Radiologic Technology (RADT)

Courses

RADT A101 Radiation Protection and Biology for Limited Radiography Professionals 3 Credits
Introduces theory and application of diagnostic radiography for limited radiographers. Includes medical and legal responsibilities of radiography, principles of radiation protection, equipment operation and maintenance, image production and evaluation, and patient care and management.
Registration Restrictions: Must be 18 years or older
RADT A102 Principles of Radiography for Limited Practice I 3 Credits
Applies the concepts of technique selection, radiographic accessories, exposure and processing, and radiation protection. Radiographic anatomy, patient care skills, body mechanics, and radiographic positioning skills will be emphasized.
Prerequisites: RADT A101.
RADT A103 Radiographic Procedures for Limited Practice II 3 Credits
Offers the opportunity to apply the concepts of technique selection, radiographic accessories, exposure and processing, and radiation protection. Specific radiographic anatomy, patient care skills, body mechanics, and radiographic positioning skills will be emphasized. Application areas include procedures in abdomen, and axial and appendicular skeleton.
Prerequisites: RADT A101.
RADT A104 Radiographic Procedures for Limited Practice III 2 Credits
Covers basic principles of radiographic procedures in performing skull and trauma examinations. Continues to incorporate radiographic terminology and anatomy and allows for demonstration, practice, and evaluation of performance in a laboratory environment.
Prerequisites: RADT A101.
RADT A111 Introduction to Radiologic Technology and Patient Care 3 Credits
Provides an overview of radiography and the practitioner's role in the health care delivery system. Examines principles, practices, and policies of health care organizations, basic concepts of patient care, occupational safety, patient consent, and medical ethics and law as it relates to the profession.
Registration Restrictions: Department approval.
RADT A131 Radiographic Procedures I 3 Credits
Provides instruction regarding basic principles of radiographic procedures in performing examinations of the chest, abdomen, skeleton, and pelvic girdle. Introduces the principles of radiation protection. Incorporates radiographic terminology and anatomy and allows for demonstration, practice, and evaluation of techniques in a laboratory environment.
Registration Restrictions: Department approval
RADT A132 Radiographic Procedures II 3 Credits
Provides instruction regarding basic principles of radiographic procedures in performing examinations of the spine, bony thorax, alimentary tract, genitourinary system, and associated specialized procedures. Incorporates radiographic terminology and anatomy and allows for demonstration, practice, simulation, and evaluation of techniques in a laboratory environment.
Registration Restrictions: Department approval
Prerequisites: RADT A131.
RADT A133 Radiographic Procedures III 3 Credits
Provides instruction regarding basic principles of radiographic procedures in performing skull procedures and Computed Tomography for the radiographer. Introduces sectional anatomy for the radiographer and incorporates radiographic terminology and anatomy allowing for demonstration, practice, and evaluation of performance in a laboratory environment.
Registration Restrictions: Department approval.
RADT A151 Radiographic Physics 2 Credits
Provides fundamental knowledge of atomic structure and terminology. Includes the nature and characteristics of radiation, X-ray production and the fundamentals of photon interactions with matter.
Registration Restrictions: Department approval
RADT A161 Fundamentals of Medical Imaging 3 Credits
Provides an overview of the foundations of radiography. Establishes a knowledge base in radiographic equipment, design and factors that govern the image production process.
Registration Restrictions: Department approval
RADT A171 Fundamentals of Medical Imaging II 3 Credits
Introduces concepts that emphasize the importance of image standards, factors that affect image quality, image evaluation and critique. Principles regarding factors that influence the production and recording of radiographic and fluoroscopic images are emphasized.
Registration Restrictions: Department approval
Prerequisites: RADT A161.
RADT A195A Radiography Practicum I 2 Credits
Provides an opportunity to observe, participate, and apply basic radiographic skills in a structured and supervised health care environment, including patient interaction in the performance of examinations of the chest, abdomen, upper and lower extremities, and pelvic girdle. Duties are assigned by the UAA instructor and supervised by an ARRT registered radiologic technologist.
Registration Restrictions: Department approval.
RADT A195B Radiography Practicum II 2 Credits
Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations of the spine, thorax, upper and lower gastrointestinal, and genitourinary systems. Provides opportunity for continued development of previously gained practicum experience. Duties are assigned by the UAA instructor and supervised by an ARRT registered radiologic technologist.
Registration Restrictions: Department approval
RADT A195C Radiography Practicum III 3 Credits
Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations of the cranium, as well as trauma, mobile, and pediatric radiography. Provides opportunity for continued development of previous experience gained in the clinical environment. Duties are assigned by UAA instructor and supervised by an ARRT registered radiologic technologist.
Registration Restrictions: Department approval

