



**Karolinska
Institutet**

Course syllabus for

Scientific Research Methods, 7.5 credits

Vetenskaplig forskningsmetodik, 7.5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Please note that the course syllabus is available in the following versions:

Autumn2013 , Autumn2014 , Autumn2015

Course code	5HI013
Course name	Scientific Research Methods
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Health Informatics
Level	AV - Second cycle
Grading scale	Excellent, Very good, Good, Satisfactory, Sufficient, Fail, Fail
Department	Department of Learning, Informatics, Management and Ethics
Decided by	Programnämnd 5
Decision date	2013-03-18
Revised by	Programme Committee 5
Last revision	2014-03-19
Course syllabus valid from	Autumn 2014

Specific entry requirements

Passed all courses from semester 1 and at least 10 credits from courses in semester 2 at the Master's programme in health informatics.

Objectives

The course aims to provide in-depth knowledge of research design and methodology and to train the student in writing a study plan and critically reviewing scientific literature.

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

Knowledge and understanding

- Understand different scientific research designs and methods
- Learn how to set up a research study
- Understand correct ways to refer to and cite from scientific literature

Skills and ability

- Discuss and explain differences between different research methods
- Perform literature reviews and reference relevant scientific literature

- Formulate a research plan

Assessment ability and attitudes

- Critically assess different research designs
- Analyse, set as contrast, compare and review scientific literature
- Discuss own view in relation to the published research

Content

The course includes:

- Research design
- Literature search and review
- Scientific writing
- Scientific presentation
- Critical scientific review
- Data types and data collection techniques
- Quantitative and qualitative methods and data analyses
- Ethical issues

Teaching methods

- Lectures
- Self-study
- Teacher-led group activities (workshops)
- Peer assessment

Examination

Individual assignment (A-F)

Oral presentation of group assignment (Pass/Fail)

The final grade is based on the grades of the individual assignments and an approved oral presentation of the group assignment.

Compulsory participation

All assignments and the oral presentation of the group assignment are compulsory. The course director decides if, and in that case how, absence may be compensated.

Transitional provisions

After each course occasion will the individual assignments be accepted at least 6 times within a 2-year period after the course.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education.

The course language is English.

Literature and other teaching aids

Health informatics research methods : principles and practice

Layman, Elizabeth; Watzlaf, Valerie J.

Chicago, Ill. : American Health Information Management Association, c2009. - xiii, 439 p.

ISBN:978-1-58426-181-0 : \$85.95 LIBRIS-ID:12452928

[Library search](#)

Denscombe, Martyn.

The good research guide : for small-scale social research projects

4th ed. : Maidenhead : Open University Press, cop.2010. - 373 p.

ISBN:9780335241408 (electronic bk.) LIBRIS-ID:12194897

[Library search](#)

Glasman-Deal, Hilary

Science research writing for non-native speakers of English

London : Imperial College Press, cop. 2010 - xiii, 257 s.

ISBN:9781848163096 (alk. paper) LIBRIS-ID:11775837

[Library search](#)