## **Select Written Study Material:**

## **ABR Diagnostic Medical Physics Part II Exam**

- The Essential Physics of Medical Imaging, Bushberg et al
- Review of Radiologic Physics, Huda and Sloane
- Physics of Radiology, Wolbarst and Cooke
- Radiobiology for the Radiologist, Hall and Giaccia
- Code of Federal Regulations Title 21 Part 1020: Performance Standards for Ionizing Radiation Emitting Products
- Code of Federal Regulation Title 10 Part 20: Standards for Protection Against Radiation
- NCRP Rort 148: Structural Shielding Design for Medical X-ray Imaging Facilities
- Mammography Quality Standards Act Regulations
- AAPM Online Report 03: Assessment of Display Performance for Medical Imaging Systems
- AAPM Report 100: Acceptance Testing and Quality Assurance Procedures for Magnetic Resonance Imaging Facilities
- AAPM Report 96: The Reporting Measurement and Management of Radiation Dose in CT
- AAPM Report 93: Acceptance Testing and Quality Control of Photostimulable Storage Phosphor Imaging Systems
- AAPM Report 74: Quality Control in Diagnostic Radiology
- DICOM Website: http://medical.nema.org/dicom/
- IHE Website: http://www.ihe.net/
- AAPM/RSNA Radiographics Physics Tutorials
- Raphex Exams

## Select Areas of Useful Clinical Knowledge

## ABR Diagnostic Medical Physics Part II Exam

- Basic Understanding of Components and Operation of Diagnostic Imaging Equipment
- CT Image Quality and Hounsfield Units
- CT Dose measurements
- Ultrasound Imaging and Artifacts
- Radiographic Exposure Indices
- Compliance Testing of Radiographic Equipment
- Flat Panel and Image Intensifier Fluoroscopic Systems
- Typical Techniques for Clinical Studies
- MRI Bandwidth calculations
- MRI Contrast Mechanisms
- Shielding Calculations
- Patient Dose Calculations
- Federal Regulations on Radiation Worker and General Public Exposure Limits
- Effects of Magnification on Spatial Resolution
- Effects of Scatter on Image Quality
- Monitor and Printer Calibration