

# RADIOLOGIC TECHNOLOGY (RAD)

## **RAD-510 Radiology Physics & Imaging Techniques** **4 Units (LEC 64-72)**

This course includes basic knowledge of scientific units, the structure of matter, electromagnetic radiation, electromagnetism, the imaging system, x-ray tube construction, x-ray production and interactions, radiographic quality and techniques, digital imaging and artifacts, scatter control, radiation protection, and quality assurance.

**Prerequisite:** Acceptance to the Radiologic Technology Program.

**Recommended Preparation:** MATH-105.

**Transfers to CSU only**

## **RAD-515 Radiographic Positioning I** **6 Units (LBE 144-162, LEC 48-54)**

This course offers positioning methods for the upper and lower extremities, respiratory system, bony thorax, and abdomen along with practical applications of image evaluation and radiation protection.

**Prerequisite:** Acceptance to the Radiologic Technology program.

**Transfers to CSU only**

## **RAD-520 Patient Care & Medical Ethics for Radiographers** **3 Units (LEC 48-54)**

This course is a lecture/demonstration class to teach vital signs, medical emergencies, imaging procedures, aseptic techniques, drug administration, communication, body mechanics, infection control, and medical ethics used by radiology personnel in working with patients from diverse backgrounds. Students will be required to obtain or show proof of having a current cardiopulmonary resuscitation (CPR) certification from the American Heart Association by the end of the course.

**Prerequisite:** Acceptance to the Radiologic Technology Program.

**Other Enrollment Criteria:** Cardiopulmonary resuscitation (CPR) certification from the American Heart Association.

**Transfers to CSU only**

## **RAD-525 Radiology Externship** **7 Units (LAB 240-270, LEC 32-36)**

This course provides supervised training in an approved clinical affiliate. Lecture topics in this course provide an introduction to specialized imaging exams to include fluoroscopy, hysterosalpingography, pediatrics, orthoroentgenography, mammography, arthrography, and myelography.

**Prerequisite/Corequisite:** RAD-510 (with a grade of C or better), and RAD-515 (with a grade of C or better), and RAD-520 (with a grade of C or better).

**Transfers to CSU only**

## **RAD-530 Radiographic Positioning II** **6 Units (LBE 144-162, LEC 48-54)**

This course offers positioning methods for the digestive and urinary systems, skull, and vertebral column. Trauma positioning and surgical/mobile techniques are discussed along with image evaluation and radiation protection for all procedures.

**Prerequisite/Corequisite:** RAD-510 (with a grade of C or better), and RAD-515 (with a grade of C or better), and RAD-520 (with a grade of C or better).

**Transfers to CSU only**

## **RAD-535 Special Procedures & Venipuncture** **2 Units (LBE 48-54, LEC 16-18)**

This course provides the student with the theory and practice of basic techniques of venipuncture and the administration of contrast media. Emphasis will be placed on the types of contrast agents used for the various radiographic procedures. The student will perform both simulated and live venipuncture for contrast media injection. Basic Pharmacology will be discussed. Special imaging modalities such as Computerized Tomography, Magnetic Resonance Imaging, Diagnostic Medical Sonography, Nuclear Medicine, Interventional Radiography, and Radiation Therapy will be surveyed.

**Prerequisite/Corequisite:** RAD-510 (with a grade of C or better), and RAD-520 (with a grade of C or better).

**Transfers to CSU only**

## **RAD-540 Radiobiology** **2 Units (LEC 32-36)**

This course is designed to provide the principles of radiation interaction with cells, tissues, and the body as a whole. Factors affecting biological responses are presented, including early and late effects of radiation exposure. The principles of radiation protection along with the responsibilities of the radiographer for patients, personnel, and the public is included.

**Prerequisite/Corequisite:** RAD-510 (with a grade of C or better), and RAD-515 (with a grade of C or better).

**Transfers to CSU only**

## **RAD-645 Radiology Internship I** **6 Units (LAB 288-324)**

This course begins the internship phase of the Radiologic Technology Program. Students are assigned to selected clinical education centers which provide supervised clinical training in the Department of Imaging at affiliated hospitals. Internship consists of 40 hours per week for the summer session. Clinical experiences are designed to provide assessment of competency performance of radiologic imaging exams of the chest, abdomen, and extremities. Observation of other radiographic procedures is allowed. Participation in other radiographic procedures is based on student competency and progression.

**Prerequisite/Corequisite:** RAD-525 (with a grade of C or better), and RAD-530 (with a grade of C or better), and RAD-535 (with a grade of C or better).

**Transfers to CSU only**

**RAD-650 Radiography Review I**  
**1 Unit (LEC 16-18)**

This course provides a comprehensive review of selected radiologic technology topics to support the student in the clinical internship phase and to prepare the student for the American Registry of Radiologic Technologists examination upon graduation. Topics include radiographic techniques and image quality factors.

**Prerequisite/Corequisite:** RAD-525 (with a grade of C or better), and RAD-530 (with a grade of C or better).

**Transfers to CSU only**

**RAD-655 Radiology Internship II**  
**12.5 Units (LAB 600-675)**

This course is a continuation of the internship phase of the Radiologic Technology Program. Students are assigned to selected clinical education centers which provide supervised clinical training in the Department of Imaging at affiliated hospitals. Internship consists of 40 hours per week for the semester. Clinical experiences are designed to provide assessment of competency performance of radiologic imaging exams of the skull, spine, and digestive and urinary procedures. Observation of other radiographic procedures is allowed. Participation in other radiographic procedures is based on student competency and progression.

**Prerequisite/Corequisite:** RAD-645 (with a grade of C or better), and RAD-650 (with a grade of C or better).

**Transfers to CSU only**

**RAD-660 Radiography Review II**  
**1 Unit (LEC 16-18)**

This course provides a comprehensive review of selected radiologic technology topics to support the student in the clinical internship phase and to prepare for the American Registry of Radiologic Technologists examination upon graduation. Topics include radiation physics, patient care and medical ethics, quality assurance and control, and radiobiology.

**Prerequisite/Corequisite:** RAD-645 (with a grade of C or better), and RAD-650 (with a grade of C or better).

**Transfers to CSU only**

**RAD-665 Radiology Internship III**  
**12.5 Units (LAB 600-675)**

This course is the final semester of the internship phase of the Radiologic Technology Program. Students are assigned to selected clinical education centers which provide supervised clinical training in the Department of Imaging at affiliated hospitals. Internship consists of 40 hours per week for the semester. Clinical experiences are designed to provide assessment of selected competency performance of radiologic imaging exams including surgical procedures using C-arm equipment, pediatric, and trauma exams. This course allows the students to improve their skills in patient care and imaging procedures to gain confidence and competence for employment after graduation. Rotations through other imaging modalities are included.

**Prerequisite/Corequisite:** RAD-655 (with a grade of C or better), and RAD-660 (with a grade of C or better).

**Transfers to CSU only**

**RAD-670 Radiography Review III**  
**1 Unit (LEC 16-18)**

This course provides a comprehensive review of selected radiologic technology topics to support the student in the clinical internship phase and to prepare for the American Registry of Radiologic Technologists examination upon graduation. Topics include radiographic positioning, fluoroscopy, resume writing, completing the American Registry of Radiologic Technologists application process, and continuing medical education requirements for licensure.

**Prerequisite/Corequisite:** RAD-655 (with a grade of C or better), and RAD-660 (with a grade of C or better).

**Transfers to CSU only**