

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) have become part of modern-day radiotherapy treatment. During this course the RT professional will acquire the necessary knowledge and skills in the field of Treatment Planning (TP) of Intensity-Modulated Radiation Therapy (IMRT), Volumetric Modulated Arc Therapy (VMAT) and Stereotactic Ablative Radiatiotherapy (SABR).

Due to COVID-19 measures this course is completely offered as an online course.

Content

Interactive teaching sessions, focused on situations in practice, are an important part of the course. The course consists of three parts.

In the first part of the course the student performs four treatment planning exercises. In addition participants are also required to work on a detailed case study, which forms part of the course assessment. During the online group sessions participants present the results of their (treatment planning) tasks and each presentation is followed by a discussion period.

In the second part of the module the skills of the participants are deepened by another four patient cases that are definitely more complex and depending on the skills of the participant he can select for each tumorsite a treatment planning task that matches best to his skills. In this second part

the participants are challenged to explore the potential of their treatment planning systems.

In the last part of the module participants complete their case study and perform one complex treatment planning case. In the last online session in Januari the results of the case study are presented.

The online meetings are scheduled by the course director. Zoom is used as platform for the online sessions. 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 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;
- 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 University. 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 platform zoom is used. So a computer with webcam and headset and a stable broadband internet connection is required. A wired network connection is preferred. 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. These are accessible over the internet by a Citrix connection.

Further Information

For more information about the course please contact:

Jelle Scheurleer e-mail: Jelle.Scheurleer@inholland.nl
 phone +31-615 279 629

For all practical information, please contact the secretariat of the course:

e-mail: gsw.academy@inholland.nl
 phone: +31-725 183 635

Type	Master module
Level	post-graduate / master
Price	€ 1920,-
Duration	JAN 2021 - JUL 2021
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)

Inholland Academy
 PO-Box 403
 1800 AK Alkmaar, The Netherlands
 T +31(0)72 518 35 98 /
 T +31(0)10 439 99 99
 F +31(0)72 518 35 89
www.inhollandacademy.nl