

Theory of Incentives



SCHOOL

Faculty of Law, Economics and Business Studies (DEG)



CAMPUS

Saint-Serge



LEVEL

1st year Master's degree



OPEN TO EXCHANGE STUDENTS

Yes



SEMESTER

Spring (S2)

> **Degree course:** Data Engineering and Econometric Evaluation

> **Teaching unit:** Teaching Unit 1: General Courses

> **Course language:** English

> **Duration (hours):** 18

> **ECTS:** 4

> **Teacher(s):** Diana Pop

> **Assessment:**

Continuous assessment

Final exam

> **Teaching methods:**

Lecture course 18 hours

Tutorial course hours

Practical work hours

Case study

Project

COURSE DESCRIPTION

The course presents the methodological development of the principal - agent theory with complete contracts. The exposition is focused on the presentation of two families of models, namely adverse selection and moral hazard models. The mechanism design describes the interactions of a discrete number of agents who possess some private information within the prevailing institutional setting. By employing basic theoretical tools, the course allows the students to understand and quantify the transaction costs engendered by contracting under asymmetric information. We take several examples of applications, such as second-degree price discrimination, financial contracts with adverse selection and moral hazard, and insurance contracts under monopoly.

Outline:

The adverse selection models

1 The basic model -- 2 The complete information optimal contract -- 3 The rent extraction-efficiency tradeoff when the principal and the agents are risk neutral -- 4 The rent extraction-efficiency tradeoff when the principal is risk averse and the agents are risk neutral -- 5 The rent extraction-efficiency tradeoff when the principal is risk neutral and the agents are risk averse -- 6 Type-dependent participation constraints and countervailing incentives.

The moral-hazard models

1 The basic model -- 2 The moral-hazard problem when the principal and the agent are risk neutral -- 3 The moral-hazard problem when the principal is risk neutral and the agent is risk averse -- 4 The trade-off between limited liability rent and efficiency.

OBJECTIVES

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PREREQUISITES

Mathematics: optimization under linear and nonlinear constraints

SELECTIVE BIBLIOGRAPHY

1. Laffont, Jean Jacques et David Martimort, 2002. The Theory of Incentives: The Principal-Agent Model, the Princeton University Press, New Jersey.
2. Macho-Stadler, Inès et J. David Pérez Castrillo, 1997. An Introduction to the Economics of Information: Incentives and Contracts, Oxford University Press.