

Teerthanker Mahaveer University
College of Paramedical Sciences

M.Sc. (Medical Laboratory Techniques)

Programme Outcome

PO-1	:	Understanding ways of functioning effectively as an individual independently and as a member in diverse team in multidisciplinary settings (Attitude).
PO-2	:	Understanding requirements of continuous education as a function of growth and maintenance of professional competence (Lifelong learning).
PO-3	:	Understanding environmental consciousness and societal concerns in achieving sustainable development (Environment and Sustainability).
PO-4	:	Applying computer skills in health care system and taking entrepreneurial decisions (Entrepreneurship).
PO-5	:	Applying knowledge to assess societal, health, safety and legal issues related to Professional practice (Social interaction & effective citizenship).
PO-6	:	Applying systematized problem solving techniques to identify and correct procedural errors to verify the accuracy of laboratory result obtained.(Problem analysis and solving).
PO-7	:	Applying appropriate techniques, resources and tools with an understanding of limitations (Technology savvy/usage).
PO-8	:	Developing the ability towards ethical as well as critical thinking. (Critical thinking)
PO-9	:	Executing professional conduct and interpersonal communicational skills effectively with society at large (Communication).

Programme Specific Outcome

PSO-1	:	Understanding and remembering areas like Blood banking, Blood Sample Matching, Hematology,
PSO-2	:	Applying techniques for collection and preservation of biological Samples.
PSO-3	:	Applying the fundamentals of research process to complete and present research studies that enrich the field of physical therapy.
PSO-4	:	Analysing proficient operation of automated haematology instruments, including instrument maintenance and QC.
PSO-5	:	Evaluating the results and explaining underlying principle in each investigation.

Course Outcomes

MMLT-CH-101	CO-1	Understanding the concept of blood and haemopoiesis.
	CO-2	Understanding stages of cell maturation and development
	CO-3	Applying the specific technique for sample collection, its preservation & biomedical waste management.
	CO-4	Applying various methods for hemoglobin estimation.
	CO-5	Applying different test for determination of bleeding time and clot retraction.

MMLT-CH-102	CO-1	Understanding the concepts of antigen and antibodies
	CO-2	Understanding the concepts of blood grouping and blood collection
	CO-3	Applying different methods of quality control involved in blood transfusion services.
	CO-4	Analyzing laboratory investigations of new born
	CO-5	Evaluating compatibility testing and different transfusion transmitted infectious markers
MMLT-CH-103	CO-1	Understanding the basic aspects of immunity, antigens and antibody.
	CO-2	Understanding the concept of MHC
	CO-3	Applying various serological techniques and their utility in laboratory diagnosis of human diseases.
	CO-4	Analyzing various serological reactions
	CO-5	Evaluating laboratory tests for of antigen – antibody reaction,
MMLT-CH-201	CO-1	Understanding hereditary disorders of hemoglobin
	CO-2	Applying various techniques for diagnosis of anemia
	CO-3	Analyzing hereditary disorders of Hemoglobin
	CO-4	Analyzing hemoparasites and their identification
	CO-5	Evaluating common hematologic abnormalities.
MMLT-CH-202	CO-1	Applying various methods for preparation of reagents used in blood banking
	CO-2	Applying techniques for apherisis
	CO-3	Applying SOPs for quality monitoring test, documentation & auditing
	CO-4	Analyzing blood transfusion techniques and its types
	CO-5	Evaluating the legal aspects for operation of blood bank
MMLT-CH-203	CO-1	Understanding research methodology and basic statistical concepts
	CO-2	Applying perspectives for training development related to organizational setups
	CO-3	Applying statistical methods for representation of data
	CO-4	Analyzing data on the basis of different statistical methods
	CO-5	Evaluating data on the basis of statistical analysis
	CO-6	Evaluating quality management system in diagnostic laboratory
MMLT-CH-204	CO-1	Understanding ethical principles and accreditation for clinical laboratories
	CO-2	Applying all general & clinical safety measures to reduce the risk of infection.
	CO-3	Applying methods for interpretation and release of examination results for quality assurance
	CO-4	Evaluating the validating, instrument calibration & importance of medical audit (NABL) to enhance the quality of laboratory.
	CO-5	Evaluating pre & post exposure guidelines of some infectious diseases
MMLT-CH-301	CO-1	Applying basic principles for diagnosis of hematopoietic- Lymphoid neoplasm.
	CO-2	Analyzing various hematological disorders
	CO-3	Analyzing the complications of hematopoietic neoplasm
	CO-4	Evaluation of molecular and cellular findings
	CO-5	Evaluating protein abnormalities in Plasma cell dyscrasis
MMLT-CH-302	CO-1	Applying various cytogenetic and molecular diagnostic techniques
	CO-2	Applying various techniques for purification and separation of nucleic

		acids
	CO-3	Analyzing banding techniques and karyotyping
	CO-4	Analyzing chromosomal abnormalities
	CO-5	Evaluating different types of body fluids
MMLT-CH-303	CO-1	Applying the knowledge of medical terminology
	CO-2	Applying information about disease etiology and development regarding prevention and wellness
	CO-3	Analyzing the etiological factors that are known to be involved malfunctioning of the normal process.
	CO-4	Analyzing the normal process that are foundation material for topics in general pathology
	CO-5	Evaluating the clinical findings