



LIMITED X-RAY MACHINE OPERATOR CURRICULUM ANALYSIS GRID

I. General Information	
Program Name	
JRCERT Program Number	
Date	

DIRECTIONS: Determine the course(s) in which each of the following content area is covered and enter the course number(s) and/or title(s). For guidance in what should be covered for each content area, please refer to the Radiography Curriculum (2022) published by the American Society of Radiologic Technologists.

II. Clinical Practice	
Professional Curriculum	Program Course(s)
Clinical Practice	
Procedural Performance	
Clinical Competency	

III. Digital Image Acquisition and Display

Professional Curriculum	Program Course(s)
Image Acquisition	
Initial Processing	
Post Processing	
Image Acquisition Errors	
Image Evaluation	
Quality Assurance and Maintenance Issues	
Image Display	
Data Management	

IV. Fundamentals, Ethics and Laws of Health Care

Professional Curriculum	Program Course(s)
The Health Science Professions	
The Health Care Environment	
Facility Organization	
Radiology Organization	
Accreditation	
Regulatory Agencies	

Professional Credentialing	
Professional Organizations	
Professional Development	
Ethics in Health Care	
Ethical Issues in Health Care	
Legal Responsibilities	
Patient Consent	

V. Human Anatomy and Physiology	
Professional Curriculum	Program Course(s)
Anatomical Nomenclature	
Landmarks and Underlying Anatomy	
Skeletal System	
Cardiovascular System	
Respiratory System	
Abdomen	
Muscular System – Types, Characteristics and Functions	
Nervous System	

VI. Image Production and Analysis

Professional Curriculum	Program Course(s)
Exposure Factors	
Receptor Exposure	
Differential Absorption	
Spatial Resolution	
Shape Distortion	
Magnification	
Beam Restriction	
Beam Filtration	
Scatter Radiation	
Grids	
Exposure Factor Formulation	
Imaging Standards	
Image Appearance Characteristics	
Procedural Factors	
Corrective Action	

VII. Imaging Equipment and Radiation Production

Professional Curriculum	Program Course(s)
X-ray Circuit	
Radiographic Equipment	
Diagnostic X-ray Tubes	
Quality Control	
Structure of the Atom	
Nature of Radiation	
X-ray Production	
Interaction of Photons With Matter	

VIII. Medical Terminology

Professional Curriculum	Program Course(s)
The Word-building Process	
Medical Abbreviations and Symbols	
Radiologic Technology Procedures and Terminology	
Understanding Orders, Requests and Diagnostic Reports	

IX. Patient Care in Radiologic Sciences

Professional Curriculum	Program Course(s)
LXMO and the Health Care Team	
Professionalism and Communication in Patient Care	
Patient-LXMO Interactions	
Safety and Transfer Positioning	
Evaluating Physical Needs	
Infection Control	
Medical Emergencies and First Aid	
Tubes, Catheters, Lines and Collection Devices	
Values	
Culture, Ethnicity and Diversity	

X. Radiographic Anatomy, Procedures and Pathology

Professional Curriculum	Program Course(s)
Standard Terminology for Positioning and Projection	
Evaluation of Radiographic Orders	
Positioning Considerations for Routine Radiographic Procedures	

Patient Communication	
Pathology	
Relevance of Pathology to Radiographic Procedures	

XI. Radiation Protection and Radiobiology	
Professional Curriculum	Program Course(s)
Introduction	
Système International d'Unités (SI Units) of Measurement	
Occupational dose	
Surveys, Regulatory/Advisory Agencies and Regulations	
Personnel Monitoring	
Application	
Patient Protection	
Elements of Radiation Biology	
Radiation Energy Transfer	
Radiation Effects	
Radiosensitivity and Response	