



## Course and Examination Fact Sheet: Autumn Semester 2023

### 7,256: Advanced Microeconomics II: Incentive Theory

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

central - Analog written examination, Analog, Individual work individual grade (100%, 90 Min.)

Examination time: Lecture-free period

#### Attached courses

Timetable -- Language -- Lecturer

[7,256,1.00 Advanced Microeconomics II: Incentive Theory](#) -- English -- [Gizatullina Alia](#)

#### Course information

#### Course 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, constrained optimization and decision-making under uncertainty. Familiarity with game theory concepts and tools is advantageous as well.

#### Learning objectives

The course covers a range of canonical models that involve strategic interactions under incomplete information. By the end of the course, students will have the capability to formalize, solve, and provide economic interpretations for such models, along with deriving policy implications from the solutions obtained. Throughout this process, students are also expected to further refine their mastery and comfortable utilization of the analytical tools introduced in the course, thereby enabling their application in various other contexts.

#### Course 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 disclosure procedures (such as third-party certification) can complement contracts to address the inefficiencies stemming from information asymmetry.

Approximately two-thirds 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'). The remaining one-third of the course will delve into recent developments in information economics, introducing a range of new tools for formally dealing with the concept of information design. This involves instances where contractual or institutional arrangements explicitly define the types of information that can be collected and/or revealed in a given economic situation (and is related, for example, to ongoing debates about whether platforms should be permitted to collect and reuse user information).

#### Course 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 primarily revolve around discussing solutions to relevant exercises.

## Course literature

The pertinent lecture material will be provided through lecture slides posted on Canvas. Moreover, 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.

## Additional course information

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## Examination information

### Examination sub part/s

#### 1. Examination sub part (1/1)

##### Examination modalities

|                              |                                  |
|------------------------------|----------------------------------|
| Examination type             | Analog 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 Min.                          |

##### Examination languages

Question language: English

Answer language: English

##### Remark

Final Exam

##### 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

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## Examination 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.

## Examination relevant 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 42 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, 24 August 2023);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 16 October 2023);
- Examination information (supplementary aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 45 (Monday, 06 November 2023);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the de-registration period in CW 45 (Monday, 06 November 2023).