

Applied Physics Mini-course 1: MRI Physics

SCHEDULE:

Thursday, November 6, 2014 10:15 – 11:30 am; MSH, 5th floor, room 580:

- Lecture 1. The Origin of Signal, Noise and Signal-to-Noise Ratio (SNR) in MRI
- Online Module 1. *Please complete prior to lecture*

Thursday, November 13, 10:15 – 11:30 am; TGH, room 450A:

- Lecture 2. k-Space and Image Formation in MRI
- Online Module 2 & 3. *Please complete prior to lecture*

Thursday, November 27, 10:15 – 11:30 am; TGH, room 450A:

- Lecture 3. k-Space and Gradients
- Online Module 2 & 3. *Please review module prior to lecture*

Thursday, December 11, 10:15 – 11:30 am; TGH, room 450A:

- Lecture 4: Magnetic Resonance Imaging (MRI) Pulse Sequences
- Online Module 4: *Please complete prior to lecture*

Thursday, December 18, 8:00 am – 9:15 am; TGH, room 450A:

- Lecture 5: Relaxation and Image Contrast in MRI
- Online Module 5: *Please complete prior to lecture*

Thursday, January 8, 2015 10:15 – 11:30 am; MSH, 5th floor, room 580:

- Lecture 6: Magnetic Resonance Imaging Options
- Online Module 6: *Please complete prior to lecture*

Thursday, January 15, 10:15 – 11:30 am; TGH, room 450A:

- Lecture 7: Magnetic Resonance Imaging Artifacts
- Online Module 7: *Please complete prior to lecture*

Thursday, January 22, 8 am – 12 pm; SMH, room B2 Cardinal Carter

- Lab: Hands-on exercises (5 people/group, 50 minutes/group) with General Leung (+ Lab TA)
- MRI safety (Marshall): 30 minutes (11:30 am – 12 pm)
- Independent study: practice exam

Thursday, January 29, 10:15 – 11:30 am; TGH, room 450A:

- Final Review: Exam take-up