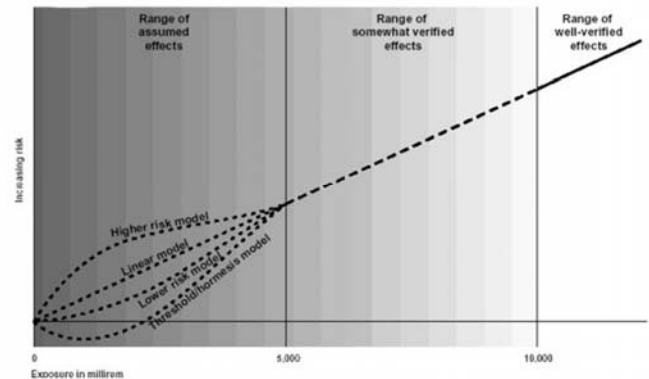
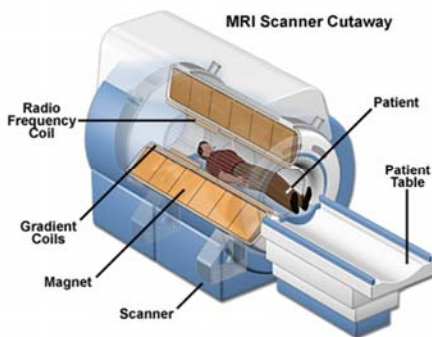
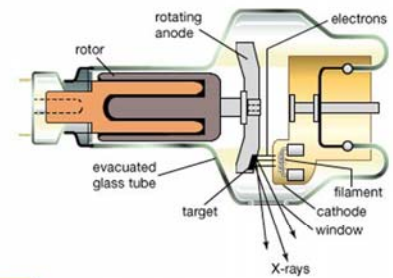
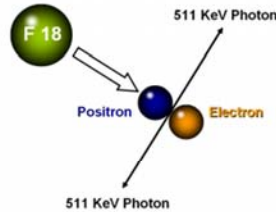
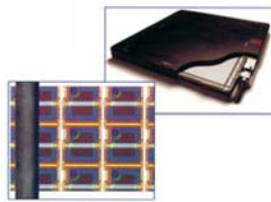


King Faisal Specialist Hospital & Research Centre 5th Annual Radiological Physics Review Course



Date

From: Saturday June 13th, 2009
To: Wednesday June 24th, 2009

Organized by

Department of Radiology &
Biomedical Physics Department
King Faisal Specialist Hospital &
Research Centre

CME accreditation by

Saudi Council for Health Specialties

Course sponsored by

GE HealthCare

Venue

Radiology Conference Room
Department of Radiology



Contact Information

Mr. Abdulraheem Al-Malki
Phone: (1) 464-7272 x 38499
Fax: (1) 442-7793
Email: aamalki@kfshrc.edu.sa

Registration Fees

Early Registration: 1,400 (full), 140 (day session) SAR
Late Registration: 1,600 (full), 160 (day session) SAR

Early Registration Deadline

13 Jumada Al-Thani 1430 (June 6th, 2009)

ABOUT THE COURSE

Radiology is arguably the most technology dependent specialty in medicine, and it has seen monumental changes over the past decade. Computer integration with constant technical innovations has changed the workplace and influenced the role Radiology plays in the diagnosis and treatment of disease. Radiologists and technologists need to understand the technology and the physical principles that constitute the advantages, govern the limitations, and determine the risks of the imaging equipment being use.

Radiologic physics is not an esoteric subject of abstract equations and memorized definitions but rather the total process of creating and viewing a diagnostic image. This process is influenced by a range of physical principles that need to be comprehended to better understand their clinical applications.

This radiological physics review course will cover the medical imaging modalities of: conventional and digital radiography (DR), conventional and digital fluoroscopy, computed radiography (CR), conventional and digital mammography, multi-slice computed tomography (CT), ultrasound (US), magnetic resonance imaging (MRI), positron emission tomography (PET), PET/CT, nuclear medicine (NM), SPECT/CT and bone densitometry. In addition to the above, modality specific image processing techniques will also be reviewed. Because most of these imaging modalities employ ionizing radiation, radiation exposure to patients and staff is of concern, so radiobiology and radiation protection principles must also be reviewed.

