



FME3518 Quantitative Research Methods in Industrial Economics and Management

7.5 credits

Kvantitativa forskningsmetoder i industriell ekonomi

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for FME3518 valid from Spring 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Enrolled at doctoral program in Industrial management or equivalent

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

- Describe the breadth of research approaches and data collection techniques available to a quantitative researcher in the field of Industrial economics and management
- Describe the basic ideas and underlying assumptions of quantitative analysis
- Describe basic elements of design and implementation of quantitative studies
- Understand how to read quantitative research in a critical way
- Understand how to report quantitative research in a publishable way
- Appreciate quality aspects in conclusions based on statistical reasoning
- Be familiar with basic statistical inference
- Be familiar with and able to test statistical association and causation among variables
- Be familiar with and able to use basic multivariate data analysis techniques
- Be familiar with the basics of widely used computer based statistical packages such as SPSS and AMOS

Course contents

- Introduction to quantitative research methods:
- Use of primary data sources such as in survey research
- Use of secondary data sources such as patent data bases and financial data bases, bibliometrics, etc
- Use of modeling and simulation
- Quantitative research methodology:
- Underlying assumptions of quantitative analysis
- Design and implementation of quantitative studies
- Reading and reporting quantitative research
- Validity and reliability issues
- Statistical analysis:
- Statistical inference, association and causation among variables and multivariate techniques
- Statistical packages such as SPSS and AMOS

Examination

- TEN1 - Exam, 7.5 credits, grading scale: P, F

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.

Other requirements for final grade

Mandatory to be present and participate in all modules

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.