



# SF2942 Portfolio Theory and Risk Management 7.5 credits

## Portföljteori och riskvärdering

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

## Establishment

Course syllabus for SF2942 valid from Autumn 2020

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

Second cycle

## Main field of study

Industrial Management, Mathematics

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

The student shall be able to formulate and apply the theoretical concepts and mathematical methods of portfolio theory and risk management.

## Course contents

Basic theory of arbitrage for deterministic cash flows and financial derivatives, quadratic criteria for optimal hedging and investment, portfolio choice with utility theory, theory of risk measurement and the use of risk measures in portfolio analysis.

## Specific prerequisites

- Completed course in multivariable calculus (SF1626, SF1674 or equivalent)
- Completed course in linear algebra (SF1624, SF1672 or equivalent)
- Completed course in mathematical statistics (SF1918, SF1922 or equivalent)

## Examination

- TEN1 - Examination, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.