

RADIOLOGIC TECHNOLOGY (RDTC)

RDTC 100 BASIC RADIOLOGIC TECHNOLOGY PRACTICES

2 unit

Prerequisite(s): PYSO 002A and PYSO 002B within 3 years and completion of MA 115 within one year of acceptance in Radiological Technology Program

Corequisite(s): RDTC 101

Radiologic technology as a profession. Responsibilities of the radiologic technologist regarding ethics and the patient's emotional needs. Patient consents. Developing introductory positioning skills using anatomic landmarks, role-play in chest radiography. Total of 18 hours lecture and 18 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 101 MEDICAL PROCEDURES FOR THE TECHNOLOGIST

3 unit

Prerequisite(s): Valid CPR card and PYSO 002A and 002B

Corequisite(s): RDTC 100

Physical needs of the X-ray patient with emphasis on aseptic technique, required preparations and ECG procedures. Responsibilities of the technologist during first aid and crash cart procedure. CPR review. Eight weeks. Total of 24 hours lecture and 24 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 102 RADIATION PROTECTION

3 unit

Prerequisite(s): RDTC 100 and 101

Corequisite(s): RDTC 103A, 110, 112A, and 117A

Radiologic protection for operator and patients complying with the State of California Administrative Code, Title 17. Use of X-ray equipment, X-ray machine circuitry with emphasis on devices and techniques to reduce ionizing radiation. Total of 54 hours lecture.

Grade Mode: Audit, Letter Grade

RDTC 103A RADIOGRAPHIC ANATOMY AND POSITIONING

3.5 unit

Prerequisite(s): RDTC 100 and 101

Corequisite(s): RDTC 102, 110, 112A, and 117A

Positioning nomenclature, topographic anatomy emphasizing surface landmarks to locate organs within each body region. Positioning by use of phantoms. Radiography of the skeleton, thoracic cavity and abdominal cavity. Anatomy and positioning of the gastrointestinal and biliary tracts. Basic mobile radiography. Radiography of pediatric, geriatric and psychiatric patients. Types of contrast media. Total of 45 hours lecture and 72 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 103B RADIOGRAPHIC ANATOMY AND POSITIONING

3.5 unit

Prerequisite(s): All of the following: RDTC 102, 103A, 110, 112A, and 117A

Corequisite(s): RDTC 104, 112B, and 117B

Anatomy and positioning of the cervical, thoracic and lumbar spines, the salivary glands and skull. Anatomy and positioning of the genitourinary tract. Principles of tomography equipment. Opaque media, drug side effects and indications. Use of phantoms. Emphasis on skull positioning. Radiograph critique. Total of 45 hours lecture and 72 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 103C RADIOGRAPHIC ANATOMY AND POSITIONING

3 unit

Prerequisite(s): RDTC 103B and 119

Corequisite(s): RDTC 105, 111, 117C

Identification of sectional anatomy concentrating on brain, neck, thorax, abdomen, and pelvis, including the cervical, thoracic and lumbar spines. Correlation of axial, sagittal and coronal sections to positioning in CT scanning and some MRI scanning. Total of 54 hours lecture.

Grade Mode: Audit, Letter Grade

RDTC 104 PRINCIPLES OF RADIOGRAPHIC EXPOSURE

3 unit

Prerequisite(s): All of the following: RDTC 102, 103A, 110, 112A, and 117A

Corequisite(s): RDTC 103B, 112B, and 117B

Development and use of technique charts. Calculations to determine specific exposures. Processing techniques and other factors affecting radiographic quality. Use radiographic phantoms and accessory devices. Total of 36 hours lecture and 54 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 105 SPECIAL RADIOGRAPHIC PROCEDURES

3 unit

Prerequisite(s): RDTC 119

Corequisite(s): RDTC 103C, 111, and 117C

Specialized technical procedures in radiography. Angiogram, equipment and accessories. Anatomy and physiology of involved areas. Emphasis on myelography, selective angiography and the technologist as part of the special procedures team. Total of 54 hours lecture.

Grade Mode: Audit, Letter Grade

RDTC 110 PROFESSIONAL ETHICS

2 unit

Prerequisite(s): RDTC 100 and 101

Corequisite(s): RDTC 102, 103A, 112A, and 117A

Integration of interpersonal skills while analyzing the medicolegal issues, professional and ethical values in radiologic technology. Total of 36 hours lecture.

Grade Mode: Audit, Letter Grade

RDTC 111 COMPUTERIZED IMAGING

2 unit

Prerequisite(s): RDTC 119

Corequisite(s): RDTC 103C, 105, and 117C

Principles, components and functions of computerized imaging systems with emphasis on the application of computers in the radiology department. Brief introduction to computed tomography, magnetic resonance imaging. Total of 36 hours lecture.

Grade Mode: Audit, Letter Grade

RDTC 112A RADIOLOGIC PHYSICS

3 unit

Prerequisite(s): RDTC 100 and 101

Corequisite(s): RDTC 102, 103A, 110, and 117A

Fundamentals of electrical and radiation physics. Emphasis on principles underlying optics, electromagnetic and other types of ionizing radiation. Total of 36 hours lecture and 54 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 112B RADIOLOGIC PHYSICS

3 unit

Prerequisite(s): All of the following: RDTC 102, 103A, 110, 112A, and 117A

Corequisite(s): RDTC 103B, 104, and 117B

Function and use of basic radiologic physics in diagnostic radiology. Applied physical rules and laws in general physics, production of the X-ray beam, tubes and generators, circuitry and equipment. Quality assurance of special equipment. Total of 36 hours lecture and 54 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 113A CLINICAL LEARNING EXPERIENCE

