RADIOGRAPHIC IMAGING (RI)

Courses

RI-300 CT PROCEDURES/PROTOCOL 4.00 Credits
Examination of Computed Tomography (CT) procedures and protocols to include positioning, acquisition methods, parameter selection, and special procedures.

RI-302 MRI PROCEDURES/PROTOCOLS 4.00 Credits
Protocols and procedures to include pulse sequences, data manipulation, special procedures, imaging parameters, imaging options, image quality and contrast values.

RI-305 SECTIONAL IMAGING 3.00 Credits
Overview of axial, coronal and sagittal imaging of the human body as demonstrated via CT and MRI images.

RI-310 CT PATHOLOGY 3.00 Credits
Basic principles of pathology and computed tomography (CT) of specific disease processes. Selection of proper imaging protocols related to pathology will also be examined.

RI-312 MRI PATHOLOGY 3.00 Credits
Basic principles of pathology and magnetic resonance imaging (MRI) of specific disease processes. Selection of proper imaging protocols related to pathology will also be examined.

RI-320 CT PHYSICS/INSTRUMENTATION 3.00 Credits
Examination of Computed Tomography (CT) physics and instrumentation to include system operation and components, image processing and display, image quality, artifact recognition, and quality.

RI-322 MRI PHYSICS/INSTRUMENTATION 3.00 Credits
Examination of MRI physics and instrumentation to include electromagnetism, radiofrequency system, gradient system, nuclear magnetism, tissue characteristics, spatial localization artifacts, and quality control.

RI-380 COMPUTED AND DIGITAL RADIOGRAPHY 3.00 Credits
Review of the history of digital image acquisition. Introduction of radiology information systems and their role in hospital information systems (HIS) and exploration of the importance of digital image communication in medicine (DICOM) in a radiology department.

RI-390 DIRECTED STUDY IN RADIOGRAPHIC IMAGING 1.00-3.00 Credits

RI-400 CT ADVANCED OPERATIONS 3.00 Credits
The student will examine CT procedures/protocol and review the primary aspects of the current ARRT CT exam to include: 1) Patient Care, 2) Imaging procedures, 3) Physics and instrumentation, and 4) Clinical requirements.

RI-402 MRI ADVANCED OPERATIONS 3.00 Credits
The student will examine advanced MRI procedures/protocols and review the primary aspects of the current ARRT (MRI) and/or ARMRIT exams to include: 1) Patient care; 2) Imaging procedures, 3) Physics and instrumentation, and 4) Clinical requirements.

RI-480 CT INTERNSHIP 1.00-14.00 Credits
Build on knowledge and skills obtained from professional experience and class work and apply these concepts to the performance of clinical procedures in the imaging environment. Each internship will adhere to ARRT (CT) clinical requirements and the needs of each student. Objectives will be determined through collaboration of the LCSC radiography faculty, the student, the site preceptor and in accordance with ARRT (CT) clinical requirements.

RI-482 MRI INTERNSHIP 14.00 Credits
Build on the knowledge and skills obtained from professional experience and class work and apply concepts to the performance of clinical procedures in the imaging department. Each internship will adhere to ARRT (MRI) and/or ARMRIT clinical requirements and the needs of each student. Objectives will be determined through collaboration of the LCSC radiography faculty, the student, the site preceptor, and in accordance with ARRT (MRI) and/or ARMRIT requirements.

RI-484 MDI: CLINICAL PORTFOLIO 1.00 Credit
The clinical portfolio process allows MDI students who have already taken & passed the ARRT Certification Exam for their specialty/emphasis area to demonstrate clinical competency. Pre-requisite: Admission to MDI Program.

RI-490 DIRECTED STUDY IN RADIOGRAPHIC IMAGING 2.00-3.00 Credits

RI-492 SPECIAL TOPIC: RADIOGRAPHIC IMAGING 1.00-3.00 Credits