

PLEASE COMPLETE IN BLOCK CAPITALS

Surname: Forename:

Organisation:

Address:

..... Postcode:

Email: Tel No:

(Please provide your professional/academic email address)

Background experience:

How did you hear about this course? ICR website Recommendation

Other (please specify)

I would like to enrol for the following Course(s) *(Please tick)*

PRICES EUROS	Course 1	Course 2	Course 3	Course 4	Course 5
Standard price	£590 €695	£590 €695	£205 €245	£590 €695	£775 €910
University & Hospital Staff & all Trainees	£470 €555	£470 €555	£170 €200	£470 €555	£620 €730
Full time Students *	£255 €300	£255 €300	£145 €170	£255 €300	£335 €390

Course 3 available at £145 (€170) if booked with any other FULL course.
One or two day registration on Courses 4 & 5 is accepted and will be charged pro rata.

Total Cost: £.....

***Full time Students** - please forward a letter on headed notepaper signed by your tutor with your application confirming that you are a full-time student.

PAYMENT

Invoice – please raise a Purchase Order to – The Institute of Cancer Research, 123

Old Brompton Rd, London, SW7 3RP. **PO Number:** **PLEASE CONFIRM CORRECT INVOICING ADDRESS AND EMAIL ADDRESS FOR INVOICE TO BE SENT**

Bank Transfer Payment – please contact jessica.keegan@icr.ac.uk for details.

Do you wish to receive accommodation details? Yes No

Do you have any dietary requirements? Yes No

If 'Yes' please specify:

Do you require any special assistance? Yes No

If 'Yes' please specify:

Are happy for your details to be passed onto the course(s) lecturers and other delegates attending the

Physics of Medical Imaging Course(s) by way of an attendee list? Yes No

Please email this completed form to the course administrator:

Jessica Keegan e-mail: jessica.keegan@icr.ac.uk

Physics Department, The Royal Marsden NHS Foundation Trust, Downs Road, Sutton, Surrey. SM2 5PT UK Tel. +44 (0)20 8661 3075

THE PHYSICS OF MEDICAL IMAGING

Course 1: Mon 16 – Wed 18 Oct 2023

Magnetic Resonance Imaging and Spectroscopy

Course 2: Tue 14 – Thu 16 Nov 2023

Ultrasound Imaging

Course 3: Tue 20 Feb 2024

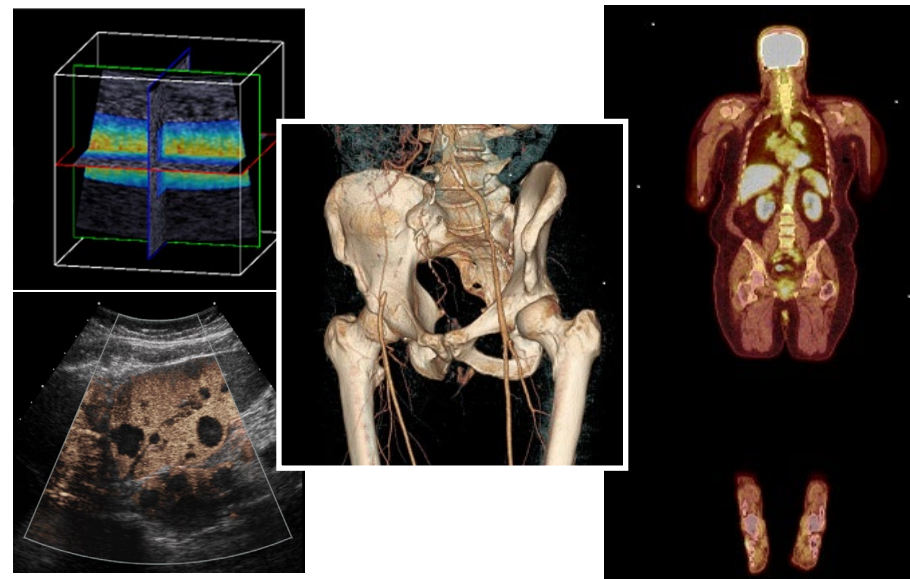
Image Theory, Perception and Processing

Course 4: Wed 21 – Fri 23 Feb 2024

Diagnostic Radiology and CT

Course 5: Tue 12 – Fri 15 Mar 2024

Nuclear Medicine



The Joint Department of Physics
The Institute of Cancer Research and
The Royal Marsden NHS Foundation Trust

PROGRAMME DESCRIPTION

The programme provides the necessary physics background that underpins day-to-day medical imaging physics activities. It is aimed primarily at new entrants to the profession, but should be of benefit to post-graduate students, post-doctoral research workers, physicist-managers, representatives of allied commercial organisations and anyone wishing to deepen or re-establish their understanding of the physics of medical imaging.

