

RADIATION TECHNOLOGY (RTCH)

Courses

RTCH 250. Clinical Orientation, Legal, & Professional Standards. 3 Units.

Provides clinical orientation to legal and professional standards for radiologic technologists. Clinical environment orientation conducted at affiliated clinical sites.

RTCH 284. Basic Imaging. 3 Units.

Introduces essentials of radiologic technology imaging procedures, radiographic anatomy, and medical terminology.

RTCH 284L. Radiation Clinical Basics Laboratory. 1 Unit.

Hands-on laboratory experience that includes basic positioning, physics, and principles in radiology.

RTCH 285. The Principles and Physics of Radiation. 4 Units.

Covers equipment used to generate X-rays for production of radiographic images. Includes the physics of X-ray production, and interactions of X-rays with patient tissues to produce radiographic images. Stresses proper radiation safety for the patient and hospital personnel.

RTCH 305. CT Fundamentals. 2 Units.

Overview of computed tomography (CT) concepts, including cross-sectional anatomy, physics, and clinical procedures.

RTCH 318. Imaging Modalities. 2 Units.

Covers the correlation and relevance of nuclear medicine to the other imaging modalities. Topics include: cardiovascular, respiratory, gastrointestinal, genitourinary, and skeletal systems.

RTCH 324. Introduction to CT and Imaging Modalities. 3 Units.

Introduces basic principles, physics, imaging parameters, radiological effects, management, and patient protocol of computed tomography (CT). Provides an overview of imaging modalities for the purpose of emphasis selection.

RTCH 325. Applications for Managers. 2 Units.

Introduces prospective radiology managers and administrators to the basic common applications found in health care.

RTCH 327. Professional Development. 1 Unit.

Examines state and national radiography organizations and continuing education requirements. Reviews professional values and codes of ethics.

RTCH 371. Radiography Clinical Affiliation I. 2 Units.

Provides hands-on clinical experience in basic patient care, radiographic procedures and positioning, radiation protection, radiographic exposure and techniques, critical thinking and problem-solving, and patient and health-care team communication. First part of ten-part affiliation sequence that fulfills state requirements for clinical hours in medical radiography.

RTCH 372. Radiography Clinical Affiliation II. 3 Units.

Continues clinical experience from RTCH 371. Prerequisite: RTCH 371.

RTCH 373. Radiography Clinical Affiliation III. 3 Units.

Continues clinical experience from RTCH 372. Prerequisite: RTCH 372.

RTCH 374. Radiography Clinical Affiliation IV. 3 Units.

Continues clinical experience from RTCH 373. Prerequisite: RTCH 373.

RTCH 375. Radiography Clinical Affiliation V. 3 Units.

Continues clinical experience from RTCH 374. Prerequisite: RTCH 374.

RTCH 376. Radiography Clinical Affiliation VI. 3 Units.

Continues clinical experience from RTCH 375. Prerequisite: RTCH 375.

RTCH 377. Radiography Clinical Affiliation VII. 1 Unit.

Continues clinical experience from RTCH 376. Prerequisite: RTCH 376.

RTCH 378. Radiography Clinical Affiliation VIII. 1 Unit.

Continues clinical experience from RTCH 377. Prerequisite: RTCH 377.

RTCH 379. Radiography Clinical Affiliation IX. 1 Unit.

Continues clinical experience from RTCH 378. Prerequisite: RTCH 378.

RTCH 380. Radiography Clinical Affiliation X. 1 Unit.

Continues clinical experience from RTCH 379. Prerequisite: RTCH 379.

RTCH 385. Radiologic Trends in Health Care. 2 Units.

A faculty-facilitated course that includes class discussion, group work, and presentation of projects utilizing the online learning environment. Focuses on current and future trends in the field of radiology.

RTCH 387. Writing for Health-Care Professionals. 3 Units.

Expands upon entry-level academic writing experience by advancing skills in the following areas: avoiding plagiarism, developing academic writing, organizing research materials, synthesizing sources, formatting papers in APA style, and writing a literature review.

RTCH 413. Management Practicum I. 3 Units.

Observation of and discussion with selected administrative personnel in a radiology service. Emphasizes practical application of management theory. Projects assigned.

RTCH 414. Practicum in Radiation Sciences. 3 Units.

A project-based course with opportunity to demonstrate curriculum-related knowledge and skills in applied settings. Emphasizes practical application of management or educational theory through assigned projects, observation, and discussion involving mentors within administrative or educational roles in the medical imaging professions.

RTCH 415. Radiation Emergency Procedures. 3 Units.

Covers radiation emergency procedures and guidelines. Topics include: minor spills, major spills, airborne contamination, ingestion and inhalation contamination, firefighting techniques, X-ray injuries, and lessons learned from radiation disasters.

RTCH 418. Health Information Management and Radiology Coding for Radiology Managers. 3 Units.

Integrates health information management systems and radiology coding for prospective radiology managers and administrators. Introduction to health information systems and radiology coding to promote smooth running of a radiology department. Introduces current health information technology guidelines, tools, and concepts behind accurate coding and policy.

