

Radiologic Technology Program Courses (Radiation Sciences) (RSRT)

RSRT Courses

This is a list of courses with the subject code RSRT. For more information, see Radiation Sciences (Carver College of Medicine) in the catalog.

RSRT:2110 Radiographic Procedures and Analysis I **4 s.h.**

Introduction to radiographic positioning principles; technical, positioning, and analysis information needed to perform and evaluate images of chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; labs. Requirements: acceptance to radiation sciences RT/CT, CVI, or MRI degree track.

RSRT:2120 Radiologic Technology Clinical Internship I **1 s.h.**

Student rotations through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Requirements: acceptance to radiation sciences RT/CT, CVI, or MRI degree track.

RSRT:2130 Radiographic Procedures I **2 s.h.**

Introduction to radiographic positioning principles; technical and positioning information needed to perform radiographic imaging of chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Corequisites: RSRT:2140 and RSRT:2141.

RSRT:2140 Radiographic Analysis I **1 s.h.**

Introduction to radiographic analysis principles; technical, positioning, and analysis information needed to evaluate images of chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Corequisites: RSRT:2130 and RSRT:2141.

RSRT:2141 Radiographic Procedures and Analysis I Lab **1 s.h.**

Introduction to radiographic procedures and analysis principles; technical, positioning, and analysis information needed to evaluate images of the chest and abdomen on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:2130 and RSRT:2140.

RSRT:2225 Radiologic Technology Clinical Internship II **3 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:2120.

RSRT:2230 Radiographic Procedures II **3 s.h.**

Technical and radiographic positioning information needed to perform images of upper and lower extremity; emphasis on quality patient care and adaptation to a variety of client conditions. Prerequisites: RSRT:2110.

RSRT:2240 Radiographic Analysis II **2 s.h.**

Radiographic procedure and image analysis information needed to evaluate images of upper and lower extremity and shoulder; emphasis on quality patient care and adaptation to a variety of client conditions; labs. Prerequisites: RSRT:2110.

RSRT:2241 Radiographic Procedures and Analysis II Lab **1 s.h.**

Introduction to radiographic procedures and analysis principles; technical, positioning, and analysis information needed to evaluate images of upper and lower extremity and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:2230 and RSRT:2240.

RSRT:2250 Radiographic Fluoroscopic Procedures **2 s.h.**

Technical, radiographic positioning, and analysis information needed to perform radiographic procedures that utilize fluoroscopy; emphasis on quality patient care and adaptation to a variety of client conditions. Prerequisites: RSRT:2110.

RSRT:2251 Radiographic Fluoroscopic Procedures Lab **1 s.h.**

Introduction to technical, radiographic positioning, and analysis information needed to perform radiographic procedures that utilize fluoroscopy; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:2250.

RSRT:2325 Radiologic Technology Clinical Internship III **3 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:2225.

RSRT:3110 Radiographic Analysis III **1 s.h.**

Introduction to radiographic analysis principles; technical, positioning, and analysis information needed to evaluate images of hip, pelvis, spine, thorax, and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Corequisites: RSRT:3111 and RSRT:3120.

RSRT:3111 Radiographic Procedures and Analysis III Lab **1 s.h.**

Introduction to radiographic procedures and analysis principles; technical, positioning, and analysis information needed to evaluate images of hip, pelvis, spine, thorax, and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions; lab bridges didactic and clinical learning. Corequisites: RSRT:3110 and RSRT:3120.

RSRT:3115 Radiographic Procedures and Analysis III **4 s.h.**

Technical, positioning, and analysis information needed to perform and evaluate images of hip, pelvis, spine, thorax, skull, and GU system radiographic procedures; emphasis on quality patient care and adaptation to a variety of client conditions; labs.

RSRT:3120 Radiographic Procedures III **2 s.h.**

Introduction to radiographic positioning principles; technical and positioning information needed to perform radiographic imaging of hip, pelvis, spine, thorax, and skull on adult and pediatric patients; emphasis on quality patient care and adaptation to a variety of client conditions. Prerequisites: RSRT:2230 and RSRT:2240. Corequisites: RSRT:3110 and RSRT:3111.

RSRT:3125 Radiologic Technology Clinical Internship IV **4 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:2325.

RSRT:3140 Radiographic and Digital Imaging **4 s.h.**

Factors that govern and influence production of radiographic image; X-ray and scatter production; patient interactions; function of kVp, mAs, and distance as applied to contrast and spatial resolution; practical issues concerning automatic exposure control and grid usage; labs to practice and apply theoretical principles associated with production of quality images. Requirements: acceptance to radiation sciences RT/CT, CVI or MRI degree track.

RSRT:3141 Radiographic and Digital Imaging Lab **1 s.h.**

Introduction to factors that govern and influence production of radiographic image; X-ray and scatter production; patient interactions; function of kilovoltage peak (kVp), milli-ampere-second (mAs), and distance as applied to contrast and spatial resolution; practical issues concerning automatic exposure control and grid usage; labs for practice and application of theoretical principles associated with production of quality images. Corequisites: RSRT:3140.

RSRT:3220 Emotional Intelligence for the Health Care Professional **2 s.h.**

Introduction to emotional intelligence; scientific background for why emotional intelligence exists and exploring its applications to the health care setting; connection of emotional intelligence to interactions that occur between health care professional and their patients, patient families, and coworkers.

RSRT:3225 Radiologic Technology Clinical Internship V **3 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3125.

RSRT:3230 Radiographic Physics and Imaging Equipment **3 s.h.**

Characteristics of atomic structure, electricity, and X-ray machines; properties of X-rays and their interaction with matter; measurement of radiation exposure; construction principles and theories of operation of specialized imaging equipment, including fundamentals of acquisition for imaging intensification, geometric tomography, mobile/portable radiography, and magnification principles.

RSRT:3231 Radiographic Physics and Imaging Equipment Lab **1 s.h.**

Introduction to characteristics of atomic structure, electricity, and X-ray machines; properties of X-rays and their interaction with matter; measurement of radiation exposure; construction principles and theories of operation of specialized imaging equipment including fundamentals of acquisition for imaging intensification, geometric tomography, mobile/portable radiography, and magnification principles; labs for practice and application of theoretical principles. Corequisites: RSRT:3230.

RSRT:3325 Radiologic Technology Clinical Internship VI **2 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3225.

RSRT:4125 Radiologic Technology Clinical Internship VII **1 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:3325.

RSRT:4225 Radiologic Technology Clinical Internship VIII **1 s.h.**

Student rotation through different radiography-related areas of University of Iowa Hospitals & Clinics; assist, practice, and test radiographic examinations learned in didactic setting; skill building for care and management of patients; conduction of performance assessments and completion of guideline objectives for each rotation; performance expectations become progressively higher as students gain experience and skills. Prerequisites: RSRT:4125.

RSRT:4230 Radiologic Technology Capstone and Certification Exam Preparation 1 s.h.

Certification exam preparation; preparation and distribution of detailed written outlines of exam content; series of content-specific quizzes, midterm, and final "mock board" exam to evaluate student learning and preparedness for taking the American Registry of Radiologic Technologists (ARRT) national certification exams; professional preparation; for students in final semester of program. Requirements: enrollment in radiation sciences RT/BI, CT, CVI, or MRI program.