2 unit

Prerequisite(s): All of the following: RDTC 102, 103A, 112A, and 117A

Intermediate Clinical Learning Experience in a Radiology Department of an affiliate hospital or medical center under the supervision of a licensed Radiologic Technologist. Participation will include observation, assistance and performance in basic radiographic procedures. Clinical practice shall be designed to provide standard patient care and assessment, integration and application of radiographic procedures learned during the first semester, which include the upper and lower limbs, and the gastrointestinal tract. Short term course. Total of 96 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 113B CLINICAL LEARNING EXPERIENCE

6 unit

Prerequisite(s): All of the following: RDTC 103C, 105, 111, 113A, and 117C

Intermediate clinical learning Experience that is designed for sequential development, application, integration, synthesis and evaluation of concepts and theories in the performance of radiographic procedures. Clinical practice shall be designed to provide patient care and assessment, competent performance of basic and advance radiographic procedures under the appropriate level of supervision of a licensed Radiologic Technologist, and enhance professional development. Short term course. Total of 192 hours of laboratory.

Grade Mode: Audit, Letter Grade

RDTC 116 PERSPECTIVES IN RADIOLOGIC TECHNOLOGY

2 unit

Prerequisite(s): All of the following: RDTC 103C, 105, 111, and 117C

Corequisite(s): RDTC 117D, 118; and either RDTC 121 or 123

Utilization of advanced concepts, principles and skills of the radiologic technologist in an affiliated hospital as an extension of and related to classroom instruction. Emphasis on radiographic technique and images. Total of 36 hours lecture.

Grade Mode: Audit, Letter Grade

RDTC 117A CLINICAL EXPERIENCE

2 unit

Prerequisite(s): All of the following: RDTC 100, 101, and valid CPR card

Corequisite(s): RDTC 102, 103A, 110, and 112A

Clinical experience in a radiology or medical imaging facility under the supervision of a licensed Radiologic Technologist. Participation will consist of observation, assistance and performance. Total of 288 hours of laboratory.

Grade Mode: Audit, Letter Grade

RDTC 117B CLINICAL EXPERIENCE

2 unit

Prerequisite(s): All of the following: RDTC 102, 103A, 110, 112A, and 117A

Corequisite(s): RDTC 103B, 104, and 112B

Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Total of 288 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 117C CLINICAL EXPERIENCE

4 unit

Prerequisite(s): All of the following: RDTC 117A, 117B, 119, and valid CPR card

Corequisite(s): RDTC 103C, 105, and 111

Clinical experience in the radiology department of affiliated hospitals under the supervision of a licensed radiologic technologist. Total of 576 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 117D CLINICAL EXPERIENCE

4 unit

Prerequisite(s): All of the following: RDTC 103C, 105, 111, 117C

Corequisite(s): RDTC 116, 118, and either RDTC 121 or 123

Clinical experience in the radiology department of affiliated hospitals under the supervision of a certified radiologic technologist. Total of 512 hours laboratory.

Grade Mode: Audit, Letter Grade

RDTC 118 FLUOROSCOPY**3 unit****Prerequisite(s):** *All of the following: RDTC 103C, 105, 111, and 117C***Corequisite(s):** *RDTC 116, 117D; and either RDTC 121 or 123*

Technical function and design of image intensification, recording monitoring systems, human anatomy and physiology of the eye. Emphasis on radiation protection and quality control testing. Total of 54 hours lecture. Some scheduled hours in this course may be replaced by TBA hours arranged independently with the course instructor.

Grade Mode: *Audit, Letter Grade***RDTC 119 CLINICAL EXPERIENCE****6.5 unit****Prerequisite(s):** *All of the following: RDTC 103B, 104, 113A, and 117B*

Clinical experience in affiliated hospitals as an extension of and related to classroom instruction, and application of disease and injury changes. Emphasis on features of conditions in X-ray examinations. Ten weeks. Total of 20 hours lecture and 380 hours laboratory.

Grade Mode: *Audit, Letter Grade***RDTC 120 INDEPENDENT STUDY****1 unit****Enrollment Limitation:** *Acceptance into the Radiologic Technology Program and program director approval*

Participation in research projects including experience in clinical practice settings, practical laboratory assignment, lecture attendance, literature review and community projects. Total of 54 hours laboratory.

Grade Mode: *Letter Grade***RDTC 121 MAMMOGRAPHIC PROCEDURES****3 unit****Prerequisite(s):** *All of the following: RDTC 103C, 105, 111, 117C, or a valid CRT, ARRT Certification certificate***Corequisite(s):** *RDTC 116, RDTC 118, and RDTC 117D For non-PCC students, documentation of current California Radiologic Technology Certificate Diagnostic Radiologic Technology and/or approved by Program Director*

Technical and procedural aspects of mammography including radiation protection, quality assurance, breast anatomy, pathology, physiology, film critique, positioning and mass localization procedures. Total of 54 hours lecture.

Grade Mode: *Audit, Letter Grade***RDTC 123 COMPUTERIZED TOMOGRAPHY****3 unit****Prerequisite(s):** *All of the following: RDTC 103C, 105, 111, 117C, or a valid California Radiologic Technologist Certificate in Diagnostic Radiology, and/or approval from the Program Director***Corequisite(s):** *RDTC 116, 118, and 117D*

For non-PCC students documentation of current California Radiologic Technology Certificate Diagnostic Radiologic Technology and/or approval by Program Director. Principles of computed tomography, including data acquisition, image reconstruction, image display system, image recording system, and image storage system. Quality assurance aspects of CT, and basic concepts of Spiral and Helical scanning. Total of 54 hours lecture.

Grade Mode: *Audit, Letter Grade*