

Risk, Decision, and Strategy

Spring 2014

Code: ECGE B362

Lecturer: Gani Aldashev

Office hours: after lectures or by appointment

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Structure of the course

This course is an introduction to the analysis of situations with strategic interdependence and uncertainty in economics and business. It is composed of 11 lectures (each lecture lasts 2 hours). There will be also 3 problem-solving exercise sessions, at which the students will solve numerical exercises to consolidate the concepts and methods covered at the lectures. During the course we will regularly discuss applications to various real-life situations in business, economics, politics, and history.

N.B. Attending all the lectures and exercise sessions is mandatory, as not all the material covered at them will be posted on the course website (but will be part of the final exam).

Course materials

The main support for the course is a set of Powerpoint slides (posted regularly on Webcampus). I will also regularly post brief lecture notes for selected lectures and additional readings (academic journal articles and case studies).

Grading

The exam is closed-book and will last two hours. You can use a calculator (a basic/standard one; programmable calculators or smartphones are not allowed!). The exam will consist of 11 short numerical problems to resolve, i.e. one problem per lecture.

Course outline

<i>Lecture</i>	<i>Title</i>
1 (28/1)	Introduction. Framework for applied economic analysis. Efficiency.
2 (4/2)	Games and their representations. Static games with perfect information. Dominant strategy equilibrium and Nash equilibrium
3 (11/2)	Mixed strategies. Mixed-strategy equilibrium
4 (18/2)	Dynamic games. Subgame perfect equilibrium. Credibility and commitment
(25/2)	<i>Problem-solving exercise session 1</i>
5 (4/3)	Repeated interaction. Cooperation.
6 (11/3)	Uncertainty and risk. Expected utility. Non-market institutions for risk management
7 (18/3)	Market institutions for managing risk: insurance. Moral hazard and adverse selection in insurance markets
8 (25/3)	Static games with imperfect information. Bayesian Nash equilibrium. Auctions
(1/4)	<i>Problem-solving exercise session 2</i>
9 (22/4)	Dynamic games with imperfect information. Perfect Bayesian equilibrium. Signalling. Screening.
10 (29/4)	Moral hazard within organizations and firms. Optimal incentive contracts.
11 (6/5)	Multi-tasking. Moral hazard in teams
(13/5)	<i>Problem-solving exercise session 3</i>