

# Radiologic Technology (RADT)

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## 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**

Examines principles, practices, and policies of professionalism, basic concepts of patient care, safety, and medical ethics and law as it relates to the profession. Provides an overview of radiography and the practitioner's role in the health care delivery system.

**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 **2 Credits**

Provides instruction regarding basic principles of radiographic procedures in performing skull procedures and allowing for demonstration, practice, and evaluation of performance in a laboratory environment. Includes information related to pharmacology and venipuncture as related to the scope of practice of the radiographer.

**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

**Prerequisites:** BIOL A111 with a minimum grade of C.

### **RADT A161** Fundamentals of Medical Imaging I **3 Credits**

Provides an overview of the foundations of radiography and foundational knowledge of the relationship between electricity and magnetism. Discusses the components of an electric circuit in the production of x-rays. 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. Expands on principles that influence the production and recording of radiographic and fluoroscopic images. Provides fundamental knowledge of imaging system processing and work flow from analog to digital radiographic systems.

**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 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 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 A240 Introduction to Computed Tomography 1 Credit**

Introduces the basic principles of computed tomography. Discusses the location of major anatomical structures in cross-sectional imaging planes.

**Registration Restrictions:** Department 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 A270 Quality Control and Quality Assurance in Medical Imaging 1 Credit**

Discusses management, collection and analysis of quality control data and test instrumentation. Includes government standards and guidelines that establish accreditation and licensure.

**Registration Restrictions:** Department approval

**RADT A272 Ethics in Medical Imaging 2 Credits**

Explores ethics and laws relating to the practice of medical imaging. Examines a variety of ethical and legal issues found in clinical practice. Discusses the importance of professional development and advancement.

**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:** Department approval

**RADT A292 Radiologic Technology Seminar 1 Credit**

Provides opportunity for discussion and evaluation of experiences in clinical practicum courses. Covers professional practice issues in preparation for the transition to employment.

**Special Note:** Prepares students for the American Registry of Radiologic Technology (ARRT) examination and assists with application submission.

**Corequisites:** RADT A295B.

**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.