

Course Description

Professional Courses

RT 100	Introduction to Radiologic Technology and Health Care
Course Description	Prologue to Radiologic Technology education and practice which will provide an understanding on the scope, outputs, and practices of radiological sciences in general and Radiologic Technology in particular. This course also provides an overview of the Radiologic Technology practitioner's role and professional responsibilities in the health care delivery system: principles, practices, and policies of health care organizations.
Course Credit	3 Unit
Contact Hours/Week	3 Hours
Prerequisite	None

RT 101	Medical Terminology
Course Description	Deals with various medical nomenclatures and their usage as applied to specific systems, disease processes, and injuries. A word-building system is introduced to include principal medical root word, terms referring to some general aspects of the practice of medicine and its allied profession, medical terms referring to certain general pathological processes, infective diseases, diseases of various systems of the body, obstetrics terms, and terms related to medical instruments and equipment. This also includes an orientation to understanding radiographic orders and diagnostic report interpretation.
Course Credit	3 Unit
Contact Hours/Week	3 Hours
Prerequisite	None

RT 102	Radiation Production and Characteristics
Course Description	Study of the physical principles of radiation, its nature, characteristics, properties, interaction with matter, and application in radiological sciences. This course establishes a basic knowledge of atomic structure and terminology.
Course Credit	3 Units- 2 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	2 Hours Lecture/Week; 3 Hours Laboratory/Week
Prerequisite	PHYSICS RT 100-Introduction to Radiologic Technology and Health Care

RT 103	Imaging Science and Informatics
Course Description	This course deals with issues in the informatics used in medical imaging and radiology
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	PHYSICS GEC07 RT 100-Introduction to Radiologic Technology and Health Care RT 102-Radiation Production and Characteristics

RT 104	Principles of Imaging
Course Description	Deals with radiographic imaging and the production of quality images/radiographs through proper selection, computation, generalization, and application of various technique factors and accessory devices.
Course Credit	3 units-2 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	2 Hours Lecture/Week; 3 Hours Laboratory/Week
Prerequisite	PHYSICS RT 100-Introduction to Radiologic Technology and Health Care RT 102-Radiation Production and Characteristics

RT 105	Imaging Equipment and Maintenance
Course Description	An introduction to the basics of electricity, electromagnetism, motors, generators, transformers, and rectifiers. The course establishes a knowledge base in radiographic, fluoroscopic, mobile equipment requirements, and other diagnostic and therapeutic modalities, as well as to detect defects interfering with the proper function of the equipment and the fundamentals of preventive maintenance.
Course Credit	3 Units Lecture
Contact Hours/Week	3 Hours
Prerequisite	PHYSICS RT 100-Introduction to Radiologic Technology and Health Care RT 102-Radiation Production and Characteristics

RT 106	Patient Care and Management
Course Description	Provides the concepts of optimal patient care as well as consideration for the physical and psychological needs of the patient. This includes routine and emergency patient care procedures, infection control procedures using standard precautions, and the role of the Radiologic Technologist in patient education.
Course Credit	3 Units- 2 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	2 Hours Lecture/Week; 3 Hours Laboratory/Week
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-HUMAN ANATOMY AND PHYSIOLOGY RT101-Medical Terminology

RT 107	Pharmacology and Venipuncture
Course Description	This course provides students with the basic concepts of pharmacology and an opportunity to develop a fundamental knowledge of the skills needed to competently, proficiently, and safely perform intravenous contrast media administration, with emphasis on the appropriate delivery of patient care during these procedures.
Course Credit	3 Units- 2 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	2 Hours Lecture/Week; 3 Hours Laboratory/Week RT100-
Prerequisite	Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT106-Patient Care and Management RT101-Medical Terminology

RT 108 Course	Film-Screen Image Acquisition, Processing and Image Analysis
Description	An understanding of the principles involving action of x-rays on film emulsion and intensifying screens, processing chemicals, the various systems and accessories involved in the conversion of latent image into visible radiographic and learn the skills necessary to critique radiographic images with emphasis in recognizing processing faults with the aid of radiographs and laboratory exposure experiments. Discussions include processing room design and accessories and regulatory requirements.
Course Credit	3 units-2 Units Lecture; 1 Unit Laboratory 2 Hours
Contact Hours/Week	Lecture/Week; 3 Hours Laboratory/Week
Prerequisite	RT 100-Introduction to Radiologic Technology and Health Care RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance

RT 109	Computed and Digital Radiography Deals with the components, principles, and
Course Description	operation of computer and digital imaging systems in diagnostic radiography. This includes factors that impact image acquisition, display, archiving and retrieval, and the principles of digital system quality assurance and maintenance.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	RT 100-Introduction to Radiologic Technology and Health Care

