



GRADUATE SCHOOL

GM1034 Applied Portfolio Management, 7.5 credits

Tillämpad portföljförvaltning, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Graduate School on 2021-09-27 to be valid from 2022-01-17, spring semester of 2022.

Field of education: Social Sciences 100%

Department: Graduate School

Position in the educational system

The course Applied Portfolio Management, is a course within the Master of Science programmes at the Graduate School, School of Business, Economics and Law, University of Gothenburg.

Main field of studies

Economics

Finance

Specialization

A1F, Second cycle, has second-cycle course/s as entry requirements

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Entry requirements

To be eligible for the course Applied Portfolio Management the participant must fulfil the entrance qualifications for the Master of Science programme in Economics or the Master of Science programme in Finance. For programme specific entrance requirements, see programme syllabus. Additionally, the participants must have qualifications corresponding to the compulsory courses during the first semester of the Master of Science programme in Finance.

Learning outcomes

On successful completion of the course, the student will be able to:

1. explain the importance of the concepts Term structure of interest, Corporate bonds, Portfolio optimization and Valuation of companies
2. critically evaluate research from the investment bank community where the concepts in outcome 1 are used
3. create applications based on the methods in outcome 1.

Course content

This course is an introduction to several important topics in portfolio management:

- 1) The term structure of interest and the estimation of zero-coupon curves. You will learn how to estimate the term structure parameters of the Cox-Ingersoll-Ross model and to use the estimated parameters in hedging.
- 2) Corporate bonds. We will apply the Merton formula to the valuation of risky bonds, and use the implied asset volatility to hedge equity with debt.
- 3) Portfolio and consumption optimization when the individual has outside positions and a finite life. We will learn how to solve the agent's optimization problem recursively.
- 4) Valuation of companies will focus on how to write a professional research report; we will use research from the investment bank community as a source of inspiration.

To ensure that the focus of the course is on the applicability of these issues, the dominant part of the course will be devoted to laboratory exercises and case studies.

Form of teaching

Language of instruction: English

Assessment

Learning outcomes 1-3 will be assessed through written assignments, oral presentation and a written exam.

Participation in the laboratory sessions is compulsory.

Individual assignments and exams shall be written individually, cooperation in formulating text, tables, figures etc. is not allowed.

A student who has taken two exams in a course or part of a course without obtaining a pass grade is entitled to the nomination of another examiner. The student needs to contact the department for a new examiner, preferably in writing, and this should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special educational support, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, the examiner may decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years, after the course has ceased/been changed.

The number of examinations is limited to five.

Grades

The grading scale comprises: Excellent (A), Very good (B), Good (C), Satisfactory (D), Sufficient (E) and Fail (F).

The grade (A-E) corresponds to the total score a student obtains on the written assignments, oral presentation and written exam. Pass is required on the written exam. To receive a pass grade (A-E) $\geq 50\%$ points is required. The scale is tied to fixed score intervals:

A: 85-100%

B: 75-84%

C: 68-74%

D: 60-67%

E: 50-59%

F: $<50\%$

Course evaluation

The course will be evaluated upon completion. The results of and possible changes to the course will be shared with students who participated in the evaluation and students who are starting the course.