

76-401 &amp; 96-576

## UAB RADIOLOGY ELECTIVE/SELECTIVE GUIDELINES

### **CLINICAL ROTATIONS**

You will spend four weeks rotating through the basic areas of radiology. You will receive a clinical schedule. In each clinical area you will work with an attending, a fellow or a resident.

Some medical students like to adjust their clinical rotations to better match their professional goals and academic needs. To do this, check your schedule to make sure no other medical student is scheduled that day in the area you want to join. Please let Susan Gambill know if you make these changes.

Collared shirts and slacks are best. No jeans. No t-shirts with logos or graphics. Wear scrubs to Interventional (VIR) and to GI/GU UH, but only to Interventional (VIR) and to GI/GU UH. Please check your schedule before your first day to see if you are VIR or GI/GU UH. You must wear your name tag at all times. Use of perfumes and colognes is strongly discouraged

Each morning, report to your assigned reading room.

Rotation	All rotations are a.m. unless specified on your schedule they are p.m.
Abd UH CT	Computed Topography University Hospital. This is on the 6th Floor of North Pavilion. This reading room is labeled GI but encompasses CT. You will work with the attending covering Abd UH CT. You may work with the fellow or resident covering CT. You may have UH CT with a physician who is covering UH CT and UH US, that particular clinical duty is listed on our online schedule as Abd UH CT/US.
Abd UH GI/GU AM	Gastrointestinal imaging University Hospital, sometimes called GI GU or GI GU UH. This is on the 6th Floor of North Pavilion. Arrive at 7:30 a.m. Go thru the door labelled "GI".
Abd UH US	This is on the 6th Floor of the North Pavilion. Ultrasound reading room. Often you will have Ab UH US with a physician who is actually working a combo UH CT/US or a Combo TKC US/ UH US. Just an FYI.
Advanced Imaging, Body MR	Abdominal MR, generally. This clinical image reading is held in different places on different days. Please ask Susan Gambill for details. Basically, the location is determined by the attending. Susan or student may need to page the attending to determine location. Often but not always this is held in the MR area on the first floor of Kirklin Clinic, inside the clinic on the side near 5 <sup>th</sup> Avenue South. Take the back set of elevators, not the front ones (the front ones are closer to 6 <sup>th</sup> ).
Chest UH AM	Report to the 6 <sup>th</sup> Floor North Pavilion Radiology department. There is a reading room for Chest and it is labeled. Med Students are not ordinarily scheduled in Chest on a Monday. If you are accidentally scheduled for a Monday, please let Susan Gambill know.
Molecular Imaging Technology MIT	Molecular Imaging Technology (Used to be known as Nuclear Medicine General .) . . Cardiac RR - Q712, General RR - Q713, PET RR – Q714. These are the Nuc Med reading rooms on the 7th floor where Jefferson Tower becomes Quarterback towers. Try General Reading Room first to find the attending on Nuc General AM. If you get lost or need help call Debbie at 6-7115.

MSK Highlands	Go to Highlands hospital , MSK radiology section,(Student testimony about finding this: "I first went to the third floor imaging waiting area and asked for my attending and was taken back into the procedure rooms. After that we went down to the second floor where the reading rooms are. Otherwise, I would say that it is best to go to the second floor and then to the imaging area there which is in the left hand side of the building if you are facing the building from the main entrance.")If you have this rotation on a Tuesday, the attending will arrive around 9:30 a.m. due to a MSK conference which starts at 8:00 in Tishler. If you have this rotation on a Tuesday, please considering attending the conference.
MSK UH ED AM	This is a musculoskeletal rotation.It is an emergency radiology rotation. It is usually at UAB Highlands. [1201 11th Ave South. Birmingham, Alabama 35233]. If you have this rotation on a Tuesday, the attending will arrive in clinical area around 9:30 a.m. due to a MSK conference which starts at 8:00 in Tishler. If you have this rotation on a Tuesday, please attend that MSK conference in Tishler. It is important to determine which attending is covering this rotation so you will know who to work with (and where). Sometimes the attending will NOT work at Highlands but somewhere else of his/her choosing. In that case, Susan Gambill or you will have to page the attending to his or her work location
Neuro UH CT	Neurology Computed Topography. Go to North Pavillion Neuroradiology reading room 6250 or reading 6366. Introduce yourself and let the attending, fellow or resident know you are there for Neuro radiology CT.Please report around 8:00.
Neuro UH MRI	Neurology Magnetic Resonance Imaging .Go to North Pavillion Neuroradiology reading room 6250 or reading 6366. Introduce yourself and let the attending, fellow or resident know you are there for Neuro radiology MR. Please report around 8:00
TCK GI	Abdominal imaging in the TKC area. Ask Susan Gambill for details.
TKC CT	Abdominal (generally) CT in the TKC area. Ask Susan Gambill for details
VA you can choose (1) VA CT or	CT / US @ VAMC, 700 19th Street South. The main VA reading room is next to the CT scanner, 2nd floor, radiology VAMC. Please arrive at 8:00 a.m.
VA you can choose (2) VA US or	CT / US @ VAMC, 700 19th Street South. The main VA reading room is next to the CT scanner, 2nd floor, radiology VAMC. Please arrive at 8:00 a.m.
VA you can choose (3) VA Xray/radiographs	CT / US @ VAMC, 700 19th Street South. The main VA reading room is next to the CT scanner, 2nd floor, radiology VAMC. Please arrive at 8:00 a.m.
VIR	Location: Sixth floor North Pavilion, the Heart and Vascular Center, 7:00 a.m. in the VIR Reading Room. Medical students need to see Dr. Ed Underwood. The VIR fellows or the VIR resident are great to ask for assistance. If there are any problems, please call the VIR secretary for assistance at 975-4850. You can also page the resident who is in VIR.

