KURS-PM Course Memo AH2314

HT 2023 Aug 25 2023

Info

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To understand and predict the behavior of individuals – how, what and why individuals make the choices they make – is central in economics and marketing.

Within this course, we study models of individual choice and econometric methods for inference and prediction.

For example, in the private sector it is important for executives to know how consumers will react to changes such as the introduction of a new product, or the alteration of goods attributes. The public sector has similar issues, for example if a car rebate is introduced for environmentally friendly cars, how is the car market affected then? Can the environmental objectives be achieved?

ILO

- describe different theories and models of individuals' choices
- formulate models of discrete choice, market demand and consumer surplus
- explain the concept of rationality, the basic as-if assumption in the theory of expected utility as well as anomalies in the behavior of individuals.
- Independently program models and analyze data
- use simulation-based methods for prediction and estimation
- describe and use frequentist and Bayesian approaches for inference and prediction
- designing experiments / surveys for data collection, especially Statedpreference techniques

Literature

Main textbook

• Train, K., 2009, Discrete choice methods with simulation,

Papers to be available on course canvas, including:

- Ben-Akiva et al, 2002, Hybrid <u>Hybrid Choice Models: Progress and</u> <u>Challenges</u>, Marketing Letters 13:3, 163–175.
- Lecture notes

Course requirements

Formally:

- PRO1 A-F
- TEN1 Written examination P/F

Project: Labs

The project is divided into four (4) Labs

The examination consists of two parts: (i) a written report (graded A-F) and (ii) an oral assessment (Pass/Fail)

There will only be one written report, for all four labs.

We suggest that the work is carried out in groups of two. It is allowed that results are produced jointly by the group.

Note however: Both the report and the oral assessment are individual. See further Ethical Approach below.

Lab report (continued): Oral assessment

- Pass an *oral assessment*: every student shall be able to present and answer questions about the entire assignment and solution.
- No presentation of the report will be necessary. The only purpose of the oral assessment is to validate that each student is able to present and answer questions about the entire report.
- Oral assessment will only take place no later than October 27 2023, or in conjunction with the re-take week Dec 11-18 2023.
- Time slot(s) will be available to book on the web. Information on how to book will be made available on Canvas.

Lab report (continued): Oral assessment

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- Oral assessment will only take place no later than October 27 2023, or in conjunction with the re-take week Dec 11-18 2023.
- Time slot(s) will be available to book on the web. Information on how to book will be made available on Canvas.

Deadlines

- For each lab, there is a deadline. The deadline means that you will get feedback from your instructors, if you submit preliminary results *before the deadline*.
- The deadline for the submission of the final *lab report* will be communicated in the schedule
- Time slots for the *oral assessment* will be communicated on canvas.

Deadlines for the lab report and oral assessments is further qualified on the next page.

Lab report (continued)

- The deadline for submission of the written report will be communicated in the schedule
- Oral assessment will take place in study period 1, no later than October 27. Time-slots will be communcated on canvas.
- To take part in the oral assessment, the lab report must be submitted before the deadline

Second chance

- Oral assessment is also possible in the re-take period, see above.
- Submission of lab reports for the re-take needs to be submitted before Dec 1 2023
- Written reports submitted after Dec 1st 2023 will not be graded.

Grading

- A final grade A-E is based on the lab report... ... conditional on
- Passed oral assessment of lab report
- Passed written examination

In short, when receiving a passing grade, the grade A-E is based on the lab report

Grading of lab report (aka project)

The lab report is graded A-F based on four dimensions:

Readability

Completeness

Structure: organization of the report helps understanding, with a focus on crucial results and assumptions

Analysis: the level of estimation work, explained in relation to theory and implication/interpretation of results

