

## **Concepts & Methods (EDEVM301)**

Academic Year 2014 – 2015

### **Contact Information**

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**Credits:** 5 ECTS

### **Learning Goals**

“Concepts and Methods” correspond to a package of four courses aimed at reviewing basic knowledge, tools and skills in economics.

- Macroeconomics
- Microeconomics
- Quantitative methods
- Econometrics

The idea behind is to refresh the economic background of the students and prepare them to the more advanced courses, the seminars and the personal study project they will be confronted to during their Advanced Master Program.

### **Content**

#### 1. Macroeconomics

- National accounting, balance of payments and exchange rates regimes
- Short run: IS-LM model
- Medium run: AS-AD model

#### 2. Microeconomics

- Consumers' choices
- Producers' choices
- Competitive equilibrium and market structure
- General equilibrium and resource allocation

- Introduction to game theory
- 3. Quantitative methods
  - Introduction to matrix algebra, systems of simultaneous linear equations and quadratic equations
  - Functions of several variables: Concepts, properties, calculus and unconstrained optimization
  - Constrained optimization: Substitution, Lagrange and Kuhn-Tucker
- 4. Econometrics
  - Review of OLS estimator: hypothesis, quality and biased estimation
  - Results interpretation: hypothesis testing, use and interpretation of dummy variables
  - Binary dependent variable models
  - (Time series analysis)

### **Teaching methods**

The 4 courses are taught and evaluated on one month. Each of those intensive courses covers its overall learning package (teaching class, tutorial, takes homes, readings, ...) over two week. Quantitative methods and microeconomics take place first in parallel. Next, the two others course are given.

### **Reference Textbooks**

- Mathematics for Economists (Blum)
- Macroeconomics (Blanchard and Cohen)
- Microeconomics (Pindyck and Rubinfeld ; Varian)
- Introduction to Econometrics (Daugherty)

### **Evaluations**

A written closed-book examination intervenes in the next few days after the end of each specific course. A second session is then organized in January.

### **Lecture Notes**

- Slideshow of all lectures available on the student portal