

Faculty In Charge Of Course:	Directors: Dr. Manickam Kumaravel and Dr. Haitham Awdeh
Participating Faculty:	Drs. Pritish Bawa, Nicholas Beckmann, Susanna Spence
Location:	Memorial Hermann Outpatient Imaging, 6400 Fannin Street, Suite 1600 MHOSH, 5410 W Loop South, Bellaire LBJ Hospital, 5656 Kelley Street
Offered:	Blocks 1- 12, except 13
Max. # Students/Period:	2

Course Objective

Material Covered:

Musculoskeletal (MSK) radiology is a subspecialty of Diagnostic and Interventional Imaging. Students will be exposed to the basics of MSK radiology and learn to apply this knowledge and analytical clinical practice. Rotation will include the teaching of various bone pathology imaging associated with emergency, trauma, rheumatology, oncology and sports injuries.

Students will interact with imaging modalities including radiography, computed tomography, ultrasonography, and magnetic resonance imaging. In this course, they will be exposed to therapeutic MSK procedures, pre, and post-procedure evaluation, consenting patients, sterile tray set-up and protocols for a time-out in the imaging room. Students will present a case presentation for their final grade based on this subspecialty.

Teaching will occur during faculty/fellows/residents interactions, observations, discussions, direct patient care, case presentations, and scheduled conferences.

Skills Acquired:

At the end of the rotation, students will be able to:

- Approach and analyze radiological images and their relevance in clinical care
- Be aware of allergic reactions to contrast agents
- Discuss concepts of radiation exposure
- Recognize protocols in procedure rooms for image-guided injections
- List various musculoskeletal pathologies
- Develop effective methods of working with radiologists as a consultant and member of a health care team

Activities Of Elective

The Number Of New Patients/Student/Week: 2

Responsibilities Of Student For Assigned Patients:

Does history/physical:	Yes
Who critiques:	Attending physicians, fellows, and residents
Follows patients, with appropriate notes as needed:	Yes
Who supervises:	Attending physicians, fellows, and residents
Does student see ambulatory patients:	Yes

Procedures	Observe	Perform
MSK special procedures	Yes	No
Radiologic Imaging	Yes	No
Peripheral IV	Yes	No

Scheduled Duties of Student:

Frequency of rounds on patients	Twice daily
Presents patients to preceptor or attending physician	Yes
Weekly schedule of required teaching sessions	Attend weekly conferences and lectures

Describe Optional Rounds And Activities, If Any:

Work with Faculty, Fellows and Residents, and/ or any research projects

Other Required Activities:

Reading/review of current literature	Yes
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Writing or presenting a paper	Yes: A case presentation at the end of the elective
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How Is Student Evaluated:

- Attend required conferences – Min of 8
- Observe a minimum of 5 image-guided procedures
- Discuss a minimum of 5 cases on an individual basis with the attending/ fellow/ resident (each case can be x-ray/ CT/ MRI)
- Have a one-on-one with the attending and complete the mid-rotation evaluation form
- Able to complete course requirements within the 4 week period and submit the post-rotation form
- Formal case presentation at the end of the rotation

GRADING BREAK-DOWN

Mid-Rotation Eval (Completion)	5%
Conferences attended (required and optional)	10%
Procedures Observed	10%
Final Evaluation	30%
Case Presentation	40%
Attendance	5%
Total	100%

Honors (H) : >89% -100%
 High Pass (HP) : >78% - 88%
 Pass (P): 69% - 77%
 Fail (F) : <68%

Who Evaluates Students:

Assigned Faculty

Unique Features Of This Elective:

This 4-week MSK radiology rotation provides students with imaging knowledge of an array of pathological conditions of the musculoskeletal system, including trauma, sports medicine, arthritis, and bone and soft tissue tumors. It also provides a unique opportunity for them to witness faculty, work closely with other physicians’ especially orthopedic surgeons, sports physicians, rheumatologists, and trauma team members to translate imaging findings for clinical care.

Students will be able to rotate through the three facilities, to get a comprehensive learning experience of the various multi-faceted care provided to our patients.

The students will observe radiologists performing various simple and complex image-guided procedures including injections into joints, muscle, around tendon and nerves.

Students will actively participate in weekly clinical-radiological conferences and lectures, where they will be able to understand collaborative, team approach to patient care.