

RADI 6024
Radiological Anatomy and Physiology

Spring 2020

CLASS DAYS and TIME: Tuesday and Thursday 3:30-5:00 PM

CLASSROOM: Med. School Building 625F

COURSE FACULTY: Course Directors- Vijayanadh Ojili, MD; Jessica Nute, PhD

TEACHING ASSISTANT: Leen Abazid, M.D.

OFFICE LOCATION and HOURS: By appointment; Med. School Building 652E

EMAIL: Vijayanadh Ojili, M.D.: ojili@uthscsa.edu; Jessica Nute, Ph.D.: nute@uthscsa.edu

TELEPHONE: Vijayanadh Ojili, M.D.: 210-567-6470; Jessica Nute, Ph.D. 210-567-1361

READ THIS DOCUMENT CAREFULLY - YOU ARE RESPONSIBLE FOR ITS CONTENTS.

COURSE DESCRIPTION AND OBJECTIVES

This course will provide students with an opportunity to learn anatomy, physiology, and commonly used medical terminology as it relates to radiologic imaging. Anatomic and physiologic features will be illustrated with radiologic images in formats commonly encountered in clinical radiology. By the end of the course, students are expected to be familiar with basic medical terminology and have a good understanding of medical anatomy, physiology, and some basic pathology as related to specific organs for which radiologic images are commonly applied.

Pre-requisites – none

Semester credit hours – 3 credit hours

By the end of this course, each student should have a very good basic knowledge of:

- Medical physiology and anatomy.
- Medical terminology.
- Medical imaging of the human body.

COURSE ORGANIZATION

Three main teaching formats are used to cover the material in this course:

- 1) Conventional didactic lectures in which information is delivered to the class;
- 2) Conference Discussions which are highly interactive case-based activities, encouraging two-way communication between the instructor and the class, and requiring student active participation in the learning process; and
- 3) Online review and self-study activities.

Materials –
1. Understanding Anatomy & Physiology – Thompson, 3rd Edition
2. Medical Terminology-Davi-Ellen Chabner, 6th edition

Computer Access – Various materials and assignments will require access to a computer with internet capabilities.

Reading Assignments – Required reading assignments are posted in the schedule of class meetings (shown below) and are not considered optional. Unless specifically noted by the instructor, anything in the required readings, whether emphasized in class or not, is considered testable on exams. Mandatory readings are primarily found in the required text book (see above).

ATTENDANCE

In order to achieve the expected level of competency, students must be fully engaged. Therefore, attendance for every class session is expected. If you are going to be absent please notify the course director prior to class by email.

It is recognized that a student may occasionally arrive late to class due to unexpected traffic problems or inclement weather. However, chronic lateness is considered an unprofessional behavior that disrupts the learning environment for everyone else in the classroom.

TEXTBOOKS

Required: 1. Understanding Anatomy & Physiology – Thompson, 3rd Edition

Recommended: 1. Medical Terminology-Davi-Ellen Chabner, 6th edition

GRADING POLICIES AND EXAMINATION PROCEDURES

Testable material comes from 3 main sources: Lecture presentations, CANVAS, and reading assignments.

There will be 6 Quizzes, a Mid Term Exam and a Final Exam.

The 6 quizzes will represent 50% of the total grade and the mid term exam 25% and the final exam 25% of the total grade.

The midterm exam will cover all materials from lectures, readings and CANVAS website for the first half of the course.

The final exam will cover all materials from lectures, readings and CANVAS website for the second half of the course.

Grading System

There will be 6 Quizzes, a Mid Term Exam and a Final Exam.

The 6 quizzes will represent 50% of the total grade and the mid term exam 25% and the final exam 25% of the total grade.

The midterm exam will cover all materials from lectures, readings and CANVAS website for the first half of the course.

The final exam will cover all materials from lectures, readings and CANVAS website for the second half of the course.

Grading is based on the following scale:

A = 90-100% B = 80-89% C = 70-79% F = < 69%

Note: Fractions of grades are rounded to the nearest whole number for your final course grade. For example, 89.45 is an A, but 89.44 is a B, or 74.45 is a B, but 74.44 is a C.

Examination Protocol – Exams may be composed of multiple choice, short answer, and fill in the blank questions. The proportion represented by each question type will vary among the 3 exams. Certain questions will be accompanied by images, so it is imperative that you study images (particularly those presented in class).

All exams and quizzes will be taken on CANVAS therefore you will need to bring a computer to take each exam. No extra paper, books, backpacks, etc. are permitted in the testing area. Hats must be removed.

You will not be allowed to ask questions of the proctor once the examination has started (except to point out potential typographical errors or problems with the exam).

Late Arrival to Exams - Exams will be timed. If you arrive late to an exam, and are given permission to take the exam, you will not be given additional time to complete your test. If you arrive after another student has finished the exam and has departed the exam room, you will not be allowed to take the exam. If you miss an exam, you may be eligible for taking a make-up exam (see below).

Grading Procedures – Exam results will be provided to students as quickly as possible.

Make-up Examinations – A student who must miss a scheduled exam for a serious reason must request an excused absence from the Course Director. Acceptable “serious reasons” usually involve serious illness or injury to the student (doctor’s excuse may be required) or the student’s family member. Examples of unacceptable reasons include: Not prepared or incomplete studying, over-sleeping, hangover, heavy traffic or any travel delays, other appointments or scheduled professional or personal commitments.

