

Syllabus

for course at advanced level

Financial Econometrics

Finansiell ekonometri

7.5 Higher Education

Credits

7.5 ECTS credits

Course code:	MT7033
Valid from:	Autumn 2014
Date of approval:	2014-03-10
Department	Department of Mathematics (incl. Math. Statistics)
Main field:	Mathematical Statistics
Specialisation:	A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University on 10 March 2014.

Prerequisites and special admittance requirements

Course structure

Examination code	Name	Higher Education Credits
LABO	Computer Exercises	1.5
TENT	Financial Econometrics	6

Course content

a. The course covers ARCH, GARCH and non-linear models within the context of financial time series; extreme value theory for value-at-risk estimation (VaR), multivariate time series (VAR, VARMA and principal components).

b. The course consists of the following components:

1. Theory, 6 hp.
2. Computer exercises 1.5 hp

Learning outcomes

It is expected that the student after taking the course will be able to:

- * define advanced concepts in financial econometrics
- * identify practical and theoretical econometrical problems in finance
- * apply advanced econometrical methods in order to solve a given problem
- * apply computer software as a tool for analysing financial problems in econometrics

Education

The education consists of lectures, exercises and submitted work. Participation in the submitted work is compulsory.

Forms of examination

a. Examination for the course is in the following manner: measurement of knowledge takes place through written examination.

b. Grading is carried out according to a 7-point scale related to learning objectives:

A = Excellent

B = Very Good

C = Good

D = Satisfactory

E = Sufficient

Fx = Fail

F = Fail

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade E is required to pass the course, together with pass of submitted work.

e. Students who fail to achieve a pass grade in an ordinary examination have the right to take at least further four examinations, as long as the course is given. The term “examination” here is used to denote also other compulsory elements of the course. Students who have achieved a pass grade on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who have failed to reach a pass grade on two occasions have the right to request that a different teacher be appointed to set the grade of the course. A request for such appointment must be sent to the departmental board.

Interim

Students may request that the examination is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board.

Required reading

Course literature is decided by the departmental board and is described in an appendix to the syllabus.