## **Fundamentals of Economics and Business II**

2015/2016

Code: 42141 ECTS Credits: 15

Degree	Туре	Year	Semester
4310025 Economics and Business Administration	ОВ	0	1

#### Contact

# Use of languages

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**Teachers** 

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# **Prerequisites**

None

# **Objectives and Contextualisation**

## **Macroeconomics:**

This course aims to familiarize students with key analytical concepts and key analytical tools in macroeconomic analysis and related policies. The course addresses central macroeconomic questions that have arised in the period between the first oil price shock and the current Great Recession in which GDP the unemployment rate has systematically evolved above full-employment levels.

Upon completion, students must be able: (i) to understand fundamental theoretical issues underlying the relationship of some critical macroeconomic variables such as GDP, inflation, unemployment, etc; (ii) to interpret the reasons for, and the effects of, demand and supply-side policies; (iii) to deal with appropriate data and elaborate brief country-specific reports characterizing the macroeconomic situation of any economy.

#### **Public Finance:**

Public Finance, or equivalently Public Economics, focuses on the study of the effects of government actions on economic activity. It aims at predicting the effects of these actions and at providing guidance on the choice among different alternatives. By restricting attention on a relatively small number of topics, the objective of the course is to illustrate how economic analysis emerges as an extremely helpful instrument in the design and evaluation of public policy.

## **Introduction to Data Analysis:**

The course main objective is to provide a solid foundation of statistics for the analysis of economic data. Some of the most popular methods for data analysis will be reviewed.

Even if the focus of the course is on the application of these methods, mathematical details will be included to help to properly evaluate the tools presented.

#### **Econometrics:**

The course covers basic tools of econometric analysis for the measurement and testing of economic relationships. Special emphasis is placed on the applications and limitations of regression models.

#### Skills

- Argue the case for and write a precise, clear and concise report of the problems presented in the English language.
- Be able to handle the main statistical techniques for evaluating the properties of each method of analysis and relate the different characteristic measures of the data or diagnostics to the appropriateness of a model
- · Carry out empirical studies.
- Choose the appropriate empirical methodology for the object of study: Contrasting economic hypothesis, policy evaluation, forecasting, etc.
- Contextualise economic problems through the use of formal models that enable quantitative analysis.
- Contrast different hypotheses regarding the response of economic agents in the context of the problem under study.
- Familiarise students with basic techniques for conjecture analysis and the necessary predictions for an appropriate interpretation of the cyclical and trend evolution of aggregate variables in the economic market.
- Identify the limitations associated with the available data and the consequences on empirical analysis.
- Infer, for each case, the consequences of economic policies or business strategies associated with the object of study.
- Isolate and analyse the main characteristics of the evolution of economic data.
- Operate using statistical sources that are relevant to the object of study (company data, individual and family surveys, etc.)
- Understand academic research in the areas indicated.
- Use different statistical programs to process data.

## Learning outcomes

- 1. Argue the case for and write a precise, clear and concise report of the problems presented in the English language.
- 2. Be able to handle the main statistical techniques for evaluating the properties of each method of analysis and relate the different characteristic measures of the data or diagnostics to the appropriateness of a model
- 3. Carry out empirical studies.
- 4. Choose the appropriate empirical methodology for the object of study: Contrasting economic hypothesis, policy evaluation, forecasting, etc.
- 5. Contextualise economic problems through the use of formal models that enable quantitative analysis.
- Contrast different hypotheses regarding the response of economic agents in the context of the problem under study.
- 7. Familiarise students with basic techniques for conjecture analysis and the necessary predictions for an appropriate interpretation of the cyclical and trend evolution of aggregate variables in the economic market
- 8. Identify the limitations associated with the available data and the consequences on empirical analysis.
- Infer, for each case, the consequences of economic policies or business strategies associated with the object of study.
- 10. Isolate and analyse the main characteristics of the evolution of economic data.
- 11. Operate using statistical sources that are relevant to the object of study (company data, individual and family surveys, etc.)
- 12. Understand academic research in the areas indicated.
- 13. Use different statistical programs to process data.

### Content

#### **Macroeconomics:**

1. Output

Supply side analysis / Demand side analysis / Income side analysis

2. Economic Growth and the Total Factor Productivity (TFP)

Production function / (Biased) Technological change / TFP and its determinants

3. Competitiveness

Unit Labour Costs (ULCs) / Real ULCs / Nominal and Real Effective Exchange Rate

4. External Imbalances

Balance of Payments / Current Account Deficits / Capital Flows / Net Lending vs. Net Borrowing capacity.

