



Course syllabus

Finansiell ekonomi, avancerad kurs Financial Economics, Advanced Course

EXTQ25, 7,5 credits, A (Second Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED I

Date of Decision: 2023-04-14

General Information

Elective for: F5, I4, Pi5-fm

Language of instruction: The course will be given in English

Aim

The objective of this course is to give the students an understanding of well known ideas and theories within financial economics.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

Students shall have developed a knowledge and understanding for well known ideas and theories within financial economics. More specifically, students shall be able to understand:

- the construction of the notion of expected utility,
- the difference between complete and incomplete markets,
- the difference between diversifiable and non-diversifiable risk within a portfolio context,
- the derivation of CAPM,
- the role of arbitrage in the price determination of derivatives,
- the role of options in calculating net present values of investments,
- the role of information in price determination.

Competences and skills

For a passing grade the student must

Students shall have the ability to independently apply their knowledge to real world problems. In particular they shall be able to:

- calculate the risk premium, the certainty equivalent, absolute and relative risk aversion, prudence and temperance,
- calculate state prices,
- apply CAPM in equilibrium pricing,
- price derivatives,
- price real options,
- analyse finance-related problems in the real-world and to incorporate adequate methods and theories to analyse these problems,
- present a clear and pedagogical report of their own and others' empirical analyses.

Students shall also have sufficient competence to independently write a paper at the master level.

Judgement and approach

For a passing grade the student must

Students shall have the ability to pursue further studies in finance and economics, and to independently search for and evaluate information from the finance literature.

Contents

The course contains the following building blocks

- investment decision under certainty: the risk free rate and Fisher-separability,
- risk aversion and expected utility,
- Arrow-Debreu securities,
- portfolio theory,
- market equilibrium: CAPM and multi-factor equilibrium models,
- derivatives,
- term structure of the interest rates,
- real options,
- efficient markets,
- information asymmetry and agent theory.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: The examination consists of a written exam and home assignments. The written exam takes place at the end of the course. There will be further opportunities for examination close to this date. Points earned on home assignments are valid for exams taken in the current term.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- EXTA40 Introduction to Microeconomic Theory
- EXTF45 Financial Management

- FMS012 Mathematical Statistics, Basic Course or FMSF45 Mathematical Statistics, Basic Course or FMSF80 Mathematical Statistics, Basic Course

The number of participants is limited to: 60

Selection: Completed university credits within the programme. Priority is given to students enrolled on programmes that include the course in their curriculum.

The course overlaps following course/s: TEK103, NEKM25, NEKN81

Reading list

- Danthine, Jean-Pierre and John B. Donaldson: Intermediate Financial Theory, third edition. Elsevier, 2014.
- Supplementary material.

Contact and other information

Course coordinator: Thomas Fischer, thomas.fischer@nek.lu.se

Course homepage: <http://www.nek.lu.se>

Further information: Corresponds to NEKN81.