*You can learn who the attending, fellow and resident is for that area by checking out department webpage at <http://medicine.uab.edu/radiology/>. On the left, third from the top, click on Radiology Schedule. There are two slots for dates. If you want a specific date just put the date in both slots. If you want a span, put the first date of the span in the first slot and the last date of the span in the second slot. After you hit "search", you will see essentially a list of who is where. It is often 7 pages long. It is sorted alphabetically by sections. (Abd, Breast, Call, Chest, MSK,*

*Neuro, etc.) If you have trouble navigating the radiology schedule, contact Susan at 4-3186.*

**Your clinical schedule options:**

**Option 1** You will spend one week plus one day on body imaging. Of that, you will spend two days with G.I., and two days with CT. The other two days you may split between any body imaging service, that is, G.I., MRI or ultrasound. 2. You will then spend four days on chest imaging. 3. You will then spend one week on neuroimaging, to include both MRI and CT. 4. You will then spend one week on MSK, and will be assigned to MSK ED and MSK Highlands.

**Option 2** is Option 1 except you select a one-week mini-elective\* in any subspecialty of radiology which is substituted for any of the above weeks.

**Option 3:** Two days each in Abdominal GI GU UH, Chest UH AM, Musculoskeletal Highlands, Abdominal UH Computed Topography, Abdominal UH Ultrasound, Neurology UH CT, Molecular Imaging Therapeutics, VIR, with some VA radiology, MSK UH Emergency Department Radiology, and Neurology UH MR thrown in as desired.

**Option 4** is Option 3 except you select a one-week mini-elective in any subspecialty of radiology which is substituted for any of the above weeks

\*Further explanation of "**mini-elective**". Students will be able to select a body region/service, such as neuroradiology or abdominal imaging, and spend half days on the imaging modalities related to that service. The mini elective is optional and intended for students who rotate through later in the year or know what they want to do after graduation.

If you would like to rotate through mammography, pediatric radiology, or Kirklin Clinic GI, for a day or two, please let Susan know.

**TO LOG YOUR PARTICIPATION IN DAILY CLINICALS:** Observe the acquisition of studies on one or two patients on each subspecialty, if possible. Choose daily a case that you find interesting. Research the patient(s). Look at the ACR Appropriateness Criteria <http://www.acr.org/Quality-Safety/Appropriateness-Criteria> , and decide if the imaging for that patient was appropriate, and think about what other type of imaging might be selected. Several times a week, there will be an informal medical student case conference for you to show your case(s), and describe what you found interesting and what you learned the case. This is an informal conference, with the goal to share interesting cases. At the end of your time here, please give to Susan either in hard copy or by email the list of diagnoses (no PHI) of your interesting cases so she may check you off as having participated in this activity. The case conference usually occurs on Tuesday and Wednesday mornings at 7:30 in Tishler. This activity will be placed on your online calendar.

**ULTRASOUND BIOPSY/SCANNING SIMULATION ACTIVITY.** Physicians will lead you in a ultrasound biopsy/scanning simulation activity. The date, time and place of this activity will be placed on the same calendar as the medical student lectures.

**VOICE RECOGNITION DICTATION SIMULATION.** There will be a voice-recognition dictation simulation for you. Location JTN321. The Dictation (the document you turn in) will be reviewed by a resident, fellow or faculty. You will do one dictation for the month. You can learn how to get to iSite using your Horizon to iSite instructions. There are microphones by the computers that are useable for this activity. You sign in using your AD log on and then activate “Dragon.” You have to open Word on the computer to get the Dragon to work. You will have received a case from Susan Gambill. Cases are assigned at random. If you do not care for your case, Susan can pull you another. Turn in the document (such as a Word document) where you dictate, to Susan. (You can turn it in as an attachment to an email or as a hard copy. )

### **TEACHING FILE PREPARATION AND PRESENTATION**

You will select a case during your first three weeks that will serve as a teaching file. Presentations will be given using PowerPoint. Choose a UAB case encountered during the rotation. The residents, fellows or attendings can help you select appropriate cases if you have difficulty. Classic cases or very interesting cases are appropriate. Select a topic you would like to learn more about.