If it is determined that missing an exam is justified, a make-up examination will be scheduled. The make-up exam will be given as soon as possible at a time designated by the Course Director. Any student who misses an exam and does not receive an excused absence will receive a grade of zero for that exam.

REQUESTS FOR ACCOMODATIONS FOR DISABILITIES

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100). to his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at <http://uthscsa.edu/eoo/request.asp>.

ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at <http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/>

TITLE IX AT UTHSCSA

Title IX Defined:

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”

University of Texas Health Science Center San Antonio’s Commitment:

University of Texas Health Science Center San Antonio (UTHSCSA) is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate on the basis of sex in its education programs and activities, and it encourages any student, faculty, or staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director.

In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567-2800. Additional information may be obtained at <http://students.uthscsa.edu/titleix/>

EMAIL POLICY

Every student is issued a University e-mail address and account at the time of enrollment. As a matter of University Policy, communications between students and faculty that occur using the student's University e-mail address is considered official business. Therefore, students are expected to check their university email inboxes on a regular basis so that any announcements, instructions, or information regarding this course will be received in a timely way. Announcements may also be made through CANVAS. Missed communications due to inadequate monitoring of incoming emails on the University's email server will never be a valid excuse for unsatisfactory academic progress.

USE OF RECORDING DEVICES

Recording of lectures and other learning activities in this course by any means (e.g., video, audio, etc.) is only permitted if approved by the instructor or required for compliance with Americans with Disabilities Act (ADA).

ELECTRONIC DEVICES

Cell phones must be turned off during all class meetings and exams. Computers and electronic tablets are allowed only for participating in classroom activities (e.g., viewing slides presented in lecture or conference materials). No texting, tweeting, emailing, web-surfing, gaming, or any use of electronic devices that is not directly connected with classroom activities is permitted.

TENTATIVE CLASS SCHEDULE
RADI 6024
Radiological Anatomy and Physiology
Spring 2020

WEEK	DATE	TOPIC	Assignment	Instructor
Week 1	1-7-20	-Course Requir. and Medical Terminology -Intro to Medical Imaging, Human Body	Medical Term. Worksheet Take Practice Quiz UAP Chapters 1	Nute
	1-9-20	Basic Chemistry, Microbiology and Microbiome	UAP Chapters 2 and 4	Clarke
Week 2	1-14-20	Cell Metabolism, Tissues, Membranes, etc.	UAP Chapters 3, 5 and 6	Abazid
	1-16-20	Sensory Organs and Nervous system	UAP Chapters 11 (up to pg 196) and 12	Abazid
Week 3	1-21-20	QUIZ #1		Abazid
	1-23-20	Clinical Cross-Sectional Brain Imaging I (cranial nerves and hindbrain)	UAP Chapter 11 (pg 197 to end)	Staff
Week 4	1-28-20	Clinical Cross-Sectional Brain Imaging II (major cortical and sub-cortical structures)		Staff
	1-30-20	Functional Imaging of Brain		Staff
Week 5	2-4-20	Head and Neck Anatomy & Radiology	UAP Chapters 7, 8 and 10 (up to pg 165)	Staff
	2-6-20	QUIZ #2		Abazid
Week 6	2-11-20	Musculoskeletal Anatomy and Radiology- Upper Extremity	UAP Chapters 9 and 10 (pg 166 to end)	Davis
	2-13-20	Musculoskeletal Anatomy and Radiology- Lower Extremity		Staff
Week 7	2-18-20	QUIZ #3		Abazid
	2-20-20	Radiological Anatomy of the Heart & Great Vessels	UAP Chapters 14 - 16	Clarke
Week 8	2-25-20	Imaging the Physiology of the Heart		Clarke
	2-27-20	Chest Imaging-Chest Radiography	UAP Chapter 18	Baxi
Week 9	3-3-20	Chest Imaging-CT		Katre
	3-5-20	QUIZ #4		Abazid
Week 10	3-10-20	NO CLASS		
	3-12-20	NO CLASS		
Week 11	3-17-20	Biomolecular Imaging		Salman
	3-19-20	MID-TERM EXAM		Abazid
Week 12	3-24-20	Digestive System Anatomy & Physiology	UAP Chapters 21 and 22	Zafar
	3-26-20	Abdomen, Special Organ Anatomy and Imaging		Ojili
Week 13	3-31-20	QUIZ #5		Abazid
	4-2-20	Urinary System Anatomy and Physiology	UAP Chapters 19 and 20	Staff
Week 14	4-7-20	Urinary System Imaging		Sunnapwar
	4-9-20	Pelvis Anatomy	UAP Chapters 23 and 24	Chetri
Week 15	4-14-20	Pelvis Imaging		Katabathina
	4-16-20	QUIZ #6		Abazid

Week 16	4-21-20	Adrenal, Thyroid, & Parathyroid Imaging	UAP Chapters 13	Metter
	4-23-20	Lymphatic System	UAP Chapter 17	Metter/Ojili
Week 17	4-28-20	Breast Cancer Diagnosis & Treatment	UAP Chapter 25	Van Thanh
	4-30-20	Radionuclide Therapy		Philips
	5-5-20	FINAL EXAM		Abazid

Note ** UAP = Understanding Anatomy & Physiology – Thompson, 3rd Edition.