- **Grade E:** The language is understandable, although there might be minor deficiencies. The report's structure adheres to a standard format. The description of theory, results, and data is generally accurate, with minor shortcomings. The results are briefly discussed, and their implications are addressed.
- Grade C: The language facilitates overall understanding, although there are some deficiencies. The report covers theory, limitations, methodology, and results, with room for improvement in terms of description. The analysis is comprehensive, though not extensive. The results are explained in relation to relevant theory, and implications are discussed more than briefly.
- **Grade A:** The language is clearly written and aids in understanding all aspects of the report, including theory, limitations, methodology, data, and results. The description of theory, results, and data is complete and detailed. The report's structure effectively guides readers by emphasizing crucial results and assumptions. The analysis demonstrates extensive estimation work, evidenced by explanations of all results in the context of relevant theory. The implications are elaborately discussed.

Grade F is given when grade E is not achieved. Grade FX will be discussed below.

Guidelines with check-list for the Lab Report is published on Canvas.

The Kurs-PM continues on the next page

- On the lab report (project), the grade FX can be given
 - The student is notified about the grade

- The student needs to contact the examiner about how to proceed. The contact needs to take place without delay.

- After the student has contacted the student, an examination activity will be determined by the examiner. The examination activity should typically be completed within 15 days.

• On the written examination, the same will happen as for the lab report, see above.

More on examination

- Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.
- The examiner may apply another examination format when reexamining individual students.

ILO and assessments

- describe different theories and models of individuals' choices PRO TEN
- formulate models of discrete choice, market demand and consumer surplus PRO TEN
- explain the concept of rationality, the basic as-if assumption in the theory of expected utility as well as anomalies in the behavior of individuals TEN (PRO)
- Independently program models and analyze data PRO
- use simulation-based methods for prediction and estimation PRO (TEN)
- describe and use frequentist and Bayesian approaches for inference and prediction PRO (TEN)
- designing experiments / surveys for data collection, especially Stated-preference techniques TEN

PRO Project

TEN written examination

Plussning

• It is not possible to re-submit the project (lab report and oral assessment) to achieve a higher grade, after been given a passing grade A-E on PRO1.

Written examination

• At the written examination, simple calculators are allowed. This includes access to exponentials and logarithms and similar functions.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.

On instructions wrt examination

The student must access and follow given instructions regarding examination, or be subject to disciplinary actions, either warning or suspension when not following such instructions.

Studenten är skyldig att ta del av och följa givna instruktioner om vad som gäller vid examinationen. Det kan leda till disciplinära påföljder i form av varning eller avstängning om studenten inte följer instruktionerna.

On examination, in general

- Students who, with unauthorized aids or otherwise, attempt to mislead the exam or when a student's performance is otherwise to be assessed, may be subject to disciplinary action.
- This includes, but is not limited to, plagiarism, see next page.

On plagiarism

Plagiarism is defined as "submitting someone else's work as one's own". The activities listed below are to be regarded as examples and not as a comprehensive description of what can be defined as plagiarism.

- Copying of text, problem solutions, computer programs, drawings/diagrams and pictures without citing the copied material and without specifying the source. Copying other students' work without acknowledgment is also defined as plagiarism.
- Using ideas, data or other material without specifying the source, for example, if a student reads about someone's discoveries and insights and uses these without specifying the name of the book (publication) or the same of the author of the source. The exception from this rule is what can be regarded as general knowledge in the field in question.
- Summarising or rewriting a text without the writer essentially changing the original. If the source material is
 rewritten in the student's own words, the student's text must include indications of the original source. The
 only exception is if the newly written text contains general knowledge in the field in question; however, even
 in this case, citation and source referencing may be useful as a way of increasing the student's credibility as a
 writer.
- Too close cooperation with other students in a piece of work that is meant to be the student's own work, i.e., the student uses another student's discoveries and insights in his/her work without specifying this.
- Translating a piece of work without stating the original source.

How to avoid cheating and plagiarism

• See

https://www.kth.se/en/student/stod/studier/fusk-1.997287

End of Kurs-PM Course Memo