questions and Further Research: Identify at least two important questions that remain unanswered by the study or could be explored further. Suggest a possible direction for future research or an alternative approach to the same topic. Your suggestions may be related to, but not limited to, research design, sample size or methodology. For each proposed direction, briefly explain why it would be valuable and how it could improve upon the original study.
Business Applications: Explain how the decision analysis concept, theory, or approach examined in the selected study could be applied to different real-world business contexts. Provide two different examples from two different business areas, such as marketing, finance, human resources, or entrepreneurship. For each example, apply the same decision analysis concept, theory, or approach discussed in the selected study to a different business decision or situation. Clearly describe the business decision, the decision maker, and the available alternatives or possible outcomes. Explain how the selected decision analysis concept or approach can be used to analyze or inform that decision, and how the findings of the selected study provide relevant insights for applying the concept or approach in this context. The two applications should demonstrate how the same decision analysis concept can be transferred and applied across different business fields, rather than simply repeating the original context of the selected study.

2. **Oral Presentation (Approximately 20 minutes):** Each group will deliver a 20 to 25 minute in-class presentation based on their article and report.

Presentation Guidelines: Follow the main structure and requirements of the term project report. Present the key points of the article and your critical review, including the research question(s), methodology, main findings, critical insights, open questions, and business applications. Focus on the most important findings and insights rather than presenting every detail included in the written report. Engage your audience: speak clearly, maintain eye contact, and encourage brief questions or comments. Be prepared to respond to 1–2 follow-up questions from peers or the instructor.

Presentations will take place during class hours during the semester. A detailed schedule will be announced after all article topics are approved. The deadline for the term project reports will also be announced during the term.

STUDENT DISABILITIES: Any student, who, because of a disabling condition, may require special arrangements in order to meet course requirements, should contact the instructor as soon as possible. Students should present the appropriate documentation from the university's Disability Support Office (Engelsiz ODTÜ Birimi, ODTÜ Kütüphanesi, Solmaz İzdemir Salonu, Tel: 210.7196; engelsiz@metu.edu.tr) verifying their disability, and outlining the special arrangements required. Please note that no accommodations will be provided to the disabled students prior to the completion of this approved University process.

ACADEMIC DISHONESTY: The Department of Business Administration has no tolerance for acts of academic dishonesty. Such acts damage the reputation of METU, the department and the BS degree and demean the honest efforts of the majority of the students. The minimum penalty for an act of academic dishonesty will be a zero for that assignment or exam.

CHEATING: All university, faculty/institute, and department principles on academic honesty will be strictly enforced. The usual consequence for academic dishonesty is failure of the course and referral of the case to the Dean of the Faculty/Institute for additional disciplinary action. Examinations are individual and are to be completed without outside assistance of any sort. Persons observed cheating during examinations will receive a failing grade in the course. Homework assignments are individual, unless otherwise specified by the instructor, and are to be completed without outside assistance of any sort, as well. Persons observed cheating in their homework assignments will receive a score of zero for the portion of the semester grade that is allocated to such assignments. Persons observed to plagiarize while preparing assignments will be referred to the Dean of the Faculty for additional disciplinary action and also they will receive a score of zero for the portion of the semester grade that is allocated to such assignments.

PLAGIARISM: The instructor assumes that students will do their own work. By placing their names on assignments (individual or team), students are affirming that the contents are their original work. Any previous work available from files or past students, as well as materials available on the internet may be used only as a suggestive model. Violation of this provision will be considered as unethical behavior, subject to disciplinary action. If you have any doubt about the use of a specific material, see the instructor ahead of time. Any material used from outside sources should be referenced appropriately.

METU HONOR CODE

Every member of METU community adopts the following honor code as one of the core principles of academic life and strives to develop an academic environment where continuous adherence to this code is promoted.

"The members of the METU community are reliable, responsible and honorable people who embrace only the success and recognition they deserve, and act with integrity in their use, evaluation and presentation of facts, data and documents."

CIVILITY IN THE CLASSROOM: Students are expected to assist in maintaining a classroom environment which is conducive to learning. In order to assure that all students have an opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from using laptop computers and cellular phones, making offensive remarks, reading newspapers, sleeping, or engaging in any other form of distraction. Inappropriate behavior in classroom shall result, minimally, in a request

to leave class.

Past observations showed that the METU classroom experience is improved when the following are true:

Students arrive on time. Timely arrival ensures that classes are able to start and finish at the scheduled times. Timely arrival shows respect for both fellow students and faculty and it helps to create a better learning environment by reducing avoidable distractions.

Students are fully prepared for each class. Much of the learning in this course takes place during classroom discussions. When students are not prepared, they cannot contribute to the learning process. This affects not only the individual but also the classmates who count on them.

Students respect the views and opinions of their colleagues. Disagreement and debate are encouraged; however, intolerance for the views of others is unacceptable.

Laptops, phones and wireless devices are turned off.

STUDENT EXCUSES FOR EXAMS AND ASSIGNMENTS: In case you cannot attend one of the examinations, if and only if you can present an official (dean's or president's office approved) **excuse** or **METU Medical Center certified Health Report**, you will be eligible to take a make-up examination. Late submission of assignments will not be accepted.

ACADEMIC REGULATIONS: <http://oidb.metu.edu.tr/en/academicrules-and-regulations>

ACADEMIC CALENDAR: <http://oidb.metu.edu.tr/en/academic-calendar>

The instructor assumes that students who attend the next class have understood and accepted to agree with all the requirements and rules of this course.

The following table gives the tentative schedule for the semester. The lectures will stress the most important and/or most difficult material.

Tentative Course Schedule					
Week	Month	Day	Topic	Reading/ Assignment	CSLO
1	SEPTEMBER	29	Introduction		
1-2-3	OCTOBER	1-6-8-13	Judgment, rationality and managerial decision making	Week 1 & 2 & 3 slides (in ODTU Class) and relevant textbook/ article sections	1,2,7-17
3-4-5	OCTOBER	15-20-22-27	The nature and analysis of judgment	Week 3 & 4 & 5 slides (in ODTU Class) and relevant textbook/ article sections	1,2,7-17
5	OCTOBER	29	Republic holiday	No class	
6-7	NOVEMBER	3-5-10-12	Heuristics and biases	Week 6 & 7 slides (in ODTU Class) and relevant textbook/ article sections	1,3,7-17
8	NOVEMBER	TBA	Midterm 1 (outside of class hours)		1-3,7-16

8-9	NOVEMBER	17-19-24-26	Expected value theory, prospect theory and framing of Decisions	Week 8 & 9 slides (in ODTU Class) and relevant textbook/ article sections	1,4,7-17
10-11	DECEMBER	1-3-8-10	The perception of risk	Week 10 & 11 slides (in ODTU Class) and relevant textbook/ article sections	1,5,7-17
12-13	DECEMBER	15-17-22-24	Decision making in groups and teams	Week 12 & 13 slides (in ODTU Class) and relevant textbook/ article sections	1,6,7-17
13	DECEMBER	TBA	Midterm 2 (outside of class hours)		1,4-16
14	DECEMBER	29-31	Special issues and recent developments	Week 14 slides (in ODTU Class) and relevant textbook/ article sections	1-17