



## COURSE SYLLABUS

# Radiography and Patient Care in Thoraxradiology, 20 credits

*Radiography and Patient Care in Thoraxradiology, 20 högskolepoäng*

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Course Code:	HRTN11	Education Cycle:	First-cycle level
Confirmed by:	Utbildningsrådet Oct 25, 2010	Disciplinary domain:	Medicine
Valid From:	Aug 20, 2011	Subject group:	MT2
Version:	1	Specialised in:	G2F

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### Intended Learning Outcomes (ILO)

Upon completion of the course the student should have the

#### *Knowledge and understanding in order to*

- explain the basics of thorax radiological examination procedures
- describe anatomical structures in thorax
- describe diseases in the thorax region(cause, risk patients, symptom, prognosis, treatment) examined with computed tomography (CT), magnetic resonance imaging (MRI) or angiography and interventional radiology.
- explain the findings of the images in relation to the disease and type of examination
- describe different aspects of contrast media commonly used at thorax radiological examinations
- describe general and specific aspects of patient care in relation to thorax radiological examinations
- describe aspects of patient safety concerning radiation protection and MRI safety
- explain the basics in Swedish health care system and in Swedish radiography
- show for the subject some understanding of Swedish language and culture.

#### *Skills and abilities in order to*

- under supervision perform conventional radiography, basic CT examinations and basic MRI examinations
- under supervision participate in Angiography and interventional examinations
- find and analyze scientific articles concerning thorax radiology
- oral and written presentations of thorax radiology
- discuss similarities and differences regarding conventional radiological procedures and radiation protection in different countries
- under supervision take responsibility for patient care and information related to CT, MRI and Angiographic examinations.

#### *Judgement and approach in order to*

- take active part in ethical discussions with regard to the profession.

## Contents

- conventional radiography
- thorax anatomy
- diseases in the thorax region; lungs, heart, vessels
- thorax diagnostics in relation to CT, MRI and Angiography
- general and specific patient care
- examination procedures and techniques
- patient safety
- ethics
- case study in thorax radiology
- swedish language, culture and health care system

### Clinical studies:

- CT examinations
- MRI examinations
- Angiography and Interventional examinations

### Subjects examined:

- thorax radiology
- clinical training in diagnostic radiologic department
- seminars
- case study
- swedish language and culture

## Type of instruction

The studies are characterized by active search for knowledge, problem solving, reflection and critical analysis. The work methods are based on flexible learning and can vary between individual work, group work, seminars and lectures. Five weeks of clinical training takes place under organized supervision.

Language of instruction is English.

## Prerequisites

Besides basic eligibility for higher education studies, there are special eligibility requirements.

Eligibility to the course requires that: - the students have completed 2 years of their radiographer education at a university which is part of the Erasmus Radiography Group exchange programme within Erasmus/Socrates (or the equivalent).

## Examination and grades

The course is graded A, B, C, D, E, FX or F.

The examination will be based on

- attending to mandatory seminars with a satisfactory contribution
- written and oral presentations assessed to pass
- five weeks of clinical placement under organized supervision passed. It includes the supervisions written assessment of clinical training.

One examination and two opportunities to re-take the examination are arranged for each course. Students who do not achieve a pass on either of these occasions will be able to retake the examination on a later occasion. A student who has failed an examination for a particular course or sub-course twice may request that the head of the department, appoint a different examiner.

6 weeks of clinical training takes place under organized supervision.

Students may be examined early in the course if, due to shortcomings in their knowledge and skills, they commit serious errors during their clinical training. An individual plan is to be drawn up for students who fail in this way. The shortcomings which have come to light are to be listed, the support available to the student is to be noted and times for examination and re-examination of the shortcomings stated. Clinical training may only be resumed when the student has demonstrated that (s)he has remedied the shortcomings.

### Examiner

A university lecturer serves as the course examiner.

Registration of examination:

Name of the Test	Value	Grading
Examination	20 credits	A/B/C/D/E/FX/F

### Other information

#### Attendance requirements

Attendance is compulsory at clinical training (minimum 32h/week) and at seminars.

#### Course literature

Students read sections of the literature of relevance to their clinical training.

Examination is based on basic literature and supplementary literature.

Bontrager, K.L., & Lampignano, J.P. (2010). *Textbook of Radiographic Positioning and Related Anatomy*. St Louis: Elsevier Mosby.

Bushong, S. C. (2008). *Radiologic Science for Technologists. Physics, Biology, and Protection*. St. Louis: Mosby.

Möller, T. B., Reif, E. (2007). *Pocket Atlas of Cross-Sectional Anatomy CT And MRI. Volume 2: Thorax, Heart, Abdomen, And Pelvis*. New York: Thieme Medical Publishers.

Tortora, G., Grabowski, S. (2006). *Principles of Anatomy and Physiology*. New York: Wiley.

Weir, J. (2010). *Imaging Atlas of Human Anatomy*. Philadelphia: Elsevier

Westbrook,C., Kaut,C. (2005). *MRI in Practice*. Oxford: Blackwell Science Ltd.

### Supplementary literature

Ballinger, P. W., Frank, E. D. (2003). *Merrill's Atlas of Radiographic Positions and Radiologic procedures. Vol. 1.* St. Louis: Mosby.

Ballinger, P. W., Frank, E. D. (2003). *Merrill's Atlas of Radiographic Positions and Radiologic procedures. Vol. 2.* St. Louis: Mosby.

Ballinger, P.W., Frank, E.D. (2003). *Merrill's Atlas of Radiographic Positions and Radiologic procedures. Vol. 3.* St. Louis: Mosby.

Selected literature in Patient care and Ethics.

Scientific articles.

The most recent edition of the course literature should be used.

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