Common Course Outline
RADT 246
Magnetic Resonance Imaging (MRI) Registry Review Course
1 Credit

The Community College of Baltimore County

Description

RADT 246 – Magnetic Resonance Imaging (MRI) Registry Review Course presents a detailed explanation of every concept outlined in the American Registry of Radiologic Technologists (ARRT) published Content Specifications for their post-primary certification exam in MRI. This course is intended for experienced MRI technologists who need an effective way to prepare for the ARRT MRI exam. The content categories to be covered are: Patient Care, Imaging Procedures, Sequence Parameters and Options, Data Acquisition and Physical Principles of Image Formation.

1 Credit

Prerequisites: None

Overall Course Objectives

Upon completion of this course students will be able to:
1. identify the basic principles of MRI;
2. review patient care and safety procedures associated with MRI;
3. incorporate current knowledge of biological effects, safety considerations, and infection control when working in the MR environment;
4. describe the process in creating an MR signal and image formation;
5. describe the various types of MR coils utilized in MR imaging and review coil safety;
6. review calibration techniques that are utilized to monitor image quality;
7. explain the concept of k-space mapping and how it relates to image quality;
8. distinguish the different types of contrast agents that are approved by the Food and Drug Administration (FDA);
9. review the contraindications and precautions when utilizing gadolinium-based contrast agents;
10. review and identify artifacts that are associated with MRI imaging;
11. distinguish proper documentation for informed consent including written, oral and/or implied;
12. characterize the types of functional MR techniques that can be used in MR imaging; and
13. review basic scanning procedures along with section anatomy and pathology.

Major Topics
I. Patient Care
II. Safety

III. Procedures
IV. Image Production
    A. Sequence Parameters
    B. Data Acquisition
    C. Physical Principles of Image Formation

Course Requirements

Grading procedures will be determined by the individual faculty member but will include the following:

Grading/exams

- Attendance and active participation
- A minimum of one (1) interactive assignment/activity per module
- A minimum of four (4) quizzes
- A minimum of two (2) mock registry exams

A minimum score of 75% is required to pass this course. The ARRT has established a minimum scaled passing score of 75. The MRI certificate program has developed standards of grading that are consistent with grading systems of other programs. Letter grades will be distributed according to the following standards:

92 - 100 A
83 - 91   B
75 – 82   C
65 - 74   D
below 65 F

Other Course Information

The MRI Registry Review Program course consists of 4 comprehensive modules that are delivered over a period of 4 weeks.