COURSE SYLLABUS Ref M 2008/1800

Adopted by the NOU on 23 October 2008.
Valid from spring term 2009

LUNDS UNIVERSITET
Medicinska fakulteten

Board of Health Sciences Education, NOU

RSJA30 Radiography and Patient Care in Neuroradiology

20 higher education credits First cycle

General Information

Main field

Medicine

Subject

Radiography

Type of course

International course at undergraduate level. The course is part of an exchange programme within Erasmus/Socrates. The course complies with the guidelines of the Higher Education Ordinance (1993:100) with later amendments.

Language of instruction

English

Learning Outcomes

Knowledge and understanding

On completion of the course, students shall be able to:

- explain the basics of neuroradiological examination procedures
- give a penetrating explanation of one chosen neuroradiological examination
- describe important anatomical neurological structures
- describe a neurological disease (cause, risk patients, symptom, prognosis, treatment) commonly examined with computed tomography (CT) or magnetic resonance imaging (MRI)
- explain the findings of the images in relation to the disease and type of examination
- describe different aspects of contrast media commonly used at neuroradiological examinations
- describe general and specific aspects of patient care in relation to neuroradiological examinations
- describe aspects of patient safety concerning for instance radiation protection or MRI safety
- show some understanding of Swedish language and culture

Skills and abilities

On completion of the course, students shall be able to:

- write acase study concerning a patient's examination in neuroradiology describing anatomy, disease, radiographic procedures, patient care and radiation protection
- find and analyse scientific articles concerning chosen project
- present a case study in neuroradiology
- actively participate in conventional radiological examinations
- discuss similarities and differences regarding conventional radiological procedures and radiation protection in

different countries
- perform commonly occurring CT examinations under supervision
- perform commonly occurring MRI examinations under supervision
- take responsibility for patient care and information related to CT and MRI examinations under supervision

Judgment and approach

On completion of the course, students shall be able to:
- discuss their own strengths and weaknesses in relation to examination procedures
- discuss their own strengths and weaknesses in relation to patient safety
- discuss their own strengths and weaknesses in relation to patient care
- discuss their own strengths and weaknesses in relation to cooperation with tutors, other staff members and other students
- take active part in ethical discussions with regard to the profession

Course Content

Theoretical studies:
- Neuroanatomy
- Neurological diseases
- Neuro diagnostics in relation to CT and MRI
- General and specific patient care
- Examination procedures and technique (CT and MRI)
- Patient safety
- Ethics
- Case study in neuroradiology

Clinical studies:
- General radiographic examinations
- CT examinations
- MRI examinations

Subjects examined

Neuroradiology	8 credits
Clinical training in diagnostic radiology	12 credits
Seminar	0 credits
Swedish Language and Culture	0 credits

Instruction and Examination

The studies are characterised 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.

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.

Clinical training takes place under organised 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."

Grades

Grades are set for a completed course. One of the grades Pass or Fail is awarded.

A student who has passed a course will be given a certificate to that effect by the higher education institution, on request.

Admission Requirements

- 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 equivalent knowledge.

Literature

See appendix.

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Literature

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

Examination is based on basic literature and supplementary literature.

Basic literature

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

Möller, T. B., Reif, E. (Latest edition). *Pocket Atlas of Cross-Sectional Anatomy CT And MRI*. Volume 1: Head, Neck, Spine, and Joints. New York: Thieme Medical Publishers.

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

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

Supplementary literature

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

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

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

Literature in Patient care and Ethics, selected in consultation.

There will also be academic dissertations and scientific papers.