GHENT UNIVERSITY

Course Specifications

Valid in the academic year 2023-2024

Research Methods in Finance (F710312)

Course size *(nominal values; actual values may depend on programme)*

Credits 3.0 **Study time 90 h**

Course offerings and teaching methods in academic year 2023-2024

A (semester 1)	English	Gent	group work
			seminar
			lecture
			independent work

Lecturers in academic year 2023-2024

Inghelbrecht, Koen	EB21	lecturer-in-charge

Offered in the following programmes in 2023-2024	**crdts**	**offering**
Master of Science in Teaching in Economics(main subject Business Administration)	3	A
Master of Science in Business Administration(main subject Finance and Risk Management)	3	A
Exchange programme in Economics and Business Administration	3	A

Teaching languages

English

Keywords

Econometrics, financial data, regression analysis, time series analysis, cointegration, panel data, logit and probit, event studies

Position of the course

The aim of this course is to familiarize students with collecting, analyzing and modeling financial data. The emphasis is on learning standard econometric techniques typically applied to financial data, such as regression models, time series models, panel data models, logit and probit models,... Furthermore, the students learn what the main financial databases are, how financial data can be downloaded from these databases, and how they can easily analyze the data and models using a standard econometric software package and Microsoft Excel. Analyzing data using software packages is among the core business of financial institutions and financial departments of companies. Finally, students learn how to efficiently read and analyze research papers in Finance, with the main focus on methodological issues.

Contents

Theory:
- Techniques for analyzing financial data
- Review of classical linear regression model
- Classical linear regression model assumptions and diagnostic tests
- Time series modeling and analysis
- Panel data models
- Logit and probit models
- Event study analysis

Practice:
- Introduction to econometric software package
- Introduction to the use of financial databases
- Online computer sessions with specific financial applications (CAPM, APT, ...)
- Collecting, analyzing and modeling of financial data

- Carry out econometric analysis
- Group assignment (carry out empirical scientific research).

Initial competences

Knowledge of statistics, a basic knowledge of the classical linear regression model and a basic knowledge of the financial markets and products.

Final competences

1 Develop scientifically sound solutions for practical financial-economic problems.
2 Solve a specific financial-economic problem based on an econometric analysis, using an econometric package software.
3 Apply basic techniques of data analysis, regression analysis and time series analysis independently to financial data.
4 Define and solve research problems individually and in groups.
5 Design research and interpret research results properly.
6 Write a scientifically sound report about a research conducted.
7 Assess research methods used in financial economics on their applicability, relevance and usefulness.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Seminar, Lecture, Independent work

Extra information on the teaching methods

Online werkcollege: PC-klasoefeningen consist of online video lectures on how to use a standard econometric software package to analyze and to model financial data.
Zelfstandig werk consists of solving exercises and executing financial analyses in an independent way.
The group assignment consist of a research project which students have to execute in teams.

Learning materials and price

Textbook: Brooks (2019). Introductory Econometrics for Finance. Cambridge University Press.
Supplemented by slides, exercises, financial applications and articles from the literature: made available on electronic learning environment.
Price textbook: About 55 euro.

References

Textbooks that further support this course:
- Koop (2006). Analysis of Financial Data. John Wiley & Sons.
- Koop (2008). Introduction to Econometrics. John Wiley & Sons.
- Campbell, Lo and MacKinlay (1997). The Econometrics of Financial Markets. Princeton University Press.
- Enders (2014). Applied Econometric Time Series. John Wiley & Sons.
- Gujarati and Porter (2009). Basic Econometrics. McGraw-Hill.

Course content-related study coaching

The major part of the course is supported by slides, financial applications and exercises. There is guidance for the group assignments. The student can ask question to and discuss problems with the teacher right before, during or after the lectures.

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment

Examination methods in case of periodic assessment during the second examination period

Written assessment

Examination methods in case of permanent assessment

Peer and/or self assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

Written exam (70%) and assignment (30%).
The written exam includes open questions and practical exercises. A standard econometric software package is used to solve the exercises.The group assignment is evaluated by the lecturer and by fellow students using a peer evaluation.
Second term: Written exam. The points for the permanent evaluation can be transferred to the resit exam period.

Calculation of the examination mark

The final course grade is a weighted average of the end-of-term evaluation (70%) and the permanent evaluation (30%). To pass the course, the student needs to at least pass the end- of-term evaluation. If the student does not have a passing grade for the end-of-term evaluation but does have a weighted average course grade of 10/20 (or more), the final course grade will be reduced to 9/20, the highest non-passing grade.