

Course and Examination Fact Sheet: Autumn Semester 2025

7,256: Advanced Microeconomics II: Incentive Theory

ECTS credits: 4

Overview examination/s

(binding regulations see below) central - Written examination, Analog, Individual work individual grade (100%, 90 mins.) Examination time: Lecture-free period

Attached courses

Timetable -- Language -- Lecturer 7,256,1.00 Advanced Microeconomics II: Incentive Theory -- English -- Gizatullina Alia

Course information

Prerequisites

In order to effectively learn the content of this course, students should have a solid understanding of the standard analytical tools employed in Microeconomics. These tools include basic calculus, basic constrained optimization and decision-making under uncertainty. Familiarity with game theory concepts and tools is advantageous as well.

Learning objectives

The course spends first few lectures on reviewing the key concepts from game theory. As next, we cover a range of canonical models that involve strategic interactions under incomplete information. By the end of the course, students will be able to formalize, solve, and provide economic interpretations for such models, along with deriving policy implications from the solutions obtained. Throughout this process, students will refine their mastery and comfortable utilisation of the analytical tools introduced in the course, thereby enabling their application in various other contexts.

Content

Many economic interactions involve an asymmetry of information among interacting agents. For instance, a worker often possesses better knowledge of their own abilities and efforts compared to their employer. Similarly, an insured individual might understand their own risks and precautionary efforts better than their insurer, and an entrepreneur may be more aware of business prospects than credit lenders. The primary objective of this course is to explore how such information imbalances impact economic interactions, and furthermore, how these disparities can be mitigated through optimally designed contractual or institutional arrangements. Additionally, we will examine how designing explicitly information dissemination channels (e.g. third-party certification) can complement contracts to address the inefficiencies stemming from information asymmetry.

We will start by reviewing a few core concepts from game theory that are foundational for constructing a consistent microeconomic model and solving it. The rest of the course will be dedicated to studying two canonical cases of asymmetric information: (i) scenarios where one party holds private information about inherent attributes (referred to as models of 'screening' and 'signaling'), and (ii) cases where a party possesses private information about their own actions (referred to as models of 'moral hazard'). As the final part of the course, we will delve into recent developments in information economics, introducing a range of new tools to formally address the concept of 'information design'. This involves situations where contractual or institutional arrangements explicitly define the types of information that can be collected and/or revealed in a given economic context. In other words, we will take a step further and examine how the design of optimal contracts governing agents' behaviour can be complemented with the design of agents' information, which influences their beliefs and thereby governs their actions through the additional information channel.

Structure and indications of the learning and teaching design



The course consists of a blend of lectures and brief tutorials conducted within the lecture timeframe. The lecture content will encompass both theoretical concepts and specific economic applications. The tutorials will focus on discussing solutions to practical exercises.

Literature

The pertinent lecture material will be provided through lecture slides posted on Canvas. Academic articles and problem assignments pertinent to specific topics will also be posted on Canvas.

Although there isn't a mandatory textbook for the course, valuable supplementary readings (will be referenced in the slides) are available in:

- "Contract Theory" by Patrick Bolton and Matthias Dewatripont, MIT Press, 2004.
- "The Theory of Incentives" by Jean-Jacques Laffont and David Martimort, Princeton University Press, 2002.
- "Game Theory: Introduction" by Steve Tadelis, Princeton University Press, 2013

Additional information

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Examination information

Examination sub part/s

1. Examination sub part (1/1)

Examination modalities

Examination type Written examination

Responsible for organisation central

Examination form Written exam Examination mode Analog

Time of examination Lecture-free period Examination execution Synchronous

Examination location On Campus

Grading type Individual work individual grade

Weighting 100% Duration 90 mins.

Languages

Question language: English Answer language: English

Remark

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Examination-aid rule

Closed Book

The use of aids is prohibited as a matter of principle, with the exception of pocket calculator models of the Texas Instruments TI-30 series and, in case of non-language exams, bilingual dictionaries without any handwritten notes. Any other aids that are admissible must be explicitly listed by faculty members in the paragraph entitled "Supplementary aids" of the course and examination fact sheet; this list is exhaustive.

Procuring any aids, as well as ensuring their working order, is the exclusive responsibility of students.

Supplementary aids

None

Content

The written final exam will consist of questions and problems sets based on the material of the slides, academic papers and exercises discussed during the classes.

The questions and problems will revolve around i) scenarios where one party holds private information about inherent attributes (referred to as models of 'screening' and 'signaling'), (ii) cases where a party possesses private information about their own actions (referred to as models of 'moral hazard'), and (iii) instances where contractual or institutional arrangements explicitly define the types of information that can be collected and/or revealed in a given economic situation.

Literature

Slides, lecture notes, book chapters, journal articles, exercises, as specified on Canvas (as per the day after the last lecture).

Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW51) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 43 (Freitag, 24. October 2025) are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 34 (Thursday, 21 August 2025);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 13. October 2025);
- Examination information (supplementary aids, examination contents, examination literature) for centrally
 organised mid-term examinations: in CW 43 (Freitag, 24. October 2025);
- Examination information (regulations on aids, examination contents, examination literature) for centrally
 organised examinations: two weeks before ending with de-registration period in CW 45 (Monday, 03.
 November 2025).