



Erasmus-exchange course information

Duration: January, February, March, beginning April (13 weeks)

Radiotherapy program

Course unit code: *ERAS RT*

Theoretical Radiotherapy: 10 ECTS

- Radiotherapy physics
- Radiobiology in practice
- Image recognition
- Treatment Planning 3D to IMRT
- IGRT
- Essay special techniques

Practical Radiotherapy: 8 ECTS (skillslab and clinical placement)

- Practics in Treatment Planning
 - from 3D conformal Radiotherapy to IMRT of breast, pelvic and head and neck region
- Practics in Radiotherapy Physics
- Practics in IGRT techniques
- Clinical outplacement (2–4 days)

Social programme: 2 ECTS (language, culture, etc.)

- Including Erasmus presentations



Curriculum radiotherapy programme 2012

INTRODUCTION

This folder contains information about the objectives and work forms for the module Radiotherapy ERASMUS. It also contains information about the lecturers associated with the module. The module stretches over 13 weeks, from January till April 2012. During this module the Dutch students will be given the opportunity to travel to foreign institutions that are taking part in the ERASMUS-programme.

The module description that follows is intended for incoming foreign ERASMUS students. The programme offered to exchange students abroad is considered equivalent in credit terms to the programme offered here. The module focuses on anatomy, oncology, physics, radiobiology, 3D and IMRT Treatment Planning-skills and IGRT. Most lessons are accompanied by Dutch MBRT-students.

The module comprises 20 ECTS. 10 ECTS in theory, 8 ECTS in a practical (skillslab-) setting and 2 ECTS in social programme.

Tutor / lecturers Radiotherapy:

Frank R. ten Wolde, Frank.tenWolde@INHOLLAND.nl module coordinator
Radiotherapy.

DESCRIPTION OF RADIOTHERAPY PROGRAMME

Objectives

- To develop skills in producing an optimal 3 dimensional and IMRT dose distribution of breast, pelvic and head and neck region.
- To develop skills in Radiotherapy Physics treatment planning
- To develop skills integrating Radiobiology in treatment planning.
- To evaluate the products as well as the process of preparation the treatment of these patients.
- To develop skills in IGRT techniques.
- Further develop communicative and co-operative skills.
- Has insight into the role of the Radiotherapy-technician in relation to the organization of a Radiotherapy department in the Netherlands.

Learning outcomes

- Be able to produce an optimal 3 D dose distribution.
- Be able to produce an IMRT dose distribution
- Be able to argue the choices you made.
- Be able to reflect on your products and your process.

General Issues in Radiotherapy:

- 3 dimensional conformal Treatment Planning, using CT, BEV, MLC and DVH.
- IMRT treatment planning integrating radiobiology and radiophysics
- Patient Care
- Combination of Radiotherapy and others therapies

Tumor areas:

- Breast
- Pelvis
- Head and Neck

LEARNING METHODS/STUDENT PARTICIPATION

The following learning methods will be used which requires participation in:

- Group meetings
- Lectures
- Skills training using with and without lecturer
- Individual study
- Project and report writing in English
- Oral presentations of the report in English

Skillslab training

- Practical training on Radiotherapy equipment in the skillslab on CMS treatment planning system and Theraview IGRT system

Clinical outplacement (1 to 2 weeks)

- Each student will complete a clinical placement, excursions and 10 weeks of practical placement in skills lab, including general Radiotherapy

The intercultural, international composition of the class will be an important resource in the learning and work processes during the module. Lectures and seminars will be in English. Group work will also be conducted in English.

Mandatory studies

In this module all the group meetings with and without lecturer are **mandatory**.

Absence from mandatory studies

The group will keep count of absence from group meetings. After the last meeting in each situation a list will be handed to the group tutor. A student who has not been present at the mandatory learning sessions is responsible for handing a written suggestion as to how (s)he will acquire imparted knowledge to the group tutor.

ASSESSMENT

Study requirements:

- Attending to mandatory classes with a satisfactory contribution

- Practical examination by marked tasks
- You are equipped with extensive knowledge to produce an optimal 3 dimensional and IMRT isodose distribution.
- You are able to evaluate all stages of / in the procedures.
- Presentations assessed to pass
- Clinical placement passed
- Practical exam assessed to pass

LITERATURE

Handed out:

- Study guide Radiotherapy
- Literature in the library INHolland University of applied sciences Haarlem