

Decision- and Game Theory for Negotiators

16 - 20 July 2018

Description

Negotiators have to make many decisions before, during, and after a negotiation process. Often those decisions need to be made under time pressure and with limited access to information. The situation is further complicated in that the outcome of a negotiation depends not only on one party's decisions, but on those of all parties involved.

This course introduces students to decision and game theory with a view to make them smarter decision-makers and develop their awareness for the strategic inter-dependencies between negotiators. It concludes with a critical discussion of the limits of rational decision-making and the cognitive biases that often govern negotiators' decision-making in practice. The course incorporates decision-making exercises, role-playing games, and in-class discussions to facilitate students' learning.

Learning Objectives

At the end the course, students will be able to:

- (1) use basic techniques of decision theory to make smarter decisions
- (2) use the theory of simultaneous and sequential games to analyse strategic inter-dependencies of parties in a negotiation
- (3) apply concepts of decision and game theory to real life bargaining and negotiation situations
- (4) understand the scope and limits of rational approaches to decision-making

Outline

Session	Topics
Session 1	• Rational decision-making
Session 2	• Simultaneous games
Session 3	• Sequential games
Session 4	• Bargaining games; rationality and its limits

Assessment

Assessment	Percentage	Content
Participation	20%	Students' attendance, active learning, and critical thinking during each of the four sessions (20 points)
Assignment	80%	3 problem questions on decision theory (3 * 8 = 24 points) 1 open-ended question on decision theory (1 * 16 = 16 points) 3 problem questions on game theory (3 * 8 = 24 points) 1 open-ended question on game theory (1 * 16 = 16 points)

Recommended Readings

Students may consult the following readings:

- (1) *Lecture notes* (to be provided at the beginning of the course)
- (2) *Game theory at work* (2003) by James D. Miller; McGraw-Hill: New York
- (3) *Games for business and economics, 2nd edition* (2003) by Roy Gardner; Wiley: Hoboken, NJ