

# Radiologic Technology (RADT)

---

## Courses

### **RADT A101** Fundamentals for Limited Radiography I **3 Credits**

Introduces theory and application of diagnostic radiography for limited radiographers. Includes equipment operation and maintenance, image production, digital image receptors, and beam limitation devices.

**Registration Restrictions:** Departmental approval

### **RADT A102** Fundamentals for Limited Radiography II **3 Credits**

Introduces theory and application of diagnostic radiography for limited radiographers. Includes medical and legal responsibilities of radiography, principles of radiation protection, and patient care and management.

**Registration Restrictions:** Departmental approval

### **RADT A103** Procedures for Limited Radiography I **3 Credits**

Introduces theory and application of diagnostic radiography for limited radiographers to include radiographic terminology, anatomy, positioning, evaluation criteria of limited radiography exams and concepts of radiation protection.

**Registration Restrictions:** Departmental approval

**Prerequisites:** RADT A101 with a minimum grade of D and RADT A102 with a minimum grade of D.

### **RADT A104** Procedures for Limited Radiography II **2 Credits**

Completion of discussions on the theory and application of diagnostic radiography for limited radiographers to include radiographic terminology, anatomy, positioning and evaluation criteria of limited radiography exams.

**Registration Restrictions:** Departmental approval

**Prerequisites:** RADT A103 with a minimum grade of D.

### **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 professionalism, basic concepts of patient care, safety, and medical ethics and law as it relates to the profession.

**Registration Restrictions:** Departmental 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, simulation and evaluation of techniques in a laboratory environment.

**Registration Restrictions:** Departmental approval

**Corequisites:** RADT A131L.

### **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 A111 with a minimum grade of C and RADT A131 with a minimum grade of C and RADT A161 with a minimum grade of C.

**Corequisites:** RADT A132L.

### **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.

**Prerequisites:** RADT A132 with a minimum grade of C.

**Corequisites:** RADT A133L.

### **RADT A151** Radiographic Physics **2 Credits**

Provides fundamental knowledge of atomic structure and terminology. Includes the nature and characteristics of radiation, X-ray production, the fundamentals of photon interactions with matter and electrical circuitry.

**Registration Restrictions:** Department approval

### **RADT A161** Fundamentals of Medical Imaging I **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 with a minimum grade of C.

### **RADT A195A** Radiography Practicum I **2 Credits**

Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations, positions and projections. Provides opportunity for continued development of previously gained practicum experience. Duties are assigned by the UAA instructor/clinical educator and supervised by an ARRT registered radiologic technologist.

**Registration Restrictions:** Department approval.

**Prerequisites:** RADT A111 with a minimum grade of C and RADT A131 with a minimum grade of C and RADT A151 with a minimum grade of C and RADT A161 with a minimum grade of C.

**RADT A195B Radiography Practicum II 6 Credits**

Provides structured and supervised application of radiographic skills in a health care facility, including patient interaction in the performance of examinations, positions and projections. Provides opportunity for continued development of previously gained practicum experience. Duties are assigned by the UAA instructor/clinical educator and supervised by an ARRT registered radiologic technologist.

**Registration Restrictions:** Department approval

**Prerequisites:** RADT A132 with a minimum grade of C and RADT A171 with a minimum grade of C and RADT A195A with a minimum grade of P.

**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. Emphasizes appropriate delivery of patient care during procedures.

**Registration Restrictions:** Departmental approval

**RADT A231 Sectional Anatomy for Diagnostic Imaging 3 Credits**

Provides an 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 Magnetic Resonance Imaging and Computer Tomography 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 with a minimum grade of C.

**RADT A272 Ethics and Quality Control in Medical Imaging 2 Credits**

Discusses management, collection and analysis of quality control data and test instrumentation. Includes governmental standards and guidelines that establish accreditation, licensure and provider standards. Explores ethics and law relating to the practice of medical imaging. Examines a variety of ethical and legal issues found in clinical practice.

**Registration Restrictions:** Department approval

**RADT A280 Medical Imaging Pathology 3 Credits**

Introduces theories of disease causation and the pathophysiologic disorders. Presents etiology, pathophysiologic responses, clinical manifestations, radiographic appearance, and management of alterations in body systems. Includes multiple imaging modalities for pathologic correlation.

**Registration Restrictions:** Departmental approval.

**RADT A282 Current Issues in Radiologic Technology 1 Credit**

Explores current trends in radiologic technology that may include technical, social, political or economic aspects of radiologic technology.

**Registration Restrictions:** Departmental approval

**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:** Department approval

**Prerequisites:** RADT A195B with a minimum grade of P.

**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 with a minimum grade of P.

**RADT A311 Mammography for Imaging Professionals 3 Credits**

Provides knowledge and skills of a certified mammographer. Provides the necessary didactic requirements (30 hours) and practicum requirements (45 hours) associated with the Food and Drug Administration Mammography Quality Standards Act (MQSA). Prepares students for the American Registry of Radiologic Technologists (ARRT) National Certification Examination, which is required by MQSA.

**Registration Restrictions:** Registered or registry-eligible technologist or instructor permission.