Linnæus University

Dnr: 2017/6607-3.1.2.2

Course syllabus

Faculty of Technology

Department of Informatics

1IL513 Vetenskapliga metoder och forskningsöversikt, 7,5 högskolepoäng

1IL513 Scientific Methods and Research Review, 7.5 credits

Main field of study
Informatics

Subject Group
Informatics/Computer and Systems Sciences

Level of classification
First Level

Progression
G1F

Date of Ratification
Approved 2013-09-02
Revised 2017-11-13 by Faculty of Technology. Removal of ECTS-grading scale.
The course syllabus is valid from spring semester 2018

Prerequisites
45 credits in Informatics/Information Logistics or equivalent.

Objectives

The student is introduced to social science methods and methodologies, which are applied in informatics, and is exposed to the whole research cycle of a scientific study, from knowledge needs, through design and implementation, to final reporting. The student should acquire basic knowledge, skills, and judgments in respect to minor research studies. After completing the course the student should be able to:

- demonstrate knowledge of informatics, information logistics orientation, as a research topic
- demonstrate an understanding of the meaning of basic scientific concepts?
- carry out information and literature search
- formulate research question and purpose
- motivate, evaluate and select methods or approach/es relative to the issue
- describe and explain the pros and cons of various scientific methods in both quantitative and qualitative data collection
- use basic scientific methods of quantitative and qualitative data collection?

- use basic scientific methods of quantitative and qualitative data analysis
- be familiar with the structure and form of scientific papers
- understand and evaluate scientific papers

Content
The course covers:

- scientific literature search
- report format according to the requirements for degree project/first cycle paper
- practical training in data collection instruments
- theory and practice approaches in the field of computer and information sciences
- presentation of a scientific problem/planning report for a scientific paper in relevant field
- scientific paper in relevant subject

Type of Instruction
The teaching consists of lectures and seminars.

Examination
The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Assessment of student performance is made through written test and/or oral examinations and/or presentation of mandatory assignments. The assessment method is decided at the start of the course.

Students who do not pass the regular examination will be offered retrials close to the regular examination.

Course Evaluation
During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Required Reading and Additional Study Material
Required reading

Creswell, John W., Research Design. Qualitative, Quantitative, and Mixed Methods Approoaches. Sage Publications. 2009. Third edition. 260 pages.

Jacobsen, Dag Ingvar, Vad, hur och varför. Om metodval i företagsekonomi och andra samhällsvetenskapliga ämnen. Studentlitteratur. 2002. 503 pages.

Olivera F., Goodman P.S., Swee-Lin Tan S. Contribution Behaviors in Distributed Environments. MIS Quarterly, 2008, Vol. 32 No. 1, pp. 23-42/March

Haftor, D.M., Kajtazi, M. What is Information Logistics? An Explorative Study of the Research Frontiers of Information Logistics. (2009) Available: lnu.diva-portal.org/smash/get/diva2:344139/FULLTEXT01.pdf

Haftor, D.M. Exploring Opportunities of the Information Society. Information Logistics Research Program. (2009). URL will be provided by the school.

Supplementary reading

Chalmers, A. F., Vad är vetenskap, egentligen?, Nya Doxa, 1994.

Järvinen, P., On Research Methods. Tampere: Tampereen Yliopistopaino, 2001.

Eliasson, Annika, Kvantitativ metod från början., Studentlitteratur.2006.