

# RADIATION TECHNOLOGY/ RADIOLOGIST ASSISTANT (RTRA)

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## Courses

### **RTRA 510. Cross-Sectional Anatomy I. 1 Unit.**

Identifies normal and abnormal anatomy in two-dimensional as well as three-dimensional planes. Relates cross-sectional view of anatomy and pathology to radiology procedures.

### **RTRA 511. Cross-sectional Anatomy II. 1 Unit.**

Identifies normal and abnormal anatomy in two-dimensional as well as three-dimensional planes. Relates cross-sectional view of anatomy and pathology to radiology procedures.

### **RTRA 518. Radiobiology and Health Physics. 2 Units.**

Reviews the effects of ionizing and nonionizing radiation and fundamental concepts of radiation protection. Promotes the conscientious operation of radiologic and fluoroscopic devices. Provides a complement to guided practice in operating the fluoroscopic device during clinical mentoring. Procedures and techniques to optimize image quality while reducing radiation exposure to patients, operator, and ancillary personnel.

### **RTRA 519. Medical-Legal Issues in Radiology. 1 Unit.**

Introduction to the legal system as it pertains to radiation sciences. Concepts such as malpractice, litigation, informed consent, assault, and battery.

### **RTRA 521. Radiology Procedures and Image Evaluation I. 3 Units.**

Provides a framework for various imaging procedures and the role of the radiologist assistant in the radiology department. Provides the framework for systematic observation of static, digital, X-sectional, and dynamic diagnostic images for the purpose of evaluating the presence of abnormalities, anomalies, and pathological conditions.

### **RTRA 522. Radiology Procedures and Image Evaluation II. 3 Units.**

Provides a framework for various imaging procedures and the role of the radiologist assistant in the radiology department. Provides the framework for systematic observation of static, digital, X-sectional, and dynamic diagnostic images for the purpose of evaluating the presence of abnormalities, anomalies, and pathological conditions.

### **RTRA 523. Radiology Procedures and Image Evaluation III. 3 Units.**

Provides a framework for various imaging procedures and the role of the radiologist assistant in the radiology department. Provides the framework for systematic observation of static, digital, X-sectional, and dynamic diagnostic images for the purpose of evaluating the presence of abnormalities, anomalies, and pathological conditions.

### **RTRA 524. Radiology Procedures and Image Evaluation IV. 3 Units.**

Provides a framework for various imaging procedures and the role of the radiologist assistant in the radiology department. Provides the framework for systematic observation of static, digital, X-sectional, and dynamic diagnostic images for the purpose of evaluating the presence of abnormalities, anomalies, and pathological conditions.

### **RTRA 525. Fluoroscopy and Radiation Protection. 1 Unit.**

Focuses on the quality assurance and management aspects of fluoroscopy. Includes the following topics: fluoroscopic radiation exposure and protection techniques, technical management, operation of fluoroscopic equipment, and quality control.

### **RTRA 526. Radiology Reporting. 1 Unit.**

Student develops and organizes an imaging report for procedures performed under the supervision of a radiologist. Topics include learning to report, style guidelines, and the American College of Radiology guidelines for communication.

### **RTRA 531. Pharmacology for RAs I. 2 Units.**

Surveys pharmacological agents currently used in medicine, including their kinetics, dynamics, and therapeutics. Places special emphasis on pharmaceuticals commonly used by and given to radiology patients, including contrast media, antineoplastic agents, and radioactive isotopes.

### **RTRA 532. Pharmacology for RAs II. 2 Units.**

Surveys pharmacological agents currently used in medicine, including their kinetics, dynamics, and therapeutics. Places special emphasis on pharmaceuticals commonly used by and given to radiology patients, including contrast media, antineoplastic agents, and radioactive isotopes.

### **RTRA 534. Pathophysiology. 2 Units.**

Covers the structures and function of human biology. Assists with developing skills of interpreting laboratory data and increasing understanding of the pathophysiology behind patient care.

### **RTRA 541. Patient Assessment I. 2 Units.**

Assists with skills in interviewing, physical examination, and interpreting laboratory data. Increases understanding of the pathophysiology behind patient care. Emphasizes analysis and interpretation of physiological data to assist in patient assessment and management.

### **RTRA 542. Patient Assessment II. 2 Units.**

Assists with developing skills in interviewing, physical examination, and interpreting laboratory data. Increases understanding of the pathophysiology behind patient care. Emphasizes analysis and interpretation of physiological data to assist in patient assessment and management.

### **RTRA 543. Clinical Management and Education. 2 Units.**

Focuses on analyzing and interpreting physiological data to assist in patient assessment and management. Utilizes critical thinking, action plans, and protocols. Includes relationship-centered patient care, effective communication, and patient education. Introduces clinical pathways, multidisciplinary clinical practice, and a focus on quality and coordination of care.

### **RTRA 546. Topics for the Radiologist Assistant. 2 Units.**

Surveys selected topics in the radiologist assistant scope of practice for credit toward the master's degree in radiologist assistant. Topics may include procedures, projects, or literature reviews.

### **RTRA 588. Comprehensive Review I. 1 Unit.**

Review of the major content areas covered in the radiologist assistant program. Student evaluation and performance analysis.

### **RTRA 589. Comprehensive Review II. 1 Unit.**

Reviews major content areas covered in the radiologist assistant program. Includes student evaluation and performance analysis.

### **RTRA 614. Professional Portfolio. 1 Unit.**

Student develops a portfolio that demonstrates progression toward the student learning outcomes established by Loma Linda University—including wholeness, Christ-centered values, commitment to discovery and lifelong learning, effective communication, embracing and serving a diverse world, and collaboration.

**RTRA 771. Clinical Internship I. 2 Units.**

A twelve-week, one day/week rotation for a total of ninety-six hours of mentored clinical experience. Focuses on a wide variety of competencies that enable students to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.

**RTRA 772. Clinical Internship II. 5 Units.**

An eleven-week, two-days/week rotation totaling 168 hours of mentored clinical experience. Focuses on a wide variety of competencies that enable students to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.

**RTRA 773. Clinical Internship III. 6 Units.**

An eleven-week, three days/week rotation totaling 248 hours. A mentored clinical experience during which students complete a wide variety of competencies that prepare them to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.

**RTRA 774. Clinical Internship IV. 6 Units.**

An eleven-week, three days/week rotation totaling 248 hours of mentored clinical experience. Focuses on a wide variety of competencies that enable students to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.

**RTRA 775. Clinical Internship V. 6 Units.**

A twelve-week, three days/week rotation totaling 272 hours of mentored clinical experience. Focuses on a wide variety of competencies that enable students to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.

**RTRA 776. Clinical Internship VI. 6 Units.**

An eleven-week, three days/week rotation totaling 248 hours of mentored clinical experience. Focuses on a wide variety of competencies that enable students to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.

**RTRA 777. Clinical Internship VII. 6 Units.**

An eleven-week, three days/week rotation totaling 248 hours of mentored clinical experience. Focuses on a wide variety of competencies that enable students to generate a report stating initial observations of diagnostic images on neonatal, pediatric, adult, and geriatric populations. Students utilize clinical contracts and a clinical portfolio.