

RAD 322

Radiographic Contrast and Sectional Anatomy

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Class: T&R 830-950 in Room ASA 0014

Office Hours: Tuesday and Thursday 10-11:30

Course Description: An introduction to the use of radiopharmaceuticals for enhancement of various anatomical structures within the human body. Includes coverage of common types of contrast agents, their administration, their physiological effects on various organ systems, and emergent treatment. Sectional anatomy includes the study of body structures in the coronal, sagittal and transverse planes, used in computed tomography (CT) and magnetic resonance imaging (MRI). Emphasis will be placed on 1) identifying the imaging plane; 2) identifying the anatomy visualized in a given plane; and, 3) differentiating between images produced by CT and MRI.

Textbooks

Required:

Jensen, S. *Pharmacology and Drug Administration for Imaging Technologists* (2nd ed.). St. Louis: Mosby-Elsevier

Weir, J. *Imaging Atlas of Human Anatomy* (4th ed.). St. Louis: Mosby-Elsevier.

Course Objectives:

1. Define the terminology used in venipuncture.
2. Define the terminology used in sectional imaging.
3. Discuss the concepts of venipuncture sites.
4. List and describe the physiological effects of intravenous use of a contrast agent.
5. Identify the functions and restrictions of the contrast agents used in imaging procedures.
6. Demonstrate the concepts of sterile technique
7. Explain the post puncture care and infection control.
8. Examine the legal ramifications of drug administration & venipuncture for imaging professionals.
9. Discuss the imaging modalities used to acquire sectional images.
10. Explain the basic physics, safety, and imaging applications used in computed tomography (CT).
11. Explain the basic physics, safety, and imaging applications used in magnetic resonance imaging (MRI).
12. Identify and label the pertinent anatomical structures of the chest/mediastinum, abdomen, pelvis, head, spine, and musculoskeletal system.

Grading Scale:

The grading will be on a straight scale. Course grades will be based on tests and the final exam.

Evaluation and Point Value for the Course:

Quizzes (5) 50
Tests (4) 400
Final Exam 200
Total 650

A = 93 – 100%	605-650 points
B = 85 – 92%	553-604 points
C = 75 – 84%	488-552 points
F = Below 75%	487 or less points

Test 1-Radiographic Contrast
Test 2-Brain, Head, and Spine
Test 3-Chest, Abdomen & Pelvis
Test 4-Musculoskeletal and Vascular

All students are expected to attend class and come prepared to discuss the topic assigned for that day. Tests will cover the lecture, textbook, handouts, and images reviewed during class. No make-up tests will be given other than instructor approved absences. If you are going to miss class, I expect an email stating that you won't be in class for that day. I will allow cell phones, but please turn them on silent. If you need to take a phone call during class, please step outside the classroom to talk. Be respectful to me and to your classmates, don't be texting during class. Hope to have a great semester!

RAD 322-Schedule Spring 2015

WEEK	DATE T & R	Topic/Assignment
1	January 20th	Introduction/Syllabus
	January 22nd	Chapter 1-2
2	January 27 th	Go over Learning Exercises/Review
	January 29th	Quiz 1 Chapter 1-2/ Review Chapter 3-4
3	February 3 rd	Go over Learning Exercises/Review
	February 5th	Quiz 2 Chapter 3-4/Review Chapter 5-6
4	February 10 th	Go over Learning Exercises/Review
	February 12 th	Quiz 3 over Chapter 5-6/Chapter 7-8
5	February 17th	Go over Learning Exercises/Review
	February 19th	Quiz 4 over Chapter 7-8/Chapter 9-11
6	February 24th	Go over Learning Exercises/Review
	February 26th	Quiz 5 over Chapter 9-11/Review
7	March 3 rd	Complete Review
	March 5th	Test 1 Cumulative
8	March 10 th	Spring Break
	March 12th	Spring Break
9	March 17th	Brain and Spine
	March 19th	Brain and Spine
10	March 24th	Brain and Spine
	March 26th	Brain and Spine
11	March 31st	Test 2 on Brain and Spine
	April 2nd	Chest, Abdomen, Pelvis
12	April 7th	Chest, Abdomen, Pelvis
	April 9th	Chest, Abdomen, Pelvis
13	April 14th	Chest, Abdomen, Pelvis
	April 16th	Test 3 on Chest, Abdomen, Pelvis
14	April 21st	Musculoskeletal
	April 23rd	Musculoskeletal
15	April 28th	Musculoskeletal
	April 30th	Musculoskeletal
16	May 5th	Test 4 on Musculoskeletal
	May 7th	Complete Review
17	***FINALS WEEK***	Cumulative Final