

B.Sc. MIT

Program Outcome	Course Name	Course Outcomes
<p>After successful completion the Bachelor of Medical & Imaging Technology, a student will be able to:</p> <ul style="list-style-type: none"> ❖ Build up and pertain Professional morals and principles in the Radiation therapist. ❖ The candidates will also develop demonstration abilities with proper and effective communication, Critical Thinking and trouble solving skills needed for professional Practice. ❖ Students who have studied Radiography will also be capable of managing, assessing and also use scientific technological information which are applicable for proper patient care services. ❖ Effect a transition of information and experiences learned in the MIT program to employment situations and performance on the written examinations conducted by the Swami Vivekananda Subharti University. ❖ Operate and maintain radiography equipment, utilizing appropriate quality control and safety procedures. 	<p>1. Human Anatomy And Physiology</p>	<p>To understand normal anatomy of various structures and their location of all organs of the body and bones by lectures, demonstration and establish skills to identify and describe the major structures of the human body organization of body and function of each systems of the body, to solve questions regarding functions and disease.</p>
	<p>2. Fundamental of Medical Imaging & Basic Radiation Physics</p>	<p>Identify medical radiation related instrumentation and apply techniques associated with diagnostic imaging and radiation oncology, identify the biological effects of radiation and its application for radiation safety and for radiation treatment. Classify radiation and radioactivity, its properties, units of measure, dosimetry measurement concepts and methods and also identify radiation safety practices and procedures associated with diagnostic imaging and radiation oncology.</p>
	<p>3. Medical biochemistry</p>	<p>At the end of the course the student should know the structures and functions of biomolecules, their relations that form the basis of what we understand to be living organisms and know the experiment, research related to them.</p>
	<p>4. Basics radiography and radiographic equipment's</p>	<p>Demonstrate performing diagnostic imaging examinations such as X ray, CT and MRI scans under the guidance of a radiologist, preparing patients for radiological scans able to prepare the room & patient for the procedure.</p>
	<p>5. Community Healthcare</p>	<p>The student can synthesize essential clinical information into an accurate patient representation. The student's differential usually includes the correct diagnosis plus other plausible diagnoses and identifies key economic, statistical, and clinical factors (e.g., physical risk) that may affect choice among test option.</p>

<p>❖ Recognize and participate in activities which will provide current knowledge and upgrading of skills in radiography equipments.</p>	<p>6. Radiation physics & Radiation protection</p>	<p>Identify the biological effects of radiation and its application for radiation safety and for radiation treatment, classify radiation and radioactivity, its properties, units of measure, dosimetry measurement concepts and methods. Employ independent learning strategies to self-evaluate and update professional knowledge of innovations in medical radiation physics.</p>
	<p>7. Computed Tomography Technique And Equipment</p>	<p>Recent developments and proper handling of the modern radiological equipments and proper execution of the various radiological procedures. They should be able to embark up to a successful career in their chosen direction of Imaging Science research.</p>
	<p>8. Advance radiographic technique & procedure</p>	<p>Student should able to practice effective patient care, produce diagnostic images according to protocol, practice effective radiation safety to include appropriate use of exposure factors.</p>
	<p>9. Advance Equipment's for radiography & processing Techniques</p>	<p>To interpret radiological equipments for the purpose of diagnosis, to organize and manage administrative responsibilities for routine day to day work as well as emergent /urgent situations. The student would be given adequate training during the course so that he/she will be able to perform and interpret various non-invasive and invasive techniques.</p>
	<p>10. Ultrasonography Technique and equipment.</p>	<p>Should able to understand the science, operation and appropriate selection of ultrasound equipment, professional responsibility in safe and ethical ultrasound practice. The techniques and use of diagnostic ultrasound in a named clinical application(s) and critically reflect on the practice of diagnostic ultrasound</p>

	11. Magnetic Resonance Imaging Techniques and Equipment's	<p>This course provides medical imaging technologists with an understanding of the physical principles as well as theories involved in diagnostic MRI imaging modalities. For each imaging modality, the image formation process along with image quality metrics and their relationship to the image appearance are also discussed. They should also provide the imaging technologist and understanding of current technologies as well as the physical principles that drive image quality and radiation.</p>
	12. Techniques And Equipments Of Interventional Radiology And Nuclear Medicine Technology	<p>The student will able to perform all the interventional procedures as well as nuclear medicine technology, the student will practice various handling of equipments related to it. The student should get the proper knowledge of handling and transport of radio nuclides.</p>
	13. Radiation Protection & Management of Radiology Department	<p>Should be able to undertake mammography, CT scan and MRI procedures independently. And assist in specialized radiological procedures, handle all radiological and imaging equipment independently and do the image processing. Should comply with radiation protection and safety measures and participate in quality assurance procedures and maintain all radiological and imaging equipment including identifying and managing emergency situations.</p>
	14. Orientation in Para-clinical science	<p>The student will be able to explain the basic nature of disease processes from the standpoint of causation, epidemiology, natural history, and the structural and functional abnormalities that result, to classify diseases of various body systems and how they manifest clinically, to devise likely diagnoses from clinical scenarios by recognizing key manifestations of congenital, hemodynamic, inflammatory, infectious, metabolic, environmental, and neoplastic diseases and knowledge of the pathogenesis of diseases, interventions for effective treatment, and mechanisms of health maintenance to prevent disease.</p>

	15. Care of Patient And Hospital Management	The student will operate imaging equipment and accessory devices to produce quality radiographs, the student will practice appropriate radiation protection while performing radiologic procedures on children and adult and will demonstrate effective verbal/nonverbal communication skills with patients and healthcare staff, have the ability to solve clinical problems.
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