

GENERAL STUDIES, RADIOLOGIC TECHNOLOGY PATHWAY

ASSOCIATE OF SCIENCE

The Associate of Science Pathway in Radiologic Technology transfers towards a Bachelor of Science in Radiologic Technology program. This pathway will not guarantee acceptance into the AAS Radiologic Technology program at Dalton State. Dalton State Radiologic Technology candidates must successfully complete all pre-requisite courses and apply to be accepted into the AAS Radiologic Technology program.

The following courses are prerequisite for the AAS Radiologic Technology program and also apply to Core IMPACTS requirements. These courses require grades of C or better.

COMM 1110
ENGL 1101
ENGL 1102
MATH 1111 or 1113
POLS 1101
HIST 2111, 2112
PSYC 1101

The following courses are prerequisites for the AAS Radiological Technology program and require grades of C or higher:

ALHT 1130
BIOL 2251K
BIOL 2252K

Program Course Requirements

Click here to view Core IMPACTS General Education Curriculum requirements (<http://catalog.daltonstate.edu/programs/coreimpacts/>).

Program Advice (Can share with Core IMPACTS Curriculum requirements):

COMM 1110	Fundamentals of Speech (Grade of C or better required)	3
MATH 1111 or MATH 1113	College Algebra (Grades of C or better required) Precalculus Mathematics	3
POLS 1101	American Government (Grade of C or better required)	3
HIST 2111 or HIST 2112	United States History to 1877 (Grades of C or better required) United States Hist since 1877	3
PSYC 1101	Introduction to Psychology (Grade of C or better required)	3
BIOL 1107K	Principles of Biology I	4
BIOL 1108K	Principles of Biology II	4

CHEM 1151K or CHEM 1211K	Survey of Chemistry Principles of Chemistry I	4
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NOTE: Core IMPACTS courses can also satisfy requirements in your Program of Study. Please review the requirements for your major to prevent taking extra courses. The USG Core IMPACTS curriculum, is designed to ensure that students acquire essential knowledge in foundational academic areas and develop career-ready competencies. There are seven Core IMPACTS areas. Students at all USG institutions must meet the Core IMPACTS requirements in all specified areas.

Field of Study: Major Related

BIOL 2251K	Anatomy and Physiology I *	4
BIOL 2252K	Anatomy and Physiology II *	4
ALHT 1130	Allied Health Terminology *	3

Electives:

Choose 6 credits of electives from any math and/or science courses.	6
One credit hour from CHEM 1151K or 1211K used toward 18 credit hour Field of Study requirement.	1

Total Hours 60

* Requires a grade of C or better.

Courses

RADT 1102. Radiology Terminology. 2-0-2 Units.

Introduces the elements of medical terminology as it relates to the field of radiologic technology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. (Career Course)

Prerequisites: RADT 1101.

RADT 1105. Radiologic Tech&Patient Care I. 2-2-3 Units.

Introduction to Radiologic Technology and technologist's skills; patient care and assessment, clinical observation and documentation, phlebotomy/venipuncture, vital signs, medical emergencies, basic life support/CPR, infection control, OSHA Standards, blood/air-borne pathogens, methods of sterilization, medical law and ethics, equipment and imaging principles introduction, basic radiation protection principles, and issues common to many specializations in the health care profession. (Career Course)

RADT 1107. Patient Care II. 2-0-2 Units.

Continues the development of the knowledge and skills for delivering patient care in the clinical setting, including consideration for the physical and psychological needs of the patient and family, routine and medical emergency patient care, infection control procedures using universal precautions, education of patient as it pertains to the radiologic procedure, awareness of ethical law in radiology, concepts of pharmacology, venipuncture, and administration of contrast media and intravenous medications. Laboratory evaluations will be administered. (Career Course)

RADT 1111. Radiographic Anatomy I. 2-1-3 Units.

Introduces students to the anatomy and physiology of the human body with an emphasis on radiologic correlation to pertinent radiologic procedures. Topics include: respiratory system, upper and lower extremities, abdomen, bony thorax, pelvis and hip, ossification, joints, human chemistry and cells, and integumentary system. (Career Course)
Prerequisites: Program Admission, Radiologic Technology.

RADT 1112. Radiographic Anatomy II. 2-1-2 Units.