RADT A211 Radiologic Pharmacology and Drug Administration 1 Credit
Provides practical concepts of pharmacology. Explains theory and practice of basic techniques of venipuncture and the administration of diagnostic contrast agents and/or intravenous medications. Emphasis is placed on appropriate delivery of patient care during procedures.
Prerequisites: RADT A195C.

RADT A231 Sectional Anatomy for Diagnostic Imaging 3 Credits
In-depth study of human anatomy through the use of cross-sectional images. Includes anatomical structural relationships and classification of anatomical regions. Transverse, sagittal and coronal views of the head, neck, thorax, abdomen, pelvis and extremities will be correlated with CT and MRI images.
Registration Restrictions: Departmental approval.

RADT A251 Radiobiology and Protection 2 Credits
Provides a comprehensive overview of the principles of radiation biology and protection as they pertain to the interaction of radiation with living systems.
Registration Restrictions: Department approval
Prerequisites: RADT A171.

RADT A272 Quality Control in Medical Imaging 2 Credits
Introduces various quality management standards and procedures required in the radiographic and fluoroscopic image process. Discusses management, collection and analysis of quality control data and/or test instrumentation. Includes governmental standards and guidelines that govern accreditation, licensure and provider standards.
Registration Restrictions: Department approval
Prerequisites: RADT A171.

RADT A280 Medical Imaging Pathology 3 Credits
Provides an introduction to the theories of disease causation and the pathophysiologic disorders that compromise healthy systems. Etiology, pathophysiologic responses, clinical manifestations, radiographic appearance, and management of alterations in body systems are presented. Multiple imaging modalities for pathologic correlation are included.
Registration Restrictions: Prerequisite or Registered Radiologic Technologist.
Prerequisites: RADT A133.

RADT A282 Current Issues in Radiologic Technology 1 Credit
Provides the opportunity to investigate current trends in Radiologic Technology. With the guidance of faculty the student will determine an area of investigative interest by selecting, technical, social, political, or economic aspects of Radiologic Technology.
Prerequisites: RADT A133 and RADT A195C.

RADT A295A Radiography Practicum IV 5 Credits
Provides opportunities for direct and indirect supervised development of radiographic skills in a health care facility, including patient interaction in the performance of select radiographic examinations. Continues the development of previously learned clinical skills.
Registration Restrictions: Departmental approval
Prerequisites: RADT A195C.

RADT A295B Radiography Practicum V 5 Credits
Provides continued opportunities for direct and indirect supervised development of radiographic skills in a health care facility, including patient interaction in the performance of select radiographic examinations. Continues the development of previously learned clinical skills. Concludes the development of career entry skills for the radiologic technologist.
Registration Restrictions: Departmental approval
Prerequisites: RADT A295A.

RADT A311 Mammography for Imaging Professionals 2,3 Credits
Provides knowledge and skills required of a certified mammographer. Provides the necessary didactic requirements (30 hours) and practicum requirements (45 hours) for mammography associated with the Food and Drug Administration (FDA) Mammography Quality Standards Act required by the Federal government. Prepares the students to sit for the ARRT National Certification Examination, which is required by the MQSA Standards.
Special Note: This course may be taken as a 2-credit course (30 hours didactic only) or as a 3-credit course (30 hours didactic plus 45 hours practicum).
Registration Restrictions: Registered or registry-eligible technologist or instructor permission.