

Timetable: A Training Course in MRI and MRS (2019)

	Monday 11 November 2019	
9.30	Welcome and Introduction	S Doran
9.40	Lecture 1. Basis of NMR	G Barker
10.25	Lecture 2. Relaxation parameters and spin echoes	J Winfield
11.10	Coffee	
11.45	Lecture 3 Magnetic field gradients, slice selection, frequency encoding	M Orton
12.30	Tutorial 1 in small groups	
13.00	Lunch	
14.00	Lecture 4. 2-D FT Imaging, k-space	G Barker
14.45	Lecture 5. Basic Imaging Sequences: Spin-echo, gradient echo	S Doran
15.30	Tea	
16.00	Lecture 6 Hardware – Magnets, Gradients and Eddy Currents	S Doran
16.45	Tutorial 2 in small groups	
17.30	Demonstration on scanner. Group 1 (Avanto)	
	Tuesday 12 November 2019	
9.30	Lecture 7. Hardware: RF requirements and RF coils	G Charles-Edwards
10.15	Lecture 8. Image contrast, resolution and signal-to-noise	TBC
11.00	Coffee	
11.30	Lecture 9. Safety Considerations	G Charles-Edwards
12.15	Lecture 10. MRI in Practice	M Schmidt
13.00	Lunch	
14.00	Lecture 11. MRI in Radiotherapy Planning	M Schmidt
14.45	Lecture 12. Image Artefacts	S Doran
15.30	Tea	
16.00	Tutorial 3 in small groups	
16.45	Lecture 13. Advanced Pulse Sequences and techniques	S Doran
17.30	TBC Demonstration on scanner. Group 2 (Avanto)	
	Wednesday 13 November 2019	
9.30	Lecture 14. Introduction to <i>in vivo</i> MR Spectroscopy	G Payne
10.15	Lecture 15. Processing MRS data	P Murphy
11.00	Coffee	
11.30	Lecture 16. Single voxel MRS	M Rata
12.15	Lecture 17. Introduction to Spectroscopic Imaging (CSI)	G Payne
13.00	Lunch	
14.00	Tutorial 4 in small groups	
14.45	Lecture 18. Flow and MR Angiography	M Graves
15.30	Tea	
15.55	Lecture 19. Introduction to Perfusion, Diffusion and Functional MRI	M Graves
16.55	Lecture 20. Clinical Examples of MRI	K De Paepe
17.25	Closing Remarks	S Doran