



## COURSE SYLLABUS **Econometrics 2, 7.5 credits**

### *Econometrics 2, 7,5 högskolepoäng*

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<b>Course Code:</b> JE2N10	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Council for Undergraduate and Masters Education Apr 9, 2019	<b>Disciplinary domain:</b> Social sciences (75%) and natural sciences (25%)
<b>Revised by:</b> Council for Undergraduate and Masters Education Sep 5, 2022	<b>Subject group:</b> NA1
<b>Valid From:</b> Jan 16, 2023	<b>Specialised in:</b> G2F
<b>Version:</b> 2	<b>Main field of study:</b> Economics

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### **Intended Learning Outcomes (ILO)**

On completion of the course the student will be able to:

Knowledge and understanding

1. Describe results from various statistical techniques used in the economic sciences, including those appropriate for analyzing panel data models, qualitative response models, and various time series models.
2. Relate the scientific grounding of econometrics based on the appropriate use of different methodological approaches, especially empirical ones, in economic analysis.

Skills and abilities

3. Analyze and critically interpret relevant evidence, data, and information concerning a given problem in the economic sciences, using computer-intensive resources.
4. Critically formulate and analyze matters, questions, and situations within an empirical framework (especially in a regression framework).
5. Solve problems using graphical, algebraic, calculus-based, and computer-based techniques.
6. Independently identify, formulate, investigate, and analyze problems and perform tasks within given time frames, demonstrating self-organization, initiative, and time management.

Judgement and approach

7. Analyze and evaluate data-driven solutions and quantitative research in the economic sciences and reflect on them from relevant scientific aspects, avoiding potential researcher bias.

### **Contents**

The aim of the course is to give course participants comprehensive knowledge about econometrics, building on previous knowledge in the area. Students should be equipped with statistical methods which they use to study and analyze economic relationships using quantitative data.

Important elements of the course include the following:

- Econometric Modelling - Model Specification and Diagnostic Testing,

- Qualitative Response Regression Models,
- Panel Data Regression Models,
- Impact Evaluations Methods, e.g., Difference-in-Difference Models,
- Time Series Econometrics

### ***Connection to Research and Practice***

Econometrics gives the students the skills and the knowledge of conducting quantitative research and formulating different questions and hypotheses in such to be verified based on real data. Therefore, the research papers in economics at JIBS that focus on entrepreneurship, renewal, ownership, and other areas will almost always utilize some of the techniques of data analysis presented in this course. This is relevant for the research centers at JIBS, especially for CEnSE. Without the basic understanding of this course's concepts and empirical methods, bachelor's students in economics will have difficulty understanding many elements in published quantitative research, and especially when preparing their bachelor's theses. The course demonstrates how econometric/statistical tools can be applied to economic theory and how they are applied to real-world data.

### **Type of instruction**

Lectures and lab sessions with associated lab assignments.

The teaching is conducted in English.

### **Prerequisites**

General entry requirements and 60 credits in Economics and Business Statistics 2 or Econometrics 1 (or the equivalent).

### **Examination and grades**

The course is graded A, B, C, D, E, FX or F.

Written exam ILOs 1,2 and 5 representing 4.5 credits

Lab assignments ILOSs 3,4,5,6,7 representing 1.5 credits

Written assignment ILOSs 3,4,5,6,7 representing 1.5 credits

To pass the course, students must pass each element of examination.

Registration of examination:

Name of the Test	Value	Grading
Written exam <sup>1</sup>	4.5 credits	A/B/C/D/E/FX/F
Lab assignment <sup>1</sup>	1.5 credits	U/G
Written assignment <sup>1</sup>	1.5 credits	A/B/C/D/E/FX/F

<sup>1</sup> Determines the final grade of the course, which is issued only when all course units have been passed.

### **Course evaluation**

It is the responsibility of the examiner to ensure that each course is evaluated. At the outset of

the course, the programme evaluators in the course must be contacted. In the middle of the course, the examiner should meet the programme evaluators to identify strengths/weaknesses in the first half of the course.

At the end of the course, the examiner should remind students to fill in the survey. The examiner should also call a meeting with the programme evaluators to debrief the course, based on course evaluation data and comments. The next time the course runs, students should be informed of any measures taken to improve the course based on the previous course evaluations.

At the end of each study period, JIBS' Director of Quality and Accreditation crafts a "Course Evaluation Quarter Report", presenting the quantitative results from course evaluation surveys. The Associate Dean of Education, The Associate Deans of Faculty, Programme Directors, and JSA President and Quality receive the report.

## **Other information**

### **Academic integrity**

JIBS students are expected to maintain a strong academic integrity. This implies to behave within the boundaries of academic rules and expectations relating to all types of teaching and examination.

Copying someone else's work is a particularly serious offence and can lead to disciplinary action. When you copy someone else's work, you are plagiarizing. You must not copy sections of work (such as paragraphs, diagrams, tables and words) from any other person, including another student or any other author. Cutting and pasting is a clear example of plagiarism. There is a workshop and online resources to assist you in not plagiarizing called the Interactive Anti-Plagiarism Guide.

Other forms of breaking academic integrity include (but are not limited to) adding your name to a project you did not work on (or allowing someone to add their name), cheating on an examination, helping other students to cheat and submitting other students work as your own, and using non-allowed electronic equipment during an examination. All of these make you liable to disciplinary action.

## **Course literature**

### Literature

- Gujarati, Damodar N and Porter, Dawn C, Basic Econometrics, McGraw-HillBook Company, latest edition.
- Supplementary reading and complementary compendia may be added to the course, and is distributed by JIBS.