THE HASHEMITE
UNIVERSITY

Faculty of Medicine
Department of Clinical Radiology.

Course title: Diagnostic Radiology. 2024/2025
Course Code: 161503402
Calendar Description: 2 Weeks/ year 4

Diagnostic Radiology (2.25 Credits, 2 weeks)

This clinical rotation in radiology is offered to fourth year medical students. The goal of this course is to present a basic introduction of the common radiological exams procedures and techniques as well as familiarize medical students with indications and contraindications of different radiological exams. The course also emphasizes basic radiological anatomy and train medical students to identify and diagnosis common and emergency pathological conditions using different radiological modalities

1. **General objectives:**

By the end of this course, students are expected to:

- Be familiar with common radiological exams and procedures.
- Known indications and contraindication of different radiological exams.
- Be familiar with basic radiological anatomy.
- Be able identify and diagnosis common and emergency pathological conditions using different radiological modalities

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2. **Method of Instruction:**
   - Tour in different sections of the radiology department.
   - Seminars.
   - Lectures.

3. **Evaluation and distribution of marks**
   - In – course evaluation : 20%
   - Final clinical exam: 35% (end rotation).
   - Final written exam:45% (final exam)

4. **Instructors :**

- Specialized radiologist with sub- specialist in different aspect of radiology
- Clinical instructors from Prince Hamza hospital.

5. Recommended textbooks

- Blue print radiology.
- Radiology for medical student.
- Lecture notes on radiology.
- Clinical medicine (Kumar and Clark)
- McLeod's clinical examination.

6. Lectures :

NO	TOPIC	OBJECTIVES
1	Introduction radiology	1. Review the basic concepts of radiation and its different types. 2. Review the sources of photons (x and gamma rays) and its interaction with matter 3. Review the principles of radiobiology and radiation protection. 4. Show example of different radiological modalities and discuss possible indications.
2	Chest radiology	1. Describe different modalities used to evaluate chest pathology. 2. Introduce the students to chest radiological anatomy. 3. Expose the students to example of urgent and common chest pathology seen on chest X-ray.
3	Neuro-radiology	1. Review the radiological anatomy of central nervous system. 2. Discuss the indication for different imaging modalities in Neuro-radiology. 3. Discuss the appearances of basic pathological process on CT and MRI. 4. Show example of common and emergency pathology on CT and MRI.
4	Uro-Radiology	1. Explain the radiological modalities used to investigate urological problems. 2. Show examples of common pathological entities on different radiological exams.
5	Gastro-intestinal radiology	1. Discuss the radiology modalities used to investigate GI problems and their indication. 2. Show examples of common pathological entities.
6	Musculoskeletal radiology	1. General radiological anatomy. 2. MRI of joints & bones. 3. Common pathology of bones & joints.
7	Mammogram	1. Anatomy breast 2. Benign & malignant disease. 3. Interventional.
8	Pediatric radiology	1. General common congenital disease.
9	Nuclear medicine	1. Introduce the medical students to the concept of nuclear medicine and its application. 2. Show example of normal exams of different nuclear medicine tests and some pathological entities. 3. Discuss the indication for common nuclear medicine exams.

10	Miscellaneous	1. Radiologist teaching common radio-pathology. 2. Interventional radiology