



**Karolinska  
Institutet**

Course syllabus for

# **Radiotherapy Nursing- Clinical Education, 7.5 credits**

Verksamhetsförlagd utbildning inom strålbehandling, 7.5 hp

This course syllabus is valid from spring 2014.

Please note that the course syllabus is available in the following versions:

Spring2014 , Autumn2021 , Spring2022

Course code	2ON012
Course name	Radiotherapy Nursing- Clinical Education
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Nursing
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Neurobiology, Care Sciences and Society
Decided by	Programme Committee 9
Decision date	2013-11-28
Course syllabus valid from	Spring 2014

## **Specific entry requirements**

A professional status qualification as a nurse awarded by the Swedish National Board of Health and Welfare.

A student who has failed the work-based education due to such a serious lack in terms of knowledge, skills or attitude that patient safety or patients' confidence in medical care is jeopardised is qualified to a new opportunity only when the individual action plan has been completed.

## **Objectives**

The aim of the course is that the student should advance his/her practical knowledge and his/her understanding of radiotherapy and nursing in radiotherapy.

*On completion of the course, the student should be able to:*

- Explain the process of unplanned and planned radiation treatment preparation such as: information, fixation/patient positioning, image processing, markings and documentation
- Explain the procedure in target marking and definition of risk organs
- Interpret a dose planning and treatment protocol. Carry out a simple dose planning

- Give information and teaching to the patient before radiotherapy
- Explain the process of re-start including security measures, verifications and measurements
- Turn the theory of the treatment plan into the practice of treatment. Cancel, treat and understand the principles of the most commonly occurring radiotherapies.
- Give information and teaching to the patient before radiotherapy and about evidence-based nursing actions in treatment reactions in, for example, oral cavity/throat, intestine, urinary bladder and skin
- Demonstrate knowledge of documentation routines specific for radiotherapy. Account for current routines for safety and incidence reporting
- Show ability to independently identify and reflect around the need of additional knowledge and skills within the subject area

## Content

Placement in, i.e. therapy equipment, dose planning and computer tomography.

## Teaching methods

Studies take place according to the LäraNära concept implying active learning independently or in collaboration with others interleaved with the course meetings, including i.a. seminars and presentations. Teaching is based on a problem-oriented and collaborative approach to learning in which forms of work provide opportunities for the student to take active responsibility for their learning. The used teaching methods are self-assessments, problem-solving, own reflection and analysis of situations are included in the concept. Läranära consists of a computer program distributed as a cd-rom or on Internet. It is connected to a web server, where information is collected. Work in groups and active participation in seminars and attendance at all scheduled group meetings is compulsory. For carrying out the course, access to a computer (PC) with Internet connection is assumed.

## Examination

For each study group and course, two compulsory course meetings of about a day each, will be organised. For participation in a course meeting, previous assignments should be approved. Active participation in the meetings is required for a pass-grade. The grading system is Failed/Passed.

Students who have not passed the regular examination are entitled to participate in five examinations. Students without approved results after three examinations can be offered to retake the course or parts of it once more; subject to availability. If the student has failed six examinations, no additional examination will be offered. Submission of a blank examination is regarded as an examination. Examination for which the student registered but not participated in does not count as an examination. Home examination that has been opened via the learning management system counts as an examination session even if the examination is not submitted. Late submissions of examinations are not accepted. Students who have not submitted on time are referred to reexamination.

The clinical training can be repeated once.

The examiner can immediately interrupt a student's clinical training if the student shows such serious deficiencies in knowledge, skills or attitudes that the patient's safety or the patient's trust for the health care is jeopardized. When clinical training is interrupted due to above mentioned reasons the student has failed the examination and one period is considered consumed. In such cases, an individual action plan should be set up for required activities and examinations, before the student is given a possibility for a new clinical rotation in the course.

## Literature and other teaching aids

*Aus; Gunnarsson; Nodbrant*

**Brakyterapi med palladium-102**

Läkartidningen, <http://lakartidningen.se/2000/temp/pda21507.pdf> : 1997 - nr 32-33

*Bentel, Gunilla C.*

**Patient positioning and immobilization in radiation oncology**

New York : McGraw-Hill, 1999 - 211 s.

ISBN:0-07-134158-7 (pbk)

[Library search](#)

*Dean, David; Herbener, Thomas E.; Knopsnyder, Daniel*

**Cross-sectional human anatomy**

Philadelphia : Lippincott Williams & Wilkins, 2007 - xiii, 191 s.

ISBN:978-0-683-30385-8 LIBRIS-ID:11728105

[Library search](#)

*Degerfält, Jan*

**Strålbehandling : historik, fysik, omvårdnad**

Lund : Studentlitteratur, 1998 - 204 s.

ISBN:91-44-00308-0 LIBRIS-ID:8352583

[Library search](#)

*Jönsson, BA; Jönsson, L*

**Strålningsfysik och strålskydd**

Medicinsk strålningsfysik, unds universitet ej publicerat arbete : 2006

*Knöös*

**Fysikaliska data för radioterapifysik**

Radiofysik Lund ej publicerat arbete : 1996

*Stanton, Robert; Stinson, Donna*

**Applied physics for radiation oncology**

Rev. ed. : Madison, Wisconsin : Medical Physics Publishing, 2009 - xv, 392 s.

ISBN:978-1-930524-40-8 LIBRIS-ID:11880947

[Library search](#)

**Statens strålskyddsinstitut samlingstillstånd för strålbehandling och tillståndsvillkor**

[www.ssi.se](http://www.ssi.se) :

**Strålskyddslagen 1988:220**

[www.ssi.se](http://www.ssi.se) :

*Dobbs, Jane; Barrett, Ann; Ash, Daniel*

**Practical radiotherapy planning.**

3rd ed. / b Jane Dobbs, Ann Barrett, Dan Ash : London : Arnold, c1999 - vi, 394 p., [8] p. of plates

ISBN:0-340-70631-7

[Library search](#)

*ICRU report nr 50*

**Prescribing, Recording and Reporting Photon Beam Therapy**

International Commission on RadiationUnits and Measurements, [www.icru.org](http://www.icru.org), 1993

*Isaksson, Mats*

**Grundläggande strålningsfysik**

2., [kompletterade och uppdaterade] uppl. : Lund : Studentlitteratur, 2011 - 330 s.

ISBN:9789144066196 LIBRIS-ID:11957596

[Library search](#)

*Khan, Faiz M.*

**The physics of radiation therapy**

4th ed. : Philadelphia : Lippincott Williams & Wilkins, c2010 - 531 s. + appendix

ISBN:9780781788564 LIBRIS-ID:11711307

[Library search](#)