

- Faculté des sciences économiques
- [www.unine.ch/seco](http://www.unine.ch/seco)

## Econometrics (5ST2001)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
<b>Master en finance</b>	<b>Cours: 2 ph TP: 2 ph</b>	<b>cont. continu</b>	6

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

### Période d'enseignement:

- Semestre Automne

### Equipe enseignante:

Professor Catalin Starica  
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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 (10%), a final projects (30% of the grade).

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

### Documentation:

Stock and Watson, Introduction to Econometrics, Addison-Wesley.  
CFA textbooks (2011).

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## **Econometrics (5ST2001)**

### **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.