



GRADUATE SCHOOL

GM1014 Applied Portfolio Management, 7.5 credits

Applied Portfolio Management, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by School of Business, Economics and Law on 2010-06-30 and was last revised on 2017-12-05 by Graduate School to be valid from 2018-01-15, spring semester of 2017.

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.

The course can be part of the following programmes: 1) Program in Environmental Social Science (S1SML), 2) Master of Science in Management (S2MAN), 3) Master of Science in Environmental Management and Economics (S2EMA), 4) Mathematical Sciences, Master's Programme (N2MAT), 5) Programme in Logistics management (S1LOM), 6) Master of Science in Tourism and Hospitality Management (S2TOM), 7) Master of Science in Accounting (S2ACC), 8) Master of Science in Economics (S2ECO), 9) Master of Science in Finance (S2FIN), 10) Programme in Business and Economics (S1HEG), 11) Master of Science in International Business and Trade (S2IBT), 12) Master of Science in Logistics and Transport Management (S2LOG) and 13) Master of Science in Innovation and Industrial Management (S2IFM)

Main field of studies

Economics

Specialization

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

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 in Finance. For programme specific entrance requirements, see programme syllabus.

Additionally, the students must have corresponding qualifications to the compulsory courses during the first semester of the Master in Finance programme.

Learning outcomes

After completion of the course, the student shall be able to:

The case studies/experiments will provide students opportunities to apply the methods covered in previous courses, but in more detail and with actual data. Upon completion of the course the student will be familiar with the four topics: 1) The term structure of interest; 2) Corporate bonds; 3) Portfolio optimization; 4) Valuation of companies: in such a way that he/she can critically evaluate research from the investment bank community where these techniques are used and to create applications based on these methods.

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. Participation in the laboratory sessions is compulsory.

Form of teaching

Language of instruction: English

Assessment

Learning outcomes will be examined through:

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| 1) | Four written reports (assignments) individually assessed | 0-60p |
| 2) | An oral presentation in front of an audience | 0-10p |
| 3) | Written exam (closed book) | 0-30p |

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the department responsible for the course and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

Examination possibilities will be offered at least five times during the course of each two-year period. Students who have made five unsuccessful attempts to pass an examination have lost the possibility of obtaining a Master of Science Degree from Graduate School.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

For Pass on the course, a total of 50 % of the total points on the course is required. 15 of these points must be acquired from the written exam. For Pass with Distinction on the course, a total of 75 % of the total points on the course is required. 15 of these points must be acquired from the written exam.

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.