



COURSE SYLLABUS

Avancerad forskningsmetod och design Advanced Research Method and Design 7.5 credits (7,5 högskolepoäng)

Course code: IY2619

Main field of study: Industrial Economics and Management

Disciplinary domain: Technology

Education level: Second cycle

Specialization: AIF - Second cycle, has second cycle course/s as entry requirements

Language of instruction: English

Applies from: 2022-01-25

Approved: 2022-01-25

1. Decision

This course is established by Dean 2019-10-17. The course syllabus is approved by Head of Department of Industrial Economics 2022-01-25 and applies from 2022-01-25.

2. Entry requirements

Admission to the course requires taken course Statistics and Econometrics, 7.5 credits.

3. Objective and content

3.1 Objective

The purpose of the course is to provide students with a deeper knowledge on the theory of science as well as research methods for qualitative and quantitative studies in industrial economics and management. Important aspects of the course include: formulating research problems and research questions, anchoring research in previous studies, applying and motivating research methods as well as scientific conclusions and synthesis based on qualitative and quantitative approaches. The emphasis of the course is on quantitative analysis of large bodies of data.

3.2 Content

- The theory of science
- Research design in the scientific paradigm naturalism, its application, weaknesses and strengths
- Research design in the scientific paradigm positivism, its application, weaknesses and strengths
- The research paradigm pragmatism
- Research methods, with an emphasis on the formulation of hypothesis and hypothesis testing in industrial economics and management
- Data collection, survey questions, preparing analysis and data, measurement issues and statistical inferences
- Quantitative analysis using relevant statistical tests

4. Learning outcomes

The following learning outcomes are examined in the course:

4.1 Knowledge and understanding

On completion of the course, the student will be able to:

- explain research designs in the naturalist, positivist and pragmatic paradigms as well as their scientific and philosophical underpinnings in the context of industrial economics and management
- use theoretical and practical knowledge to plan, conduct, analyse and present qualitative and quantitative research in the field of industrial economics and management
- have an insight in and understanding of research methods, ethics and sustainability

4.2 Competence and skills

On completion of the course, the student will be able to:

- explain and discuss the philosophical and theoretical bases within positivism, naturalism and pragmatism
- discuss the paradigm's significance for the choice of research design and method
- analyse and discuss the relationship between philosophy, the theory of science and scientific paradigms

- analyse and discuss research design in the naturalist and positivistic paradigms as well as the strengths and weaknesses of each
- evaluate different research designs and methods, analyse strengths, weaknesses and problematise their application
- identify and define problems related to data collection and preparation for hypothesis testing
- analyse primary data or secondary data using statistical models
- conduct data analyses and hypothesis tests with statistical software
- present research methods and research findings in scientific writing

4.3 Judgement and approach

On completion of the course, the student will be able to:

- critically analyse research designs in the different paradigms presented in the course and evaluate how they can be applied in research in the field of industrial economics and management
- describe and explain limitations and assumptions in hypothesis tests

5. Learning activities

Teaching includes lectures, seminars, group work and self-study. The course will be assessed on a continuous basis.

6. Assessment and grading

Modes of examinations of the course

Code	Module	Credits	Grade
1910	Written assignment 1	2 credits	GU
1920	Written assignment 2	2 credits	GU
1930	Written examination	3.5 credits	AF

The course will be graded A Excellent, B Very good, C Good, D Satisfactory, E Sufficient, FX Fail, supplementation required, F Fail.

The information before a course occasion states the assessment criteria and make explicit in which modes of examination that the learning outcomes are assessed.

An examiner can, after consulting the Disability Advisor at BTH, decide on a customized examination form for a student with a long-term disability to be provided with an examination equivalent to one given to a student who is not disabled.

7. Course evaluation

The course evaluation should be carried out in line with BTH:s course evaluation template and process.

8. Restrictions regarding degree

The course can form part of a degree but not together with another course the content of which completely or partly corresponds with the contents of this course.

9. Course literature and other materials of instruction

Mark N.K. Saunders, Philip Lewis and Adrian Thornhill, "Research Methods for Business Students (Latest Edition)", PEARSON Publisher

Scientific articles and other reading material will be assigned (maximum 500 pages)