# Radiographic Sci (RS)

#### **Courses**

## RS 1105 Introduction to Radiographic Science: 1 semester hour.

History of the profession, responsibilities of the technologist, professional development, radiation protection, areas of specialization. Also an introduction to the Radiographic Science Program at Idaho State University. F, S

## RS 3310 Radiographic Methods 1: 2 semester hours.

Introduces the student to basic terminology, theory and principles of anatomy, and positioning of the chest, abdomen, and upper extremities. F

#### RS 3311 Radiographic Methods II: 2 semester hours.

Continuation of 3310 emphasizing basic theory and principles of radiographic procedures of the lower limb, femur, pelvic girdle, cervical/thoracic/lumbar spine, sacrum coccyx, and upper gastrointestinal system. S

## RS 3312 Radiographic Methods III: 2 semester hours.

Continuation of 3311 emphasizing theory and principles of radiographic examinations of the lower gastrointestinal system, bony thorax, skull and cranial bones, facial bones, paranasal sinuses, and urinary system. F

## RS 3320L Radiographic Imaging Applications Laboratory: 1 semester hour.

Laboratory experience exploring the methodology of various types of radiographic recording media applications including image acquisition, image processing and post-processing, and image manipulation of computed radiography (CR) and digital radiography (DR). F

#### RS 3325 Patient Care in Radiography: 3 semester hours.

Introduction to patient care principles and procedures utilized in radiography including vital signs, body mechanics, sterile gowning and gloving, sterile procedures, drug administration, infection control, isolation techniques and medical emergency procedures. F

# RS 3330 Radiographic Exposure: 3 semester hours.

Determination of radiographic exposure values with emphasis on radiographic quality and equipment used in the production of radiographs. COREQ: RS 3330L. F

#### RS 3330L Radiographic Exposure Lab: 0 semester hours.

Assignments to apply principles from RS 3330. COREQ: RS 3330. F

## RS 3340 Laboratory Practicum I: 1 semester hour.

Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, image evaluation, patient management, communications, and manipulation of x-ray equipment. COREQ: RS 3310 F

#### RS 3341 Laboratory Practicum II: 1 semester hour.

Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, image evaluation, patient management, communications, and manipulation of x-ray equipment. COREQ: RS 3311. S

# RS 3342 Laboratory Practicum III: 1 semester hour.

Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, image evaluation, patient management, communications, and manipulation of x-ray equipment. COREQ: RS 3312. S

# RS 3375 Pediatric Radiography: 1 semester hour.

Study of the theory and clinical application of pediatric radiography. S

# RS 3388 Radiation Protection: 1 semester hour.

Topics include: x-ray interaction with matter, quantities and units of radiation, biological effects of ionizing radiation, radiation exposure limits, radiation detection instruments, methods to minimize radiation exposure to patients and personnel, and U.S. Government radiation control standards. S

## RS 3389 Applied Radiography I: 4 semester hours.

Clinical applications of radiographic examinations with emphasis on the chest, abdomen, and upper extremities. F

#### RS 3390 Applied Radiography II: 4 semester hours.

Clinical applications of radiographic examinations with emphasis on the lower extremity, hips, and pelvis. S

#### RS 4430 Radiologic Pathology: 2 semester hours.

Study of the pathological processes of various diseases and disorders with emphasis on the demonstration of pathology on radiographs. S

#### RS 4441 Advanced Radiographic Methods I: 1 semester hour.

Advanced methodology, theory and principles of radiographic procedures. Designed to develop proficiency in performance of specialized radiographic examinations. PREREQ: RS 3312 and RS 3342. S

#### RS 4450 Introduction to Evidence-Based Research: 2 semester hours.

An introduction to evidence-based research in radiographic science. F

#### RS 4455 Alternate Imaging Modalities: 1 semester hour.

An introduction to alternate imaging modalities such as CT, MRI, mammography, interventional radiology, nuclear medicine, and radiation therapy. F

## RS 4460 Introduction to Radiographic Quality Management: 1 semester hour.

Study and application of quality management techniques, which includes quality assurance and equipment maintenance procedures to assure

#### RS 4470 Advanced Radiographic Exposure: 2 semester hours.

In-depth study in establishing radiographic exposure values; digital fluoroscopy; image intensification; and CR, DR, EMR, and PACS systems. S

#### RS 4475 Registry Review: 2 semester hours.

In-depth study of material that may be presented on the written registry review administered by the American Registry of Radiologic Technologists (ARRT). S

#### RS 4481 Independent Problems in Radiography: 1-2 semester hours.

Study of topics in radiography selected by students and faculty. May be repeated for up to 4 credits. D

#### RS 4488 Applied Radiography III: 5 semester hours.

Clinical application of radiographic examinations with emphasis on the pediatric chest, non-ambulatory chest, cervical spine, thoracic spine, lumbar spine, sacrum/coccyx, and fluoroscopy procedures. Su

# RS 4489 Applied Radiography IV: 6 semester hours.

Clinical application of radiographic examinations performed in a trauma, mobile, and surgical setting. F

# RS 4490 Applied Radiography V: 6 semester hours.

Clinical application of radiographic examinations including ribs, sternum, skull, facial bones, sinus, urinary system, arthrography, and myelography. S

# RS 4491 Seminar-Selected Topics: 1-6 semester hours.

Specialty clinical opportunities. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

#### RS 4495 Internship in Special Diagnostic Imaging: 2 semester hours.

Internship providing opportunity to participate in diagnostic examinations requiring a special modality. PREREQ: Permission of instructor. D

# RS 4521 Computed Tomography I: 1 semester hour.

Basics of computed tomography covering fundamentals, equipment and instrumentation, data acquisition, image processing, reconstruction, patient safety, image quality, procedures, cross-sectional anatomy, and additional applications. Requires instructor approval. Su, D

## RS 4522 Computed Tomography II: 2 semester hours.

In-depth study of computed tomography principles including equipment and instrumentation, data acquisition, image processing, reconstruction, patient safety, image quality, procedures, cross-sectional anatomy, pathology, and additional applications. Requires instructor approval. Su, D

#### RS 4523 Computed Tomography III: 2 semester hours.

Advanced methodology, theory and principles of computed tomography procedures. Designed to develop proficiency in performance of specialized CT examinations. Includes preparation to take the American Registry of Radiologic Technologist (ARRT) CT Certification exam. Requires instructor approval. F, D

#### RS 4589 Applied Computed Tomography I: 2 semester hours.

Clinical application of routine computed tomography examinations with emphasis on obtaining ARRT CT clinical experience requirements. May be repeated for up to 6 credits. Requires instructor approval. Su, D

## RS 4590 Applied Computed Tomography II: 2 semester hours.

Clinical application of advanced computed tomography examinations with emphasis on trauma, angiography, therapeutic applications, biopsies, and special procedures to obtain ARRT CT clinical experience requirements. May be repeated for up to 6 credits. Requires instructor approval. S, D