



## Course and Examination Fact Sheet: Autumn Semester 2020

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

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

Decentral - Written examination (100%, 90 mins.)

Examination time: term time

#### Attached courses

Timetable -- Language -- Lecturer

[7,256,1.00 Advanced Microeconomics II: Incentive Theory](#) -- Englisch -- [Gärtner Dennis](#)

#### Course information

##### Course prerequisites

Solid knowledge in microeconomics (particularly: economics of uncertainty, game theory) and basic analytical tools (particularly: basic calculus, constrained optimization).

##### Learning objectives

By the end of this course, you will

- be aware of the prevalence of asymmetric info and the associated challenges to (efficient) trade in all sorts of everyday economic (and non-economic) interactions, including (but not limited to) the contexts considered in class: marketing (i.e. selling things), insurance, finance, taxation, labor markets, incentive pay, etc.;
- have a good command of the basic analytical models used to understand and to mitigate these issues in the following canonical model classes: hidden info (monopolistic screening, competitive screening, signaling) and hidden action (moral hazard);
- be in a position to apply these tools to new contexts and problems in the future.

##### Course content

This course introduces students to the important field of informational asymmetries and its influence on trade.

In many economic interactions, one party has an informational advantage over its partners in trade: a worker who knows own ability and effort better than the employer, and insuree who knows own risk and precautionary effort better than the insurer, an entrepreneur who knows business prospects better than credit lenders, etc.

This course develops the microeconomic toolkit to analyze such settings and to understand how these informational asymmetries affect the optimal design of contracts and ultimately efficiency of trade. The treatment is structured around the canonical two cases in which (i) a party has private information on inherent attributes (models of "screening" and "signaling"), and in which (ii) a party has private information on own actions (models of "moral hazard").

The course will discuss applications in various fields such as corporate finance, insurance economics, labor economics, and industrial organization. Contents will be precisely described on StudyNet/Canvas at the beginning of the course sequence. A preliminary tentative outline includes the following topics:

- Introduction and preliminaries: trade under symmetric info, preview of informational issues.
- Monopolistic screening (context: selling a good).
- Competitive screening (context: insurance markets). Applications to corporate finance.
- Signaling (context: education and the labor market). Applications to corporate finance (certification and collateralization).



- Moral hazard (context: incentive contracts).

## Course structure

The course comprises a contact-study part (about 20% of total effort\*) and a self-study part (about 80%\*). Contact studies will take place in lecture format and will be used to discuss theory and some applications, as distributed beforehand via "slides" and occasional supplementary readings. A significant part of self studies is in turn devoted to working on accompanying exercise material, which includes further applications.

\*By Bologna standards, this course's 4 ECTS translate into approx. 100-120 hours of work for the average student (less for some, more for others). A very rough guideline for a good allocation of time might look as follows:

- Classroom/lectures 20% (20 hrs)
- Lecture preview & review 20% (20 hrs)
- Problem sets 40% (40 hrs)
- Exam preparation 20% (20 hrs)

## Course literature

- Contact studies are based on slides, lecture notes, book chapters and original journal articles.
- Self studies are based on exercise material which will be distributed.
- Precise documentation to be made available via StudyNet/Canvas.

While there is no fixed required book for the course, useful supplementary readings can be found 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

Complete course information will be made available on StudyNet/Canvas.

**In the case of the President's Board having to implement new directives due to the SARS-CoV-2 pandemic in AS2020, the course information listed above will be changed as follows:**

- **The course is conducted online via the platform Zoom;**
- **The lecturer informs via StudyNet;**

**The examination information listed below would be changed as follows:**

- **The written examination would be conducted in the fifth examination week (15.02. - 19.02.)**
- **Further information are communicated via StudyNet.**

## Examination information

### Examination sub part/s

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

##### Examination time and form

Decentral - Written examination (100%, 90 mins.)

Examination time: term time

##### Remark

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##### Examination-aid rule

Extended Closed Book



The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as notebooks, tablets, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

#### Supplementary aids

None

#### Examination languages

Question language: English

Answer language: English

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## Examination content

The written exam will cover contents of contact studies (slides and lecture notes, in particular) and self-study assignments (exercise material, in particular). More details to be specified in class and via StudyNet/Canvas.

## Examination relevant literature

Slides, lecture notes, book chapters, journal articles, exercises, as specified on StudyNet/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, 20 August 2020);
- Examination information (regulations on aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 12 October 2020);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 42 (Monday, 12 October 2020);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the registration period in CW 44 (Thursday, 29 October 2020).