



浙江大學

ECON906

**The Application of Financial
Econometrics**

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The Application of Financial Econometrics

Instructor Contact Details

Lecturer-in-charge: TBA Email:

wlwyxy_29@zju.edu.cn

Office location: Huajiachi Campus, Zhejiang University

Consultation Time: to be announced, and by appointment

Teaching Times, Modes and Locations

The Time: TBA

Modes: Online/Face-to-face

Location: Anywhere via online/Huajiachi Campus, Zhejiang University via face-to-face

Academic Level

Postgraduate

Units of Credit

The course is worth 6 units of credit

Credit Hours

The number of credit hours of this course equals to the credits of a standard semester-long Australian university course.

Contact Hours

The course contains a total of 53 contact hours, which consists of orientation, lectures, seminars, quiz, discussion, research, case study, small tests, assignments, on-site field trip(s), in-class and after-class activities, revision and final exam. Students will receive an official transcript which is issued by Zhejiang University when completing this course.

Course Description:

This course introduces some widely used econometric models for analyzing financial data and the procedures used to estimate these models. This course focus on empirical work and the application of analysis of real market data. This course includes following topics: the statistical nature of financial data; the specification, estimation, and testing of asset pricing models; high-frequency financial data analysis; and the modeling of financial return volatility. Throughout the unit, students are encouraged to become familiar with financial data and learn how to apply models to these data.

Prerequisite:

Prior knowledge in Econometric Applications is required for taking this course.

Learning Resources

"Campbell, J. Y., A. Lo and A. C. MacKinlay, The Econometrics of Financial Markets, Jianqing Fan and Qiwei Yao (2017), "The Elements of Financial Econometrics", 1st edition, Cambridge University Press."

Learning Objectives

By the end of this course, you should be able to:

- Be able to implement the econometric models in statistical packages and interpret the output from these models.
- Becoming familiar with the econometric methods for analyzing such data
- Understanding the key features of the classic and latest econometrics models used in financial economics"

Course Delivery:

- Online Lecture mode includes lectures, seminars, quiz, discussion, research, case study, small tests, assignments, online field trip(s), in-class activities, revision and final exam.
- Face-to-face Lecture mode includes lectures, seminars, quiz, discussion, research, case study, small tests, assignments, on-site field trip(s), in-class and after-class activities, revision and final exam.

The following course will be taught in English. There will also be guest speakers and optional field trips available for students who would like to enhance their learning experience. All courses and others sessions will be run during weekdays.

Topics and Course Schedule:

Topic	Activities
Orientation	
Introduction and overview of the course	Lecture; Tutorial
Introduction of probability and statistics	Lecture; Tutorial
The Predictability of Asset Returns	Lecture; Tutorial
Market Microstructure	Lecture; Tutorial
Event-Study Analysis	Lecture; Tutorial
The Capital Asset Pricing Model	Lecture; Tutorial
Multifactor Pricing Models	Lecture; Tutorial

Present-Value Relations	Lecture; Tutorial
Intertemporal Equilibrium Models	Lecture; Tutorial
Modelling volatility using (G)ARCH models	Lecture; Tutorial
Modelling high-frequency financial data	Lecture; Tutorial
Nonlinearities in Financial Data	Lecture; Tutorial
Realized volatility	Lecture; Tutorial
Revision	
Final exam	

Assessments:

Class participation	15%
Class works	15%
Critical review	20%
Final exam	50%

Grade Descriptors:

HD	High Distinction	85-100
D	Distinction	75-84
Cr	Credit	65-74
P	Pass	50-64
F	Fail	0-49

High Distinction 85-100

Treatment of material evidences an advanced synthesis of ideas

Demonstration of initiative, complex understanding and analysis

Work is well-written and stylistically sophisticated, including appropriate referencing, clarity, and some creativity where appropriate

All criteria addressed to a high level

Distinction 75-84

Treatment of material evidences an advanced understanding of ideas

Demonstration of initiative, complex understanding and analysis

Work is well-written and stylistically strong

All criteria addressed strongly

Credit 65-74

Treatment of material displays a good understanding of ideas

Work is well-written and stylistically sound, with a minimum of syntactical errors

All criteria addressed clearly

Pass 50-64

Treatment of material indicates a satisfactory understanding of ideas

Work is adequately written, with some syntactical errors

Most criteria addressed adequately

Fail 0-49

Treatment of ideas indicates an inadequate understanding of ideas

Written style inappropriate to task; major problems with expression

Most criteria not clearly or adequately addressed

Academic Integrity

Students are expected to uphold the university's academic honesty principles which are an integral part of the university's core values and principles. If a student fails to observe the acceptable standards of academic honesty, they could attract penalties and even disqualification from the course in more serious circumstances. Students are responsible for knowing and observing accepted principles of research, writing and any other task which they are required to complete.

Academic dishonesty or cheating includes acts of plagiarism, misrepresentation, fabrication, failure to reference materials used properly and forgery. These may include, but are not limited to: claiming the work of others as your own, deliberately applying false and inaccurate information, copying the work of others in part or whole, allowing others in the course to copy your work in part or whole, failing to appropriately acknowledge the work of other scholars/authors through acceptable referencing standards, purchasing papers or writing papers for other students and submitting the same paper twice for the same subject.

This Academic Integrity policy applies to all students of the Zhejiang University in all programmes of study, including non-graduating students. It is to reinforce the University's commitment to maintain integrity and honesty in all academic activities of the University community.

Policy

- The foundation of good academic work is honesty. Maintaining academic integrity upholds the standards of the University.
- The responsibility for maintaining integrity in all the activities of the academic community lies with the students as well as the faculty and the University. Everyone in this community must work together to ensure that the values of truth, trust and justice are upheld.
- Academic dishonesty affects the University's reputation and devalues the degrees offered.
- The University will impose serious penalties on students who are found to have violated this Policy. The following penalties may be imposed:
 - Expulsion;
 - Suspension;
 - Zero mark/fail grade;
 - Marking down;
 - Re-doing/re-submitting of assignments or reports; and
 - Verbal or written warning.