For information contact:
Daphne Urquhart, Program Coordinator
Univ of Missouri-Kansas City
c/oMed Educ, Saint Luke’s
4401 Wornall Rd
Kansas City, MO 64111
(816) 932-2237
FAX: (816) 932-5179
Email: durquhart@saint-lukes.org

http://med.umkc.edu/radiology/physics-review/

Core Physics Review 2014

Speakers: Dr. Ted Villafauna, PhD & Nima Kasraie, PhD May 27-31 2014

Affordable Physics Review for Core exam on the Plaza in Kansas City
5 day review course 5/27-31

Tuesday — Thursday
1. X-rays - Physical Nature and Properties
2. Images
   a. What constitutes an image?
      i. Information, visual presentation
         Presentation, Context
   b. Quantitative character of an image
      i. Contrast, Resolution, Noise
   c. Qualitative character of an image
      i. Perspicuity, Contrast-resolution
3. Image Formation
   a. Imaging Modes
      b. Radiograph, Fluoroscopy,
         c. CT, MR, US
   b. What causes the image contrast in each mode?
   c. What affects resolution?
   d. Where does noise come from?
4. Radiation Safety
   a. What is the hazard of radiation?
      i. Skin damage (deterministic)
         ii. Cancer (stochastic)
   b. Radiation Protection Principles
      i. Time, Distance, Shielding
   c. Where does the radiation come from?
      i. Primary Radiation
         ii. Secondary Radiation
   d. Radiation Limits
      i. Patient, Radiation Worker
         ii. General Public, Embryo/fetus
5. Radiography/Fluoroscopy
   a. Image production/safety
      i. Resolution, Contrast, Noise, Window
6. Image Production
   a. Resolution, Contrast
   b. Noise, Window/Level
   c. Radiation Safety
      i. Primary & Secondary Radiation
      ii. In-room, Control & Environ, Shielding

Friday
1. Ultrasound — principles, transducers and artifacts
2. MRI — physical principals, artifacts

Saturday:
Case based core question review session

Registration

Name _______________________________________________________
(Include first and last name)
Institution __________________________________________________
Level of training ___ PGY2  ___ PGY3  ___ PGY4  ___ PGY5
Street address ______________________________________________
City, State and zip code _______________________________________
Home phone________________________________________________
Contact phone while in KC____________________________________
Email address ______________________________________________
(Include address where you would like to receive course information)
Emergency contact name______________  & phone________________

Dates: 5 day course May 27-31, 2014
Times: 8am-5pm
Course location:
Radiology Dept, Saint Luke’s Hospital on the Plaza
Radiology Education Center—Scarpellino Hall
4011 Wornall Road
Kansas City, MO 64111

Fees prior to March 30, 2014:
• $350 prior to Apr 1 & $400 after.
• Make checks payable to: UMKC Radiology Dept & include physics in the memo. Mail to: Daphne Urquhart at address above
• Pay on line at https://ecommerce.umkc.edu/donate/non-alumni.aspx. YOU MUST put Radiology Physics in comments and send/email registration information to Ms. Urquhart
• Registration limited to 50 participants

Cancellation/change policy: Full refunds prior to Apr 25, 2014 with $50 cancellation fee. No refund after Apr 25, 2014.