

- Faculté des sciences économiques
- www.unine.ch/seco

Econometrics (5ST2001)

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

I. INTRODUCTION AND REVIEW

1. Review of Probability
2. Review of Statistics

II. FUNDAMENTALS OF REGRESSION ANALYSIS

3. Linear Regression with One Regressor
4. Linear Regression with Multiple Regressors
- (5. Nonlinear Regression Functions)

III. FURTHER TOPICS IN REGRESSION ANALYSIS

6. Regression with Panel Data
- (7. Regression with a Binary Dependent Variable)
- (8. Instrumental Variables Regression)

IV. REGRESSION ANALYSIS OF ECONOMIC TIME SERIES DATA

12. Introduction to Time Series Regression and Forecasting

Forme de l'évaluation

E+EI

E: written exam during the exam session (2 hours)
EI: internal evaluation during the semester

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Reexamination session : written exam (100%) (2 hours)

Neither documents nor connected devices are permitted during the exams. In case of violation of these rules, the students are in a situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

Documentation

Stock and Watson, Introduction to Econometrics, Addison-Wesley.

Pré-requis

Familiarity with matrix algebra, calculus, introductory probability and statistics, programming.

Forme de l'enseignement

Interactive teaching (flipped classroom and accompanied projects): 4 hours per week

Objectifs d'apprentissage

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

- Define a linear model
- Discuss concepts related to linear modeling
- Explain how various linear models function
- Apply a linear model
- Estimate linear models
- Interpret linear models
- Test hypothesis using linear models
- Present an analysis based on a linear model
- Analyse data using linear models

Compétences transférables

- Design projects
- Develop hands-on, pro forma modelling skills using Excel
- Communicate results in writing
- Carry out critical and evidence-based analyses