



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

RA214 Digital Image Processing And Analysis Lab

Second Semester 2023-2024

Course Catalog

1 Credit Hours. This course provides a sound understanding of the physics of Digital Radiography. It explains the principles of digital images acquisition, processing and display.

Teaching Method: On Campus

Text Book

Title	Radiologic Science for Technologists.
Author(s)	Bushong S.
Edition	8th Edition
Short Name	1
Other Information	

Instructor

Name	Prof. Fedda Alzoubi
Office Location	PH3 L1
Office Hours	
Email	fedda@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Thu : 08:30 - 10:30
Room: LAB

Section 2:
Lecture Time: Thu : 10:30 - 12:30
Room: LAB

Section 3:
Lecture Time: Thu : 12:30 - 14:30
Room: LAB

Section 4:
Lecture Time: Thu : 14:30 - 16:30
Room: LAB

Teaching Assistant

Rasha Elshayib(Sections 1, 2, 3, 4)

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Introduction to digital x-ray imaging	From 1
Week 2	Physical principles of digital radiography	From 1
Week 3	Computed radiography image plates and reader units	From 1
Week 4	Data normalization	From 1
Week 5	Digital image enhancement 1	From 1
Week 6	Digital image enhancement 2	From 1
Week 7	Digital image display and archival 1	From 1
Week 8	Digital image display and archival 2	From 1
Week 9	Image quality 1	From 1
Week 10	Image quality 2	From 1
Week 11	Advances in digital radiology	From 1
Week 12	Advances in digital images processing	From 1
Week 13	Differences in digital systems	From 1
Week 14	CCD sensor based digital radiography	From 1
Week 15	Solid-state flat panel digital radiography	From 1

Week 16	Indirect and direct digital radiography detectors	From 1
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Relationship to Program Student Outcomes (Out of 100%)												
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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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