

ECON5611 Behavioral Decision Theory

2024-25 Fall, Department of Economics, HKUST

TIME AND ARRANGEMENT

Time: Mon/Wed 15:00-16:50

Classroom: LSK1026

Course Material: slides, available on Canvas

Course Credit: 4

Enrollment Requirement: none

Teaching and Learning Activities: lecture, tutorial and student presentation

INSTRUCTOR

Rui Tang

Office Hour

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LSK6082, Monday 13:30-14:30

COURSE DESCRIPTION

This course provides graduate students in economics with a wide range of topics in decision theory. We will focus on classic and recent models of decision-making including choice with bounded rationality, choice with risk and uncertainty, and dynamic choices. The course aims to equip the students with the necessary background knowledge in decision theory and major techniques for them to conduct independent research in relevant topics.

COURSE OBJECTIVE AND INTENDED LEARNING OUTCOME

Students are expected to have up-to-date and in-depth knowledge of decision theory, leading to independent substantive scholarly research. They are also expected to demonstrate a sound grasp of the literature in decision theory, and know when to apply which model to solve related problems.

EVALUATION AND EXAM SCHEDULE

Presentation: 30%

Term Paper or Research Proposal or Literature Review: 70%

RECOMMENDED READING

1. Utility Theory for Decision Making, Peter C. Fishburn, Research Analysis Corp McLean VA, 1970
2. Notes on the Theory of Choice, David Kreps, Routledge, 2018

RUBRICS FOR FINAL GRADE

Excellent Performance (A range): Demonstrates a deep understanding of the decision theory materials covered in the course. Exhibits mature skills in presenting most up-to-date decision theory research papers. Use what learnt in the course to finish a piece of original research paper/proposal with innovative points or a concrete and comprehensive literature review in a particular field.

Good Performance (B+, B): Show a solid grasp of the materials covered in the course. Demonstrates good presentation skills. Be able to finish an independent proposal or literature review.

Marginal Performance (B-, C+, C): Has basic knowledge of the materials covered. Demonstrates reasonable presentation skills but unable to finish a concrete piece of independent proposal or literature review.

Fail: Demonstrates insufficient understanding of the course materials. Unable to present a paper. Unable to finish a concrete piece of independent proposal or literature review.

1. Preference and Cardinal Utility Representation
2. Choice with Bounded Rationality
3. Choice with Risk and Uncertainty
 - Expected Utility Theory
 - Topics on Independence Axiom and Allais Paradox
 - Savage's Subjective Expected Utility Theory
 - Probabilistic Sophistication
 - Anscombe and Aumann's Framework of Subjective Expected Utility
 - Ambiguity and Ellsberg Paradox
 - Choquet Expected utility, Maxmin Expected Utility and Variational Representation
4. Dynamic Choice and Menu Preference
 - Preference for Flexibility
 - Temptation and Self-Control
 - Costly Contemplation
 - Choice with the Anticipation of Regret
5. Topics on Time Preference
 - Kreps-Porteus Framework and Resolution of Uncertainty
 - Epstein-Zin Preferences
 - Monotone Recursive Preference
 - Time Lotteries and Stochastic Impatience
6. Belief Updating
 - Updating a Single Prior
 - Updating Multiple Priors
 - Updating Qualitative Information
7. Random Choice
 - Discrete Choice Models
 - Random Expected Utilities
8. Recently Developed Topics in Decision Theory