



**Karolinska  
Institutet**

Course syllabus for

# **Scientific Theory and Research Methods, 7.5 credits**

Vetenskaplig teori och metod i omvårdnad, 7.5 hp

This course syllabus is valid from autumn 2014.

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

Autumn2012 , Autumn2014 , Autumn2015 , Spring2016 , Autumn2017 , Spring2018 , Autumn2018 , Spring2022 , Autumn2022 , Spring2024 , Spring2025

Course code	2AM018
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, Fail
Department	Department of Clinical Science and Education, Södersjukhuset
Decided by	Programnämnd 9
Decision date	2012-05-29
Revised by	Programme Committee 9
Last revision	2014-04-10
Course syllabus valid from	Autumn 2014

## **Specific entry requirements**

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

## **Objectives**

The main aims of the course are that the student should have deeper his knowledge and his understanding in scientific theory, method and research ethics and in application of research in nursing with a specialisation in the expert area. Furthermore, the student should have acquired a deeper scientific, critical reflecting and research-ethical attitudes. The student should also demonstrate an understanding of the possibilities and limitations of the scholarship, its role in the society and the responsibility of people for how it is used

### **Part 1: Scientific theory and method (3 HE credits)**

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

- explain and analyse scholarship - and knowledge concepts related to nursing with a specialisation in the expert area
- identify and analyse research-ethical aspects in research and development work
- review and evaluate scientific results with relevance for nursing within the expert area critically

## **Part 2: Research design (4.5 HE credits)**

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

- argue for strengths and weaknesses with different research designs and methods
- argue too and formulate scientific issues from an identified problem area with relevance for nursing within the expert area

## **Content**

The course is divided into two Parts:

**Scientific theory and method, 3 hp** - theory of knowledge and research methodology

- critical review (quality audit, values and interpretation) of scientific literature

- Research ethics **Research design, 4.5 hp** - Research design

- Project plan for a scientific orientation degree project

## **Teaching methods**

The working methods intend to train a scientific approach through active knowledge acquisition, problem-solving, critical analysis and reflection. This requires an active participation in the learning process, and the student is allowed and is encouraged to take own responsibility. In this course, lectures, group discussions and individual study assignments occur.

## **Examination**

### **Part 1: Scientific theory and method (3 HE credits)**

The examination consists of active, reflective participation in web-based group discussion current research ethics and written individual examination concerning theory of knowledge and research methodology and critical review of scientific article.

### **Part 2: Research design (4.5 HE credits)**

The examination consists of written individual writing project plan for a scientific orientation degree project.

Students who do not pass a regular examination are entitled to re-sit the examination on five more occasions. Students without approved results after three examinations can be offered to retake the course or parts of it once more; subject to availability. If the student has failed six examinations/tests, no additional examination is given. Each occasion the student participates in the same test counts as an examination. Submission of a blank exam paper is regarded as an examination. In case a student is registered for an examination but does not attend, this is not regarded as an examination.

## **Other directives**

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

## **Literature and other teaching aids**

*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](#)

*Patton, Michael Quinn*

**Qualitative research & evaluation methods**

3. ed. : London : SAGE, cop. 2002 - xxiv, 598, [65] s.

ISBN:0-7619-1971-6 ; £40.00 LIBRIS-ID:5601820

[Library search](#)

*Ejlertsson, Göran*

**Statistik för hälsovetenskaperna**

2., moderniserade och utök. uppl. : Lund : Studentlitteratur, 2012 - 303 s.

ISBN:978-91-44-07048-3 LIBRIS-ID:13374003

URL: [Övningsmaterial](#)

[Library search](#)

*Hulley, Stephen B*

**Designing clinical research**

2013

LIBRIS-ID:15213039

*Johansson, Lars-Göran*

**Introduktion till vetenskapsteorin**

3., [utök.] uppl. : Stockholm : Thales, 2011 - 272 s.

ISBN:9789172350823 LIBRIS-ID:12129388

[Library search](#)

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

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

9.ed. : Philadelphia : Wolters Kluwer Health/Lippincott Williams & Wilkins, cop. 2012 [dvs 2011] - xiv, 802 s.

ISBN:978-1-60547-708-4 (hardback) LIBRIS-ID:12094617

[Library search](#)

**Vetenskaplig teori och metod : från idé till examination inom omvårdnad**

*Henricson, Maria*

1. uppl. : Lund : Studentlitteratur, 2012 - 590 s.

ISBN:978-91-44-07135-0 LIBRIS-ID:13537457

[Library search](#)