Medical Radiography (RADT)

Courses

RADT 1010. Intro to Radiography. 2 Hours.
Open to all students interested in medical radiography. Explores the field of radiography and its role in health care delivery. Covers fundamental concepts including medical terminology, radiation protection, ethics, career opportunities, professional development, and hospital operations. FA, SP.

RADT 1020. Radiographic Procedures I. 5 Hours.
First semester course. Instruction in how to perform radiographic procedures and identifying anatomy of the upper/lower extremities, chest, abdomen, bony thorax and pelvis with emphasis on radiation protection, surface landmarks and pathology. Image analysis is introduced. Course fee required. Prerequisites: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1030. Radiographic Imaging I. 3 Hours.
First semester course. Analysis of factors affecting image quality and application of radiographic principles using imaging devices such as image receptors, grids and beam limiting devices, processing procedures, as well as introduction of basic digital imaging concepts. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1040. Clinical Education I. 4 Hours.
First Semester Course. Students will apply theories and develop skills in a supervised setting through observation, assisting, and performing basic radiographic procedures on upper/lower extremities, chest, abdomen, pelvis and bony thorax. 180 clinical hours. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1050. Patient Care. 2 Hours.
First semester course. Introduces the role of the radiographer as a health care provider. Topics include patient communication and education, patient transfer, vital signs, infection control, oxygen, suction, age-specific needs and cultural diversity. Prerequisite: Acceptance into the Medical Radiography Program Taught in cohort rotation.

RADT 1120. Radiographic Procedures II. 4 Hours.
Second Semester Course. Instruction in performing radiographic procedures and identifying anatomy of the vertebral column, genitourinary, gastrointestinal and biliary systems, skull and facial bones, as well as advanced mobile and surgical procedures, composition and the use and effects of contrast media. Course fee required. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1140. Clinical Education II. 5 Hours.
Second Semester Course. Continuation of RADT 1040, providing students with the opportunity to apply theories and further develop technical skills with emphasis placed on vertebral column, biliary system, gastrointestinal and genitourinary procedures, skull and facial bones. Patient management specific to fluoroscopic and advanced radiographic procedures. 225 clinical hours. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1230. Radiographic Imaging II. 2 Hours.
Second Semester Course. Builds on theories and concepts introduced in RADT 1030, emphasizing quality assurance and quality control, digital and computed imaging components and processes and data and information management with PACS. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1240. Clinical Education III. 7 Hours.
Third semester course. Continuation of RADT 1140, providing students with the opportunity to apply theories and further develop technical skills. Students will gain experience in effective patient and time management specific to advanced radiographic procedures. 315 clinical hours. Course fee required. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 1250. Advanced Patient Care. 2 Hours.
Second semester course. Instruction in advanced patient care skills, including pharmacology and contrast administration for medical imaging, medical ethics and law, and mobile and surgical radiography. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 2030. Radiographic Physics. 3 Hours.
Fourth semester course. In depth analysis of electrical circuitry, transformers, and rectifiers as they relate to x-ray production, as well as construction and function of the x-ray tube, fluoroscopic systems, video systems, AEC, and digital imaging. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

RADT 2040. Clinical Education IV. 7 Hours.
Fourth semester course. Continuation of RADT 1240 with emphasis on mastering basic procedures and attaining experience in advanced procedures with further awareness of radiation protection requirements. Students will rotate through advanced modality areas as assigned by Clinical Coordinator. 315 clinical hours. Course fee required. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.
**RADT 3020. Advanced Medical Imaging. 3 Hours.**
Fourth semester course. Introduces additional imaging modalities and radiation therapy, including interventional radiography, sonography, CT, MRI, mammography, nuclear medicine and basic sectional anatomy. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

**RADT 3150. Radiobiology and Protection. 3 Hours.**
Fourth semester course. In depth analysis of ionizing radiation and its effects on matter, including early and late effects of radiation, dose limits, radiation monitoring, and limiting radiation exposure to patients and personnel. Prerequisite: Admission to DSU Medical Radiography program. Taught in cohort rotation.

**RADT 3240. Clinical Education V. 7 Hours.**
Fifth semester course. Continuation of RADT 2040 with emphasis on developing an autonomous approach to the diversity of clinical situations and successfully adapting to them. Extended advanced modality rotations may be arranged following established guidelines and at the discretion of the Clinical Coordinator. 315 clinical hours. Course fee required. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.

**RADT 3260. Radiography Seminar. 3 Hours.**
Fifth semester course. Capstone course that offers review and reflection on previous coursework, providing students with a meaningful approach to evaluate strengths and weaknesses and to prepare for credentialing exams and employment. Prerequisite: Admission to the Dixie State University Medical Radiography program. Taught in cohort rotation.