



**Karolinska  
Institutet**

Course syllabus for

# **Introduction to Radiographic Research and Research Methodology, 15 credits**

Introduktion till radiografisk forskning och forskningsmetodik, 15 hp

This course syllabus is valid from autumn 2019.

Course code	2QA289
Course name	Introduction to Radiographic Research and Research Methodology
Credits	15 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Radiography
Level	Second cycle, has second-cycle course/s as entry requirements
Grading scale	Fail (U) or pass (G)
Department	Department of Clinical Science, Intervention and Technology
Decided by	Education committee CLINTEC
Decision date	2019-01-24
Course syllabus valid from	Autumn 2019

## **Specific entry requirements**

Degree of Bachelor of Science in Diagnostic Radiology Nursing about 180 credits or Degree of Bachelor med main subject radiography. In addition to this is required completed courses of 45 credits at second cycle level. In addition, proficiency in Swedish and English equivalent to Swedish B/Swedish 3 and English A/English 6.

## **Objectives**

After completing the course, the student should be able to:

- reflect and explain relationships between disciplinary research domain radiography and the knowledge that is produced in this field
- reflect on how the future radiology can influence and influence of current research
- compare and understand scientific concepts and methods in the radiographic research domain
- analyse and assess current problems in the radiographic disciplinary research domain
- describe the different stages from application for research education to publication
- apply a systematic working method to search critically review and interpret information as a basis for research plan
- apply the scientific writing process at writing of a research plan
- develop and state arguments in oral and written presentations

- reflect on and apply ethical aspects in the own research plan

## Content

The course is divided into three parts:

### **Radiography as field of research, 3.0 hp**

Grading scale: GU

Aim with component is to promote the academic development in main field of study radiography. Course give student a deeply scientific understanding of the radiographic field by, based on radiographic examination methods and radiological diagnoses and interventions, focus on current issues and development tendencies in the area. By means of established scientific methods, these issues and development tendencies based on aspects of diagnostic quality, economics and availability are problematised.

### **Radiographic methods of research, 4.5 hp**

Grading scale: GU

In this part learns oneself students understand and apply different methods for generating new knowledge, such as quantitative, qualitative methods and systematic literary surveys. Focus is placed at to understand and implement statistical calculations and qualitative analyses as well as literary surveys where mainly meta-analyses come to apply.

Strong emphasis comes also be placed at information retrieval and strategies to find relevant scientific literature. Student review and analyse this scientific literature.

### **To write a scientific proposal, 7.5 hp**

Grading scale: GU

Component starts with a presentation of the different stages from application for research education to publication.

Thereafter formulate student, based on a during course defined research issues together with supervisor a research plan.

In component train student to develop and state arguments in oral and written presentations.

## Teaching methods

Working methods for course is lectures, supervision and seminars.

## Examination

Component *Radiography that field* is assessed through written and oral presentation of literary survey.

Component *Radiographic research methods* assess through written review based on course's literature.

Component *To write a research plan* assess by student write and present a research plan as well as review and objects on another student's work.

Students who do not pass a regular examination are entitled to re-examination on five more occasions. If the student has failed six examinations/tests, no additional examination is given. An examination occasion is valid as an occasion if the student has gone through the exam. Cases in which a student is registered for an examination but does not attend, will not be viewed as an examination occasion.

## Transitional provisions

Students will be allowed to take the examination up to one year after the closing of the course. The examination can be carried out according to an earlier literature list during a period of one year after the date of a renewal of the literature list.

## Other directives

Evaluation of the course will be carried out according to the guidelines that are established by the Board of Education at Karolinska Institutet.

The course syllabus replaces the course syllabus 2QA231, Introduction to radiographic research and research methodology.

Language of instruction: Swedish

## Literature and other teaching aids

### *Mandatory Literature*

*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](#)

*Forsberg, Christina; Wengström, Yvonne*

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

4. rev. utg. : Stockholm : Natur & kultur, 2016 - 216 s.

ISBN:9789127146549 LIBRIS-ID:18897539

[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](#)

### *Recommended Literature*

*Creswell, John W.*

#### **Research design : qualitative, quantitative, and mixed methods approaches**

4th ed. : Thousand Oaks : SAGE Publications, c2014. - xxix, 273 s.

ISBN:9781452226095 LIBRIS-ID:14007632

[Library search](#)

*Harris, Michael; Taylor, Gordon*

#### **Medical Statistics Made Easy**

3. ed. : Scion Publishing Ltd, 2014 - 116 s.

ISBN:978-1-907904-03-5 LIBRIS-ID:19217337

[Library search](#)

*Renberg, Bo*

**Bra skrivet väl talat : handledning i skrivande och praktisk retorik**

2., [rev.] uppl. : Lund : Studentlitteratur, 2013 - 177 s.

ISBN:9789144088242 LIBRIS-ID:14069868

[Library search](#)

*Widerberg, Karin*

**Vetenskapligt skrivande : kreativa genvägar**

Lund : Studentlitteratur, 2003 - 103 s.

ISBN:91-44-03040-1 LIBRIS-ID:9057016

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