Continues the study of the human anatomy and physiology with an emphasis on radiologic correlation to pertinent radiologic procedures. Topics include: vertebral column, skull, sinuses, and systems including: digestive, urinary, and biliary. (Career Course)
Prerequisites: RADT 1111.

RADT 1113. Adv Radiologic Anatomy III. 2-0-2 Units.

The third course in the radiologic anatomy sequence. Provides the student with knowledge of the following topical areas and body systems: circulatory, lymphatic, reproductive, endocrine, muscular, special senses, nervous system and cross-sectional anatomy. The student will also be able to correlate basic cross-sectional anatomy to a variety of imaging modalities. (Career Course)
Prerequisites: RADT 1112.

RADT 1121. Radiologic Procedures I. 3-1-3 Units.

Introduces the student to radiologic procedures, positioning, image analysis, and correlation of anatomical structures to radiographic films. Emphasis will be placed on the production of quality radiographs, and laboratory experience will demonstrate the application of theoretical principles and concepts. Laboratory evaluations will be administered. Topics include: introduction to radiologic procedures, positioning terminology, positioning considerations, and procedures, anatomy, and topographical anatomy related to body cavities (chest, abdomen). (Career Course)

RADT 1125. Radiographic Proc II & Anatomy. 2-1-3 Units.

Continues development of the knowledge and skill required prior to execution of radiologic procedures in the clinical setting. Laboratory evaluations will be administered. Topics include: anatomy and routine radiologic procedures methodologies performed for the upper and lower extremities, pelvis, spines, bony thorax, skull. (Career Course)

RADT 1127. Radiographic Proc&Anatomy III. 3-2-3 Units.

Continues the study of anatomy and radiologic procedures to include: skull, sinuses, mastoids, zygomatic arches, facial bones, upper and lower gastrointestinal, urinary, biliary systems, and cross-sectional anatomy. Laboratory evaluations will be administered. (Career Course)

RADT 1143. Intro to Radiologic Science I. 3-0-3 Units.

Introduces the concept of basic physics and emphasizes the fundamentals of x-ray generating equipment. Topics include: units of measure, physical principles, atomic structure, structure of matter, electrostatics, magnetism, electromagnetism, control of high voltage, rectification, basic principles of x-ray tube operation and x-ray circuitry. (Career Course)
Prerequisites: RADT 1232.

RADT 1151. Intro Clinical Rad Tech I. 0-16-3 Units.

Introduces students to the performance of radiographic procedures in a variety of clinical settings (i.e., hospitals, doctor's offices) and provides an opportunity for students to participate in or observe radiographic procedures. Emphasis is placed on clinical exposure to competencies taught and evaluated in Radiologic Procedures I. Students' activities are under direct supervision before competency evaluation and under indirect supervision after competency evaluation. (Career Course)

RADT 1152. Intro Clin Rad Tech II. 0-20-4 Units.

Continues introductory student learning experiences in a variety of clinical settings. Emphasis is placed on those procedures presented in Radiologic Procedures I and II. Student's activities are under direct supervision before competency evaluation and under indirect supervision after competency evaluation. (Career Course)
Prerequisites: RADT 1151.

RADT 1153. Intern Clin Rad Tech I. 0-20-4 Units.

Provides students with continued clinical setting work experience. Students improve skills in executing procedures introduced in Radiologic Procedures I and II and practiced in previous clinical practicums. Students activities are under direct supervision before competency evaluation and under indirect supervision after competency evaluation. (Career Course)
Prerequisites: RADT 1152.

RADT 1232. Introduction to Exposure I. 2-1-2 Units.

Introduces knowledge of the factors that govern and influence the production of the radiographic image on radiographic film. Emphasis will be placed on knowledge and techniques required to process radiographic film. Topics include: introduction to atomic structure and x-ray production, film processing and chemicals, artifacts, automatic processor troubleshooting, processing quality assurance, state and federal regulations, silver recovery systems, radiographic quality principles to include: recorded detail, distortion, density, and contrast, film holders and intensifying screens, grids and solving technique problems with a variety of mathematical formulas. (Career Course)

RADT 2104. Radiologic Seminar. 2-2-2 Units.

Provides students the opportunity to enhance critical thinking and problem-solving skills. Each student will exhibit creativity in the production of course assignments and evaluations. In addition to creativity assignments, students will be introduced to job-finding skills, resume production, and job-interviewing techniques. Additional topics included in the course are: radiographic pathology, and radiographic quality assurance. Students will also have the opportunity to be evaluated on a variety of mock registry examinations. (Career Course)

RADT 2105. Radiologic Seminar. 2-2-3 Units.

