

# The Hashemite University/Faculty of Allied Health Sciences Department of Medical Imaging Course Syllabus

Course information	
Course Title	Internship in Medical Imaging (2)
Course Code	140508452
Prerequisites	140508331 & 140508332 &140508351
Time	8 -2 (Sunday, Tuesday, Thursday)
Venue	Ministry of Health and Royal Medical services Hospitals
Duration	14 weeks (including exams period)
Course Description	

The internship in Medical Imaging offers students the chance to practice performing different conventional and advanced imaging procedures for different body parts using (MRI) and (CT). In addition, student will practice performing x-ray radiographic procedures to some extent.

# **Course Objectives**

## By the end of this course, student is expected to be able to:

- Use the MRI and CT scanners professionally and efficiently.
- ❖ Acquire MR and CT images of different parts of the body.
- Select the technical factors for different radiographic, CT, and MRI procedures.
- Thoroughly explain the effect of most imaging parameters on image quality.
- Understand the causes and remedies of different MR and CT image artifacts
- ❖ Able to position the patient inside the scanner safely and professionally.
- Practice the MRI safety and CT radiation protection
- Able to protect the patient and staff from any potential hazards of using the MRI and CT scanners
- Show excellent communication with patients and staff
- ❖ Able to solve the common problems related to data acquisition.
- ❖ Able to optimize the imaging protocol to fulfill the needs of the clinical question.
- ❖ Apply the radiographic positioning skills to perform different radiographic procedures for the skull, spine, chest, abdomen, and pelvis, upper and lower extremities in addition to the contrast media-based radiographic procedures.
- ❖ Demonstrate appropriate use of conventional and digital medical imaging equipments
- Demonstrate effective presentation skills and written communication skills.
- ❖ Appropriately evaluate x-ray, CT and MR images.
- Identify common and evident pathologies on the images

### **Course Contents**

- Requisition.
- Explanation & communication with patient.
- Patient care and safety.
- Patient positioning inside the scanner.
- Correct selection & use of RF coils and other accessories.
- Selection of imaging protocol.

- Slice planning.
- Correct selection of technical factors.
- Correct patient markers and identification.
- Radiation protection
- MRI safety.
- Efficiency use of time and energy.
- Student evaluation of images.

### **Evaluation Criteria**

- ❖ In course practical evaluation (45%)\*.
- ❖ Assessment of student's adherence to rules and regulations (20%).
- Comprehensive exam (35%) \*\*.
- \* (10% for x-ray radiographic procedures versus 35% for CT and MR procedures
- \*\* It covers the following topics (MRI (1), MRI (2), CT (1), CT (2), Cross-Sectional Anatomy, Principles of Radiologic Diagnosis).