

Course and Examination Fact Sheet: Autumn Semester 2025

10,270: Asset Pricing

ECTS credits: 4

### Overview examination/s

(binding regulations see below)

decentral - Written examination, Digital, Individual work individual grade (60%)

Examination time: Term time

decentral - Written examination, Digital, Group work group grade (40%)

Examination time: Term time

### Attached courses

Timetable -- Language -- Lecturer 10,270,1.00 Asset Pricing -- English -- Fengler Matthias Reginald

### Course information

### **Prerequisites**

PhD level knowledge in economics and mathematics.

# Learning objectives

The course offers a PhD-level introduction to asset pricing. It focuses on developing a deep understanding of modern asset pricing theory, which underlies the valuation of financial instruments such as stocks, bonds, derivatives, and other investments. The main emphasis is on a rigorous treatment of the stochastic discount factor—the central concept linking an asset's expected return to its risk characteristics—in both static and multi-period market settings.

#### Content

The class considers discrete-time asset valuation. Students learn how asset pricing theories can be phrased by using the notion of the stochastic discount factor.

- 1. Stylized facts of asset pricing & Introduction
- 2. Stochastic discount factor and aribtrage-free markets
- 3. Mean variance analysis
- 4. Discount factors, betas, and mean-variance efficient frontiers
- 5. Dynamic security markets
- 6. Risk-neutral pricing
- 7. Portfolio choice and equilibrium
- 8. Consumption-based AP

# Structure and indications of the learning and teaching design



The class will be run as a lecture with assignments which must be solved in groups of two or three students.

#### Literature

#### Main textbook:

• Munk (2015): Financial Asset Pricing Theory, Oxford University Press

Useful supplementary textbooks:

- Cochrane (2005): Asset Pricing, Revised Edition, Princeton University Press.
- Back (2012): Asset Pricing and Portfolio Choice Theory, Oxford University Press.

#### Additional information

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# **Examination information**

# Examination sub part/s

## 1. Examination sub part (1/2)

Examination modalities

Examination type Written examination

Responsible for organisation decentral
Examination form Written exam
Examination mode Digital
Time of examination Term time
Examination execution Synchronous
Examination location Off Campus

Grading type Individual work individual grade

Weighting 60%
Duration --

Languages

Question language: English Answer language: English

Remark

Final problem set, to be solved individually, 4h

Examination-aid rule

Open Book

Students are free to choose aids, apart from the following restrictions:

- pocket calculator models which are not part of the Texas Instruments TI-30 series, as well as any programmable
  electronic devices that are capable of communication such as electronic dictionaries, notebooks, tablets, smartphones,
  headsets, additional screens, etc. are not admissible;
- there is an option for faculty members to explicitly define exceptions under supplementary aids.

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

Supplementary aids

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# 2. Examination sub part (2/2)

**Examination modalities** 

Examination type Written examination

Responsible for organisation decentral
Examination form Written exam
Examination mode Digital
Time of examination Term time
Examination execution Asynchronous
Examination location Off Campus

Grading type Group work group grade

Weighting 40%
Duration --

Languages

Question language: English Answer language: English

Remark

Assignments to be solved in groups of 2-3 students

Examination-aid rule

Open Book

Students are free to choose aids, apart from the following restrictions:

- pocket calculator models which are not part of the Texas Instruments TI-30 series, as well as any programmable
  electronic devices that are capable of communication such as electronic dictionaries, notebooks, tablets, smartphones,
  headsets, additional screens, etc. are not admissible;
- there is an option for faculty members to explicitly define exceptions under supplementary aids.

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

Supplementary aids

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#### Content

Assignments can be solved in groups of 2-3 students. The final problem set is solved individually within four hours.

Distribution of assignments via Canvas and upload of solutions via Canvas.

Contents:

- 1. Stylized facts of asset pricing & Introduction
- 2. Stochastic discount factor and aribtrage-free markets
- 3. Mean variance analysis
- 4. Discount factors, betas, and mean-variance efficient frontiers



- 5. Dynamic security markets
- 6. Risk-neutral pricing
- 7. Portfolio choice and equilibrium
- 8. Consumption-based AP

#### Literature

Lecture notes, readings, and text books as published on canvas by the end of the term.

### 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).