



- Faculté des sciences économiques
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## Research in Financial Analysis (5AF2021)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en finance	Cours: 4 ph	Voir ci-dessous	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

### Période d'enseignement:

• Semestre Automne

### Equipe enseignante

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#### Contenu

This course covers important and controversial topics in empirical finance. First, we will review the theories proposed in the literature to explain the behavior of financial markets. We then discuss the empirical methods that can be utilized to test these theories. Finally, we implement the empirical methods to confront the theories with the empirical data.

We will study the time-series properties of the aggregate stock market, the cross-sectional behaviour of individual stocks, and how to implement an event study to measure the effect of an economic event on the broad market or the value of a company. We cover the classic literature (the work of 7 Nobel Prize winners) as well as recent advances in finance.

This course is designed to make students familiar with research in financial analysis (topics, methodologies, implementation, and writing). Databases such as CRSP, Compustat, and Thomson Reuters are introduced. Hands-on! After two hours of lecture, we will learn step-by-step how to implement workhorse methods in finance using Matlab during guided exercises. The course is complemented by a weekly homework and assignments in which you will be asked to review and present the results of articles recently published in leading academic journals.

Tentative course outline:
Introduction
Risk and Return, Modelling Time-Series Data
Linear Regressions
General Method of Moments
Return Predictability: Short-run
Return Predictability: Long-run
Modelling Cross-Sectional Data
Asset Pricing: Time-Series Tests
The Cross-Section of Individual Firms
Asset Pricing: Cross-Sectional Tests
Non-parametric Methods: Portfolio Sorts
Paper Replication: The Other Side of Value
Event Studies

### Forme de l'évaluation

Work during the semester (50%): Take-home assignments; mainly based on recent publications in leading finance journals. Two-hour final written exam (50%) during the exam session.

Re-take exam: written exam (100%) during the exam session.





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Allowed tools (written exam): Simple calculator, cheat sheet (one page DIN-A4, back and front, handwritten)

In case of violation of these rules, the students are in situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

#### **Documentation**

Campbell, J., Lo, A., MacKinlay, C., 1997, "The Econometrics of Financial Markets", Princeton University Press. Linton, O., 2019: Financial Econometrics: Models and Methods. Cambridge University Press. Journal articles provided on moodle.

### Pré-requis

Asset Pricing, Econometrics, Portfolio Management, Programming and Corporate Finance.

### Forme de l'enseignement

Lectures: two hours per week.

Computer-lab session: two hours per week.

#### Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Formulate principles of conducting (own) research
- Distinguish whether financial decisions are efficient
- Illustrate important topics of portfolio management orally or in writing
- Recognise controversial and important research topics in finance
- Describe important research methods in finance
- Employ research methods to develop tests of theories
- Work with tight deadlines
- Use time-series and cross-sectional datasets
- Evaluate whether financial assets are fairly priced
- Measure the impact of news on individual companies or the market
- Communicate empirical results to a larger audience
- Assemble an appropriate financial research methodology to develop new and innovative solutions
- Carry out analysis with statistical software packages

### Compétences transférables

- Manage a project
- Apply knowledge to new situations
- Carry out critical and evidence-based analyses
- Carry out a critical analysis
- Provide a substanciated recommendation
- Discuss complex issues and interactions
- Discuss complex issues