

# RADIOLOGY (R)

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## **R 0302 - Radiology Career Exploration**

1-2 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0304 - Esse Health - Excel Imaging**

1-4 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0305 - Interventional Radiology @ Cardinal Glennon Children's Hospital**

1-4 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0306 - Interventional Radiology @ John Cochran Veterans Administration**

1-4 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0307 - Interventional Radiology @ SSM Saint Mary's Hospital**

1-4 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0308 - Mercy Hospital - Radiology & Pediatric Radiology**

1-4 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0309 - Interventional Radiology @ SSM Saint Louis University Hospital**

1-4 Credits (Repeatable for credit)

This course may be used to register for Radiology career exploration. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

## **R 0310 - Vascular Institute at DePaul**

1-4 Credits (Repeatable for credit)

We provide endovascular management for a wide variety of vascular problems, including peripheral vascular disease and chronic venoocclusive disease, but primarily we provide management for dialysis vascular access. Students on a 2-week rotation will be exposed to the many varied endovascular interventions primarily focused on maintaining a dialysis vascular access, as well as other vascular problems.

## **R 0401 - Diagnostic Radiology- Saint Louis University Hospital**

2-12 Credits

The student will rotate through General Diagnostic Radiology, Computed Tomography, Ultrasound, MRI, Neuroradiology, and Interventional/Body Procedures. Students are expected to attend designated clinical radiological conferences and daily read out sessions. The student will observe the activities in each area including image interpretation and/or procedures. Discussion in formal and informal settings will center on the role of the radiologist in the management of diverse clinical situations, and the indication and limitations of the various techniques.

## **R 0403 - Diagnostic Radiology- Cardinal Glennon Children's Hospital**

2-12 Credits

An introduction to radiographic methods of diagnosis with emphasis on the indications for and limitations of various examinations. This will be coupled with radiographic anatomy and a general introduction to clinical Radiology.

## **R 0404 - Neuroradiology- Saint Louis University Hospital**

2-12 Credits

Students will observe the operations of an academic neuroradiology practice. This includes the protocoling and interpretation of computed tomography (CT) and magnetic resonance imaging (MRI) of the brain, spine, orbits, face, and neck as well as the work-up and performance of image-guided spine procedures such as lumbar puncture (LP), myelography, and administration of intrathecal chemotherapy.

## **R 0406 - The Physics of Radiologic Imaging/Treatment**

2 Credits

This course will focus on the energy and spatial resolution principles underlying modern medical diagnostic and therapeutic technology: the EM Spectrum, Radiology (X-Ray, CT, Fluoroscopy), Nuclear Medicine (Gamma Camera, SPECT, PET), MRI, hybrid instrumentation and radiation treatment (LINAC, Proton Therapy, Gamma Knife).

## **R 0408 - Pediatric Neuroradiology**

2-12 Credits (Repeatable for credit)

Direct observation and instruction on how to interpret neuroimaging studies in children. Will be working with attending neuroradiologist at Cardinal Glennon.

## **R 0409 - Vascular and Interventional Radiology**

1-12 Credits (Repeatable for credit)

The goal of this elective is to provide medical students with an introduction to interventional radiology, now recognized as a distinct specialty by the American Board of Medical Specialties. IR utilizes real-time imaging to perform minimally-invasive vascular and interventional procedures.

## **R 0410 - Body Magnetic Resonance Imaging (MRI)**

1-8 Credits (Repeatable for credit)

This course involves attending read-outs in the body MRI reading room with the attending radiologist and the radiology resident assigned to this service. Students will observe and learn about state-of-the-art body MRI techniques and the key MRI features of a wide variety of disease processes involving the abdomen and pelvis.

## **R 0411 - Breast Imaging and Intervention**

1-4 Credits (Repeatable for credit)

This course is designed to provide learners with exposure to the Breast Imaging Center. Students will observe the performance and interpretation of breast imaging examinations, including screening and diagnostic mammograms, breast ultrasounds, and breast MRI. Students will observe image-guided breast interventional procedures, including ultrasound-guided biopsies, stereotactic biopsies, and Magseed localizations. Students will also participate in radiology / pathology correlation after breast biopsy results are available. Goals of the rotation: 1. Understand the rationale for screening mammography and current screening guidelines. 2. Become familiar with imaging tools available for evaluation of breast problems, including indications for each test. 3. Recognize the varying appearances of breast cancer on mammography, ultrasound, and MRI. 4. Understand common breast pathologies (both benign and malignant) and their management. 5. Appreciate the patient experience in the Breast Imaging Center from screening mammography through surgical referral.

**R 0412 - Interventional Radiology in Oncology at SLU**

4 Credits

The goal of this elective is to provide medical students with an introduction to interventional radiology, now recognized as a distinct specialty by the American Board of Medical Specialties. IR utilizes real-time imaging to perform minimally-invasive vascular and interventional procedures. The goals of the 4th year medical student rotation in the vascular and interventional radiology department of St. Louis University are based on the Accreditation Council for Graduate Medical Education (ACGME) six core competencies used by graduate medical education programs to evaluate trainees. The six ACGME Core Competencies are: patient care; medical knowledge; practice-based learning and improvement; interpersonal and communication.

**R 0413 - Artificial Intelligence in Radiology**

2-4 Credits

This elective offers medical students an immersive introduction to the field of Artificial Intelligence (AI) in Radiology, exploring how AI technologies are revolutionizing diagnostic imaging, enhancing image acquisition and interpretation, and improving patient care outcomes. Through a core didactic curriculum, observation of radiology workflows, weekly stand-up meetings, exploration of individual topics of interest, and critical analysis of current literature, students will gain a comprehensive understanding of medical and radiology AI tools, algorithms, and their current and future practical applications in the clinical setting.

**R 0414 - Radiological Application of Gross Anatomy**

2-4 Credits

This course explores the intersection of radiology and anatomy, providing a comprehensive understanding of human anatomy through medical imaging techniques. The course includes hands-on experience in the cadaver lab, offering an opportunity to deepen anatomical knowledge and apply those concepts in real-life scenarios. Regions of interest for study include: Head/Neck, Abdomen, Pelvic Viscera, Thorax, Extremities (including bony pelvis), Vertebral Column/Spine. One region per week in this 2 week elective.

**R 0901 - Radiology Direct Patient Care**

1-12 Credits (Repeatable for credit)

This course may be used to register for a Radiology elective. The elective experience must fulfill the requirements for a direct-patient care elective. The location of the experience may be at a SLU SOM affiliate or at another health care institution.

**R 0903 - Radiology Research**

1-12 Credits (Repeatable for credit)

This course may be used to register for a Radiology elective. The elective experience must fulfill the requirements for a research elective. The location of the experience may be at a SLU SOM affiliate or at another health care institution.