



**Karolinska  
Institutet**

Course syllabus for

## **Scientific theory and research methods, 7.5 credits**

Vetenskaplig teori och metod, 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:

Autumn2007 , Autumn2008 , Spring2011 , Autumn2011

|                            |  |
|----------------------------|--|
| Course code                | 2SP000   |
| Course name                | Scientific theory and research methods   |
| Credits                    | 7.5 credits  |
| Form of Education          | Higher Education, study regulation 2007  |
| Main field of study        | Nursing  |
| Level                      | AV - Second cycle  |
| Grading scale              | Pass with distinction, Pass, Fail  |
| Department                 | Department of Neurobiology, Care Sciences and Society                                    |
| Decided by                 | Programnämnden för sjuksköterskeutbildning och specialistutbildningar för sjuksköterskor |
| Decision date              | 2007-06-05   |
| Revised by                 | Programnämnden för sjuksköterskeutbildning och specialistutbildningar för sjuksköterskor |
| Last revision              | 2008-06-17   |
| Course syllabus valid from | Autumn 2008  |

### **Specific entry requirements**

Qualification as a nurse certified by the National Board of Health and Welfare

### **Objectives**

The aims of the course The aims of the course are that the students should have advanced their knowledge and understanding of scientific theory and method, research ethics and in the application of research nursing science with a focus on the specialist area. Furthermore, the student should have acquired an advanced scientific, critically reflective and research-ethical attitude. On completion of the course, the student should be able to: explain and analyse science and knowledge concepts related to nursing science directed towards the specialist area, argue for strengths and weaknesses of various research designs and methods, identify and analyse research-ethical aspects in research and development, critically review and evaluate scientific results of quantitative and qualitative research,

and systematic research surveys of relevance to nursing in the specialist area, argue for and formulate scientific issues based on an identified problem area of relevance to nursing in the specialist area

## Content

- science theory and method - Research ethics - quantitative research methodology including validity and reliability, research design, data collection methods and statistical analytical methods - qualitative research orientation/methodology including research design, data collection and analytical methods and criteria for validity and credibility - critical review (quality, assessment and interpretation) of scientific literature

## Teaching methods

The working methods of the course consist of introductory lectures and student-activating teaching - and working methods (individually, in groups and in seminars) on the basis of a, primarily, problem-oriented approach to learning. For self-study, work in groups and seminars, a web-based support for information and communication (PingPong) will be used. Work in groups and active participation in seminars and attendance at all scheduled group meetings is compulsory. The course is given both as distance education and as campus education. In the distance education, the number of physical meetings is limited to at most 2 days/7.5 credits.

## Examination

In case of absence from compulsory parts, turn to the course director. The examination is constituted by an individual written examination. The examination comprises all learning outcomes of the course. The grading system is Failed/Passed/Passed with distinction. A student without approved results after three completed examinations may be offered to take the course once more. However, there are at most six examination opportunities for each course. Examination times are announced at the beginning of the course.

## Other directives

Course evaluation takes place in accordance with the guidelines established by the Board of Education.

## Literature and other teaching aids

*Polit, Denise F.; Beck, Cheryl Tatano*

**Nursing research : generating and assessing evidence for nursing practice**

8. ed. : Philadelphia : Wolters Kluwer Health/Lippincott Williams & Wilkins, 2008 - xviii, 796 s.

ISBN:9780781794688

[Library search](#)

*Dahlgren, Lars; Emmelin, Maria; Winkvist, Anna*

**Qualitative methodology for international public health**

Umeå : Epidemiology and Public Health Sciences, Health Sciences, Departement of Public Health and Clinical Medicine, Umeå University, c 2004 - 219 s.

ISBN:91-7305-776-2

[Library search](#)

*Hulley, Stephen B.; Cummings, Steven R.; Browner, Warren S.*

**Designing clinical research**

3. ed. : Philadelphia : Lippincott Williams & Wilkins, 2006 - 384 s.

ISBN:0-7817-8210-4

[Library search](#)

*Johansson, Lars-Göran*

**Introduktion till vetenskapsteorin**

2., [utök.] uppl. : Stockholm : Thales, 2003 - 263 s.

ISBN:91-7235-037-7 LIBRIS-ID:9174657

[Library search](#)

*Ludvigsson, Jonas F.*

**Att börja forska - inom medicin och vårdvetenskap**

Lund : Studentlitteratur, 2002 - 352 s.

ISBN:91-44-01644-1

[Library search](#)

*Nortvedt, Per; Grimen, Harald*

**Sensibilitet och reflektion : filosofi och vetenskapsteori för vårdprofessioner**

Göteborg : Daidalos, 2006 - 301 s.

ISBN:91-7173-232-2

[Library search](#)