



Course syllabus for

## **Radiology 1, 4.5 credits**

Röntgendiagnostik 1, 4.5 hp

This course syllabus is valid from spring 2024.

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

[Spring2008](#) , [Spring2009](#) , [Spring2010](#) , [Autumn2010](#) , [Autumn2011](#) , [Spring2021](#) , [Spring2022](#) , [Spring2023](#) , [Spring2024](#)

Course code	1RS002
Course name	Radiology 1
Credits	4.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Radiography
Level	G1 - First cycle 1
Grading scale	Fail (U), pass (G) or pass with distinction (VG)
Department	Department of Clinical Science, Intervention and Technology
Decided by	Programnämnden för Röntgensjuksköterskeprogrammet
Decision date	2007-12-10
Revised by	Education committee CLINTEC
Last revision	2023-10-10
Course syllabus valid from	Spring 2024

## **Specific entry requirements**

Mathematics 2a or 2b or 2c, Natural Sciences 2, Social Sciences 1b or 1a1+1a2.

## **Objectives**

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

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- apply medical imaging terminology in the radiological material
- describe anatomical structures and imaging criteria when using conventional and computed tomography examinations
- justify the use of contrast medium in imaging and functional diagnostic examinations.
- evaluate imaging materials based on referral content

## **Content**

There are general protocols for various radiographic examinations that serve as fundamental guidelines for the number and technique of image projections of different organs or body parts. These projection standards serve as imaging criteria and are the radiographer's tools for creating images of assessable quality. Subsequently, they enable more detailed quality assurance to ensure that the right imaging material is available for diagnostic purposes.

Main parts in the course consist of methodology for radiographic projections, anatomical structures and image quality. The course takes its starting point in previously acquired knowledge in anatomy in healthy human. Based on this knowledge, the student is trained to identify anatomic structures in the radiological image material of the nervous system, thorax, abdomen and skeleton. This includes conventional x-ray and computed tomography examinations. The course also deals with contrast medium and its use in the diagnostic imaging. For sustainable development, contrast media management is discussed. The course also covers ethical aspects related to the execution of imaging and functional examinations, as well as image management.

## **Teaching methods**

The education consists of lectures and image seminars.

The examiner decides whether, and if so, how absence from compulsory educational elements can be taken again. Study results cannot be reported until the student has participated in compulsory course elements or compensated for any absence in accordance with instructions from the examiner. Absence from a compulsory course element could mean that the student can not retake the element until the next time the course is offered.

## **Examination**

The course is examined through individual written examination.

In case of students absence of a compulsory task, the examiner of the course may allow a complementary assignment

The student is entitled to a total of six test occasions to get passed.

In connection to the course three occasions will be given One within the course, two during the following examinations. In certain cases, it is required that the student submits an exemption application before he/she get the results of his/her latest completed examination. Three more opportunities will be provided as described above when the course is run next time.

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**

If the course is closed or is subjected to substantial changes, the student has the right to be examined under a previous course syllabus within a year from the date of decision.

## **Other directives**

Course evaluation will be carried out in accordance with the guidelines established by the Committee for Higher Education at Karolinska Institutet.

## **Literature and other teaching aids**

*Lisle, David.*

### **Imaging for students**

4th ed. : London : Hodder Arnold, 2012. - ix, 292 p.

ISBN:1444164821 (e-book) LIBRIS-ID:14206255

[Library search](#)

*Moeller, Torsten B.; Reif, Emil.*

### **Pocket atlas of radiographic anatomy**

3rd ed. : Stuttgart : Thieme, c2010 - xi, 388 p.

ISBN:978-3-13-784203-3 LIBRIS-ID:11934526

[Library search](#)

*Möller, Torsten B.; Reif, Emil*

### **Pocket atlas of sectional anatomy : computed tomography and magnetic resonance imaging. n Vol. 1, p Head and neck**

3. ed., rev. and updated /b Torsten B.Moeller, Emil Reif : Stuttgart : Thieme, 2007 - ix, 264 s.

ISBN:3-13-125503-X (GTV) LIBRIS-ID:10257344

[Library search](#)

*Möller, Torsten B.; Reif, Emil*

### **Pocket atlas of sectional anatomy : computed tomography and magnetic resonance imaging. n Vol. 2, p Thorax, heart, abdomen and pelvis**

3. ed., rev. and updated : Stuttgart : Thieme, cop. 2007 - viii, 247 s.

ISBN:3-13-125603-6 (GTV) LIBRIS-ID:10322889

[Library search](#)

### **Radiologi**

*Blomqvist, Lennart; Zackrisson, Sophia*

Upplaga 2 : Lund : Studentlitteratur, 2022 - 668 sidor

ISBN:9789144129013 LIBRIS-ID:8pz0dxzt6ctcn629

[Library search](#)

*Feneis, Heinz; Dauber, Wolfgang*

### **Anatomisk bildordbok**

*Spitzer, Gerhard; Brinkman, Ingrid*

5., utökade uppl. /b [fackgranskning: Håkan Aldskogius] : Stockholm : Liber, 2006 - [4], 520 s.

ISBN:91-47-05301-1 LIBRIS-ID:10162715

URL: <http://www2.liber.se/bilder/omslag/100/4705301o.jpg>

[Library search](#)

*Wicke, Lothar; Firbas, Wilhelm; Schmiedl, Roland*

### **Atlas of radiologic anatomy**

4., English ed. : Munich ; Baltimore : Urban & Schwarzenberg, 1987 - 288 s.

ISBN:0-8067-2114-6 (Baltimore) LIBRIS-ID:5707799

[Library search](#)

*Sand, olav; et al*

### **Människokroppen : Fysiologi och anatomi**

Stockholm : Liber, 2007 - 544s

ISBN:9789147084357

[Library search](#)

