

SYLLABUS

Radiography in position to computerised tomography with Clinical Practice 7.5 credits M0054H

Radiografi med inriktning mot datortomografi

Course syllabus admitted: Autumn 2019 Sp 1 - Spring 2021 Sp 4

**DECISION DATE
2019-02-26**

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Radiografi med inriktning mot datortomografi

First cycle, M0054H

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G VG *	Radiologi	Medicine

Main field of study

Radiography

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and The course assumes knowledge equivalent to:

- M0089H Radiography - imaging systems and methods
- M0088H Medical Science - in-depth studies in anatomy and pathology
- M0057H Radiography in position to conventional radiology with Clinical Practice
- M0064H Scientific specialization in radiography
- M0074H Radiography - Nursing at Advanced Diagnostics

The course requires furthermore the following passed courses or test:

- M0085H Radiography, basic course I
- M0086H Radiography, basic course II
- M0067H Radiography Nursing interventions in position radiography with Clinical Practice
- M0066H Radiography Nursing Techniques in position Radiography with Clinical Practice
- M0026H Medical Science: Anatomy and Physiology in position to Radiology
- M0029H Medical Science: Microbiology, Infection Control and Infection Disease
- M0070H General Pharmacology, Contrast Agents and Pharmaceutical Calculation
- M0050H Radiation Science and Radiological Modalities
- Test 0012 Clinical practice in M0057H Radiography in position to conventional radiology with Clinical Practice

Selection

The selection is based on 1-165 credits.

Examiner

Johan Kruse

Course Aim

After the course, the student should be able to carry out, independently under supervision, frequently occurring computed tomography (CT) investigations and administrate drugs/contrast agents in a safe way to the patient which includes:

- Being able to apply examination methodology, demonstrate skills and explain how image formation takes place to confirm diagnosis in common computed tomography examinations
- Being able to describe underlying topographic anatomy and pathology for frequently occurring computed tomography examinations
- Being able to apply interview, observation and communication methodology to assess, plan, carry out, evaluate and document nursing for individuals with disease and their next of kin in connection with computed tomography examinations
- Being able to describe and discuss current drugs and the field of use of contrast agents, adverse drug reactions, risks and contraindications for CT examinations, and being able to use and explain the measurement program OmnivisR to calculate GFR and explain the different contrast agent phases in computed tomography examinations
- Being able to apply radiation protection measures and consider patient safety and security in connection with computed tomography examinations
- Being able to demonstrate a professional attitude and evaluate his/her ability to carry out computed tomography examinations and identify personal areas of improvement
- Being able to describe the different tasks during computed tomography examinations and interact with the participating staff
- Being able to describe and apply current laws, statutes and local guidelines that apply to computed tomography examinations

Contents

- Radiological methodology, technology and diagnostics in CT examinations
- Topographic anatomy and pathology in CT examinations
- Nursing in CT examinations
- Radiation protection in computed tomography examinations
- Seminar with advanced assignments and workshop with clinical patient case with various problem solutions
- Work placement in computed tomography units

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The course offers students introducing lectures in the different sections in order to reach course's objectives. The lectures take place partly on campus or via the distance-bridging technology. The course contains compulsory laboratory sessions/seminar with advanced assignments and patient cases. The students also acquire knowledge and are trained to reach the learning objectives via the work placement. Via the assessment interviews, the student trains critical self-evaluation and to assess own needs of additional knowledge.

The content of course elements and its teaching methods specifically geared towards radiology nursing profession.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. The student's work placement is examined and assessed by showing skills and knowledge during the work placement with an implemented exam-patient and via the assessment form. The work placement assessment takes place in a two-party conversation between student and supervisor. The theoretical part is examined through assignments, a written individual examination and through seminars / laboratory work. Alternative examination formats may be used.

Only one re-examination/transfer is given for the course in relation to the work placement. If there are special circumstances, additional retakes/transfers can be granted. Special circumstances are those stated in Regulations of the National Agency for Higher Education HSVFS 1999:1.

Remarks

This is a first-cycle course.

This course, with clinical placement are subject to *Special rules regarding clinical placement* according to Head of Department decision.

Study supervision is in the course room in Canvas.

Overlap

The course M0054H is equal to M0109H

This course replaces M0041H

Literature. Valid from Spring 2016 Sp 3

Aspelin, P. & Pettersson, H. (ed.) (2008). Radiologi. (1st ed.) Lund: Studentlitteratur

Berglund, E. & Jönsson, B. (2007). Medicinsk fysik. (1st ed.) Lund: Studentlitteratur.

Bontrager, K.L. & Lampignano, J.P. (2014). Textbook of radiographic positioning and related anatomy. (8th ed.) St. Louis, Mo.: Mosby/Elsevier.

Ehrlich, R.A. & Coakes, D.M. (2013). Patient care in radiography: with an introduction to medical imaging. (8th ed.) St. Louis, Mo .: Elsevier Mosby .

Reference literature may be added and is stated in the study guide.

Course offered by

Department of Health Sciences

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0012	Seminar	U G#	1	Mandatory	A19	
0013	Written individual exam	U G VG *	2	Mandatory	A19	
0014	Clinical practice	U G#	4.5	Mandatory	A19	

Last revised

by 2019-02-26

Syllabus established

by Prefekt vid Institutionen för hälsovetenskap 2010-02-19