Provides students the opportunity to enhance critical thinking and problem solving skills. Each student will exhibit creativity in the production of course assignments and evaluations. In addition to creativity assignments, students will be introduced to job-finding skills, resume production, job-interviewing techniques. Additional topics included in the course are: radiographic pathology, and radiographic quality assurance. Students will also have the opportunity to be evaluated on a variety of mock registry examinations. (Career Course)
Prerequisites: RADT 2234.

RADT 2106. Radiologic Review. 3-3-4 Units.

Provides a review of basic knowledge from previous courses and helps the student prepare for the national certification for radiographers. Topics include: principles of image production and evaluation, radiation protection and biology, radiologic equipment, radiographic anatomy, physiology and pathology, radiographic procedures, and patient care techniques. (Career Course)
Prerequisites: RADT 2145.

RADT 2145. Adv Radiologic Science II. 3-0-3 Units.

Continues discussion of the concepts of basic physics and the fundamentals of x-ray generating equipment. A basic review of Radiologic Science I will be presented. Additional course topics include: production and characteristics of radiation, inter-actions of x-ray and matter, survey of a variety of radiographic equipment, image intensified fluoroscopy, recording media and techniques, image noise, and equipment monitoring and maintenance. (Career Course)

Prerequisites: RADT 1143.

RADT 2229. Radiographic Procedures IV. 2-1-2 Units.

The final course in the radiologic procedures sequence. Topics include radiologic anatomy and procedures for the following: reproduction system, venograms, arteriograms, panorex, myelograms, arthrograms, bronchograms, tomograms, and pediatric and trauma radiology. The course also includes an introduction to adjunct imaging modalities including: computerized tomography, magnetic resonance imaging, radiation therapy technology, ultrasound, nuclear medicine, cardiac catheterization, digital radiology, mammography, and angioplasty. Also includes a review and evaluation of the basic radiologic procedures presented in the previous three radiologic procedures courses.

Laboratory evaluations will be administered. (Career Course)

RADT 2234. Adv Radiologic Exposure II. 2-1-2 Units.

Continues to develop knowledge of the factors that govern and influence the production of the radiographic image on radiographic film. Topics include: beam limiting devices, beam filtration, technique alterations for a variety of equipment and patient pathology, control of scattered radiation, advanced technique formation and exposure calculation. (Career Course)

Prerequisites: RADT 1232.

RADT 2244. Radiation Protection. 2-1-2 Units.

Provides instruction on the principles of safe radiation usage, protection, and interaction of radiation on living matter. Topics include: radiation detection, measurement, patient and radiographer protection, dose limits, state and federal regulations and agencies. (Career Course)

Prerequisites: RADT 1143.

RADT 2246. Radiation Biology. 2-1-3 Units.

Provides a review of the topics discussed in Radiation Protection as well as instruction on the interaction of radiation on living matter. Topics include: radiation detection, measurement, patient and radiographer protection, dose limits, radiation biology, cell anatomy, radiation/cell interaction, and effects of radiation. (Career Course)

Prerequisites: RADT 2145.

RADT 2254. Interm Clin Rad Tech II. 0-24-5 Units.

Provides students with continued clinical setting work experience. Students improve skills in executing procedures introduced in Radiologic Procedures I, II, and III; and practiced in previous clinical practicums. Students activities are under direct supervision before competency evaluation and under indirect supervision after competency evaluation. (Career Course)

Prerequisites: RADT 1153.

RADT 2255. Adv Clin Rad Tech I. 2-24-5 Units.

Provides students with continued clinical setting work experience. Students improve skills in executing procedures introduced in Radiologic Procedures I, II, III, and IV; and practiced in previous clinical practicums. Students activities are under direct supervision before competency evaluation and under indirect supervision after competency evaluation. (Career Course)

Prerequisites: RADT 2254.

RADT 2256. Advanced Clinical Rad Tech II. 2-24-5 Units.

Provides a culminating clinical setting work experience which allows the students to synthesize information and procedural instruction provided throughout the Radiologic Technology program. Emphasis is placed on skill level improvements and final completion of all required clinical competencies presented in previous courses and practiced in previous clinical Radiologic Technology courses. Execution of radiographic procedures will be conducted under indirect supervision.