

RAD SCI COMPUTED TOMOGRAPHY (RSC)

RSC 400: CT Physics & Instrumentation

In-depth study of the physical principles and instrumentation in computed tomography. Covers the production of x-rays and their interactions with matter. Provides information on data acquisition and image reconstruction, processing and quality. Addresses CT scanner components and operation, scanning factors and their applications.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSC 401: Cross Sectional Anatomy I

The study of human anatomy as seen in axial, sagittal and coronal planes. Presents correlations to cadaver slides as well as CT and MR images. Anatomical regions studied include the central nervous system, neck and thorax.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, On-Line

RSC 402: Cross Sec Anatomy II

Continuation of Radiologic Sciences C 401, Cross-Sectional Anatomy I. Anatomical regions studied include the musculoskeletal system, abdomen and pelvis. Prerequisite: RSC 401

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, Lecture/On-Line, On-Line

RSC 411: CT Patient Care & Safety

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 412: Clin Computed Tomography I

Students participate in the diagnostic process of performing CT imaging examinations at clinical sites. Students image anatomic structures and pathology and record the information needed to provide optimal examinations. Provides intensive, hands-on practice under the supervision of the clinical staff. Evaluation is based on clinical competency in all aspects of CT imaging procedures and patient care.

Credits: 2,6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 413: Clinical CT II

"Continuation of Radiologic Sciences C 412, Clinical CT I. Students participate in the diagnostic process of performing CT imaging examinations at clinical sites. Students image anatomic structures and pathology and record the information needed to provide optimal examinations. Provides intensive, hands-on practice under the supervision of the clinical staff. Evaluation is based on clinical competency in all aspects of CT imaging procedures and patient care. Prerequisite: RSC 412

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 414: Clinical CT III

"Continuation of Radiologic Sciences C 413, Clinical CT II. Students participate in the diagnostic process of performing CT imaging examinations at clinical sites. Students image anatomic structures and pathology and record the information needed to provide optimal examinations. Provides intensive, hands-on practice under the supervision of the clinical staff. Evaluation is based on clinical competency in all aspects of CT imaging procedures and patient care. Prerequisite: RSC 413

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 421: Clinical Cardiac VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 431: CT Procedures I

"This course provides an introduction to the basic CT imaging protocols for the head & neck, abdomen & pelvis, and musculoskeletal regions of the human body. Course content will include discussion on positioning and scanning protocols, patient preparation, radiographic technique, slice thickness, reconstruction methods, matrix size, field of view, and artifacts. Normal and pathological anatomy will be included. "

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSC 432: CT Procedures II

"This course provides an introduction to the basic CT imaging protocols for the skeletal/chest regions of the human body and CT interventional/special procedures. Course content will include discussion of the guidelines & contraindication of IV contrast, positioning, & scanning protocols, patient preparation, radiographic technique, slice thickness, reconstruction methods, matrix size, field of view, and artifacts. Normal and pathological anatomy will be included. Also includes illustration of the various special procedures which are offered in the daily workplace of CT. Prerequisite: RSC 431

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 433: CT Procedures Simulation Lab I

The CT simulator allows for the instruction of clinical computed tomography procedures in the classroom. Students will acquire clinical experience and confidence with life-like CT operator's console. Students will gain knowledge, scanner operations, imaging procedures, imaging parameters & trade-offs, pressure injector operation, and anatomical positions.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab, On-Line

RSC 434: CT Procedures Sim Lab II

"Continuation of Radiologic Sciences RSC 433, CT Procedures Simulation Lab I. The CT simulator allows for the instruction of clinical computed tomography procedures in the classroom. Students will acquire clinical experience and confidence with life-like CT operator's console. Students will gain knowledge, scanner operations, imaging procedures, imaging parameters & trade-offs, pressure injector operation, and anatomical positions. Prerequisite: RSC 433

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSC 451: Imaging Informatics

Digital electronics, computers, and information technology are fundamental to medical imaging practice in the 21st century. This course presents an introductory overview of the science and technology underlying the information systems that are pervasive in modern diagnostic imaging. Topics include digital image acquisition, reconstruction, and post-processing, advanced visualization, decision support, computer networking and PACS, information systems, and industry standards such as DICOM, HL7, and IHE.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 473: Computed Tomography Seminar

The course provides a review of the fundamental principles of CT system operation, image processing image quality, image artifacts, patient care, and imaging procedures.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSC 498: Special Topics in CT

A research project/special topics course taught in an independent study/ seminar manner. Students will produce a written literature review paper and present research projects on CT topics agreed to by the instructor

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 499: CT Independent Study

A research project taught in an independent study manner. Students will produce a written literature review paper and present research projects on CT topics agreed to by the instructor.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Independent Study