

# RADIATION TECHNOLOGY (RTCH)

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## Courses

### RTCH 283. Basic Imaging. 2 Units.

Covers basic imaging positioning used in radiology. Topics include: radiology positioning techniques and introduction to technical characteristics of common nuclear medicine studies.

### RTCH 283L. 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 325. Applications for Managers. 2 Units.

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

### 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 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) technologist 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 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 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 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 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.