



**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 spring 2025.

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	Education committee NVS
Last revision	2024-10-14
Course syllabus valid from	Spring 2025

Specific entry requirements

Qualification as a nurse certified by the National Board of Health and Welfare. Nursing degree of 180 credits (of which 15 credits are thesis) or Bachelor's degree in nursing. In addition, Swedish B/Swedish 3 and English A/English 6 with a minimum grade of pass/E are required.

Objectives

The main aim of the course is that the student should have advanced 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 an advanced scientific, critically reflective and research-ethical attitude.

Module 1: Scientific theory and method (3.5 credits) After completing the course, the student should be able to:

- Account for and integrate science and knowledge concept related to the main field of study nursing with a specialisation in the expert area
- Review and evaluate scientific results of quantitative and qualitative research with relevance for nursing within the expert area critically.
- Apply the research process and good academic custom and reference management at the scientific writing.

Module 2: Research design (4 credits) After completing the course, the student should be able to:

- Assess and analyze strengths and weaknesses with different research methods. Apply and evaluate research-ethical aspects
- Apply the research process, good academic practice and reference management in the scientific writing of a research plan for a proposed project.

Content

The course consists of two parts:

Scientific theory and method, 3.5 hp

Grading scale: GU

Engelsk beskrivning

- scientific methods in nursing research related to the expert area
- assessment and values of qualitative and quantitative nursing research
- research designs within quantitative and qualitative research and systematic literature studies.
- good academic custom and reference management at scientific writing

Research design, 4.0 hp

Grading scale: GU

Engelsk beskrivning

- research-ethical principles
- designs and methods for selection data collection and analysis related to aim and issues

Teaching methods

The teaching is based on a problem-oriented and collaborative approach to learning in which the tasks provide opportunities for the student to take active responsibility for their learning. The used teaching methods are individual assignments, group discussions, seminars and lectures. Participation in seminars is compulsory. Teaching support is given via web-based learning management system.

The education is carried out on 3/4 pace equivalent to 32 hours a week. The number of physical meetings is limited to at most 3-5 days. Other time is carry out the studies via web-based learning management system.

Examination

Module 1: Scientific theory and method (3.5 credits) The course component is examined through individual web-based and self-corrected examinations, individual written home examination and examination seminar.

Module 2: Research design (4 credits) The course component is examined by writing a project plan.

Students who do not pass a regular examination are entitled to re-sit the examination on five more occasions. This does not apply if the course has ceased or undergone major changes. If the student has failed six examinations, no additional examination is given. Each occasion the student participates in the same test counts as an examination. In case a student is registered for an examination but does not attend, this is not regarded as an examination. Submission of a blank exam paper is regarded as an examination. An electronic examination that has been opened via the learning management system counts as an examination session even if the examination is not submitted. Late submissions of examinations are not accepted. Students who have not submitted on time, are referred to re-examination.

Students without approved results after three examinations can be offered to retake the course or parts of it once more; subject to availability.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

Transitional provisions

For courses that have ceased or undergone major changes or where the course literature has changed significantly, there must be at least three additional examination opportunities (in addition to the regular ones) on the previous content and the previous literature for a period of at least one year from the time the change took place.

Other directives

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

Literature and other teaching aids

Vetenskaplig teori och metod : från idé till examination inom vård- och hälsovetenskap

Henricson, Maria

Upplaga 3 : Lund : Studentlitteratur, [2023] - 564 sidor

ISBN:9789144161389 LIBRIS-ID:p6schdfgm0lfm80n

[Library search](#)

Polit, Denise F.; Beck, Cheryl Tatano

Nursing Research : generating and assessing evidence for nursing practice

Eleventh edition : Philadelphia : Wolters Kluwer Health, [2021] - 839 pages

ISBN:9781975154141 LIBRIS-ID:4gf8d5hq2n5lwccf

URL: [Länk](#)

[Library search](#)

Vårdvetenskapliga begrepp i teori och praktik

Wiklund Gustin, Lena; Asp, Margareta

Tredje upplagan : Lund : Studentlitteratur, [2022] - 447 sidor

ISBN:9789144139555 LIBRIS-ID:11w0z437j5txh8tr

[Library search](#)

Ejlertsson, Göran

Statistik för hälsovetenskaperna

Tredje upplagan : Lund : Studentlitteratur, [2019] - 279 sidor

ISBN:9789144122694 LIBRIS-ID:8jv80nr76h70c6m3

[Library search](#)

Forskning och skrivande : konsten att skriva enkelt och effektivt

Booth, Wayne C.; Colomb, Gregory G.; Williams, Joseph M.; Bizup, Joseph; Fitzgerald, William T. Nilsson, Björn

Andra upplagan : Lund : Studentlitteratur, [2019] - 424 sidor

ISBN:9789144129327 LIBRIS-ID:v5wwk5b6s6t8zzxf

[Library search](#)

God forskningssed

Reviderad utgåva : Stockholm : Vetenskapsrådet, 2017 - 82 s.

ISBN:978-91-7307-352-3 LIBRIS-ID:21388308

URL: [Fritt tillgänglig via Vetenskapsrådet](#)

[Library search](#)

Johansson, Lars-Göran

Introduktion till vetenskapsteorin

Fjärde upplagan : Stockholm : Bokförlaget Thales, [2018] - 272 sidor

ISBN:9789172351141 LIBRIS-ID:pz05f60zm66bxl3v

[Library search](#)

Patton, Michael Quinn

Qualitative research & evaluation methods : integrating theory and practice

4. ed. : Thousand Oaks, California : SAGE Publications, Inc., [2015] - xxi, 806 p.

ISBN:9781412972123 LIBRIS-ID:17225368

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