

Fundamentals of Diagnostic Imaging

(CLSC-5102)

Course Calendar, Fall 2012

DATE	TOPIC
WEEK 1	
September 4	Course introduction and overview of imaging modalities; history of diagnostic imaging
September 5	The clinical thinking process and the role of diagnostic imaging
WEEK 2	
September 11	Talking about films
September 12	Starting with the end in mind: describing radiographs and imaging lexicon
WEEK 3	
September 18	The controlling factors, mAs and kVp, and how they affect the films
September 19	The generator – purpose, types, effect of type on dose and connecting back to the big picture
WEEK 4	
September 25	The tube – anatomy and cathode processes
September 26	The tube – anode processes and connecting back to the big picture
WEEK 5	
October 2	The subject – interactions with matter and differential absorption
October 3	The subject – subject contrast and connecting back to the big picture
WEEK 6	
October 9	The film and screen – image formation and intensifying screens
October 10	The processor – film processing and connecting back to the big picture
WEEK 7	
October 16	Review for midterm exam
October 17	Review for midterm exam
October 19	Midterm exam (7 AM)
WEEK 8	
October 23	The extras – collimation, grids, filtration and beam hardening
October 24	The extras – geometric distortion and magnification, penumbra and image quality
WEEK 9	
October 30	Radiobiology and radiation protection
October 31	Digital x-ray imaging – computed radiography (CR) and digital radiography (DR)
WEEK 10	
November	Introduction to cross-sectional imaging, computed tomography (CT) and magnetic resonance imaging (MR)
November	MR imaging continued

WEEK 11	
November	Nuclear medicine – radiotracers, scintigraphy, single photon emission computed tomography (SPECT) and positron emission tomography (PET)
November	Ultrasound
WEEK 12	
November	Application of diagnostic imaging in clinical practice (case scenarios)
November	Application of diagnostic imaging in clinical practice (case scenarios)
WEEK 13	
November	Application of diagnostic imaging in clinical practice (case scenarios)
November	Application of diagnostic imaging in clinical practice (case scenarios)
WEEK 14	
December	Review for final exams
December	Review for final exams
December	Final exam (7:00 AM)
WEEK 15	
TBA	TBA

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