

Fundamentals of Diagnostic Imaging (CLSC-5102)

Course Calendar, Summer 2012

DATE	TOPIC
WEEK 1	
May 8	Course introduction and overview of imaging modalities; history of diagnostic imaging
May 9	The clinical thinking process and the role of diagnostic imaging
WEEK 2	
May 15	Starting with the end in mind: describing radiographs and imaging lexicon
May 16	The controlling factors, mAs and kVp, and how they affect the films
WEEK 3	
May 22	The tube – anatomy and cathode processes
May 23	The tube – anode processes and connecting back to the big picture
WEEK 4	
May 29	The generator – purpose, types, effect of type on dose and connecting back to the big picture
May 30	The subject – interactions with matter and differential absorption
WEEK 5	
June 5	The subject – subject contrast and connecting back to the big picture
June 6	The film and screen – image formation and intensifying screens
WEEK 6	
June 12	The processor – film processing and connecting back to the big picture
June 13	The extras – collimation, grids, filtration and beam hardening
WEEK 7	
June 19	The extras – geometric distortion and magnification, penumbra and image quality
June 20	In-class Exercise
WEEK 8	
June 26	Review for midterm exam
June 27	Review for midterm exam
June 29	Midterm exam (7 AM)
WEEK 9	
July 3	Radiobiology and radiation protection
July 4	No class – Independence Day
WEEK 10	
July 10	Digital x-ray imaging – computed radiography (CR) and digital radiography (DR)
July 11	Introduction to cross-sectional imaging, computed tomography (CT) and magnetic resonance imaging (MR)

WEEK 11	
July 17	MR imaging continued
July 18	Nuclear medicine – radiotracers, scintigraphy, single photon emission computed tomography (SPECT) and positron emission tomography (PET)
WEEK 12	
July 24	Ultrasound
July 25	Application of diagnostic imaging in clinical practice (case scenarios)
WEEK 13	
July 31	Application of diagnostic imaging in clinical practice (case scenarios)
August 1	Application of diagnostic imaging in clinical practice (case scenarios)
WEEK 14	
August 7	In-class Exercise
August 8	Review for final exams
August 10	Final exam (7:00 AM)
WEEK 15	
TBA	TBA

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