



## Course and Examination Fact Sheet: Spring Semester 2024

### 8,310: Asset Pricing

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

decentral - Oral examination and technical discussions, Analog, Individual work individual grade (70%)

Examination time: Term time

decentral - Written work, Digital, Group work group grade (30%)

Examination time: Term time

#### Attached courses

Timetable -- Language -- Lecturer

[8,310.1.00 Asset Pricing](#) -- English -- [Fengler Matthias Reginald](#)

#### Course information

#### Course prerequisites

Good knowledge and interest in mathematics and statistics.

#### Learning objectives

Students will understand the notion of a stochastic discount factor in asset pricing theory. They will be familiar with the main asset pricing models and know how they can be tested.

#### Course content

The class provides an introduction into the theory of asset pricing.

The course is relevant for students with interest in the economics of asset pricing. The class covers choices under uncertainty, discrete-time asset valuation, contingent claim valuation, mean variance analysis, factor models, arbitrage pricing theory. Students learn how the various financial theories can be phrased using the notion of the stochastic discount factor and how they are empirically validated.

Topics:

1. Stochastic discount factor (SDF)
2. Basic fact of utility theory
3. SDF and arbitrage free markets
4. Mean variance analysis
5. Discount factors, betas, and mv frontiers
6. The multiple time period SDF
7. Factor pricing
8. Testing asset pricing models

#### Course structure and indications of the learning and teaching design

Weekly lecture with theoretical and practical problem sets.

#### Course literature



Cochrane (2005): Asset Pricing, Revised Edition, Princeton University Press.

Lengwylér (2006): Microfoundations of Financial Economics: An Introduction to General Equilibrium Asset Pricing.

and readings uploaded to Canvas.

## Additional course information

--

## Examination information

### Examination sub part/s

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

##### Examination modalities

|                              |                                            |
|------------------------------|--------------------------------------------|
| Examination type             | Oral examination and technical discussions |
| Responsible for organisation | decentral                                  |
| Examination form             | Oral examination                           |
| Examination mode             | Analog                                     |
| Time of examination          | Term time                                  |
| Examination execution        | Asynchronous                               |
| Examination location         | On Campus                                  |
| Grading type                 | Individual work individual grade           |
| Weighting                    | 70%                                        |
| Duration                     | --                                         |

##### Examination languages

Question language: English

Answer language: English

##### Remark

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

x

---

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

##### Examination modalities

|                              |              |
|------------------------------|--------------|
| Examination type             | Written work |
| Responsible for organisation | decentral    |



|                       |                        |
|-----------------------|------------------------|
| Examination form      | Written work           |
| Examination mode      | Digital                |
| Time of examination   | Term time              |
| Examination execution | Asynchronous           |
| Examination location  | Off Campus             |
| Grading type          | Group work group grade |
| Weighting             | 30%                    |
| Duration              | --                     |

## Examination languages

Question language: English

Answer language: English

## Remark

Assignments

## Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

## Supplementary aids

x

---

## Examination content

Content of **exam** (70%) together with most relevant sources in the literature

Assignments (30%) are **problem sets** to be solved in groups.

### 1. Stochastic discount factor

a. C: 1-2

### 2. Some basics of utility theory

b. Habit formation -> C: 21.2

c. IES -> Lengwiler: 8.2.1-8.2.3

### 3. SDF and arbitrage free markets

a. C: 3-4

### 4. Mean variance analysis

a. C: 5

b. C: 4.3 (first part)

### 5. Discount factors, betas, and mv frontiers

a. C: 6-7

### 6. The multiple time period SDF

a. Hansen, Renault (2009)

### 7. Conditioning information



a. C: 8

8. Factor pricing

a. C: 9

9. Estimating and evaluating asset pricing models

a. C: 10-16

Supplement

## Examination relevant literature

Lecture notes, supplements and assignments as published on canvas by the end of the term.

Further literature:

C: Cochrane (2005): Asset Pricing, Revised Edition, Princeton University Press.

Lengwylér (2006): Microfoundations of Financial Economics: An Introduction to General Equilibrium Asset Pricing.

### 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 (CW21) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 13 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 04 (Thursday, 25 January 2024);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 12 (Monday, 18 March 2024);
- Examination information (supplementary aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 13 (Monday, 25 March 2024);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: Starting with de-registration period in CW 15 (Monday, 08 April 2024).