



## COURSE SYLLABUS

# Radiography - Reporting and Image Processing at Acute Injuries in the Skeleton, 20 credits

*Radiography - Reporting and Image Processing at Acute Injuries in the Skeleton, 20 högskolepoäng*

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<b>Course Code:</b> HRRN11	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Utbildningsrådet Feb 18, 2020	<b>Disciplinary domain:</b> Medicine
<b>Valid From:</b> Jan 4, 2021	<b>Subject group:</b> MT2
<b>Version:</b> 1	<b>Specialised in:</b> G2F
<b>Reg number:</b> Department of Natural Science and Biomedicine	<b>Main field of study:</b> Radiography

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## Intended Learning Outcomes (ILO)

Upon completion of the course the student should have the ability to:

### Knowledge and understanding

- demonstrate in-depth knowledge of normal anatomical variations in the appendicular and the axial skeleton of conventional X-ray examinations and the computed tomography
- demonstrate in-depth knowledge of common pathological changes in acute injuries within the appendicular and the axial skeleton
- demonstrate in-depth knowledge of basic radiographic image reconstruction methods optimised for the appendicular and the axial skeleton
- explain the basics in Swedish health care system and radiography, showing some understanding of Swedish language and culture.

### Skills and abilities

- assess and analyse image quality adapted for the appendicular and the axial skeleton within conventional X-ray examination and computed tomography
- identify and describe pathological changes in acute injuries within the appendicular and the axial skeleton by conventional X-ray examination and computed tomography
- show ability clinical work according to patient safety in the peri-radiographic process.

### Judgement and approach

- critically review and evaluate own efforts and values related to the radiographers code of ethics
- evaluate collaboration with other professions from an ethical point of view
- assess and meet the caring needs of patients from an equality perspective.

## Contents

- conventional radiography
- computed tomography
- Red dot, Radiographers Abnormality Detection Schemes (RADS)

- general and specific patient care
- patient safety
- ethics
- normal anatomy and variations
- pathology
- image quality
- the peri-radiographic process
- Swedish language, culture and health care systems

### **Type of instruction**

The course is conducted in the form of 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.

The teaching is conducted in English.

### **Prerequisites**

General entry requirements and completed courses to at least 120 credits within the Radiographer education (or the equivalent).

### **Examination and grades**

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

The course examination will be based upon two individual written assignments, an individual written examination, two oral presentations and completed clinical placement.

A senior lecturer serves as the course examiner.

Registration of examination:

<b>Name of the Test</b>	<b>Value</b>	<b>Grading</b>
Logbook	4.5 credits	A/B/C/D/E/FX/F
Seminars	2 credits	A/B/C/D/E/FX/F
Written assignment	2 credits	A/B/C/D/E/FX/F
Individual written examination	2 credits	A/B/C/D/E/FX/F
Clinical studies/Clinical placement	7.5 credits	U/G
Swedish language	2 credits	A/B/C/D/E/FX/F

### **Other information**

Eligibility to the course requires that the student has completed 2 years of their Radiographer education at a university which is part of the Erasmus Radiography Group exchange programme within Erasmus/Socrates.

**Temporary interruption of a course**

The School of Health and Welfare may suspend a student's participation in clinical training or other practical activities during the course if a student demonstrates gross unfitness/incompetence when applying skills. A student whose work-based training or other practical activities have been canceled due to gross inadequacy/incompetence may not continue study before the course director or examiner has verified and approved that the student has the knowledge and skills required. In connection with a decision on suspension, the decision will specify the grounds on which the suspension is based. After the decision, an individual plan will be established for the student where knowledge and skills gaps are specified, the degree of support the student is entitled to, and the terms and date(s) for examination(s).

**Limitations on the number of occasions for placement**

Interruption of placement or other clinical/practical activities due to gross unfitness/incompetence when applying skills is considered a missed occasion. Students who have failed three placements in the same course must discontinue their studies in the program in question. A student who has been failed three times on their placement will be offered counselling with student counsellor.

**Course literature**

Ballinger, P. W., & Frank, E. D. (2003). *Merrill's atlas of radiographic positions and radiologic procedures. Vol. 1*. St. Louis, MO: Mosby.

Dauber, W. (2007). *Pocket Atlas of Human Anatomy*. Stuttgart, Germany: Thieme.

Möller, T. (2000). *Normal findings in radiography*. New York, NY: Thieme.

Tortora, G. (2007). *Introduction to the human body the essentials of anatomy and physiology*. Harlow, England: Benjamin Cummings.

Weir, J., Abrahams, P.H. & Spratt, J.D. (2009). *Imaging Atlas of Human Anatomy*. Philadelphia, PA: Elsevier.

Scientific articles will be added.

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