WHO SHOULD ATTEND ?

The course has been designed to help prepare Radiology residents for the radiologic physics portion of their board and registry examinations. It provides a source for comprehensive self-study in the area of diagnostic radiologic physics. The material presented assumes a background of instruction in radiologic physics and is not intended to replace a standard radiologic physics textbook. This course provides a concise yet complete source of review to refresh and reinforce the concepts of radiological physics expected of residents and fellows in Radiology.

Even though this course is primarily targeting Radiology residents; technologists, medical & health physicists and vendor engineers can also attend pending on seat availability. Radiology residents will be given seating priority.

EDUCATIONAL OBJECTIVES

- To review radiologic physics concepts
- To understand modality specific imaging chains and associated technology
- To review the technical parameters that can affect image quality and radiation dose
- To understand the differences between conventional and digital mammography
- To review digital radiography (DR) and computed radiography (CR)
- To review digital image processing techniques
- To review modality specific image artifacts
- To review new coming terminologies
- To review radiobiology and radiation protection principles
- To use gained knowledge to solve RAPHEX examination questions

ORGANIZING COMMITTEE

Director

Yusuf Al-Kadhi, MD DABR
Consultant Abdominal Radiologist
Department of Radiology

Coordinator

Kostas Chantziantoniou, MSc DABR
Head, Imaging Physics Sections &
Chief Medical Physicist
Biomedical Physics Department

APPLICATION & INQUIRES

Applications and inquires should be directed to the course secretary at the following address:

Attention: Mr. Abdulraheem Al-Malki

King Faisal Specialist Hospital & Research Centre
Department of Radiology, MBC #28
P.O. Box 3354
Riyadh, 11211, Kingdom of Saudi Arabia

Contact Information

Phone: 966-1-442-7272 ext. 38499
Fax: 966-1-442-7793
Email: aamalki@kfshrc.edu.sa

TENTATIVE COURSE PROGRAM

Time	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
	June 13	June 14	June 15	June 16	June 17
08:00 – 08:30	Registration				
08:30 – 09:00	Course Opening				
09:00 – 09:45	Basic Atomic Physics	F/S Radiography & Film Processing	Fluoroscopy	Ultrasound Physics	CT Technology (Part 1)
09:45 – 10:30	X-ray Production	Image Quality (Contrast)	Conventional Mammography	Ultrasound Transducers	CT Technology (Part 2)
10:30 – 10:45	Coffee Break				
10:45 – 11:30	X-ray Tube Output Characteristics	Image Quality (Noise)	Digital Mammography (Part 1)	Ultrasound Instrumentation	Multi-slice CT Technology
11:30 – 12:15	X-ray Interactions (Part 1)	Image Quality (Resolution)	Digital Mammography (Part 2)	Clinical Ultrasound	CT Dose Parameters
12:15 – 13:00	Lunch Break				
13:00 – 13:45	X-ray Interactions (Part 2)	Digital & Computed Radiography	Mammography Quality Assurance	Doppler Ultrasound	Image Reconstruction
13:45 – 14:30	X-ray Radiography Scatter Control	Digital Fundamentals & Image Processing	Mammography Artifacts	Ultrasound Artifacts	CT Artifacts
14:30 – 14:45	Coffee Break				
14:45 – 15:30	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review
15:30 – 16:15	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review