5. Macroeconomic Analysis of "The Great Recession"

Financial Markets / Monetary Policies / Fiscal Policies / Austerity / Banking Union

6. The Labour Market

Perfect competition vs. imperfect competition in the product and labour markets

### **Public Finance:**

- 1. A framework for normative analysis
- 2. Commodity taxation
- 3. Income taxation
- 4. Tax evasion
- 5. Intertemporal efficiency
- 6. Social security

## **Introduction to Data Analysis:**

- 1. Introduction
- 2. Key concepts for univariate data analysis
- 3. Key concepts for multivariate data analysis
- 4. Statistical methods for summarizing data
- 5. Estimation methods
- 6. Statistical inference

### **Econometrics:**

- 1. Introduction to econometric analysis
- 2. Regression models: estimation
- 3. Regression models: inference

- 4. Topics in the analysis of cross sectional data.
- 5. Topics in the analysis of time series data
- 6. Regression analysis to model categorical variables

# Methodology

The activities that will allow the students to learn the basic concepts included in this course are:

### 1. Theory lectures where the instructor will explain the main concepts.

The goal of this activity is to introduce the basic notions and guide the student learning

### 2. Problem Sets

In some subjects, a problem set which students will have to solve individually or in teams will be included in every unit. The goal of this activity is twofold. On one hand students will work with the theoretical concepts explained in the classroom, and on the other hand through this practice they will develop the necessary skills for problem solving.

### 3. Practice lectures

The aim of this activity is to comment on and solve any possible doubt that students may have had solving the problem assignment. This way they will be able to understand and correct any errors they may have had during this process.

## 4. Essay writing

In some subjects students will produce written essays on the topics proposed

## 5. Tutoring hours

Students will have some tutor hours in which the subject instructors will help them solve any doubts they may have.

## **Activities**

Title	Hours	ECTS	Learning outcomes
Type: Directed			
Lectures with ITC support	75	3	2, 4, 5, 6, 7, 8, 9, 10, 11
Resolution of exercises	37.5	1.5	2, 6, 7, 9
Type: Supervised			
Tutoring and monitoring work in progress	93.8	3.75	2, 6, 7, 9, 12
Type: Autonomous			
Study, Reading, Exercise solving, Essays writing	129.7	5.19	2, 4, 6, 7, 8, 9, 10, 11, 12

## **Evaluation**

- 1. The module consists of a number of different subjects or parts taught by different professors. The **final mark** for the module will consist of the average of the marks of each subject within the module.
  - The module is considered successfully passed if:

- the mark for each subject within the module is higher than or equal to 3.0 (in a 0 to 10 scale), and
- the final mark for that module is higher than or equal to 5.0 (in a 0 to 10 scale).
- If the module is <u>not successfully passed</u> the MEBA coordinators will ask the student to re-take the exams for those subjects that, according to the coordinators and the professors opinions, may help the student to successfully pass the module. If the student passes the re-take exam he or she will obtain a mark of 5 for that subject, otherwise the previous grade will remain valid. The calendar for the re-retake exams will be announced along with the grades report
- 1. The mark -between 0 and 10- for each subject will be computed by each professor based on his or her ow criteria and on the student's performance. As a general rule, 35% of the mark will correspond to the assessment of the continuous work of the student during the course, and 65% will consist of a comprehensive final examination. The duration and nature of the final examination is decided by each professor.
- 1. Final exams are compulsory. Re-take exams are only thought for those students having previously written a first exam and failed.

## **Evaluation activities**

Title	Weighting	Hours	ECTS	Learning outcomes
Exercises and Essays	35%	30	1.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Final exam	65%	9	0.36	2, 4, 5, 6, 7, 8, 9, 10, 11

# **Bibliography**

### **Macroeconomics:**

Specific academic papers and/or press articles will be supplied during the course.

Useful databases for empirical exercises/essays and the country reports

1. Eurostat: Several databases

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\_database

1. OECD: Several databases

http://www.oecd-ilibrary.org/

1. IMF: Several databases

http://www.elibrary.imf.org/

1. European Comission: AMECO DATABASE

http://ec.europa.eu/economy\_finance/db\_indicators/ameco/index\_en.htm

1. The World Bank: DOING BUSINESS DATABASE

http://www.doingbusiness.org/data.

### **Public Finance:**

The basic reference for the course is J. Hindriks and G.D. Myles (2013), Intermediate Public Economics, MIT Press, second edition.

Further, more specialized references, are:

- 1. A.B. Atkinson and J.E. Stiglitz (1980), Lectures on Public Economics, McGraw-Hill.
- 2. A.J. Auerbach and M. Feldstein (eds) (1985,1987,2002.a,2002.b), Handbook of Public Economics, Vols. 1-4, North Holland.
- 3. A.J. Auerbach, R. Chetty, M. Feldstein and E. Saez (eds) (2013), Handbook of Public Economics. Vol. 5, North Holland.
- 4. B. Salanié (2003), The Economics of Taxation, MIT Press.
- 5. R. Jha (2010), Modern Public Economics, Routledge, second edition.
- 6. R.W. Tresch (2002), Public Finance, A Normative Approach, Aceademic Press, second edition.

## **Introduction to Data Analysis:**

- 1. Larsen, R.J & Marx, M.L., An Introduction To Mathematical Statistics And Its Applications.
- 2. Mittelhammer, R.C. Mathematical Statistics for Economics and Business
- 3. Ramachandran, K.M & Tsokos, C.P, Mathematical Statistics with Applications.

Some supplemental readings will be recommended for each specific unit.

Software: Stata

## **Econometrics:**

- 1. Stock, J. & Watson, M., Introduction to Econometrics.
- 2. Verbeek, M., A Guide to Modern Econometrics.
- 3. Wooldridge, J.M., Introductory Econometrics.

Some supplemental readings will be recommended for each specific unit.

Software: Stata