

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

Econometrics (5ST2001)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en finance	Cours: 2 ph TP: 2 ph	écrit: 2 h	6
Master en sciences économiques, orientation politique économique	Cours: 2 ph TP: 2 ph	écrit: 2 h	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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Objectifs:

To expose the students to relevant statistical methods that apply to problems in economics and finance.
To train the students to perform data analysis using the modern R software package.

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:

- 2-hour final written exam during the last week of the semester (60% of the grade - the final exam might be supplemented by a midterm exam, in this case each exam will count for 30% of the grade)
- quizzes and participation (10%)
- a final project (30% of the grade).

Reexamination session: 2h-written exam (100%).

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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:

Lectures: 2 hours per week
Exercices: 2 hours per week.