

## The Fundamentals of MRI course summary

Presented by Associate Professor Marc Agzarian, a radiologist with a passion for magnetic resonance imaging and an engaging teacher, this intensive two day course will provide a solid foundation to achieve a deeper understanding of MRI.

### Topics covered on day one

Spin, net magnetisation and the magnetic resonance signal  
Relaxation processes  
Spin echo imaging  
Gadolinium contrast media  
Inversion recovery, fat saturation and the Dixon method  
MRI equipment  
MRI safety  
Gradient echo imaging

### Topics covered on day two

Introducing  $k$ -space  
Applying  $k$ -space to MRI  
MRI sequences and  $k$ -space including faster imaging techniques  
Diffusion weighted imaging  
Magnetic resonance angiography and magnetic resonance venography  
Magnetic resonance spectroscopy

Associate Professor Marc Agzarian is the Clinical Director of South Australia Medical Imaging, the public sector medical imaging service in South Australia and the Campus Clinical Head of Medical Imaging at Flinders Medical Centre. He has been the Head of MRI at Flinders Medical Centre since 2011 and has had a long term affiliation with the College of Medicine & Public Health at Flinders University.