

Department of Radiation Therapy
Division of Allied Health Sciences
College of Nursing and Allied Health Sciences
Howard University

Sectional Anatomy – Syllabus -

Revised: August 28, 2015

Course Title	RASC 314 2 Credit Hours
Lecture Location	Radiology Department, Hospital, First floor
Lecture Day & Time	Fridays, 15:10 hrs to 17:00 hrs
Prerequisites	Biology, Anatomy/Physiology, Medical Terminology
Faculty	Andre J. Duerinckx, MD, PhD Professor and Chairman, HUHS, Dept. Of Radiology
Textbooks	(1) CT Anatomy for Radiotherapy , 1st Edition, 2011 Pete BRIDGE & David J. TIPPER Australia & UK. Published by: m & k Publishing in UK; Available on Amazon.com for \$ 65 plus \$5 shipping; KINDLE Price: \$16.19 including free WiFi delivery (prices can and will change) (2) Sectional Anatomy for Imaging Professionals Workbook for Sectional Anatomy for Img Profls, 2 nd ed Kelley & Petersen, MOSBY Elsevier (Publisher)
Instruction Methods	Lecture, Discussion, Demonstration, Self-Study
Teaching Materials	PowerPoint, Handouts, Skeleton, Images
Office Phone	(202) 806-5920 and (202) 806-7609 Also: 202-865 1572 via Desta Golden in Radiology
Location for Lectures	Radiology Conference room(s), Howard Univ Hospital
Radiation Therapy Department	Annex II, Rm 103, A. HARRISON; 202-806 5920
Office Hours	TBA
Email	andre.j.duerinckx@howard.edu

Course Overview

The content of this course is designed to study normal sectional anatomy via diagrams, textbook and anatomical aides (skeleton). Knowledge of sectional anatomy is essential to the radiation therapist in the practice of radiotherapy planning and treatment delivery.

Course / Learning Objectives

At the end of this course, students should be able to

1. Discuss normal gross human anatomy
2. Identify normal anatomical structures on sectional images
3. Identify topographic anatomy used to locate underlying internal structures
4. Differentiate between sagittal, coronal and axial planes of the body
5. Review the principles of imaging for imaging modalities using relevant terminology
6. Compare the imaging modalities: CT, MR, US, PET/CT, other modalities for application to radiation therapy
- 7. Use three-dimensional (3D) and cross-sectional imaging software packages**
8. Write a Radiology or Anatomy Case Report

Grading Policy

Grading will be based on the Howard University Policy outlined in the Student Reference Manual & Directory of Class (Web) or the H-Book.

A minimum grade of C is required for upper division.

Attendance & Participation

Students are expected to attend all sessions, and are expected to be punctual. A sign in sheet will be provided for each lecture.

Absence from class will not be accepted as an excuse for not fulfilling an assignment, quiz, or presentation, etc.

All cell phones, beepers, and/or other types of communication devices must be turned off or on silent during class.

TEXTBOOK and COMPUTER HELP

Downloading the e-Book (Kindle version):

Via : <http://www.amazon.com/CT-Anatomy-for-Radiotherapy-ebook/dp/B005JYSR8Y>

COMPUTERS:

Laptop computer is REQUIRED during the class, including a CD or DVD drive

Reminder:

Please bring a LAPTOP including a CD/DVD drive/reader with you to class, as well as extension cords (as needed) to keep your laptop charged for 2 hours. (many of you have Tablets, like iPad or mini iPad; these will not work for this course)

Make sure a DICOM Viewer is pre loaded and working on your computer.

You will be handed a CD at the beginning of (almost) every class with the study material/ anatomical samples on the CD.

The midterm and final examinations will all cover these CT anatomy samples.

*** PLEASE CONFIRM by e-mail to andre.j.duerinckx@howard.edu***

CONFIRM within the first week of class that:

- 1) You have a working Laptop and CD/DVD Drive to bring to class;
- 2) You downloaded the \$16 e-version of the TEXTBOOK from Amazon.com or purchased the actual (more expensive) book.

Instructions on how to download free DICOM viewers:

You can download a free DICOM Viewers for your personal computers to view images in DICOM format.