The faculty is composed mainly of physicists, many of whom are internationally renowned for their expertise. A selection of key talks delivered by clinicians and other scientists provides the necessary broader scientific and clinical perspective. Overviews of specialised or research related topics, such as MR Spectroscopy are given. There are many opportunities for informal discussions and there will be visits to the Department of Nuclear Medicine, Ultrasound, X-ray and Computed Tomography and the MR Units of The Royal Marsden NHS Foundation Trust and / or the research labs of the Institute of Cancer Research.

The programme consists of five separate courses. Each course is repeated annually. Registration on this form will be accepted for any combination of courses 1, 2, 3, 4 and 5. Cost (see back page for details) includes lunches and light refreshments and (for in person attendees on courses 2-5 only) a copy of Webb's Physics of Medical Imaging (2nd Edition, published 2012).

Details of all courses in the series are available on our website:
http://www.icr.ac.uk/medical_imaging_course

PROVISIONAL SYLLABUS

COURSE 1 – Magnetic Resonance Imaging and Spectroscopy (3 days)

The Magnetic Resonance Imaging & Spectroscopy module is offered as a stand-alone training course, introducing methods and applications of biomedical Magnetic Resonance Imaging and Spectroscopy.

This is a CPD course approved by IPEM.

Course Organiser: Dr S Doran, Tel: 020 8661 3718, email: simon.doran@icr.ac.uk
Course Administrator: Mrs J Keegan, Tel: 020 8661 3075, e-mail: jessica.keegan@icr.ac.uk

COURSE 2 – Ultrasound Imaging (3 days)

Fundamentals of ultrasound and its interaction with tissues; Acoustic fields, transducers and beam formation; Physical and engineering principles of ultrasound imaging, Doppler, microbubble contrast and elastography; Bioeffects and safety principles, Assurance of quality and acoustic safety of ultrasound diagnostic devices, Fields of medical application and research.

Course Organiser: Mr M O'Leary, Tel: 020 3437 6341, e-mail: mark.oleary@icr.ac.uk
Course Administrator: Mrs J Keegan, Tel: 020 8661 3075, email: jessica.keegan@icr.ac.uk

Front cover pictures: Top Left: Coloured elasticity image overlaid on a 3D B mode; Bottom Left: image of liver tumours with ultrasound contrast agent overlaid on normal B mode; Centre: volume-rendered bifemoral CT angiogram; Right: coronal slice of total body ¹⁸F¹⁸FDG PET/CT scan.

COURSE 3 – Image Theory, Perception and Processing (1 day)

Formal mathematics of medical imaging; Perception and interpretation of medical images; Image processing and display techniques.

Course Organiser: Mr E McDonagh, Tel: 020 7808 2512, e-mail: ed.mcdonagh@rmh.nhs.uk
Course Administrator: Mrs J Keegan, Tel: 020 8661 3075, email: jessica.keegan@icr.ac.uk

COURSE 4 – Diagnostic Radiology and CT (3 days)

Review of the x-ray and CT imaging chains; Digital Image receptors; Multislice CT design and performance; PACS; Quality control; System optimisation in clinical practice; Advances in x-ray and CT imaging.

Course Organiser: Mr E McDonagh, Tel: 020 7808 2512, e-mail: ed.mcdonagh@rmh.nhs.uk
Course Administrator: Mrs J Keegan, Tel: 020 8661 3075, email: jessica.keegan@icr.ac.uk

COURSE 5 – Nuclear Medicine (4 days)

This will consist of four one day courses that may be attended separately or in any combination.

1. Radionuclides and radiation protection
2. Physics of gamma camera and SPECT imaging
3. Physics of PET/CT
4. Internal dosimetry for molecular radiotherapy.

Topics covered include radiopharmacy, basic and advanced physics of molecular imaging and clinical applications.

Course Organiser: Dr I Murray, Tel: 020 8661 3715, e-mail: iain.murray@icr.ac.uk
Course Administrator: Mrs J Keegan, Tel: 020 8661 3075, email: jessica.keegan@icr.ac.uk

VENUE

Courses 1, 2 & 5 are held on the Sutton campus of The Royal Marsden Hospital and Institute of Cancer Research. Courses 3 & 4 are held on the Chelsea campus: <http://www.icr.ac.uk/contacts>

It may be possible to attend these courses virtually through online attendance. Please contact Jessica Keegan, Course Administrator, if you are interested in this option.

Please note – in person attendance on courses is enriched by interaction with speakers and other delegates, as well as small group tutorials and demonstrations on some courses. Online attendance may not offer the same course experience.

We use personal information for the purposes of course administration – which includes management of your course registration, processing your payment, communication of course joining information, certificates, post course materials and feedback questionnaire. We also use your contact information to keep you informed of other courses we offer which may be of interest to you. For further information on how we use your personal information, please check our privacy policy at www.icr.ac.uk/legal/privacy or contact dataprotectionofficer@icr.ac.uk.