

RDLGY 7064 Course Syllabus

Course Title: Neuroradiology

Course Number: RDLGY 7064

Course Dates:

Credits: 2 Credits

Course Times: M-F 8:00 AM – 5:00 PM

Conference Times: T/W/Th Mornings, Daily Noon Conference

Classrooms: Radiology Imaging Consultation Room (NEURO)

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Course Description

Medical students will perform a specialty rotation in Neuroradiology that encompasses the multiple different imaging modalities and procedures integral to brain, spine, head, and neck imaging. The primary objective is to have the student finish the rotation with a solid foundation in neuroimaging and its clinical correlates as well as a good understanding of radiology as a potential career choice. Students not interested in a radiology career, but who are interested in associated neurological specialties and desire a solid exposure to neuroimaging are also welcome to register. The student is expected to participate in the daily work including designation of appropriate study protocols, review of selected studies, and development of a differential diagnosis list. Students will also be responsible for dictation of several radiographs, reviewing findings with the attending, and editing the reports on a daily basis. Course evaluation will be based on daily participation, completion of canvas cases, and an optional oral presentation.

Course Objectives

After successfully completing this course, you will be able to:

- Discuss the strengths and weakness of various imaging modalities in neuroradiology, including CT, MRI, and fluoroscopy.
- Learn how to utilize appropriateness criteria as outlined by the ACR (American College of Radiology) to select the most appropriate imaging exam for a variety of clinical scenarios.
- Obtain a rudimentary knowledge of brain, spine, head, and neck anatomy on various imaging modalities.
- Learn how to recognize fundamental disorders of the brain, spine, head, and neck on imaging studies.

Reading Resources

- Book: [Learning Radiology](#) Recognizing the Basics 4th Edition by William Herring MD Review Chapter 27 pertaining to neuro imaging. (Available online through Marriot Library)
- Book: [Lumbar Punctures in 3D](#) by Justin Cramer MD, Edward Quigley MD, Troy Hutchins MD, Lubdha Shah MD <https://books.apple.com/us/book/lumbar-punctures-in-3d/id1098471871>

- Journal Article from RadioGraphics: *CT for Treatment Selection in Acute Ischemic Stroke: A Code Stroke Primer* <https://pubs.rsna.org/doi/pdf/10.1148/rg.2019190142>

Case Conference Participation - 12:00 – 1:00 PM Daily

Students are highly encouraged to attend the resident case conferences which are held at NOON via TEAMS or IN-PERSON. A schedule of presenters and topics will be provided for you below.

- Attend **in person** in the **Larch Conference Room** next to the Radiology Admin Office #2C115
- or [join Teams meeting link](#); Meeting ID: 242 052 204 463, Passcode: eUTddw

Head and Neck Conference - Tuesdays 7:00 AM

Brain & Spine – _Wednesdays 7:00 AM (periodically)

Spine Conference – _First Thursdays of the month 7:00 AM

Students are expected to participate in morning Neuroradiology conferences which are held on Tuesdays, Wednesdays, Thursdays at 7:00 AM via Zoom. **This schedule will be emailed each week.**

Tips for Success

1. **Participate.** This class requires engagement and having discussions with the reading room mentors is a critical part of the course. You can learn a great deal from discussing your questions, ideas, and perspectives with your mentors. Participation can also help you articulate your thoughts and develop critical thinking skills.
2. **Manage your time.** Make time for self-study and online learning each week. If there are opportunities to job shadow in ultrasound or in the MRI/CT scan rooms, plan ahead and be on time for scheduled procedures. Talk to course director about scheduling these opportunities.
3. **Login regularly.** Log in to Canvas several times a week to view learning modules and cases. Review course book and other optional reading assignments to gain knowledge in body imaging.
4. **Test your knowledge.** Test your knowledge with the Canvas practice cases. After you become more familiar with the images and technology used to diagnose, put your knowledge to the test with the Canvas practice cases and quizzes for this course.
5. **Communicate.** If you need help with Canvas, questions with course schedule, connecting to online conferences, or other related course matters, reach out to MS Coordinator for support.

Course Grade and Evaluation

Each student will be evaluated by their mentors at the end of this 2-week elective course with a course grade of Pass, Fail, or Incomplete.

Attendings and Mentors will be watching for:

- Participation
- Engagement
- Attendance (*this is a short course; each day is critical towards your grade so if you need to be absent, please touch base with Jessica to make sure you meet the attendance requirement. Typically, we allow 1 day but if more are needed approval will be granted on a case-by-case basis*).
- Professionalism
- And the student's ability to share gained knowledge through this self-paced course