The write-up of the case will be as follows:

- History (brief) -- 1 slide
- Images (a few pertinent images) – multimodality is a plus.
- Findings
- Diagnosis
- Discussion

Remember that the presentation should be oriented toward radiology. The presentation should take 5-6 minutes and will be scheduled during your last week in radiology. If you have a physician who watches just your presentation, please be sure to let Susan know so Susan can get a blank grade sheet to the physician ahead of time. Dr. McNamara or another physician will give your more information about this in a scheduled meeting. After you give your presentation, please email a copy of your presentation to Susan Gambill.

### **CONFERENCES**

Resident noon conferences are held every day in the Tishler Conference Room JT N307 at 12 Noon. Feel free to bring your lunch. These noon conferences are geared toward the residents, but often interest medical students. Immediately following the noon conference is the 12:45 case conference. You are encouraged to attend.

Other clinical-based conferences are scheduled throughout the week and incorporate many different disciplines. *These interdepartmental conferences are held in Tishler unless noted otherwise below.*

Please attend the following, in particular the ones in Blue

- **GI Conference, Wednesday, 4:30 - 5:30 PM.**
- Bone Tumor Conference, Thursday, 7:00 AM, Anatomic Pathology Conference Room (NP 3554). This is the 1<sup>st</sup> and 3<sup>rd</sup> Thursday of each month.
- Urology Multidisciplinary Conference, 1<sup>st</sup> and 2<sup>nd</sup> Tuesday of the month, 7:15 a.m. – 8:15

a.m. [1<sup>st</sup> Tuesday of the month is a lecture, 2<sup>nd</sup> Tuesday of the month is a case conference] (FOT 11th floor conference room)

- Vascular & Interventional Conference, Tuesday 7:30 - 8:30 AM (**NP 6<sup>th</sup> Floor Conference Room**, HVC CR 6339 , **which is the last door on your left before the double door entrance to the Heart and Vascular Center**).
- Pulmonary / Chest Conference, Fridays at 7:30 AM
- MSK Bone Conference 8:00 AM every Tuesday. Note: if you have MSK Highlands rotation on a Tuesday, your attending will be late due to this conference.
- Neuroradiology Conference One 8:15 AM every Monday.
- Neuroradiology Conference Two 8:39 AM every Thursday.

If a conference conflicts with your clinical time, but the conference content is useful/interesting to you, please attend the conference, and then report to clinical.

**Lectures:** Radiologists will present lectures to your med student group several times this month, usually but not always at 12:00, at 1:30 and 2:30 PM. Please check the website each day at lunchtime to see if a lecture has been added or cancelled. The schedule will note time, and date, and location, for each lecture. If a lecture is added to occur or to be canceled within less than 23 hours, I will page you or text you.

Online calendar: go to our department website, <https://www.uab.edu/medicine/radiology/> then the education tab (4th from left), then the phrase "medical students" (on the bottom left), then the phrase [Medical Student Education / Radiology Student Education Committee](#).

Log in with your Blazer ID and Password. Go to calendar. **Ignore "Explorers Meetings."**

It is also your responsibility to fill out at a lecture evaluation sent to you via Survey Monkey on at least five lectures while you are here. It is your responsibility to sign in at each lecture, if there is a sign-in sheet out.

Before your lecture led by Dr. McNamara, download the NearPod app. This will work okay on a smart phone but works better on a tablet or something with a bigger screen. If you have a bigger screen, please bring it with you to Dr. McNamara's lecture.

In the event that a Radiology lecturer is more than ten minutes late, please contact Susan Gambill at 934-3186 or Lynn Hogan at 934-5345. If you are unable to reach either of them, any radiology assistant on the hall can page the lecturer for you to find out whether the lecturer wants to dismiss class.

## **INDIVIDUAL STUDY**

The main sources of individual study are web-based teaching materials.

### **1. CORE Radiology Course - required**

Lister Hill library online databases. Do all modules. Study the CORE modules when

you are not on clinical service and don't have lectures. The Core **Exam**, housed in Amser with your pre-test and post-test, is **optional**.

Please review the Core Radiology GI modules prior to Dr. McNamara's lecture.

