



**Jordan University of Science and Technology**  
**Faculty of Applied Medical Sciences**  
**Radiologic Technology Department**

RA444 Evidence-Based Imaging

Second Semester 2023-2024

**Course Catalog**

3 Credit Hours. Over the past decades, we have seen huge improvements in medical imaging technology. Systematic evaluation of the quality and reproducibility of new imaging techniques is crucial to allow large-scale implementation. This interactive course will focus on the many aspects of imaging evaluation, including technical development, visual assessment and optimization of image quality, and intra and inter observer reproducibility. At the end of the course, students will be able to design, analyze and report imaging evaluation and reproducibility studies according to international guidelines.

**Teaching Method:** Blended

**Text Book**

<b>Title</b>	Evidence -Based Imaging improving the quality of imaging in patient care
<b>Author(s)</b>	L. Santiago Medina,C. Craig Blackmore
<b>Edition</b>	1st Edition
<b>Short Name</b>	1
<b>Other Information</b>	

**Instructor**

Name	<b>Dr. Maram Alakhras</b>
Office Location	-
Office Hours	
Email	mmalakhras@just.edu.jo

**Class Schedule & Room**

Section 1:  
 Lecture Time: Sun, Tue : 10:30 - 11:30  
 Room: M4202

**Teaching Assistant**

Rasha Elshayib(Section 1)

**Prerequisites**

Line Number	Course Name	Prerequisite Type
144650	RA465 Magnetic Resonance Imaging Lab	Prerequisite / Study
144690	RA469 Computed Tomography Lab	Prerequisite / Study

**Tentative List of Topics Covered**

Weeks	Topic	References
Week 1	Principle of evidence-based imaging	From 1
Week 2	Breast imaging	From 1
Week 3	Imaging of lung cancer	From 1
Week 4	Imaging of brain cancer	From 1
Week 5	Imaging in the evaluation of patients with cancer	From 1
Week 6	Neuroimaging in Alzheimer Disease	From 1
Week 7	Neuroimaging in Acute Ischemic Stroke	From 1
Week 8	Neuroimaging of Seizures	From 1
Week 9	Neuroimaging for Traumatic Brain Injury	From 1
Week 10	Imaging Evaluation of Sinusitis	From 1
Week 11	Imaging for Knee and Shoulder Problems	From 1
Week 12	Imaging of Spine Disorders	From 1
Week 13	Cardiac Evaluation: The current Status of Outcomes Based Imaging	From 1
Week 14	Imaging of the Cervical Carotid Artery for Atherosclerotic Stenosis	From 1
Week 15	Imaging in the Evaluation of the Pulmonary Embolism	From 1
Week 16	Revision	From 1

**Relationship to Program Student Outcomes (Out of 100%)**

PLO B1	PLO B2	PLO B3	PLO B4	PLO B5	PLO B6	PLO B7	PLO M1	PLO M2	PLO M3	PLO M4	PLO M5	PLO M6

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