

Virginia Western Community College
ROC 151
Introduction to Cross-Sectional Anatomy

Prerequisites

ROC 110, ROC 120, ROC 121

Course Description

Introduces the study of basic anatomic structures and pathologies through digital concepts of medical imaging with emphasis on principles and practices of Radiation Oncology and diagnostic Radiography.

Semester Credits: # Lecture Hours: # Lab/Clinical/Internship Hours: #

Required Materials**Textbook:**

Kelly & Peterson. (2013). Sectional anatomy for imaging professionals (3rd ed.). Missouri: Mosby Elsevier. ISBN 13: 978-0-323-08260-0

Washington, C. and Leaver, D. (2016). Principles and practice of radiation therapy. (4th edition) MO: Mosby Co. ISBN 13: 978-0-323-28752-4

Other Required Materials:

Internet access required

Course Outcomes

At the completion of this course, the student should be able to:

- Use films, diagrams, and models, identify anatomy in the cross-sectional plane
- Describe the relative position of normal anatomical structures within the head, neck, spine, chest, abdomen, pelvis, and the extremities on digital images
- Describe and be able to identify common pathologies within the head, neck, spine, chest, abdomen, pelvis, and the extremities on digital images
- Identify common variant and pathological processes of the head, chest, abdomen and spine on CT images so that they can be optimally images and described to a dosimetrist or radiation oncologist

Topical Description

- Week 1
 - Introduction
 - Review Syllabus
 - Class Expectations
 - Introduction to Collaborate
 - History of CT and Sectional anatomy
 - Review terminology
 - Review planes and quadrants of body
 - Components of a CT simulator

- Week 2
 - Image acquisition
 - CT simulator controls
 - CT simulator function
 - Advantages of a CT simulator
 - CT image storage
 - Artifacts
 - Contrast media

- Week 3
 - Other imaging modalities
 - Looking at films
 - Review for test 1

- Week 4
 - Cranium anatomy
 - Cross sectional image review of the cranium
 - Facial bone anatomy
 - Cross sectional image review of the facial bones

- Week 5
 - Brain anatomy
 - Cross sectional image review of the brain

- Week 6
 - Review for test 2

- Week 7

- Spine anatomy
- Cross sectional image review of the spine

- Week 8
 - Neck anatomy
 - Cross sectional image review of the neck

- Week 9
 - Review for test 3

- Week 10
 - Thorax anatomy
 - Cross sectional image review of the thorax

- Week 11
 - Abdomen anatomy
 - Cross sectional image review of the abdomen

- Week 12
 - Review for test 4

- Week 13
 - Pelvis anatomy
 - Cross sectional image review of the pelvis

- Week 14
 - Upper and Lower Extremity anatomy
 - Cross sectional image review of the extremities
 - Review for test 5

- Week 15
 - Review for Exam

Notes to Instructors

