

Course Title	Radiotherapy, IMRT Treatment Planning skills and theory
Term	Term 3
Inholland Faculty	Faculty of Health, Sports & Social Work
Course code	Erasmus Radiotherapy (ERG)
Inholland location	Haarlem
Cycle	first cycle / undergraduate / Bachelor level
Number of ECTS	20
Language of instruction	English
Course content	<ul style="list-style-type: none"> <li>• Radiotherapy physics</li> <li>• Radiobiology in practice</li> <li>• Image recognition</li> <li>• Treatment Planning 3D to IMRT</li> <li>• IGRT</li> <li>• Essay special techniques</li> <li>• Practics in Treatment Planning, from 3D conformal Radiotherapy to IMRT of breast, pelvic and head and neck region</li> <li>• Practics in Radiotherapy Physics</li> <li>• Practics in IGRT techniques</li> <li>• Clinical outplacement ( 2–4 days)</li> </ul>
Lecturer(s)	Coordinator RT: Mirjam Soumokil - de Bree (mirjam.soumokil@inholland.nl)
Learning outcomes	<ul style="list-style-type: none"> <li>• To develop skills in producing an optimal 3 dimensional and IMRT dose distribution of breast, pelvic and head and neck region</li> <li>• To develop skills in Radiotherapy Physics treatment planning</li> <li>• To develop skills integrating Radiobiology in treatment planning.</li> <li>• To evaluate the products as well as the process of preparation the treatment of these patients.</li> <li>• To develop skills in IGRT techniques.</li> <li>• Further develop communicative and co-operative skills.</li> <li>• Have insight into the role of the Radiotherapy-technician in relation to the organization of a Radiotherapy department in the Netherlands.</li> <li>• Be able to produce an optimal 3 D dose distribution.</li> <li>• Be able to produce an IMRT dose distribution</li> <li>• Be able to argue the choices you made.</li> <li>• Be able to reflect on your products and your process.</li> </ul>

<p>Mode of delivery, planned activities and teaching methods</p>	<p>The following learning methods will be used which requires participation in:</p> <ul style="list-style-type: none"> <li>• Group meetings</li> <li>• Lectures</li> <li>• Skills training using with and without lecturer</li> <li>• Individual study</li> <li>• Project and report writing in English</li> <li>• Oral presentations of the report in English</li> <li>• Skillslab training</li> </ul> <p>Practical training on Radiotherapy equipment in the skillslab on CMS treatment planning system and Theraview IGRT system</p> <ul style="list-style-type: none"> <li>• Clinical outplacement (max. 2 – 4 days)</li> </ul> <p>Each student will complete a clinical placement, excursions and 10 weeks of practical placement in skills lab, including general Radiotherapy</p>
<p>Prerequisites and co-requisites (if applicable)</p>	<p>Prior practical and theoretical experience with RT is necessary to complete the course.</p> <p>This course is only available for radiation therapy students (and radiology students under restrictions) from institutes which are member of the Erasmus Radiography Group (ERG). Application only through ERG-coordinator of home-institute.</p>
<p>Recommended or required reading and/or other learning resources/tools</p>	<ul style="list-style-type: none"> <li>• Study guide Radiotherapy</li> <li>• Literature in the library Inholland University of Applied Sciences Haarlem</li> </ul>
<p>Assessment methods and criteria</p>	<ul style="list-style-type: none"> <li>• Attending to mandatory classes with a satisfactory contribution</li> <li>• Practical examination by marked tasks</li> <li>• Produce an optimal 3 dimensional and IMRT isodose distribution</li> <li>• Evaluate all stages of / in the procedures</li> <li>• Clinical placement</li> <li>• Poster and presentation</li> <li>• Practical exam</li> </ul>