



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](#)