

Program Number \_\_\_\_\_

Program Name \_\_\_\_\_

Date \_\_\_\_\_



### Radiography Curriculum Analysis

**DIRECTIONS:** Determine the course(s) in which each of the following content areas is covered and enter the course number(s) and/or title(s) into the appropriate column. For guidance in what should be covered for each content area, please refer to the Radiography Curriculum (2007) published by the American Society of Radiologic Technologists.

Professional Curriculum	Prerequisite Course(s)	Program Course(s)
<b>Basic Principles of Computed Tomography</b>		
Computed Tomography Generations		
Components, Operations and Processes		
Radiation Protection		
<b>Clinical Practice</b>		
Clinical Practice		
Procedural Performance		
Clinical Competency		
<b>Digital Image Acquisition and Display</b>		
Basic Principles of Digital Radiography		
Image Acquisition		
Image Acquisition Errors		
Software (Default) Image Processing		
Fundamental Principles of Exposures		
Image Evaluation		
Quality Assurance and Maintenance Issues		
Display		
<b>Ethics and Law in the Radiologic Sciences</b>		
Ethics and Ethical Behavior		
Ethical Issues in Health Care		
Legal Issues		
Patient Consent		

<b>Professional Curriculum</b>	<b>Prerequisite Course(s)</b>	<b>Program Course(s)</b>
<b>Fundamentals of Radiologic Science and Health Care</b>		
The Health Science Professions		
The Health Care Environment		
Hospital Organization		
Radiology Organization		
Accreditation		
Regulatory Agencies		
Professional Credentialing		
Professional Organizations		
Professional Development and Advancement		
<b>Human Structure and Function</b>		
Anatomical Nomenclature		
Chemical Composition		
Cell Structure and Genetic Control		
Metabolism		
Tissues		
Skeletal System		
Muscular System		
Nervous System		
Sensory System		
Endocrine System		
Digestive System		
Cardiovascular System		
Lymphatic System and Immunity		
Respiratory System		
Urinary System		
Reproductive System		
Sectional Anatomy		
<b>Image Analysis</b>		
Imaging Standards		
Image Appearance Characteristics		
Procedural Factors		
Corrective Action		

<b>Professional Curriculum</b>	<b>Prerequisite Course(s)</b>	<b>Program Course(s)</b>
<b>Imaging Equipment</b>		
X-ray Circuit		
Radiographic Equipment		
Diagnostic X-ray Tubes		
Image Intensified Fluoroscopy		
Linear Tomography		
Quality Management		
<b>Medical Terminology</b>		
The Word Building Process		
Medical Abbreviations and Symbols		
Radiologic Technology Procedures and Terminology		
Understanding Orders, Requests, and Diagnostic Reports		
<b>Patient Care in Radiologic Sciences</b>		
Radiographer and Health Care Team		
Attitudes and Communication in Patient Care		
Patient/Radiographer Interactions		
Safety and Transfer Positioning		
Evaluating Physical Needs		
Infection Control		
Medical Emergencies		
Unique Situations and Trauma		
Contrast Studies		
Tubes, Catheters, Lines, and Collection Devices		
Mobile and Surgical Radiography		
<b>Pharmacology and Drug Classification</b>		
Drug Nomenclature		
Methods of Drug Classification		
General Pharmacologic Principles		
Five Rights of Drug Safety		
Drug Categories of Relevance to Radiography (Side Effects, Uses, and Impacts on Medical Imaging)		
Classification of Contrast Agents		
Routes of Drug Administration		
Intravenous Drug Therapy		

<b>Professional Curriculum</b>	<b>Prerequisite Course(s)</b>	<b>Program Course(s)</b>
<b>Pharmacology and Drug Classification (continued)</b>		
Current Practice Status		
Informed Consent		
<b>Radiation Biology</b>		
Introduction		
Molecular bonds		
Review of cell biology		
Types of ionizing radiation		
Sources of medical radiation exposure		
Biophysical Events		
Radiation Effects		
Radiosensitivity and Response		
<b>Radiation Production and Characteristics</b>		
Structure of the Atom		
Nature of Radiation		
X-ray Production		
Interactions of Photons with Matter		
<b>Radiation Protection</b>		
Introduction		
Justification for radiation protection		
Potential biologic damage potential of ionizing radiation		
Objectives of a radiation protection program		
Sources of radiation		
Legal and ethical responsibilities		
Units, Detection, and Measurement		
Surveys, Regulatory/Advisory Agencies and Regulations		
Personnel Monitoring		
Application		
Patient Protection		
<b>Radiographic Pathology</b>		
Definitions/Terminology		
Classifications (Definition, Examples, Sites, Complications, Prognosis)		
Causes of Disease (Process, Examples)		
Radiologic Pathology (Definitions, Etiology, Examples, Sites, Complications, Prognosis, Radiographic Appearance, Procedural and Technique Considerations, Appropriate Imaging Modality)		

<b>Professional Curriculum</b>	<b>Prerequisite Course(s)</b>	<b>Program Course(s)</b>
<b>Radiographic Procedures</b>		
Standard Terminology for Positioning and Projection		
General Considerations		
Patient Considerations		
Positioning Considerations for Routine Radiographic Procedures		
Procedural Considerations for Contrast Studies		
<b>Film-Screen Acquisition and Processing</b>		
Image Appearance Standards		
Optical Density		
Contrast		
Recorded Detail/Spatial Resolution		
Distortion		
Exposure Latitude		
Beam-limiting Devices		
Beam Filtration		
Scattered and Secondary Radiation		
Control of Remnant Beam/Exit Beam		
Exposure Factor Formulation		
Exposure Factors		
Darkroom/Storage Environment		
Characteristics of Imaging Receptors		
Image Receptor Holders and Intensifying Screens		
Automatic Processing		
Artifacts		
Silver Recovery		

Educational programs in radiography are **required** to incorporate mathematical/logical reasoning and written/oral communication as general education elements in their curricula. There must be a minimum of 15 credit hours of general education coursework. Each program is required to submit information regarding the courses

<b>Required Post-secondary General Education</b>	<b>Credit Hour</b>	<b>Course Number</b>	<b>Course Title</b>
Mathematical/Logical Reasoning (required)			
Written/Oral Communication (required)			
Total Hours for Required Post-secondary General Education			

In the spaces below, list the additional post-secondary general education coursework students are required to complete that meets/exceeds the 15 hours

<b>Category (See Below)</b>	<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Total Hours for Additional Post-secondary General Education Courses</b>			

Categories:

- Mathematical/logical reasoning
- Written/oral communication
- Arts and humanities
- Information systems
- Social/behavioral sciences
- Natural sciences