	RT 102-Radiation Production and Characteristics RT103-Imaging Science and Informatics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance
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RT 110	Radiographic Anatomy and Physiology
Course Description	Study of the structure and function of the human body with radiographic correlation.
Course Credit	4 units-3 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	3 Hours Lecture/Week; 3 Hours Laboratory/Week
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT101-Medical Terminology RT 104-Principles of Imaging

RT 111	Radiobiology
Course Description	An overview of the effects of ionizing radiation on biological matters. This presents the radiation effects on molecules, cells , tissues, and they body as a whole, as well as the factors affecting biological response including acute and chronic effects of radiation.
Course Credit	2 Units
Contact Hours/Week	2 Hours RT100- Introduction to Radiologic Technology and Health
Prerequisite	Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance

RT 112	Radiation Protection Study of the principles of radiation protection including the
Course Description	responsibilities of the Radiologic Technologist for patients, personnel, and the public. This includes radiation health and safety requirements of agencies, institutions, and health care organizations mandated to regulate and monitor the safe use of radiation.
Course Credit	2 Units
Contact Hours/Week	2 Hours RT100- Introduction to Radiologic Technology and Health
Prerequisite	Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance

RT 113	Administration, Leadership and Entrepreneurship
Course Description	Deals with the organization, function, supervision, budgetary outlay of a radiological facility, and development of leadership and entrepreneurial skills. Discussions include management and human resource administration, elements of hospital administration, administration of a radiological facility, supervision, leadership, and entrepreneurship.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	GEC01 GEC05 RT100- Introduction to Radiologic Technology and Health Care

RT 114	Professional Ethics, Jurisprudence and Cultural Sensitivity
Course Description	Provides a foundation of the laws and regulations, professional ethics, relevant medical jurisprudence, and other legal and ethical concerns related to the practice of radiologic technology. This includes examination of a variety of ethical and legal issues found in clinical practice as well as diverse issues that affect the

	radiologic technologist as an individual and interactions with patients, coworkers and the community with respect for their beliefs and values
Course Credit	3 units
Contact Hours/Week	3 Hours
Prerequisite	GEC08 GEC07 RT100- Introduction to Radiologic Technology and Health Care

RT 115	Radiographic Positioning and Radiologic Procedures I Study of the general
Course Description	foundation of positioning technique to obtain radiographic demonstration of anatomical structure of interest as well as specialized radiographic examinations of the different body structures and organs without contrast media. This includes anatomic and radiographic positioning terms, source-image-receptor distance and tube-film alignment, positioning principles, radiographic landmarks, exposure techniques, structures demonstrated, and evaluation criteria of examinations of the different organs and body structures. Clinical competency is accomplished through positioning demonstration and return demonstration.
Course Credit	4 Units- 3 Units Lecture; 1 Unit Laboratory 3 Hours Lecture/Week;
Contact Hours/Week	3 Hours Laboratory/Week RT100- Introduction to Radiologic
Prerequisite	Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection

RT 116	Radiologic Pathology
Course Description	Study of various pathologic conditions and its effect on radiological procedures, techniques, and overall radiographic image.
Course Credit	3 Units
Contact Hours/Week	3 Hours RT100- Introduction to Radiologic Technology and Health
Prerequisite	Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology

RT 117	Radiation Therapy
Course Description	Study of the precise application of ionizing radiation in the treatment of neoplastic growth, a complete and effective treatment plan as well as patient care of oncology cases.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT101-Medical Terminology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT107-Pharmacology and Venipuncture RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology

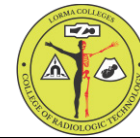
	RT 112-Radiation Protection
RT 118	Mammography
Course Description	This course deals with the fundamentals of mammography, breast imaging equipment, and techniques for insuring image quality. Discussion includes breast anatomy and pathologies along with strategies for communicating with patients.
Course Credit	2 Units
Contact Hours/Week	2 Hours RT100- Introduction to Radiologic Technology and Health
Prerequisite	Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection
RT 119	Nuclear Medicine
Course Description	Study of the principles and instrumentation in Nuclear Medicine and its diagnostic and therapeutic applications.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection CHEM01-Inorganic Chemistry CHEM02-Organic Chemistry
RT 120	Quality Assurance and Quality Control Study of organized effort in the
Course Description	management of a radiological facility to ensure consistent production of high standard of quality images with minimum exposure to patient and personnel.
Course Credit	3 Units- 2 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	2 Hours Lecture/ Week; 3 Hours Laboratory/Week RT100- Introduction to
Prerequisite	Radiologic Technology and Health Care RT 102-Radiation Production and Characteristics RT103-Imaging Science and Informatics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT108- Film-Screen Image Acquisition, Processing and Image Analysis RT 109-Computed and Digital Radiography
RT 121	Radiographic Positioning and Radiologic Procedures II
Course Description	This is a continuation of Radiographic Positioning and Radiologic Procedures 1
Course Credit	4 Units- 3 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	3 Hours Lecture/Week; 3 Hours Laboratory/Week
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging

	RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection RT 115- Radiographic Positioning and Radiologic Procedures I
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RT 122	Radiologic Contrast Examinations
Course Description	Study of specialized radiographic examinations with application of contrast media to enhance and/or visualize different organs and body structures of interest. This includes types of contrast media, its characteristics and properties, indications and contraindications, and mode of administration; patient preparation and types of examinations of the gastrointestinal tract, genitourinary system, central nervous system, vascular system, and other contrast examinations.
Course Credit	3 Units- 2 Units Lecture; 1 Unit Laboratory
Contact Hours/Week	2 Hours Lecture/Week; 3 Hours Laboratory/Week RT100-
Prerequisite	Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT107-Pharmacology and Venipuncture RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection RT 115- Radiographic Positioning and Radiologic Procedures I

RT 123	Computed Tomography
Course Description	Study of principles involved in diagnostic imaging modalities that produce cross-sectional, trans axial, coronal and sagittal images of the human body.
Course Credit	3 Units
Contact Hours/Week	3 Hours RT100- Introduction to Radiologic Technology and Health
Prerequisite	Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT103-Imaging science and Informatics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection RT 115- Radiographic Positioning and Radiologic Procedures

RT 124 Course	Magnetic Resonance Imaging Study of principles involved in diagnostic imaging
Description	modalities that produce cross-sectional, transaxial, coronal and sagittal images of the human body. This includes historical development and relevant nomenclatures, comparison with conventional radiography, nuclear physical principles, imaging technique, instrumentation, biological effect, basic MR anatomy, contrast medium, and quality control.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT103-Imaging science and Informatics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance



	RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection RT 115- Radiographic Positioning and Radiologic Procedures
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RT 125	Interventional Radiology Deals with the study of the principles involved in Digital
Course Description	Subtraction Angiography and Interventional Radiography; the parameters of imaging and equipment employed in these subspecialties.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT107-Pharmacology and Venipuncture RT 110-Radiographic Anatomy and Physiology RT 111-Radiobiology RT 112-Radiation Protection

RT 126	Ultrasonography
Course Description	Study of the physical foundation of Ultrasound an its application to medical diagnosis.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	RT100- Introduction to Radiologic Technology and Health Care ANA01-Human Anatomy and Physiology RT 102-Radiation Production and Characteristics RT 104-Principles of Imaging RT 105-Imaging Equipment and Maintenance RT 106-Patient Care and Management RT 110-Radiographic Anatomy and Physiology

RT 127	Principles and Strategies of Teaching
Course Description	<p>This course provides students with the foundation knowledge and skills required to become effective educators in the field of radiologic technology. It focuses on the principles and strategies of teaching that can be applied to various learning environments, such as classroom lectures, laboratory demonstrations, and clinical rotations. Students will learn how to develop lesson plans, design instructional materials, and assess student learning outcomes. Topics covered in this course include learning theories and their application in teaching, instructional design, assessment and evaluation, communication skills, and classroom management. Students will learn the significance of technology in teaching and incorporate it into their instructional strategies.</p>
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	N/A

Internship 1	Clinical Practice 1
Course Description	The Radiologic Technology Internship Program consists of eleven (11) months of service divided into Clinical Education I and Clinical education II periods of 5-1/2 months each. The program requires the Radiologic Technology Interns to be assigned to various affiliation hospitals of the school. Satisfactory completion of the Internship Program is a requirement for graduation. The Radiologic Technology Intern shall undertake to perform or assist in at least eight hundred (800) radiographic examinations.
Course Credit	18 Units
Contact Hours/Week	48 Hours
Prerequisite	Zero deficiency

SR01	Synthesis and Review in Radiologic Technology I
Course Description	This course is designed to prepare the student for board examination through lecture review and preparatory testing. This course is required for the graduating Radiologic Technology student.
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	All Professional Subjects from Level I to Level 3

Internship 2	Clinical Practice 2
Course Description	The Radiologic Technology Internship Program consists of eleven (11) months of service divided into Clinical Education I and Clinical education II periods of 5-1/2 months each. The program requires the Radiologic Technology Interns to be assigned to various affiliation hospitals of the school. Satisfactory completion of the Internship Program is a requirement for graduation. The Radiologic Technology Intern shall undertake to perform or assist in at least eight hundred (800) radiographic examinations.
Course Credit	18 Units
Contact Hours/Week	48 Hours
Prerequisite	Internship1-Clinical Practice1 SR01-Synthesis and Review in Radiologic Technology1

SR02	Synthesis and Review in Radiologic Technology II
Course Description	This is a perpetuation of Synthesis and Review in Radiologic Technology I
Course Credit	3 Units
Contact Hours/Week	3 Hours
Prerequisite	Internship1-Clinical Practice1 SR01-Synthesis and Review in Radiologic Technology1

Prepared by:

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**LORMA Colleges College of
Radiologic Technology**