RTCH 450. Advanced Radiography Clinical Affiliation. 3 Units.

Provides students with clinical experience working with staff technologists and physicians, performing the functions, skills, and procedures in advanced medical imaging areas such as orthopedics, trauma, GI, pediatrics, etc., in preparation for the ARRT registry exam.

RTCH 454. Computed Tomography Clinical Affiliation. 3 Units.

Clinical experience working with staff technologists and physicians, performing functions, skills, and procedures expected of computed tomography (CT) technologists in preparation for the ARRT registry exam.

RTCH 455. Magnetic Resonance Imaging Clinical Affiliation. 3 Units.

Clinical experience working with staff technologists and physicians, performing the functions, skills, and procedures expected of magnetic resonance imaging (MR) technologist in preparation for the ARRT registry exam.

RTCH 456. Cardiac Interventional Clinical Affiliation. 3 Units.

Clinical experience working with staff technologists and physicians, performing functions, skills, and procedures expected of cardiac interventional (CI) technologist in preparation for the ARRT registry exam.

RTCH 457. Vascular Interventional Clinical Affiliation. 3 Units.

Clinical experience working with staff technologists and physicians. Perform the functions, skills, and procedures expected of vascular interventional (VI) technologist in preparation for the ARRT registry exam.

RTCH 458. Mammography Clinical Affiliation. 3 Units.

Provides students with clinical experience working with staff technologists and physicians, performing the functions, skills, and procedures in mammographic imaging such as MQSA, patient care, procedures, techniques, etc., in preparation for the ARRT registry exam.

RTCH 464. Moral Leadership. 3 Units.

Methods of applying servant leadership to management and educational settings. Within a moral framework, discusses concepts of managing learners and professionals, assessing leadership style, the essence of leadership, leadership skill building, and conflict management. Utilizes assigned readings, discussions, papers, and personal inventories to aid in assessing the learner's leadership skills.

RTCH 467. Management of a Radiologic Service. 3 Units.

Techniques of organization, planning, and management, with specific applications to a hospital radiology service.

RTCH 471. Applied Research Methods I. 2 Units.

Applies research methods to radiation sciences. Directed experience with a research project. Laboratory.

RTCH 472. Applied Research Methods II. 2 Units.

Applies research methods to radiation sciences. Directed experience with a research project. Continues RTCH 471.

RTCH 480. Mammography Principles and Procedures. 3 Units.

Presents breast anatomy, physiology, and pathology, with emphasis on breast cancer, risk factors, and detection techniques. Emphasizes mammography imaging, positioning, instrumentation requirements, quality assurance, and mammographic techniques.

RTCH 484. Mammography Certification Review. 1 Unit.

Provides a comprehensive review for the ARRT examination in mammography (M). Prerequisite: RTCH 480.

RTCH 485. Digital Management in Radiology. 3 Units.

A student-centered, faculty-facilitated course that is a continuation of RTCH 385. Class discussion, small-group work, and presentation of student projects/paper. New technology and its impact on the radiology department.

RTCH 486. Fundamentals of Breast Ultrasound. 3 Units.

Presents breast anatomy, physiology and pathology, mammography imaging, positioning, and instrumentation requirements relating to the use of sonography in detecting abnormalities in the breast. Includes basic physics and principles of sonography. Prerequisite: RTCH 480.

RTCH 487. Advanced Radiography Procedures in Trauma. 2 Units.

Introduces various radiographic procedures, which include anatomy, patient positioning, geometric factors, exposure techniques, and patient shielding specific to patients in a trauma situation. Prerequisite: RTMR 255.

RTCH 488. Advanced Radiography Procedures in Orthopedics and Pediatrics. 3 Units.

Introduces students to various radiographic procedures, which include anatomy, patient positioning, geometric factors, exposure techniques, and patient shielding specific to patients in outpatient orthopedic and pediatric environments. Prerequisite: RTMR 255.

RTCH 489. Effective Communication for Supervisors. 3 Units.

Helps managers and supervisors build effective skills in the following areas: interpersonal skills, business writing, verbal and nonverbal communication, modes of communication, coaching, and conflict resolution.

RTCH 491. Portfolio I. 3 Units.

Guides and supports students in their progress toward building competence as allied health practitioners and members of their community.

RTCH 492. Portfolio II. 3 Units.

Builds upon Portfolio I, synthesizing student learning and demonstrating progress toward meeting SAHP and program outcomes (including diversity) and beyond. Prerequisite: RTCH 491.

RTCH 497. Advanced Clinical Experience. 2 Units.

Advanced clinical experience in selected areas of professional practice.

RTCH 499. Radiation Technology Independent Study. 0.5-2 Units.

Student submits a project or paper on a topic of current interest in an area related to radiation technology. Regular meetings provide the student with guidance and evaluation. Elected on the basis of need or interest. The .5 unit of credit designed to offer directed experience in the prevention of AIDS and other communicable diseases in the clinical setting.

RTCH 567. Leadership Theory and Practice. 3 Units.

A Web-based course that focuses on the leadership aspect of communication. Examines leadership from a theoretical standpoint while relating, assessing, and applying leadership in present-day professional interactions.