Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

4ME101 Vetenskaplig teori och metod, 7,5 högskolepoäng
Scientific Theories and Methods, 7.5 credits

Main field of study
Media Technology

Subject Group
Media Production

Level of classification
Second Level

Progression
A1N

Date of Ratification
Approved by the Board of the School of Computer Science, Physics and Mathematics 2010-12-10

The course syllabus is valid from autumn semester 2011

Prerequisites
22.5 credits at G2F-level in Media Technology or the equivalent.

Expected learning outcomes

The aim of this course is to provide students with knowledge and understanding of different scientific theories and methodologies applicable in the field of Media Technology.

Upon completion, the student should be able to:

- thoroughly explain and understand the meaning of fundamental scientific concepts
- effectively search for relevant information and literature
- identify, formulate and describe scientific problems
- make thoughtful choices of alternative research approaches
- thoroughly describe, compare and explain advantages and disadvantages of different scientific methods for gathering quantitative and qualitative data
- apply fundamental scientific methods to analyze quantitative and qualitative data
- understand different frameworks for theory construction
- assess and review scientific publications.

Content

The course comprises of:

- Investigation of epistemological and methodological approaches in the field of Media Technology.
- Scientific literature retrieval.
- Structuring and writing scientific papers in accordance with international standards for scientific publishing.
- Presentation and discussion of relevant scientific issues in the field of Media Technology.

Type of Instruction
Lectures, seminars and workshops.

Examination
The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).
On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Assessment in this course will be comprised of: written and/or oral examinations, assignments as well as mandatory seminar work. At the beginning of the course it will be decided on what types of assessment used.

Students who do not pass the regular examination are given the opportunity to do a reexamination shortly after the regular exam.

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

Other
Upon request, a Swedish University course certificate will be awarded upon successful completion of the course.

Required Reading and Additional Study Material
Required Reading
Gray, D. (2010) *Doing research in Real World.* SAGE publications, London, UK. Latest Edition. 624 (624) pages.

Lazar, J., Feng, J. H., and Hochheiser H. (2010) *Research Methods in Human-Computer Interaction.* John Wiley & Sons Ltd, West Sussex, UK, Latest Edition. 419 (419) pages.

Jaccard, J. and Jacoby, J. (2010) *Theory construction and model-building skills: a practical guide for social scientists.* The Guilford Press, New York, Latest Edition. 150(393)pages.

DFM, *Distributed materials*, 150 pages