inholland academy

VMAT Treatment planning online course

- A Course on IMRT, VMAT and SABR -

You have a bachelor's degree or higher and want to acquire profound knowledge and skills in the field of state of the art Treatment Planning. We offer RT professionals a programme on treatment planning for advanced RT that is complementary to their basic training.

Introduction to the course

The various and rapid developments in the field of 3D and 4D imaging, treatment planning and treatment delivery have lead to more accurate and optimal radiotherapy (RT) treatments. Intensity-Modulated Radiation Therapy (IMRT) is an example of an advanced treatment technique that has been or is being implemented in many RT clinics. During this course the RT professional will acquire the necessary knowledge and skills in the field of state-of- the-art Treatment Planning (TP) of Intensity-Modulated Radiation Therapy (IMRT), Volumetric Modulated Arc Therapy (VMAT) and Stereotactic Ablative Radiatiotherapy (SABR). The online course "VMAT TP" has been developed by the research group Medical Technology of Inholland University (InhU) of Applied Sciences. The central part of this course is the one week IMRT Treatment Planning hands-on course, which can be followed separately.

Content

Interactive teaching sessions, focused on situations in practice, are an important part of the course. The course consits of three parts. In the first part of the course the participants perform treatment planning and study tasks and they start a case study. The results of the treatment planning tasks and a proposal for the case study are presented in online sessions.

For the online sessions the software tool Microsoft LYNC is used. During the online group sessions the participants present the results of their (treatment planning) tasks and each presentation is followed by discussion. During the online meetings there it's encouraged to discuss the topics covered in the study tasks.

The online meetings are scheduled by the course director. The meetings are scheduled in specific time slots in the aftenoon and evening.

Apart from this scheduled online meetings, several weblectures will be available. This can be viewed several times and at moments that are most convenient for the individual participants.

The core parts of the course is a one week intensive hands-on course in November. During this hands-on course, organized locally at Inholland University in Haarlem, participants will carry out exercises for different tumour sites exploring the potentials and the tools the systems offer. Experienced users of the systems and representatives of the companies will guide the hands-on sessions.

In the third part of the course the participants continue with the data collection of their case study and they will perform one complex treatment planning task.
In the last online session in Januari the results of the case study are presented.

The assessment of this course consists of a case study report and a portfolio of the results of all the treatment planning exercises and some clinical work.

Target group and aims

The course is suitable for students with a bachelor's degree or higher who have some experience in IMRT treatment planning and want to expand their knowledge and skills.

Potential students include:
- radiation therapy technologists (RTTs),
- medical physicists/radiation oncologists in training,
- medical engineers working in RT departments.

RTTs, physicists or engineers working for companies producing RT products will also benefit from this course.

After completion of the course the student will be able to:
- Design optimal treatment plans for IMRT, VMAT and SABR treatment techniques, using state-of-the art TP systems;
- Understand the principles of IMRT optimisation, including the influence of physical and biological factors;
- Estimate the influence of the size and position of the target volume and organs at risk on TP optimisation;
- Critically analyse the possibilities and limitations of TP systems with respect to inverse IMRT planning;

Organizers and teachers

The course is organised by the Inholland University of Applied Sciences together with the research group Medical Technology of Inholland Univesity. The course directors are: Emmy Lamers and Jelle Scheurleer.

The teaching faculty consists of radiation oncologists, medical physicists and radiation therapy technologists from various centres in The Netherlands. RT-product experts from the participating vendors will also participate in the hands-on course.

Requirements

For the online sessions the software tool Microsoft LYNC is used. So a computer with webcam and headset and a stable broadband internet connetion is required. A wired network connection is prefered. A headset is required because of the better audio quality and it minimizes the amount of noise in the virtual meeting room.

Participants that are not able to use the TPS at their own clinic may use the TPS of Inholland University. The University has Monaco and XiO as TPSs. These are accessible over the internet by a Citrix connection.

Further Information

For more information about the course please contact:
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For all practical information, including accommodation and public transport from Amsterdam railway station and airport to the course venue, please contact the secretariat of the course:
e-mail: gsw.academy@inholland.nl
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Type	Master module
Level	post-graduate / master
Price	€ 1750,-
Duration	JUL 2017 - FEB 2018
Studyload	280 hours (10 European Credits)
Venue	Inholland University of Applied Sciences, Haarlem, The Netherlands.
Needed for online sessions	computer with headset and webcam, broadband internet connection (the computer should have wired network connection)

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