

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College Vashi Navi Mumbai (Autonomous)

Name of the Program: Bachelor of Science

Program Outcomes (POs)

Department of Microbiology

**B.Sc. Medical Laboratory Technology
(MLT)**

Program Outcomes (POs)

PO-1	Disciplinary Knowledge: (i) Acquire knowledge with facts and figures related to various subjects in pure sciences such as Physics, Chemistry, Mathematics, Microbiology and Computer Science; and Biotechnology, Information Technology and its other fields related to the program. (ii) Understand the basic concepts, fundamental principles, theoretical formulations and experimental findings and the scientific theories related to various scientific phenomena and their relevance in the day-to-day life.
PO-2	Communication Skills: Developed various communication skills such as reading, listening and speaking skills etc., which will help in expressing ideas and views clearly and effectively.
PO-3	Critical Thinking: Think creatively to propose novel ideas in explaining the scientific data, facts and figures related to science and technology.
PO-4	Analytical Reasoning and Problem Solving: Identify, describe, formulate, interpret, analyze the data systematically and solve theoretical and numerical problems in the diverse areas of science and technology and provide alternate solutions to the problems.
PO-5	Sense of Inquiry: Curious for asking relevant questions like why and how for better understanding of the basic concepts, fundamental principles, scientific theories and applications related to the study.



PO-6	Use of Modern Tools: Use of modern tools, equipment, instrumentation and laboratory techniques to design and perform the experiments and write the programs in different languages (software).
PO-7	Research Skills: Ability to search for, find, collect, analyze, interpret and evaluate information/data that is relevant to the subjects related to science and technology being studied.
PO-8	Application of Knowledge: Develop scientific outlook with respect to the subjects related to science and technology and also participate in various social and cultural activities.
PO-9	Ethical Awareness: Imbibe ethical and social values in personal and social life leading to cultured and civilized personality.
PO-10	Teamwork: Work effectively within the groups and individuals, participate and take initiative for various field-based situations related to science, technology and society at large.
PO-11	Environment and Sustainability: Understand how development in science and technology and interdisciplinary subjects are taking place for protecting our environment and sustainable developments.
PO-12	Lifelong Learning: Ability of self-driven to explore, learn and gain knowledge and new skills to improve the quality of life and sense of self-worth by paying attention to the ideas and goals throughout the life.


Program Coordinator


BOS Chairman


I/C PRINCIPAL
KARMAVEER BHURAO PATIL COLLEGE
VASHI, NAVI MUMBAI - 400 703.



Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College Vashi, Navi Mumbai (Autonomous)

**Name of the Specific Program: B.Sc. Medical Laboratory Technology (MLT)
Program Specific Outcomes (PSO)**

At the end of four year program students will understand and be able to

PSO-1	Understanding different branches and their functions of medical laboratory like microbiology, biochemistry, hematology, transfusion medicine, histopathology through on the job training and internships in hospitals.
PSO-2	Learn professional guidelines and norms for patient safety and apply laboratory skills in basic diagnostic services to collect, transport, receive and accept or reject clinical samples
PSO-3	Remember laboratory procedures that are essential for the diagnosis and treatment of infectious diseases.
PSO-4	Understand the methods of testing & analyzing various body fluids samples (operating techniques, labelling & storing).
PSO-5	Evaluating technical information about test results and creating medical test reports.
PSO-6	Illustrate the basic molecular diagnosis & quality management in pathology
PSO-7	Learning the latest medical instruments and equipment technology in a laboratory set up, their upkeep and error minimization.
PSO-8	Developing a professional laboratory technologist through various ability enhancement programs on communication skills, life skills, field visits and personality development workshops.
PSO-9	Understanding the larger scope of medical profession and creating an opportunity for higher education in hospital management domain and overseas work opportunities.


