KURS-PM
Course Memo
FA33002

HT 2025

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Contact

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Content

- Main content of the course includes: Theoretical foundation of discrete choice modelling from core theoretical decision theories. Discrete choice models includes, but is not limited to, logit, nested logit (MEV multivariate extreme value) and appropriate simulation-based models. Theoretical approach of econometrics vs Machine Learning, as applied to forecast demand modelling, in particular in transport.

ILO

- After completing the course, students should be able to:
- - discuss and critique the application of rational choice theory in transport den
- - discuss and formulate nested logit models (general MEV models),
- - Discuss the use of standard theory and techniques for model interpretation a of-fit measures, cross-validation and out-of-sample prediction,
- - Discuss the approach in econometrics, and differences and similarities with a applied to forecast demand modelling.

Literature

- Main text book is Train, K., 2009, Discrete choice methods with simulation, Cambridge University Press
- Papers and Lecture Notes, see canvas

Course requirements

Formally:

- Seminars

Seminars

Active participation at seminars, see belo

SEMINARS

- Seminars are mandatory.
- You are required to participate in two (2) seminars, and completed two (2) labs
- To participate in the seminar you need to have

- completed the exercises (which will form the basis of assessment)

- Active participation is required, and you will be given questions, or topics for discussion, by the instructor during the seminar.

Seminars (continued)

- Seminars is an assessment and learning activity
- At the seminar, individual Modules will be assessed.
- The topic of each Seminar is communicated in Schedule.
- The Seminar is based on the literature for associated Modules.

Follow-up seminars

- You will need to complete two seminars.
- If you miss a seminar, then you are required to attend a follow-up seminar.
- The follow-up seminars will be scheduled as required in the period Nov 19 2025-Jan 21 2026
- No assessment activities will take place after Jan 21 2026.

Individual oral assessment

Criteria

- Clearly perceive and understand the essence of the posed question.
- Articulate a coherent response that integrates pertinent theoretical concepts and methodological tools, using proficient mathematical notation
- Where applicable, describe the practical implementation of these concepts and tools.

If all of these are not exhibited in relation to the learning objectives, for the questions that are asked, a follow-up seminar may be scheduled. The schedule of assessment activities are described above.

Grading

- All learning objectives are examined at seminars
- Only PASS/FAIL

FX

- If the grade FX is given, the a new examination task or assessment activity will be given.
- The order of events are
- The student is notified about the grade FX
- The student needs to contact the examiner as soon as possible
- Instructions of a new assessment activity will given and scheduled.

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 re-examining individual students.

Plussning

- Not Applicable

Ethical approach

- It is allowed to cooperate. It is in fact highly recommended. Each student is responsible for all submitted documentation.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, including seminars, every student shall be able to present and answer questions about the entire assignment/exercise 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

Use of generative AI

- Free use of generative AI tools
- In the course, generative AI may be used at the students' own discretion, unless the use violates other rules or codes of conduct. The use of generative AI is considered to promote learning and the fulfillment of the course's learning objectives. It may be a good idea to discuss the answers to the Exercises with other students, but also generative AI. Remember that the answers and information given by AI (or other students) may be incorrect or incomplete.
- Generative AI may not be used during seminars, unless stated otherwise. Computers and other devices are only permitted during seminars if it is explicitly allowed.

Use of generative AI (contd)

- Permitted use of generative AI
- You as a student should decide for yourself how to use generative AI in a way that is ethical and promotes learning. Your decision must consider existing rules and codes of conducts at KTH, and it must be legally and ethically defensible, for example regarding the handling of personal data or copyrighted material. Make informed choices and stay up-to-date on relevant laws, court decisions, and other legal decisions surrounding AI and generative AI.
- Contact course responsible if you have any questions on this matter.
- **Note!** Remember to critically review material created by generative AI. **You as a student are fully responsible** for your answers during seminars, where you should be able to defend and explain it completely without support from generative AI.

Use of generative AI (contd)

Disclosure of AI use

You as a student decide when and how you need to disclose your use of generative AI.

Questions or concerns?

Contact the course responsible for guidance and clarification of this information.