Discrete Choice Modelling

Single subject and programme course

7.5 credits

Modellering av diskreta val

771A19

Valid from: 2019 Spring semester

Determined by
The Quality Board at the Faculty of Arts and Sciences

Date determined
2017-10-20

Main field of study
Computational Social Science

Course level
Second cycle

Advancement level
A1N

Course offered for
- Master´s Programme in Computational Social Science

Entry requirements
A bachelor's degree or equivalent in the humanities, social-, cultural-, behavioural-, natural-, computer-, or engineering-sciences.
English corresponding to the level of English in Swedish upper secondary education (English 6/B).

Intended learning outcomes
After completion of the course, the student should on an advanced level be able to:
- Identify problems most suitably modeled with discrete choice methods;
- Describe which models are suitable for specific applications using panel or cross-sectional data;
- Develop appropriate discrete choice model specifications;
- Create appropriate data structures for estimating discrete choice models;
- Critically review and interpret model results of statistically complex discrete choice models;
- Use statistical software to estimate discrete choice models, calculate predictions, and interpret and analyze results.

Course content

This course enables students to perform their own empirical research using discrete choice methods. Students learn how to create discrete choice datasets, estimate discrete choice models, including binomial, multinomial, and conditional logistic regression, and interpret model output. The focus will be on the practical aspects of modeling. During intensive computer labs, hands on experience will be provided using real data drawn from examples in the areas of consumer choice, migration, and labor market mobility. More advanced models for handling panel data and unobservable heterogeneity, as well as identification of latent groups will be examined and deployed. Applications to counterfactual and agent-based simulation will also be explored during lab sessions.

Teaching and working methods

The teaching consists of lectures, readings, computor labs and seminars. Homework and independent studies are a necessary complement to the course.

Language of instruction: English

Examination

The course is examined through written assignments, active participation on seminars, computer labs and a final written individual assignment.

Detailed information about the examination can be found in the course's study guide.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it. If the coordinator has instead recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

ECTS, EC

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus.

The course is carried out in such a way that both men´s and women´s experience and knowledge is made visible and developed.

Department

Institutionen för ekonomisk och industriell utveckling