

SYLLABUS

Radiography in position to magnetic resonance imaging with Clinical Practice 7.5 credits M0055H

Radiografi med inriktning mot magnetresonanstomografi

Course syllabus admitted: Spring 2020 Sp 3 - Spring 2021 Sp 4

**DECISION DATE
2019-10-30**

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Radiografi med inriktning mot magnetresonanstomografi

First cycle, M0055H

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

Kirsi Bohm

Course Aim

After the course, the student should, independently and under supervision, be able to carry out frequently occurring magnetic resonance imaging (MRI) examinations 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 magnetic resonance imaging examinations
- Being able to describe underlying topographic anatomy and pathology for frequently occurring magnetic resonance imaging 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 magnetic resonance imaging examinations
- Being able to describe and discuss current drugs and the field of use of contrast agents, adverse drug reactions, risks and contraindications for MRI
- Being able to discuss and apply safety measures and observe patient safety and security in connection with MRI examinations
- Being able to show a professional attitude and evaluate his/her ability to carry out magnetic resonance imaging examinations and identify personal areas of improvement
- Being able to describe the different tasks during MRI examinations and interact with the participating staff
- Being able to describe and apply current laws, statutes and local guidelines that apply in MRI examinations

Contents

- Radiological methodology, technology and diagnostics in MRI examinations
- Topographic anatomy and pathology in MRI examinations
- Nursing in MRI examinations
- Safety in MRI examinations
- Work placement in MRI units
- Seminar with advanced assignments and workshop with clinical patient case with various problem solutions

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 the student demonstrating skills and knowledge during the 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 M0055H is equal to M0110H

This course replaces M0042H.

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 can 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
0011	Clinical practice	U G#	3.5	Mandatory	A14	
0012	Written individual exam	U G VG *	2	Mandatory	A19	
0013	Seminar	U G#	2	Mandatory	A19	

Last revised

by 2019-10-30

Syllabus established

by Prefekt vid Institutionen för hälsvetenskap 2010-02-19