



## COURSE SYLLABUS **Econometrics 1, 7.5 credits**

### *Econometrics 1, 7,5 högskolepoäng*

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<b>Course Code:</b> JE1K19	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Council for Undergraduate and Masters Education Jan 25, 2018	<b>Disciplinary domain:</b> Natural sciences (50%) and social sciences (50%)
<b>Valid From:</b> Jan 14, 2019	<b>Subject group:</b> ST1
<b>Version:</b> 1	<b>Specialised in:</b> GIF
	<b>Main field of study:</b> Economics, Statistics

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

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

Knowledge and understanding

1. report what information is provided by empirical techniques used for economic analysis, especially regression-based techniques.
2. demonstrate recognition of the scientific grounding of economics based on the appropriate use of different methodological approaches, especially empirical ones, in economic analysis.

Skills and abilities

3. assess and critically interpret relevant evidence, data, and information concerning a given problem in economics, with efficient utilization of computer resources.
4. critically discuss matters, questions, and situations within an empirical framework (especially in a regression framework), including the results of policy changes.
5. demonstrate ideas and 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 economic data from relevant scientific aspects, avoiding potential researcher bias.

### **Contents**

The aim of the course is to give course participants fundamental knowledge about econometrics. Students are equipped with statistical methods which they use to study and describe economic relationships using quantitative data.

Important elements of the course include the following:

- Estimation of linear regression models using ordinary least squares
- Conditions under which ordinary least squares estimation is optimal
- Hypothesis testing
- Autocorrelation

- Heteroscedasticity
- Multicollinearity
- Diagnostic tests
- Model Selection

### Type of instruction

Lectures, exercise sessions based on homework assignments, and lab sessions with associated lab assignments.

The teaching is conducted in English.

### Prerequisites

30 credits including Microeconomic Principles, 7,5 credits, Macroeconomic Principles, 7,5 credits, and Business Statistics 1, 7,5 credits (or the equivalent).

### Examination and grades

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

Student assessment is based on a written test and lab assignments.

The intended learning outcomes are assessed by the means shown below.

ILO´s 1-6 : Written test and lab assignments

ILO´s 3-7 : Lab assignments

Registration of examination:

Name of the Test	Value	Grading
Examination <sup>1</sup>	6 credits	A/B/C/D/E/FX/F
Lab assignments	1.5 credits	U/G

<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, evaluators must be identified (elected) among the students. The course evaluation is carried out continuously as well as at the end of the course. On the completion of the course the course evaluators and course examiner discuss the course evaluation and possible improvements. A summary report is created and archived. The reports are followed up by program directors and discussed in program groups and with relevant others (depending on issue e.g. Associate Dean of Education, Associate Dean of faculty, Director of PhD Candidates, Dean and Director of Studies). The next time the course runs, students should be informed of any measures taken to improve the course based on the previous course evaluation.

### 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 (2009) Basic Econometrics 5th edition, McGraw-Hill Book Company [ISBN: 978-007-127625-2], or later edition.
- Complementary compendia with exercise material and articles are distributed by Jönköping International Business School
- Supplementary reading may be used for labs.