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Title of Specific Program: B.Sc. Medical Laboratory Technology (MLT)
Course outcomes (CO)

Course Code	Title of the Course	Course outcomes (CO)
After successful completion of each course in learner will be able to;		
Semester-I		
UGMLTC101	General Human Anatomy & Physiology	<p>CO1. Explain the morphology, physiology of skeletal system along with the physiology of muscle contraction in co-ordination with the joints, their articulation and skin [1-3]*</p> <p>CO2. Describe & explain the composition, function of various body fluids like blood, lymph cardiovascular and respiratory system their significance and related disorders. [2]*</p> <p>CO3. Classify the peripheral nervous system, nerves and morphology of special senses & Discuss diseases, disorders, and conditions commonly found in healthcare occupations [4]*</p>
UGMLTC102	Fundamentals of Hospital Practices & Protocols	<p>CO1. Recognize, define, and spell terms related to the pathology and treatment of body systems. Analyze and apply knowledge to a real-life scenario. Define common word roots, combining forms, suffixes, and prefixes. Identify and describe the major functions and structures of the body systems [1]*</p> <p>CO2. Explain methods to prevent the spread of infection. Summarize the engineering, work practice, and environmental controls that protect against healthcare-associated infections AND Identify barriers and personal protective equipment for protection from exposure to potentially infectious material and Improve their general hygiene routine and personal image. Understand the importance and benefits of self-care.[5-4]*</p> <p>CO3 Implement strategies for Standard and Transmission-Based Precautions in healthcare settings. Prevent the spread of germs and disease by using the correct techniques for hand hygiene. Protect oneself and those served by technologist recognizing the chain of infection[3]*</p>
UGMLTC103	Introduction to Chemistry	<p>CO1. Understanding chemical processes related to Biochemistry of living organisms and to understand qualitative and quantitative analytical processes routinely used in biochemical analysis[4&3]*</p> <p>CO2. Learn chemical processes, composition, and structure of elements and compounds for better understanding of biochemistry of living organism.[1]*</p> <p>CO3 Implement strategies for Standard and Transmission-Based Precautions in healthcare settings. Prevent the spread of germs and disease by using the correct techniques for hand hygiene. Protect oneself and those served by technologist recognizing the chain of infection[3]*</p>
UGMLTAEC 104	Communication Skill	<p>CO1. Understanding and improving General vocabulary, properly understand the meaning and implement in academics through formal communication[1&2]*</p> <p>CO2. Applying parts of speech while framing sentences. Additionally, they will learn all the kinds of sentences that are required while having a basic interaction in English with anyone[3]</p>



		CO3 Understanding the time mentioned in the sentences by identifying action verbs & helping verbs and then frame sentences mentioning about the proper work/event happened on specific time.[1&2]*
Semester-II		
UGMLTC201	Phlebotomy	CO1. Understanding and improving General vocabulary, properly understand the meaning and implement in academics through formal communication[1&2]* CO2. Applying parts of speech while framing sentences. Additionally, they will learn all the kinds of sentences that are required while having a basic interaction in English with anyone[3] CO3 Understanding the time mentioned in the sentences by identifying action verbs & helping verbs and then frame sentences mentioning about the proper work/event happened on specific time.[1&2]*
UGMLTC202	Fundamentals of Pathology	CO1. Study of medical instruments and equipment technology in a laboratory set up and. Learn aspect of patient care, from diagnostic testing and treatment [3-1]* CO2. Justify spread of Skin, Respiratory and Urinary tract infection & understanding clinical manifestation [4]* CO3 Explain diagnostic laboratory procedures are essential for the diagnosis and Treatment of infectious disease[2]*
UGMLTGE203	Introduction to Zoology	CO1. Study of all animals from tiny insects to large mammals as per Animal kingdom classification and Study of genes, genetic variations and heredity. DNA, RNA and genetic code for better understanding of genetics and molecular biology. [2-1]* CO2. To understand the vital normal physiological processes that is necessary to sustain human life[2]* CO3 To understand the normal and pathological life processes that occur for animal life to exist.[1]*
UGMLTAE204	Communication Skill	CO1. Learning report writing will make practice objective and passive form of writing. Additionally, they will learn to draft and present a Power Point Presentation that will be an aid while they present their views on certain topics. [1]* CO2. Creating the respective Resume and Job application for applying in various organizations and Understanding formal, informal, spoken & written English that will bridge the gap between their thoughts and words [2-3]* CO3 Students will dramatize (Role-play) the certain topics to get involved in context and to experience the intention behind those sentences. [4&6]*

Note: Numbers in bracket 0 indicates cognitive levels of revised Blooms Taxonomy as follows:

(1): Remembering, (2): Understanding, (3): Applying, (4): Analyzing, (5): Evaluating, (6): Creating


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