**Syllabus**

**Course description**

<table>
<thead>
<tr>
<th><strong>Course title</strong></th>
<th>Applied Econometrics</th>
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<tbody>
<tr>
<td><strong>Course code</strong></td>
<td>27213</td>
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<tr>
<td><strong>Scientific sector</strong></td>
<td>SECS-P/05</td>
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<tr>
<td><strong>Degree</strong></td>
<td>L-33 Bachelor in Economics and Social Sciences</td>
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<tr>
<td><strong>Semester and academic year</strong></td>
<td>2nd semester 2019/2020</td>
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<tr>
<td><strong>Year</strong></td>
<td>2nd year</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td>6</td>
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<tr>
<td><strong>Modular</strong></td>
<td>No</td>
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- Total lecturing hours: 36
- Total lab hours: ---
- Total exercise hours: 18
- Attendance: suggested, but not required
- Prerequisites: Probability and Statistics course strongly suggested

**Specific educational objectives**
The course refers to the typical educational activities and belongs to the scientific area of Economics.

The aim of the module is to develop specific skills in applied econometric research by a mix of lectures, computer classes, and tutorials where each topic is discussed in both methodology and application.

The intention is to provide a description of a number of different research methods and examples of how they may be applied to problems of management and social science research, including the collection and the analysis of data.

More specifically educational objectives include:
- Ability to interpret the results of econometric analysis and draw appropriate conclusions.
- Ability to apply theoretical and empirical models to a real world context.
- Learn specialised statistical/econometric software to perform econometric analysis.
- Ability to efficiently plan and manage independent economic and business studies.
- Enhance organisational, analytical and communication skills through participation in group project work.

**Lecturer**

Angelica Gianfreda  
Office 304, Museumstrasse 54  
Tel.: 0471 013018  
Email: angelica.gianfreda@unibz.it  
Scientific sector of the lecturer | SECS-P/05
---|---
Teaching language | English
Office hours | 18 hours
Cockpit – students’ zone – individual timetable
Webpage: [https://www.unibz.it/en/timetable/?department=26&degree=13016%2C13141](https://www.unibz.it/en/timetable/?department=26&degree=13016%2C13141)
Lecturing assistant | TBA
Teaching assistant | ---
Office hours | ---
List of topics covered | - Matrix Algebra and Stochastic Issues
- Linear Regression with a Single Regressor and with Multiple Regressors
- Hypothesis Tests and Confidence Intervals in Linear Regression Models
- Dummy variables
- Binary Choice and Limited Dependent variable Models (Logit, Probit, Censored)
- Introduction to Panel Data Models
Teaching format | Lectures, practical exercises, and group project.

Learning outcomes

**Knowledge and understanding**
The aim of the course is to equip students with a working knowledge of important econometric techniques. Students should be able to correctly specify, estimate and test the econometric models and to interpret properly results from the undertaken analyses.

**Applying knowledge and understanding**
Ability to perform econometric analysis. Students know how to use essential tools for working with economic data. Ability to perform all the mentioned econometric techniques by using appropriate software.

**Making judgments**
Ability to formulate models and to implement appropriate econometric tools for both the analysis and the interpretation of economic facts.

**Communication skills**
Ability to present in a consistent and precise manner the results obtained from the econometric analysis.

**Learning skills**
Ability to understand and analyze economic data from a quantitative perspective.

Assessment

Final exam and an optional assignment. The final exam consists in a written paper concerning two parts:
- the first one includes review questions to test theoretical knowledge and understanding,
- the second one covers empirical aspects and it is aimed at testing applied skills (but it is not computed-based).

The optional assignment is carried out in groups during the semester. It consists of providing forecasts of future values for a selected asset at scheduled times during the semester, and of a final formal (group) presentation about methods adopted and models developed.

<table>
<thead>
<tr>
<th>Assessment language</th>
<th>English</th>
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<tr>
<td>Evaluation criteria and criteria for awarding marks</td>
<td>Final grade is determined by the written exam, which can be increased by the extra top-up marks obtained from the optional assignment. The purpose of the exam is to ascertain that students acquire the knowledge required to correctly use the econometric tools discussed during the lectures and possess the ability to properly interpret the results provided by these procedures. The assignment also tests students' ability to - work in team, - collect and process data, - make critical comparisons and judgements, - undertake effective quantitative problem-solving - deliver technical presentations.</td>
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