

Virginia Western Community College

RAD 248

Case Studies in MRI

Prerequisites:

RT, CNMT, ARRT Registered or Registry Eligible

Course Description:

Introduces the student to their role as collaborator in patient care by providing the critical thinking skills necessary to implement appropriate examination protocols and patient care essential for obtaining diagnostic images. Cases can be performed via MRI simulation or from actual MRI examinations.

Semester Credits: 3**Lecture Hours: 3****Lab/Clinical/Internship Hours: 0****Required Materials****Textbook:**

CT and MRI Pathology: A Pocket Atlas. Grey, M and Ailinani, J (2012). 2nd Edition. McGraw Hill.
ISBN: 9780071703192

Other Required Materials:

Internet Access

Course Outcomes

At the completion of this course, the student should be able to:

- Discuss the clinical indications for MRI examinations.
- Discuss relevant patient preparation and care necessary to obtain diagnostic images for the exam
- Obtain clinical information relative to the examination ordered.
- Correlate clinical with reported results
- Identify general anatomy demonstrated on the examination
- Identify abnormalities demonstrated on the scans
- Discuss any disease process(es) depicted on the scan(s)
- Give a general prognosis for the disease processes identified or assigned
- Discuss any adjustments in scanning protocols necessary to obtain diagnostic images

Topical Description

I: Brain

- Vascular
- Neoplasm
- Congenital Anomaly
- Trauma
- Venous Abnormality
- Infectious Processes
- MRA of Brain

II: Temporal Bone-Internal Auditory Canal

- Acoustic neuroma

III: Soft Tissue Neck

- Neoplasm
- Vascular

IV: Abdomen and Pelvis

- Liver
- Urinary System

V: Reproductive System

- Neoplasm

VI: Spine

- Trauma
- Congenital anomalies
- Degenerative disease
- Neoplasm
- Infectious processes

VII: Axial Skeleton

- Neoplasm
- Trauma
- Congenital anomalies
- Infectious processes
- Joints

For each anatomical area, information regarding patient preparation, the anatomy demonstrated, scanning protocols and potential pathologies will be presented. Students will then obtain scans via the MRI simulator or from actual patient studies