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Radiation Physics

This module will give you a broad knowledge of medical physics as it applies to the clinical practice of radiotherapy. Theoretical as well as practical aspects of handling and calculating radiation doses will be covered. The course is modelled on the physics syllabus of the FRCR Part I examinations and will therefore provide suitable preparation for this professional examination.

Learning Outcomes

By the end of the module you should be able to:

- Explain the basic physics principles that underpin radiotherapy, e.g. types of radiation, atomic structure etc;
- Explain the principles of radiation dosimetry;
- Explain the principles of therapeutic radiation physics including X-rays, electron beam physics, radioactive sources, use of unsealed sources and Brachytherapy;
- Describe how to use radiotherapy equipment both for tumour localisation, planning and treatment;
- Define quality assurance and quality control, in the context of radiotherapy and the legal requirements;
- Explain the principles and practice of radiation protection, dose limits, screening and protection mechanisms.

Credits

20 credits

Module Dates

2014/2015 dates

15-19 Dec 2014
27 April - 1 May 2015

Assessment

After the end of the first week of teaching, the students will be required to complete a series of structured question problems, based around the requirements of the FRCR Part I examinations and contribute 50% towards the overall module mark. At the end of the second week of teaching, students will have to complete a critical appraisal based written assignment

Academics involved in the delivery of this module

- Dr Stuart Green, Head of Medical Physics, University Hospital Birmingham NHS Trust
- Hon Professor of Radiological Physics, School of Physics and Astronomy, University of Birmingham

Stand Alone Course

This module can be taken as a stand alone course if required. For further information please contact:

Programme Administrator

Tel: +44 (0)121 414 7672
Email: **clinicaloncology@contacts.bham.ac.uk (mailto:clinicaloncology@contacts.bham.ac.uk)**

Fee if taken as a stand alone course

£1100

Entry requirements if taken as a stand alone course

6 months oncology experience and holding a degree, preferably a 2.1 or equivalent qualifications in an appropriate medical/scientific subject.

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Course fact file

Type of Course: Continuing professional development, module

Contact

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