



Course syllabus for

# **Scientific Approach and Methods for Quality Improvement 2, 3 credits**

Vetenskapligt förhållningssätt och metoder för kvalitetsutveckling 2, 3 hp

This course syllabus is valid from autumn 2017.

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

[Autumn2013](#) , [Autumn2014](#) , [Autumn2015](#) , [Autumn2016](#) , Autumn2017 , [Autumn2023](#) , [Spring2025](#)

|                            |  |
|----------------------------|--|
| Course code                | 1RS049   |
| Course name                | Scientific Approach and Methods for Quality Improvement 2                              |
| Credits                    | 3 credits  |
| Form of Education          | Higher Education, study regulation 2007  |
| Main field of study        | Radiography  |
| Level                      | G2 - First cycle 2   |
| Grading scale              | Pass, Fail   |
| Department                 | Department of Clinical Science, Intervention and Technology                            |
| Decided by                 | Programnämnd 6 (Biomedicinska analytikerprogrammet och Röntgensjuksköterskeprogrammet) |
| Decision date              | 2013-04-18   |
| Revised by                 | Education committee CLINTEC  |
| Last revision              | 2017-04-27   |
| Course syllabus valid from | Autumn 2017  |

## **Objectives**

### Part 1

After completing the course the student should be able to:

- explain and describe the difference between descriptive and analytical statistics
- interpret and apply basic statistical tests
- explain the relationship between the current method and science theoretical concepts
- explain the theory and application of methods for improvement

### Part 2

After completing the course the student should be able to:

- describe what knowledge can be achieved with qualitative methods, compare the methods of literature compilation, review articles and meta-analyzes
- describe various methods of data collection, the size of the material and ethical considerations

related to data collection and analysis in qualitative studies

- explain the qualitative tended late meaning, and the meaning of the concepts of validity, reliability, value transmission and transparency
- explain the concept of evidence-based working
- demonstrate the ability of the application of an evidence-based approach to make assessments with consideration to relevant scientific, social and ethical aspects

## Content

**Quantitative methods, 1.5 hp Qualitative methods, 1.5 hp**

## Examination

Part 1: The section data is examined at an examination seminar and self-test on Ping Pong, while section improvement work theories and practices are examined through a summary of the literature.

Part 2: From problems compiling current scientific literature.

To pass on the elements and the course, approved participation in compulsory activities such as group work, seminars and literature studies.

In consultation with the course examiner, the student can obtain assignment of absence from a compulsory part.

If the course is examined by a extern exam, or other assignments with deadlines, a latest submission date is given at the introduction of the course. In cases where a completion is required a new date for latest submission is set. If the requirements for submission are not fulfilled the student is given the opportunity to submit the exam or the assignment at the next time course is given. Reasons for not meeting deadlines may be taken under consideration by examiner.

## Literature and other teaching aids

*Greenhalgh, Trisha*

**Att läsa vetenskapliga artiklar och rapporter : grunden för en evidensbaserad vård**

1. uppl. : Lund : Studentlitteratur, 2012 - 309 s.

ISBN:978-91-44-07271-5 LIBRIS-ID:12543003

[Library search](#)

*Edström, Anders; Svensson, Carina; Olsson, Jesper*

**Att mäta för att veta : praktiska råd och tips om mätning och uppföljning i samband med utvecklings- och förbättringsarbete i hälso- och sjukvården**

Stockholm : Sveriges kommuner och landsting, 2005 - 52 s.

ISBN:91-7164-018-5 LIBRIS-ID:9867701

URL: [Fritt tillgänglig via Sveriges kommuner och landsting](#)

[Library search](#)

*Forsberg, Christina; Wengström, Yvonne*

**Att göra systematiska litteraturstudier : värdering, analys och presentation av omvårdnadsforskning**

2., [uppdaterade] utg. : Stockholm : Natur & Kultur, 2008 - 215 s.

ISBN:978-91-27-10016-9 (inb.) LIBRIS-ID:10558164

[Library search](#)

*Nordenström, Jörgen*

**Evidensbaserad medicin i Sherlock Holmes fotspår**

4., [omarb.] uppl. : Stockholm : Karolinska University Press, 2007 - 106 s.

ISBN:978-91-85565-12-2 LIBRIS-ID:10352883

[Library search](#)

*Harris, Michael; Taylor, Gordon*

**Medical statistics made easy 2**

2. ed. : Bloxham : Scion, cop. 2008. - xii, 115 p.

ISBN:978-1-904842-55-2 (pbk.) LIBRIS-ID:11894343

[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](#)

*Malterud, Kirsti*

**Kvalitativa metoder i medicinsk forskning : en introduktion**

3., [uppdaterade] uppl. : Lund : Studentlitteratur, 2014 - 286 s.

ISBN:9789144094984 LIBRIS-ID:16600544

[Library search](#)