

**Accelerator Design, Radiobiology & Quality Assurance,
Brachytherapy & Radiotherapy Verification Imaging**

Day 1: Tuesday 4th March 2025

08.25	Registration	
08.55 - 09:00	Welcome & Introduction	
09.05 - 09.55	Medical electron Linear Accelerators	TBA
10.00 – 10.55	Quality Control of Linacs	Rollo Moore
11.00	Refreshment break & discussion	
11.40 – 12.20	Production of a Clinical Beam	Professor Philip Mayles
12.25 – 13.05	Multileaf Collimators: Characteristics & Commissioning	David King
13.05	Lunch break	
14.05 – 15.05	Radiotherapy Fractionation	Dr Navita Somaiah
15.05 – 15.35	Managing Gaps	Dr Navita Somaiah
15.40	Refreshment break	
16.00 – 16.55	Accuracy and Quality in Radiotherapy: An overview	Professor Philip Mayles
17.00 – 17.40	IGRT Techniques	David Bernstein

Day 2: Wednesday 5th March 2025

09.00 - 10.00	Practical use of Radiobiology in Treatment Planning	Professor Philip Mayles
10.05 – 10.40	Introduction to Cell Biology	Dr Alex Backshall
10.45	Refreshment break	
11 05 – 12.00	Tumour Cell Radiobiology	Professor Alan Nahum
12.05 – 12.50	Radiobiology of normal tissues: A clinical perspective	Rita Simões
12.55	Lunch break	
13.55 – 14.50	Modelling the probability of Tumour Control (TCP)	Professor Alan Nahum
14.55 – 15.50	Modelling Normal Tissue Complication Probability	Dr Colin Baker
15.55	Refreshment break	
16.20 – 17.00	The Radiobiology of Brachytherapy	Professor Roger Dale
17.05 – 17.50	Tomotherapy	Dr Andrew Dumbill

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Day 3: Thursday 6th March 2025

09.00 –	Clinical Indications for Brachytherapy	Caroline Chapman
09.40		
09.45 –	Intracavitary Dosimetry	Margaret Bidmead
10.15		
10.20 –	Calibration and QA of Brachytherapy Sources	Dr Kate Roberts
10.45		
10.50	Refreshment break	
11.15 –	Gynaecology Cancers	Dr Alexandra Taylor
12.05		
12.10 –	Transperineal Prostate Brachytherapy	Peter Bownes
12.45		
12.50	Lunch break	
14.40 –	3D Image based Brachytherapy Planning	Professor Christian Kirisits
15.40		
15.45	Refreshment break	
16.00 –	Cyberknife	Julia Henderson
16.40		
16.45 –	Radiation Protection Issues in Brachytherapy	TBA
17.25		

Day 4: Friday 7th March 2025

09.00 –	Radiation Protection in External Beam	Dr Michael Thomas
09.40	Radiotherapy	
09.45 –	Image Handling in Radiotherapy	Professor Marcel van Herk
10.40		
10.45	Refreshment break	
11.05 –	Errors & Margins in Image Guided Radiation	Professor Marcel van Herk
12.00	Therapy & SBRT	
12.05 –	kV X-ray Units	Matthew James
12.35		
12.40	Lunch break	
13.55 –	IT Essentials for Radiotherapy	Richard Trouncer
14.35		
14.40 –	Image Guidance in Radiotherapy: Accuracy,	Dr Vibeke Hansen
15.35	Frequency & Dose & MPE Trials	
15.40	Refreshment break	
16.00 –	Quality Assurance In Clinical Trials	Olivia Naismith
16.30		
16.35 –	MR Linacs	Dr Simeon Nill
17.15		
17.20 –	Cheese & Wine	
19.00		

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**Day 5: Saturday 8th March 2025
Workshop Sessions
Practical Workshop Sessions
Assembly Point: Radiotherapy Basement at 9.00 am**

	09.15	10.05	10.50	11.15	12.05
Basic QA	1	2		3	4
Franklin					
Brachytherapy Treatment Planning – CT and MRI image based	2	3		4	1
Master Plan					
Iodine seeds & ultrasound for Prostate and examples	3	4		1	2
Beige Planning					
HDR, QA & Source Calibration	4	1		2	3
HDR Treatment Suite					

**Evaluation forms will be collected at the end of the course
Thank you**