

M.Sc. MIT

Program Outcome	Course Name	Course Outcomes
<p>After successful completion the Masters of Medical and 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. ❖ Recognize and participate in activities which 	1. Human anatomy and physiology	To understand normal anatomy of various structures and their location of all organs of the body and bones by lectures, demonstration. 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.
	2. Radiographic procedures	Students practice effective patient care, produce diagnostic images according to protocol, practice effective radiation safety to include appropriate use of exposure factors. exhibit professional and ethical behaviors and modify routine imaging parameters to accommodate patient limitations.
	3. Conventional radiological equipments	To interpret radiological equipments for the purpose of diagnosis, be able to carry out efficient management of all types of Emergencies after quickly assessing the patient and synthesizing available clinical and investigational information and to keep abreast of the current knowledge and recent advances in the field by self learning and /or participating in Continuing Medical Education Programmes.
	4. Advance technique & instrumentation of ultrasound	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). Critically reflect on the practice of diagnostic ultrasound and evaluate research and experiential evidence so as to develop reasoned arguments and arrive at valid conclusions
	5. Radiation protection and management of	Should be able to undertake mammography, CT scan and MRI procedures independently. And assist in specialized radiological procedures, able to do handle all radiological and imaging equipment independently and do the

will provide current knowledge and upgrading of skills in radiography equipments.

radiology department

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.

6. Biostatics

Define the principal concepts about biostatistics, recognize the definition of statistics, its subject and its relation with the other sciences, collect data relating to variable/variables which will be examined and calculate descriptive statistics from these data., Apply hypothesis testing via some of the statistical distributions, define some concepts about hypothesis testing, apply hypothesis testing to the data through these concepts and arrange the results of the hypothesis testing and make a statistical decision.

7. Advanced techniques and instrumentation of CT

To provide specialized training in Radiology and Imaging and its application in order to create qualified manpower to handle modern radiological equipments with a successful carrier. Recent developments and proper handling of the modern radiological equipments and proper execution of the various radiological procedures. They should be able to embark upto a successful career in their chosen direction of Imaging Science research. Student should have an understanding of the theory behind the techniques studied.

8. Advanced techniques and instrumentation of MRI

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.

	9. Techniques and equipments of interventional radiology and nuclear medicine technology	The student will be 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.
	10. Care of patient in diagnostic radiology and management of health care organization	The student will operate imaging equipment and accessory devices to produce quality radiographs & will practice appropriate radiation protection while performing radiologic procedures on children and adults. The student will demonstrate effective verbal/nonverbal communication skills with patients and healthcare staff.