RADIOLOGY ELECTIVE

Course Director: Steven Lev, MD.
Duration: Varies

- NYCOM students (4th year–4 week required and/or elective)
- Stony Brook students (3rd or 4th year- 2 week rotation)
- Visiting Institutions and/or US or foreign students (4 week clinical rotation) with Radiology Elective Director’s approval
- Rotating NUMC Interns (4 weeks)

GOALS
Understand the fundamentals of diagnostic image interpretation and clinical indications for imaging examinations and special procedures. Radiologic anatomy, radiologic differential diagnosis, and image-based treatment will be reviewed.

EDUCATIONAL OBJECTIVES
By the completion of this rotation, the medical student will:
• Become aware of and understand the nature of all currently available imaging procedures.
• Acquire a basic understanding of what each imaging procedure can and cannot accomplish and how to use these procedures in the evaluation of the clinical problem.
• Gain a firm knowledge of the indications, contradictions, and risks of commonly used imaging procedures.
• Learn the preparation and post procedural routines for imaging examinations.
• Learn to recognize basic anatomic structures as they appear on imaging studies in the normal patient and in common disease states.
• Gain an understanding of the role of the radiologist as a diagnostic consultant by understanding the radiographic signs and images of medical imaging.

CLINICAL EXPERIENCE
During the rotation, the fundamentals of diagnostic image interpretation, the clinical indications for imaging examinations, and basics of image guided procedures are taught to medical students. Radiologic anatomy, radiologic differential diagnosis, and image guided treatment is reviewed. The student will rotate each in following subspecialty areas during the daily image interpretation sessions: Neuroradiology, Pediatrics, Chest, and Emergency Radiology, Nuclear medicine, Body CT and MR, US, Interventional and GI/GU contrast studies. The students will be divided up among the different subspecialties so that no more than one or two students are on each subspecialty rotation. This will ensure the students will be able to review a large volume of imaging studies and become an integral part of our imaging team. The radiology attendings and residents can provide one-on-one instruction with emphasis on image findings, basic differential diagnosis and multidisciplinary management. If there are no scheduled lectures or clinical assignments, students are expected to review the suggested online teaching files and required reading materials.

DIDACTIC EXPERIENCE
The students on the radiologic rotation will attend noon conferences, computer-based learning exercises, programmed audiovisual teaching seminars (which can be tailored to individual interests), participation in film interpretation, and observation of special procedures. Introductory medical student lectures will be given in each subspecialty area by the radiology residents and attendings each week. The student may also attend additional interdisciplinary conferences. Students are introduced to digital imaging and PACS and may also review the suggested online teaching files and reading materials.

OTHER IMPORTANT INFORMATION
Daily attendance will be kept. Hours are from 9:00 a.m. to 4:00 p.m. Schedules will be distributed on the first day of the rotation. On the first day of the rotation, students will register with the Undergraduate medical Education Office and meet at 9:00 a.m. in the radiology library on the second floor for general orientation and tour with one of the residents.

EVALUATION METHOD
Evaluation is determined by active participation, as evidenced by asking questions, researching topics of discussion, and attempting to identify relevant radiologic findings in daily readout sessions. At the conclusion of the rotation, the students will present a short PowerPoint presentation on a case-based radiology topic to the residents and attendings. There will also be a short quiz based on the core subspecialties that the students will be exposed to.
SUGGESTED READING MATERIALS

- Mettler: Essentials of Radiology, 2nd ed., Copyright© 2005 Saunders, An Imprint of Elsevier by Fred A. Mettler Jr., M.D., M.P.H

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Web sites
http://www.learningradiology.com
http://www.radiologyeducation.com

RADIATION ONCOLOGY
Course Director: Mitchell Karten, MD
Duration: Varies
- NYCOM students (4th year- 4 week required and/or elective)
- Stony Brook students (3rd or 4th year- 2 week rotation)
- Visiting Institutions and/or US or foreign students (4 week clinical rotation) with Radiology Elective Director’s approval
- Rotating NUMC Interns (4 weeks)

GOALS
Understand the fundamentals of radiation oncology and clinical indications for therapy of cancer.

EDUCATIONAL OBJECTIVES
By the completion of this rotation, the medical student will:
- Understand the role of radiation therapy in cancer treatment.
- Understand the multidisciplinary approach to cancer treatment.
- Acquire a basic understanding of radiobiology, radiation physics and radiation safety.
- Gain a firm knowledge of the indications, contra-indications, and risks of radiation therapy.
- Gain an understanding of the role of the radiation oncologist in cancer management.

CLINICAL EXPERIENCE
The division does not have residents or fellows; therefore, the students will have primary access to patients and clinical instruction with Dr. Karten who is Board Certified in Radiation Oncology and Medical Oncology. He can provide a unique one-on-one instructional environment with emphasis on multidisciplinary management.

Students will see a wide variety of cases encompassing many oncology sites including breast, lung, colorectal, head and neck, and gynecological.

DIDACTIC EXPERIENCE
- The students on the radiation oncology rotation will attend weekly med/surg, breast, biweekly gynecologic oncology tumor boards.
- Site specific lectures will be provided to cover the major oncology sites including prognosis, diagnosis, staging, and treatment.
- Lectures will also be provided in physics, radiobiology, and radiation safety.
- The student may also attend additional interdisciplinary conferences.

SUGGESTED READING MATERIALS
American Cancer Society Textbook of Clinical Oncology, (paperback) in press spring 2008 American Cancer Society excellent manageable text
Chemotherapy and Radiation for Dummies, 2005 patient perspective
Reference Texts
Perez and Brady's Principles and Practice of Radiation Oncology, Lippincott, Williams & Wilkins; 5 edition (December 1, 2007)
DeVita, Hellman, and Rosenberg's, Cancer: Principles & Practice of Oncology (Cancer: Principles & Practice (DeVita)(2 Vol.) Lippincott Williams & Wilkins; 8 edition (May 1, 2008)

Websites
http://www.nccn.org
NCCN treatment guidelines site specific
http://www.cancer.gov/site specific summaries

OTHER IMPORTANT INFORMATION
Hours are from 8:00 a.m. to 4:00 p.m. On the first day of the rotation, students will register with the Undergraduate Medical Education Office and meet at 9:00 a.m. in the Radiation Oncology Division in basement of S building for general orientation.

EVALUATION METHOD
Evaluation is determined by active participation, as evidenced by asking questions, researching topics of discussion, and participating in therapeutic decision making.

HOW TO APPLY
If you are interested in applying, please call 516-572-5399 or visit us at www.numc.edu.