Time	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10
	June 20	June 21	June 22	June 23	June 24
09:00 – 09:45	MR Introduction (Part 1)	Pulse Sequences (Part 3)	Basic Nuclear Physics	Radiation Protection (Part 1)	GE LightSpeed CT750 HD Update with New AW Workstation Demonstration
09:45 – 10:30	MR Introduction (Part 2)	Pulse Sequences (Part 4)	Gamma Cameras	Radiation Protection (Part 2)	
10:30 – 10:45	Coffee Break				
10:45 – 11:30	Image Formation	MRI Advanced Techniques (Part 1)	Radiopharmaceuticals in Nuclear Medicine	Radiation Protection (Part 3)	GE New Advances in Radiology
11:30 – 12:15	Image Parameters	MRI Advanced Techniques (Part 2)	Introduction to PET	RAPHEX Question Review	
12:15 – 13:00	Lunch Break				
13:00 – 13:45	Instrumentation	MRI Spectroscopy	PET/CT & Artifacts (Technical)	Radiobiology (Part 1)	Lunch (GE Provided) General Topics of Discussion
13:45 – 14:30	MRI Safety & Hazards	MRI Artifacts	PET Artifacts (Clinical)	Radiobiology (Part 2)	
14:30 – 14:45	Coffee Break				
14:45 – 15:30	Pulse Sequences (Part 1)	RAPHEX Question Review	RAPHEX Question Review	Radiobiology (Part 3)	Certificate Distribution & Official Closure
15:30 – 16:15	Pulse Sequences (Part 2)	RAPHEX Question Review	RAPHEX Question Review	RAPHEX Question Review	

FACULTY

KFSH&RC SPEAKERS

Biomedical Physics Department
 Abdalla Al-Haj, PhD
 Adnan Al-Watban, PhD
 Ghazi AlSbeih, MD PhD
 Kostas Chantziantoniou, MSc DABR
 Nabil I'Qilan, MSc
 Omer Demirkaya, PhD

Radiology Department
 Moheieldin Abouzeid, MD
 Rita Pant, MD

LOCAL SPEAKERS

Abdullah Abu Jamea, PhD
 MRI Unit Supervisor & Physicist
 King Khalid University Hospital, Riyadh

ACCOMMODATIONS

It is the responsibility of the participant to make local hotel accommodations. Please note single females will need to provide a letter from their employer to hotel management concerning their stay in Riyadh.

REGISTRATION

To advance register for the course, please complete the attached registration form and fax/mail it to:

5th Annual Radiological Physics Review Course

*King Faisal Specialist Hospital & Research Centre
Department of Radiology
P.O. Box 3354, MBC #28
Riyadh, 11211, Kingdom of Saudi Arabia*

Attention: Mr. Abdulraheem Al-Malki

The registration fee to attend the full physics refresher course is **1,600 SAR (1,400 SAR prior to early registration deadline)**, whereas, the registration fee for any one-day session of attendance is **160 SAR (140 SAR prior to early registration deadline)**.

Registration fees are to be paid in **cash** on site on Saturday June 13th 2009 during the course registration period 08:00 - 08:30 am. Registration fees for one-day sessions are due at the beginning of each session.

Interested attendees are urged to advance register so that seating is guaranteed; only the first 72 registrants will be accepted.

Refresher course early registration deadline is on:

13 Jumada Al-Thani 1430 (June 6th, 2009)

CANCELLATION POLICY

The King Faisal Specialist Hospital & Research Centre reserves the right to cancel the course because of low advance registration or other reasons no less than one week prior to its start date.

Refunds, minus a 50 SAR administration fee, will be granted for cancellations provided adequate notification has been received prior to the course. No refunds will be made available after commencement of course.

CME ACCREDITATION CREDITS

Application will be made to have the course material approved for Saudi Council for Health Specialties CME credits. The total number of accredited hours will be announced at the end of the course.

MATERIAL PROVIDED

All participants will be provided with a CD-ROM consisting of all course material (lectures and RAPHEX examination questions/answers). ONLY participants that have registered in advance will be given the option (must indicate on registration form) to also receive a hardcopy binder at an added cost of 100 SAR. This provision has been added to allow the institution sufficient time to prepare the hardcopy binders prior to course commencement.

ACKNOWLEDGEMENTS

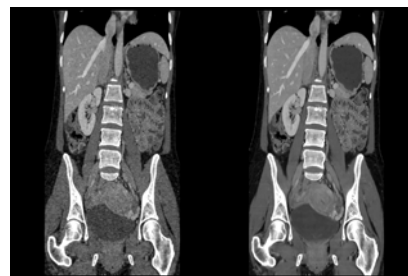
We gratefully acknowledge support of this program by the following organization(s):

Saudi Council for Health Specialties
GE HealthCare

COURSE SPONSORSHIP

We would like to thank GE HealthCare for being this year's course sponsor and for also contributing to the course educational content.

GE LightSpeed CT750 HD



Non - HDCT

HDCT