**2. University of Virginia:**

Department of Radiology - <http://www.med-ed.virginia.edu/courses/rad>

Important sections -

- Imaging of the Cervical Spine
- Introduction to Head CT
- Introduction to Chest Radiology
- ICU Chest Films
- Emergency Body CT
- Skeletal Trauma Radiology
- Emergency Ultrasound

3. Interactive Tutorials: <http://eradiology.bidmc.harvard.edu/interactivetutorials/>

4. The Classics Collection: <http://eradiology.bidmc.harvard.edu/classics/>

5. Also a good reference source: is *Squire's Fundamentals of Radiology*, Sixth Edition by Robert A. Novelline. Susan Gambill will distribute these if requested.

6. <http://www.aur.org/> - An excellent website for anyone interested in student radiology education.

7. Lister Hill library e-catalogue [Reed, James Chest Radiology](#). Go to Lister Hill Library catalogue and search for an e-book by James Reed, titled Chest Radiology. This book is recommended by Dr. Terry.

8. Medical Student Council's Interventional Radiology Lecture Series  
<http://rfs.sirweb.org/wordpressn stall/medical-student-section/ir-lecture-series/>

**9. University of Washington, Radiology**

**Review:** [http://www.mypacs.net/repos/mpv3\\_repo/static/m/Home/](http://www.mypacs.net/repos/mpv3_repo/static/m/Home/) (This is a good resource. Please look through it. You will have to set up a password for yourself.)

**10. Learning Radiology:** <http://www.learningradiology.com>

**11. Online radiology resources:** [www.radiologyeducation.com](http://www.radiologyeducation.com)

Other resources will come by email. They are listed on your checklist.

**YOUR TEST**

<http://radiology.examweb.com>

Click "sign up". Select University of Alabama at Birmingham.

Select Dr. McNamara as the instructor.

Susan will give each class a class code. Put it in. Click "verify class code".

Pre-test: Your pre-test will be available throughout your first week, including the weekend prior and often, the weekend after your first week.

Post-test: Your post-test will be available throughout your last week here, including the weekend prior, and will question you on material covered by the pre-test.

The CORE exam will be available on this website as well throughout the four week period for self-assessment. While the **Core exam is optional**, the modules are mandatory.

## **GRADES**

**ATTENDANCE IS MANDATORY.** You are allowed two absences. Please let us know of any planned absence, family obligations or interviews as soon as possible. In case of illness, please email or call Susan Gambill at 4-3186.

You will be graded at the end of this rotation on a Pass/Fail basis, based on the following:

1. Overall performance, **including attendance**.
2. Teaching file case preparation and presentation.
3. Post-test.

Grading Guidelines for 76-401 and 95-576

Attendance (your patient case documents and dictation documents, etc., count toward attendance.	70%
Presentation	20%
Test	10%

The course, overall, is pass/fail.

## **CALL**

In the radiology department, evening is covered by an attending, a first call resident, and a second call resident. First call coverage consists primarily of in-house films on patients in the Emergency Department (ED), GI/GU procedures, head and spine CTs, fluoro-guided lumbar punctures, and general radiological consultations with clinicians. Second call coverage consists of UH, VA and UAB Highlands radionuclide studies (Monday through Thursday), Body CT, MRI, ultrasound, and clinical consultations. Additionally, the second call more senior resident serves as a consultant to the first call resident for any problematic cases. You will have the option to spend one evening observing either the first **or** second call resident from 5:00 PM to 11:00 PM. **This is optional.** Two medical students may not observe call on the same evening, and dates are chosen on first come, first serve basis. Please inform Susan Gambill, by Friday of your first week here, the date you choose.

It is your responsibility to page either the first or second call resident for your chosen evening to arrange a meeting time and place. You can find out which residents are on call at the schedule link listed above. As an alternative to paging, you can simply report to the 6<sup>th</sup> floor North Pavilion CT reading room at 5:00 PM. The evening attending should be there and will know where the resident is.

## **MISCELLANEOUS:**

1. The where you can study in our department is Room JT N321. This is a fellows/Med Student room. You will do your dictation in there.
2. Safety – Please be aware of safety. When you leave the hospital after your evening observation shift, please contact UAB escort security to accompany you to your vehicle. If you are a visiting student and not familiar with Birmingham, please only go out at night in the company of someone who is familiar with Birmingham.

Welcome, have fun, work hard, and learn a lot! We are glad to have you aboard!

Please feel free to contact Dr. McNamara or Dr. Prince if you have any questions.

Michelle McNamara, M.D.  
Associate Professor, Body Imaging Section  
Director, Radiology Medical Student Education

Erin Prince, M.D.  
Assistant Professor, Breast Imaging Section  
Assistant Director, Radiology Medical Student Education

*Clerical Support is Susan Gambill, Jefferson Tower, Room N358, 934-3186,  
sgambill@uabmc.edu*