



**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 2012.

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	Programnämnd 9
Last revision	2013-04-26
Course syllabus valid from	Autumn 2012

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.

The course is web-based and is carried out on 9 weeks equivalent about 22 hours a week. The course includes about 7.5 HE credits and it includes total 3 compulsory meetings on KI Södersjukhuset . Other time is carry out the studies via web-based learning management system.

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.

The grading scale is Failed/Passed

Limitation of number the examination - and placement occasions:

For written examinations, it is required that student has right. Student that lacks passed results after three implemented examination sessions can be offered to go about parts or course once more. Failed placement may be reviewed once more.

Other directives

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

Literature and other teaching aids

Ejlertsson, Göran

Statistik för hälsovetenskaper

Lund : Studentlitteratur, 2003 - 275 s.

ISBN:91-44-03123-8 LIBRIS-ID:8353333

[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](#)

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](#)

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](#)

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](#)