COURSE SYLLABUS

Applied Economics for Decision Making, 30 credits

Applied Economics for Decision Making, 30 högskolepoäng

Course Code:	JEDR24	**Education Cycle:**	Second-cycle level
Confirmed by:	Council for Undergraduate and Masters Education Nov 7, 2022	**Disciplinary domain:**	Social sciences (75%) and natural sciences (25%)
Revised by:	Examiner Sep 3, 2024	**Subject group:**	NA1
Valid From:	Oct 28, 2024	**Specialised in:**	A1N
Version:	3	**Main field of study:**	Economics

Intended Learning Outcomes (ILO)

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

Knowledge and understanding

1. Relate knowledge and understanding of economics to real world applications;
2. Demonstrate specialized knowledge about methods used for economic analyses;

Skills and abilities

3. Identify and formulate economic problems critically and independently;
4. Apply economic models and use them to analyse and assess complex economic phenomena and real world applications;
5. Identify and apply appropriate empirical methods for economic problems.
6. Demonstrate the ability to process various kinds of data for economic analyses.
7. Clearly report and discuss his/her conclusions as well as the knowledge and arguments they are based on in speech and writing.

Judgement and approach

8. Select the appropriate economic models to assess different economic problems.
9. Independently interpret and critically review results of the empirical analyses.
10. Critically and independently reflect upon and evaluate his/her own work.

Contents

This course is designed to provide students with the tools and knowledge in how to solve economic problems that the student might encounter later in his/her career. The course combines a variety of theories and perspectives to enable students to develop theoretical and practical knowledge about different economic fields, as well as an understanding of which methods to use to solve problems and provide material for decision making within these fields. As such, the knowledge gained by students in the course will help them to assess which information is needed, how to produce such information, and how to analyse it to make decision regarding economic problems.
The course consists of 5 modules of 6 credits each. The individual modules are explained below:

Module 1: Quantitative methods

The objective of this module is to offer the students a toolbox for the upcoming modules, covering an understanding on how to use descriptive statistics to illustrate the underlying patterns as well as statistical methods relevant for quantitative analysis. The programming language Python is introduced with a focus on predictive modelling using some of the main econometrical methods such as OLS regressions. There is also Geoprahical Information System (GIS) part focusing on the skill to create maps to visualize a pattern. The maps can be used as a tool that enables individuals to grasp, analyze, and understand a given pattern and relationship. The part that covers statistical methods concerns quantifying and interpreting economical relationships using the appropriate statistical techniques. The knowledge of this module is not only useful for the next coming modules, but also relevant for analyzing policy evaluations and governmental reports, as well for the upcoming thesis writing.

Module 2: Platform Economics

Students learn to use economic theory and tools to analyze digital platforms, such as online marketplaces, search engines, and social media. The course proposes an analytical framework that examines platform types, revenue models, competitive dynamics, and implications for policymaking and society. Students learn to apply large language models and deep learning techniques to analyze unstructured data (e.g., sentiment analysis based on transformers using Python), alongside methods for causal inference from observational data generated on platforms (e.g., difference-in-differences estimation using Stata). When applying these methods, emphasis is placed on best practices for reproducibility of empirical research as well as guidelines for compiling replication packages.

Module 3: Geographical economics

The objective of this module is to give students knowledge about the location aspects of economic phenomena, based on various forms of scale economies, externalities, and transport costs. The course will provide the student with a capacity to critically analyze economic problems relating to location, specialization, and trade between regions/countries. It will give students an understanding of the sources of the geographic concentration of economic activity. It will deal with the questions regarding the trade-off between economic efficiency and geographic inequalities and related policy choices. The content of the module is tightly linked to research in the field of geographical economics and New Economic Geography (NEG).

Module 4: Public economics

This module concerns the effect of regulations, taxation, social insurance and public spending on households and firms. Theoretical models will be combined with empirical evidence. The module discusses how the government intervenes in different markets and the distributional effects of such interventions. The role of the government will also be discussed in situations of market failures and how the government can either act as an supporting party by providing incentives but can also discourage economic agents in different ways. There is also an introduction to Cost-Benefit Analysis (CBA) both of its theoretical basis as well as the typical steps to follow when performing a CBA. Contemporary issues of CBA are covered such as discounting, benefit transfer and optimism bias.

