



**Karolinska
Institutet**

Course syllabus for

Radiology 1, 4.5 credits

Röntgendiagnostik 1, 4.5 hp

This course syllabus is valid from spring 2021.

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

Spring2008 , Spring2009 , Spring2010 , Autumn2010 , Autumn2011 , Spring2021 , Spring2022 , Spring2023 , Spring2024 , Spring2025

| | |
|----------------------------|---|
| 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 | Pass with distinction, Pass, Fail |
| 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 | 2020-10-19 |
| Course syllabus valid from | Spring 2021 |

Specific entry requirements

Standardised admission requirements F.1.1.

Objectives

On completion of the course, the student should be able to:

- * describe how contrast differences arise in the diagnostic image material.
- * identify and name anatomic structures in the diagnostic image material and explain normal features.
- * use correct medical term for positioning of the organs and the method of applied examination methods.
- * explain and motivate the use of contrast medium in radiological examinations.
- * describe, at a general level, commonly used methods for conventional x-ray examinations
- * evaluate images based on image quality criteria

Content

Course main parts 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 examinations and examinations with magnetic resonance imaging and computer tomography.

In the course, an adequate medical terminology is trained based on the radiological images and examination methodology.

The course also deals with contrast medium and its use in the diagnostic imaging.

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 in two steps through individual oral and 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

3rd ed. : London : Hodder Arnold, 2007. - 1 online resource (x, 283 p.)

ISBN:978-1-4441-1364-8 (electronic bk.) LIBRIS-ID:12100472

[Library search](#)

Möller, Torsten B.; Reif, Emil

Pocket atlas of radiographic anatomy

2nd ed., rev. and enl. : Stuttgart ; a New York : Thieme, 2000. - ix, 374 p.

LIBRIS-ID:10332052

URL:

<https://lt.ltag.bibl.liu.se/login?url=http://www.thieme.com/ebooklibrary/flexibook/pubid-521955621/index>
z Extern access endast anställda och studenter vid LiU

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

Aspelin, Peter; Pettersson, Holger

1. uppl. : Lund : Studentlitteratur, 2008 - 848 s.

ISBN:978-91-44-03887-2 (inb.) LIBRIS-ID:10948825

URL: <http://www.studentlitteratur.se/omslagsbild/artnr/31995-01/height/320/width/320/bild.jpg>

[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](#)