

# Syllabus for Financial Econometrics

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- **7.5 credits**
- **Course code:** 2ST119
- **Education cycle:** Second cycle
- **Main field(s) of study and in-depth level:** unknown
- **Grading system:** Fail (U), Pass (G), Pass with distinction (VG).
- **Established:** 2016-03-24
- **Established by:** The Department Board
- **Revised:** 2016-05-02
- **Revised by:** The Department Board
- **Applies from:** week 44, 2016 (when the board takes it)
- **Entry requirements:** Bachelor's degree of 180 credits with 90 credits in statistics. The course (2ST077) Econometric Theory and Methodology, 15 credits.
- **Responsible department:** Department of Statistics

## LEARNING OUTCOMES

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The course offers an introduction to financial econometrics for second-cycle studies. It covers the main parts of the spectrum of quantitative financial economics, discusses important results in the empirical finance literature, and provides a comprehensive knowledge to do empirical work in financial practice.

A student who has taken the course should:

- have a solid knowledge about basic themes in financial econometrics;
- know and be able to use concepts and notation that is frequently used in financial econometrics;
- be able to conduct empirical applications of financial theory based on real financial data using statistical/econometric techniques;
- be able to interpret empirical results and raise sensitivity for problems and pitfalls in imperial studies.

## CONTENT

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Statistical properties of asset returns. Asset return predictability and market efficiency. Capital asset pricing model. Multi-factor models and the arbitrage pricing theory. Present-

value relations. Term structure of interest rates. Modelling time-varying volatility and risk. Market microstructure analysis.

## INSTRUCTION

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Teaching is given in the form of lectures and classes.

## ASSESSMENT

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The examination takes place through a (take-home) written examination at the end of the course and compulsory written assignments. The grading scales are: failed, passed and passed with distinction.

## OTHER DIRECTIVES

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The course is included in the Master's program in statistics.

## READING LIST

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Textbook:

Campbell, J.Y., A. W. Lo, and A. C. Mackinlay (1997): *"The Econometrics of Financial Markets"*, Princeton University Press.

Slides and notes in the lectures, and scientific articles.

Supplementary readings:

Tsay, R. S. (2005): *"Analysis of Financial Time Series"*, Wiley, 2nd edition.

Rachev, S. T., S. Mitnik, F. J. Fabozzi, and S. M. Focardi (2007): *"Financial Econometrics"*, John Wiley & Sons, Inc.