



Scientific Methodology and Communication

Vetenskaplig metodik och kommunikation

7.5 credits

Ladok Code: 52VM01

Version: 4.0

Established by: The Teaching Committee 2014-01-08

Valid from: Spring 2014

Education Cycle: Second cycle

Main Field of Study (Progressive Specialisation): Engineering (A1N), Textile Management (A1N)

Disciplinary Domain: Social sciences

Prerequisites: These prerequisites do not apply to students within the programme **Science without Borders**

Bachelor's degree in Textile Technology, Textile Economics, Business Administration, Industrial Economics, Engineering, Media or Design, and English B or equivalent qualifications.

Subject Area: Other Subjects within Social Science

Grading Scale: ECTS-credits

Content

- Criteria for science: philosophy of science, ontology and epistemology.
- The history of science and science methods.
- Research methods: Quantitative methods, Qualitative methods
- The research process: identifying research problems and knowledge gaps, formulating questions, using or developing theory, finding empirical evidence, testing, analyzing and discussing findings, assessing uncertainty, publishing results and submitting them for peer review
- Key concepts, such as induction, deduction, abduction; falsification
- Scientific ethics
- Critical thinking and scientific argumentation.
- The sociology of science: science in practice, scientific society and subcultures, research rigging, the referee system.
- Information retrieval
- Academic writing and presentation

Learning Outcomes

After completing and passing the course, students should be able to:

- describe and master scientific theoretical concepts and problems
- describe the development of scientific ideas from both a historical and philosophical perspective
- critically review literature and relate it to quantitative and qualitative methods
- consider ethical aspects of research strategy
- define sample/cases and apply quantitative and qualitative methods for collecting, expressing and analysing empirical material
- comprehend and use appropriate basic statistical concepts in a quantitative research study
- relate frameworks, methods and results to different research areas
- write scientific texts and present and discuss scientific work orally and in writing
- handle academic writing as a tool in scientific work

Forms of Teaching

Teaching comprises lectures, presentation assignments and seminars.

The language of instruction is English.

Forms of Examination

The following examinations will form part of this course with respect to the stated learning objectives:

- Written group case assignment 1.5 credits.
- Written individual report, 3.0 credits
- Individual examination, 3.0 credits

Students must obtain at least an E in all parts of the examination in order to achieve a minimum overall grade of E. The final grade will be the weighted grade of written case assignment (33%) and individual written examination (67%).

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Materials

Bryman, Alan (2012). *Social Research Methods*. 4 ed. Oxford: Oxford University Press. (580 s)

A selection of articles and chapters will be included, max. 400 pages.

Student Influence and Evaluation

The views of students will be canvassed systematically and regularly by means of written course assessments once courses are complete. Student representatives will work together with the Director of Studies and the course manager once a term to review courses held. For further information, please see the College's policy on course assessments and documents prepared by the Institutional Board, Director of Studies and course manager.

Miscellaneous

The course is first and foremost a programme course for the Master's degrees in Applied Textile Management, Fashion Management and Textile Engineering.