

RAD 251

Enhanced Patient Care for MRI

COURSE OUTLINE

Prerequisites:

RN, CNMT, ARRT Registered or Registry Eligible

Course Description:

This course is designed to facilitate critical thinking skills for students during the delivery of MRI examinations for patients of all ages.

Topics will include but not be limited to

- a. Magnet Safety and Bioeffects
- b. Patient Assessment and Care
 - a. Pediatrics
 - b. Anesthesia in MRI
- c. Contrast administration and safety
- d. MRI of the Critically Ill Patient
 - a. Emergency Department Protocols

Points	Grade
930-1000	A
840-929	B
750-839	C
660-749	D
659- below	F

Semester Credits: 3

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Course Outcomes:

Upon completion of this course the student will be able to

1. Recognize the importance of adhering to magnet safety protocols
2. Apply current methods of screening patients for MRI Examinations
3. Discuss health related bioeffects of
 - a. Static magnetic fields
 - b. Time varying gradient magnetic fields
 - c. Time varying radiofrequency magnetic fields
4. Explain emergency procedures for quenching of magnet
5. Summarize current contrast agent safety protocols
6. Express current protocols for safety in scanning the following
 - a. Critically Ill patients
 - b. Pediatric patients
 - c. Emergency department patients

Internet access required

Textbook:

Westbrook, C. Roth, C. Talbot, J (2011). *MRI in Practice (4th Ed.)*. Malden, MA: Wiley-Blackwell: ISBN 978-1-4443-3743-3

www.MRIsafety.com

Reference Manual for Magnetic Resonance Safety, Implants, and Devices: 2013 Edition, ISBN-978-0-9746410-9-6

Shellock, F. G. *Magnetic Resonance Procedures: Health Effects and Safety*: 2001

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