



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

4SE306 Forskningsmetodik, 7,5 högskolepoäng
Research Methodology, 7.5 credits

Main field of study

Total Quality Maintenance

Subject Group

Industrial Engineering and Management

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved by the Board of the School of Engineering 2010-11-29

The course syllabus is valid from autumn semester 2011

Prerequisites

To be admitted to the course basic eligibility for studies on advanced level is required as well as knowledge corresponding to English B.

Expected learning outcomes

After this course students should be able to:

- Account for the basics of research theory and methodology
- Formulate aim and scope of projects within research and development
- Choose and present methods of research
- Give an account of previous research of relevance for a specific project
- Plan advanced projects
- Present results orally
- Present results in academic/technical reports

Content

The course consist of the following parts:

- Theory of science and research
- Experimental planning
- Research ethics
- Literature search
- The process of writing academic/technical reports
- Exercises in oral presentation

Type of Instruction

The teaching consists of lectures, exercises, seminars and project work.

Examination

The course is assessed with the grades U,3,4 or 5.

The assessment of student performances is usually based on submitted reports and exercises. Oral examination may also be included.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Other

Some elements of the course may entail costs defrayed by the course participant.

Required Reading and Additional Study Material

Literature list

Björk, Lennart A. & Räisänen, Christine (2003). Academic writing: a university writing course. 3. [rev.] ed. Lund: Studentlitteratur. ISBN: 91-44-03074-6

Booth, Wayne C., Colomb, Gregory G. & Williams, Joseph M. (2008). The craft of research [electronic resource]. 3rd ed. Chicago: University of Chicago Press. ISBN: 0-226-06264-3

Chalmers, Alan F. (1999). What is this thing called science?, 3. ed. Indianapolis : Hackett Pub, cop. ISBN 0-87220-452-9

Graziano, Anthony M. & Raulin, Michael L. (2010). Research methods: a process of inquiry. 7th ed. Boston: Allyn and Bacon. ISBN: 978-0-205-63745-4

Yin, Robert K. (2009). Case study research: design and methods. 4. ed. London: SAGE. ISBN: 978-1-4129-6099-1