

**Course Description**

**Professional Courses**

<b>RT 100</b>	<b>Introduction to Radiologic Technology and Health Care</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Unit
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	None

<b>RT 101</b>	<b>Medical Terminology</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Unit
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	None

<b>RT 102</b>	<b>Radiation Production and Characteristics</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units- 2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>PHYSICS</b> <b>RT 100-Introduction to Radiologic Technology and Health Care</b>

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

<b>RT 104</b>	<b>Principles of Imaging</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 units-2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>PHYSICS</b> <b>RT 100-Introduction to Radiologic Technology and Health Care</b> <b>RT 102-Radiation Production and Characteristics</b>

<b>RT 105</b>	<b>Imaging Equipment and Maintenance</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units Lecture
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>PHYSICS</b> <b>RT 100-Introduction to Radiologic Technology and Health Care</b> <b>RT 102-Radiation Production and Characteristics</b>

<b>RT 106</b>	<b>Patient Care and Management</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units- 2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-HUMAN ANATOMY AND PHYSIOLOGY</b> <b>RT101-Medical Terminology</b>

<b>RT 107</b>	<b>Pharmacology and Venipuncture</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units- 2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT106-Patient Care and Management</b> <b>RT101-Medical Terminology</b>

<b>RT 108</b>	<b>Film-Screen Image Acquisition, Processing and Image Analysis</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 units-2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT 100-Introduction to Radiologic Technology and Health Care</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b>

<b>RT 109</b>	<b>Computed and Digital Radiography</b>
<b>Course Description</b>	Deals with the components, principles, and 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.
<b>Course Credit</b>	3 Units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>RT 100-Introduction to Radiologic Technology and Health Care</b>

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

<b>RT 111</b>	<b>Radiobiology</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	2 Units
<b>Contact Hours/Week</b>	2 Hours
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b>

<b>RT 112</b>	<b>Radiation Protection</b>
<b>Course Description</b>	Study of the principles of radiation protection including the 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.
<b>Course Credit</b>	2 Units
<b>Contact Hours/Week</b>	2 Hours
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b>

<b>RT 113</b>	<b>Administration, Leadership and Entrepreneurship</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>GEC01</b> <b>GEC05</b> <b>RT100- Introduction to Radiologic Technology and Health Care</b>

<b>RT 114</b>	<b>Professional Ethics, Jurisprudence and Cultural Sensitivity</b>
<b>Course Description</b>	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
<b>Course Credit</b>	3 units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>GEC08</b> <b>GEC07</b> <b>RT100- Introduction to Radiologic Technology and Health Care</b>

<b>RT 115</b>	<b>Radiographic Positioning and Radiologic Procedures I</b>
<b>Course Description</b>	Study of the general 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.
<b>Course Credit</b>	4 Units- 3 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	3 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b> <b>RT 106-Patient Care and Management</b> <b>RT 110-Radiographic Anatomy and Physiology</b> <b>RT 111-Radiobiology</b> <b>RT 112-Radiation Protection</b>

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

<b>RT 117</b>	<b>Radiation Therapy</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT101-Medical Terminology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b> <b>RT 106-Patient Care and Management</b> <b>RT107-Pharmacology and Venipuncture</b> <b>RT 110-Radiographic Anatomy and Physiology</b> <b>RT 111-Radiobiology</b>

	<b>RT 112-Radiation Protection</b>
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<b>RT 118</b>	<b>Mammography</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	2 Units
<b>Contact Hours/Week</b>	2 Hours
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b> <b>RT 106-Patient Care and Management</b> <b>RT 110-Radiographic Anatomy and Physiology</b> <b>RT 111-Radiobiology</b> <b>RT 112-Radiation Protection</b>

<b>RT 119</b>	<b>Nuclear Medicine</b>
<b>Course Description</b>	Study of the principles and instrumentation in Nuclear Medicine and its diagnostic and therapeutic applications.
<b>Course Credit</b>	3 Units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b> <b>RT 106-Patient Care and Management</b> <b>RT 110-Radiographic Anatomy and Physiology</b> <b>RT 111-Radiobiology</b> <b>RT 112-Radiation Protection</b> <b>CHEM01-Inorganic Chemistry</b> <b>CHEM02-Organic Chemistry</b>

<b>RT 120</b>	<b>Quality Assurance and Quality Control</b>
<b>Course Description</b>	Study of organized effort in the management of a radiological facility to ensure consistent production of high standard of quality images with minimum exposure to patient and personnel.
<b>Course Credit</b>	3 Units- 2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/ Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT103-Imaging Science and Informatics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b> <b>RT108- Film-Screen Image Acquisition, Processing and Image Analysis</b> <b>RT 109-Computed and Digital Radiography</b>

<b>RT 121</b>	<b>Radiographic Positioning and Radiologic Procedures II</b>
<b>Course Description</b>	This is a continuation of Radiographic Positioning and Radiologic Procedures 1
<b>Course Credit</b>	4 Units- 3 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	3 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b>

	<b>RT 105-Imaging Equipment and Maintenance</b> <b>RT 106-Patient Care and Management</b> <b>RT 110-Radiographic Anatomy and Physiology</b> <b>RT 111-Radiobiology</b> <b>RT 112-Radiation Protection</b> <b>RT 115- Radiographic Positioning and Radiologic Procedures I</b>
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<b>RT 122</b>	<b>Radiologic Contrast Examinations</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units- 2 Units Lecture; 1 Unit Laboratory
<b>Contact Hours/Week</b>	2 Hours Lecture/Week; 3 Hours Laboratory/Week
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b> <b>RT 106-Patient Care and Management</b> <b>RT107-Pharmacology and Venipuncture</b> <b>RT 110-Radiographic Anatomy and Physiology</b> <b>RT 111-Radiobiology</b> <b>RT 112-Radiation Protection</b> <b>RT 115- Radiographic Positioning and Radiologic Procedures I</b>

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

<b>RT 124</b>	<b>Magnetic Resonance Imaging</b>
<b>Course Description</b>	Study of principles involved in diagnostic imaging 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.
<b>Course Credit</b>	3 Units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	<b>RT100- Introduction to Radiologic Technology and Health Care</b> <b>ANA01-Human Anatomy and Physiology</b> <b>RT 102-Radiation Production and Characteristics</b> <b>RT103-Imaging science and Informatics</b> <b>RT 104-Principles of Imaging</b> <b>RT 105-Imaging Equipment and Maintenance</b>



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

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

<b>Internship 1</b>	<b>Clinical Practice 1</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	18 Units
<b>Contact Hours/Week</b>	48 Hours
<b>Prerequisite</b>	Zero deficiency

<b>SR01</b>	<b>Synthesis and Review in Radiologic Technology I</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	3 Units
<b>Contact Hours/Week</b>	3 Hours
<b>Prerequisite</b>	All Professional Subjects from Level I to Level 3

<b>Internship 2</b>	<b>Clinical Practice 2</b>
<b>Course Description</b>	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.
<b>Course Credit</b>	18 Units
<b>Contact Hours/Week</b>	48 Hours
<b>Prerequisite</b>	<b>Internship1-Clinical Practice1</b> <b>SR01-Synthesis and Review in Radiologic Technology1</b>

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

Prepared by:

**CAROL GRACE D. TADAOAN,MD,FPCR,FUSP,FCTMRISP**  
 Dean, College of Radiologic Technology

Noted by:

**LESTER B. BACAGAN**  
 College Registrar

Approved by:

**PACITA G. APILADO, EdD**  
 Executive Director of Academic Affairs





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