The two free DICOM viewers being used are:

For PC: [k-PACS V.1.6.0](http://www.k-pacs.de/) ; compatible with 64 bit computers;
(<http://www.k-pacs.de/> pick the FREE version V1.6.0)

For Mac: [OsiriX](http://www.osirix-viewer.com/)
(<http://www.osirix-viewer.com/> pick the FREE 32 bit version)
FREE OPEN SOURCE 32 bit version (v5.7)
at: <http://www.osirix-viewer.com/Downloads.html>

There is also a non-free version of OsiriX for iPad for \$29.99

Presentations and Group Projects:

You will also be creating PowerPoint presentations during the class.

CRITICAL: use the "**cropping**" command in PowerPoint so as not to distort images; use large fat arrows, etc.. (looks better).

HIPAA: always remove patient information from your images.

Examinations & Assignments

Examinations will be taken as scheduled, and failure to do so is acceptable only in the event of documented illness/dire emergencies. Students failing to take examinations as scheduled are required to contact the instructor in advance of the exam, and are required to make arrangements to take an examination with four (4) days. Failure to do so may result in an F for that examination.

All class assignments are due at the beginning of the class period on the due date assigned. There will be deduction of 10% per day for late assignments. All assignments are to be typed and constitute original works. **There will be no make-ups on missed quizzes.**

It is the instructor's responsibility to guide discussions and other activities, and to maintain the learning environment in working order.

It is the student's responsibility to prepare fully for discussions and other activities, and to maintain the learning environment in working order.

Methods of Evaluation

Evaluation of performance this semester will be based on:

In Class presentations	20%
Midterm written Assignment	30%
Midterm Examination	20%
Final Examination – In Class	30%
Total	100%

Students engaging in unethical conduct are subject to the policies and procedures published in the Student Reference Manual and Directory of Classes – FA 12, refer to the University's Academic Code of Conduct (located on the web) or the H-Book. Academic infractions included academic cheating and plagiarism. Please see the aforementioned manual for detail and definitions for infractions.

Howard University Statement Of ADA Procedures

Howard University is committed to providing an educational environment that is accessible to all students. In accordance with this policy, students in need of accommodations due to disability should contact the Office of the Dean for Special Student Services for verification and determination of reasonable accommodations as soon as possible after admission to the university, or at the beginning of each semester. The Dean of Special Student Services, Dr. Barbara Williams, can be reached at (202) 238-2420.

Lecture and Practice sessions Guide for RASC 314 (Laptops required)

Instructor(s): Dr Duerinckx and other
Radiology Faculty (Drs Kim, Sartip, Nabhani, etc..)

	<u>Date</u> (Fridays)	<u>Activity</u>
1	Aug 28, 2015	Introduction to Course Sectional Anatomy & Rad Assignment: MRI and CT in Radiology; safety; etc.
2	Sept 04	DICOM Viewers and 3D Imaging Assignment: Displaying anatomical structures: Creating PowerPoints, Measure cross sections
3a	Sept 11	Brain (Dr Sartip and/or Kim) Assignment: Compare Textbook to real patient.
3b	Sept 11	C-Spine & Neck (Dr Sartip and/or Kim)
4	Sept 18	Abdomen & Pelvis , Part I (Dr Nabhani);
5	Sept 25	REVIEW (Drs Nabhani and Kim/Sartip);
6	Oct 02	Part I: MIDTERM Examination
7	Oct 09	Chest, Thoracic Spine & Chest (Dr Sartip/Kim)
8	Oct 16	Chest. (Dr Duerinckx)
9	Oct 23	Heart (Dr Duerinckx)
10	Oct 30	Pelvis, prostate, uterus (Dr Nabhani)
11	Nov 06	Thoracic & Lumbar spine and extremities (Dr Kim)
12	Nov 13	REVIEW of all spines and extremities (Dr Kim)
13	Nov 20	Global Course Review & In-Class Quiz (TBA)
xx	Nov 27	BREAK: Thanksgiving break
14	Dec 4 or 11	Final Examination: In Class QUIZ: Testing ALL Anatomy (30 % of grade)