Module 5: Case study in applied economics

This module includes several different components. The first part focus on (i) the skills to write reports for public organizations and/or private companies, and (ii) presentation skills. This module will further provide students with a real case that they will have to solve in a group. The case will be presented by an external stakeholder and the task of the students is to solve the case in the best possible way, using all the tools and skills learned during the course. The students will have to present the case for a group of individuals consisting of both external stakeholders and researchers within the field, who will also evaluate the case based on both the written material and the presentation. This module will provide students with knowledge about report writing, presentation skills, and in depth knowledge about a case.

Connection to Research and Practice

Parts of this course are directly related to the focus areas at Jönköping International Business School (JIBS): entrepreneurship and renewal. Parts of the course are also tightly connected to the Center of Entrepreneurship and Spatial Economics (CEnSE) at JIBS, which focus on entrepreneurship and regional development/growth.
Throughout the course connections will be made to real-word applications to enhance the students learning and ability to make use of the taught skills in their later careers. The students will also appreciate how these skills can be used in policymaking to influence the development of society, and how theory and empirical work can be used to guide policy.

Type of instruction

The course includes lectures, workshops, seminars, and group work. The course runs as full speed.

The teaching is conducted in English.

Prerequisites

A Bachelor's degree equal to 180 credits (or the equivalent), including 60 credits in Economics, and a minimum of 15 credits in mathematics, statistics and/or econometrics.

Examination and grades

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

or Passed/Fail

Module 1
Individual written exam (ILO 2, 5, 6, 8, 9), representing 2.5 credits.
Assignment (ILO 2, 4, 7, 9), representing 2.5 credits.
Individual assignment (ILO 2, 4, 6, 7, 9), representing 1 credit.

Module 2
Individual assignment/s (ILO 1, 2, 3, 4, 5, 6, 7, 10), representing 4 credits.
Presentation (ILO 1, 3, 4, 7, 8), representing 2 credits.

Module 3
Individual assignment 1 (ILO 1, 2, 8), representing 2 credits.
Individual assignment 2 (ILO 3, 4, 5, 6, 7, 9, 10), representing 2 credits.
Individual assignment 3 (ILO 3, 4, 5, 6, 7, 9, 10), representing 2 credits.

Module 4
Individual assignments (ILO1, 3, 4, 5, 7, 8, 10), representing 5 credits.
Presentation (ILO 2, 7, 10), representing 1 credit.

Module 5
Group assignment (ILO 1, 2, 3, 4, 5, 6, 7), representing 4 credits.
Presentation (ILO 2,7,10), representing 2 credits

Registration of examination:

Name of the Test	Value	Grading
Module 1: Individual written exam[I]	2.5 credits	A/B/C/D/E/FX/F
Module 1: Assignment[I]	2.5 credits	A/B/C/D/E/FX/F
Module 1: Individual assignment[I]	1 credit	U/G
Module 2: Individual assignment/s[I]	4 credits	A/B/C/D/E/FX/F
Module 2: Presentation[I]	2 credits	U/G
Module 3: Individual assignment 1[I]	2 credits	A/B/C/D/E/FX/F
Module 3: Individual assignment 2[I]	2 credits	A/B/C/D/E/FX/F
Module 3: Individual assignment 3[I]	2 credits	A/B/C/D/E/FX/F
Module 4: Individual assignments[I]	5 credits	A/B/C/D/E/FX/F
Module 4: Presentation[I]	1 credit	U/G
Module 5: Group assignment[I]	4 credits	A/B/C/D/E/FX/F
Module 5: Presentation[I]	2 credits	A/B/C/D/E/FX/F

[I] All parts of the compulsory examination in the course must be passed with a passing grade (A-E or Pass) before a final grade can be set. The
final grade of the course is determined by the sum total of points for all parts of the examination in the course (0-100 points). Grade is
set in accordance to JIBS grading policy.

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 plagiarising. 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 plagiarising 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

A list of course literature will be supplied at the course introduction.