



# Charutar Arogya Mandal

Medical Technology Courses  
(Affiliated to Sardar Patel University)

## ***PROSPECTUS for Undergraduate Courses***

### **B.Sc. - Medical Technology**

#### **Objective:**

To prepare health-care professionals of highest caliber in various diagnostic and therapeutic technologies used for the patient care with a strong foundation and complete orientation of relevant pre- and para-clinical subjects; so as to enable them to efficiently use / assist the specialist in using advanced medical technologies in a health-care set up.

#### **About the Institute:**

Smt. L.P. Patel Institute of Medical Laboratory Technology (earlier known as Institute of Diploma in Medical laboratory Technology), under the aegis of Charutar Arogya Mandal, Vallabh Vidyanagar, has been established at Shree Krishna Hospital & Pramukhswami Medical College, Karamsad to provide training, at its NABL-accredited clinical laboratories and NABH-accredited A.D.Gorwala Blood Bank, to the prospective candidates; who desire to pursue their post-B.Sc. career in the field of Medical diagnostics as Laboratory personnel in hospitals, clinical laboratories and Medical Research Centres.

The Institute, through its post-graduate programmes, DMLT & M.Sc.-Medical Technology (in Clinical Laboratory Technology), provides a unique opportunity to candidates to acquire not only the knowledge and skill in the laboratory techniques; but also to sharpen up the edge in the laboratory-based research by undertaking an in-house research project as a compulsory P.G.dissertation in M.Sc. Programme.

The Institute has also introduced graduate courses, B.Sc.-Medical Technology, to impart training to the students in a variety of specializations such as clinical laboratory technology, Imaging Technology, Respiratory care Technology, Radiotherapy Technology and Operation theatre & Anaesthesia Technology.

Students are trained in the respective department at Shree Krishna Hospital; a well equipped tertiary care Hospital of Charutar Arogya Mandal.

### **Eligibility for Admission:**

Candidates who have passed 10+2 (science) examination conducted by any recognized School Certification Board or Equivalent Examination; with principal subjects Physics, Chemistry, Biology/Maths and English. (A or B or AB group student)

**Intake: 50 seats**

**Medium of Instruction:** The medium of instruction for all the courses shall be English.

**Specialization:** (Duration): B.Sc. - Medical Technology offers specializations in following area.

#### **1. Clinical Lab. Technology:**

**3 years**



Clinical Lab. Technology deals with the analysis of clinical specimens to support diagnosis and treatment of disease.

The course provides training to the students in Pathology, Biochemistry, Microbiology, Immunology, Blood Banking etc.

Students are trained to perform and interpret the laboratory investigations; which are very important area for the in the patient-care.

## **2. Imaging Technology: 4 Years including 1 year internship**



Imaging Technology facilitates clinicians with the diagnosis and management through the creation of medical imaging using X-ray, ultrasound and magnetic resonance.

The students of this course are trained to assist radiologists to provide patients with a range of advanced radio diagnostic examinations.

## **3. Respiratory Care Technology: 4 Years including 1 year internship**



The Respiratory Care technology course involves the training in the assessment and treatment of patients with respiratory problems including chronic lung problems and the respiratory components of acute multi-systemic conditions.

Students will be trained in therapeutic Respiratory Technology such as airway management, oxygen therapy, mechanical ventilation, acid-base balance etc., as well as, in diagnostic procedures like Pulmonary function test etc. under supervision of a Chest Physician or an Intensivist.

#### **4. Operation Theatre and Anaesthesia Technology: 4 Years including 1 year internship**



The Operation Theatre and Anaesthesia Technologist is responsible for direct and indirect patient care, for setting up equipments and other operation theatre procedures.

They assist surgeons and anaesthetists before, during and after the surgical procedures and assume responsibility for completion of other functions as assigned.

#### **5. Radiotherapy Technology: (Approved by Atomic Energy Regulatory Board (AERB)) 4 Years including 1 year internship**



Radiotherapy technology deals with the principles and practice of radiation therapy through an advanced technology namely Three dimensional conformal radiation therapy and High dose rate Image Guided brachytherapy etc; which are useful for the treatment of cancer patients.

Students in this course shall be trained to assist the Radiation Oncologist in such procedures.

**Career Prospects:**

Health Care Professionals, well trained in various Medical Technologies, have an extremely challenging and rewarding career ahead. Since the use of advanced technologies in the diagnosis and management of patients has greatly increased globally in recent years; requirement of trained and skilled manpower to assist in various diagnostic and therapeutic technologies has also been growing rapidly. Students can very well be absorbed by a number of hospitals, diagnostic centers, research and biotechnology Institutions etc. with an attractive remuneration.

**Curriculum & Teaching Methodology:**

Curriculum provides adequate orientation to the pre-clinical and para-clinical subjects during first and second year. Basic and applied aspects of the respective specialty have well been covered during second and third year. Students will also spend considerable part of their learning time in the respective hospital set-up (including 1-year internship, wherever applicable); where they will be having enough hands-on training.

The courses will emphasize on both theoretical & practical aspects. Students, at the end of the course, will acquire knowledge as well as skill of a particular medical technology, as required by the health care sector today.

**Commencement of Academic Term:**

The academic session would usually commence from June; first term would be from June to November and second term from December to May or as decided by Sardar Patel University.

**Working hours:**

Working hours of the course will be from 09.00 a.m to 05.00 p.m with one-hour lunch break. Candidates, however, may be posted during emergency duty hours as a part of their training under the supervision of senior personnel.

**Attendance:**

Candidate shall be required to attend at least 75% of the Lectures and Practicals separately in each year.

**Internship & Stipend:**

As a part of curriculum, all courses, except Clinical Laboratory Technology, are having a compulsory 1 year Internship during the fourth year. A stipend of Rs. 2500/- per month will be paid to the students during this 1 year Internship.

## Seats & Fees Structure:

<b>B.Sc.-MT specialization</b>	<b>Seats</b>	<b>First Year Fees</b>	<b>Second Year Fees</b>	<b>Third Year Fees</b>	<b>Total</b>
Clinical Laboratory Technology	25	40,000	40,000	40,000	<b>1,20,000</b>
Imaging Technology	05	50,000	50,000	50,000	<b>1,50,000</b>
Respiratory Care Technology	05	50,000	50,000	50,000	<b>1,50,000</b>
Operation Theatre & Anaesthesia Technology	10	50,000	50,000	50,000	<b>1,50,000</b>
Radiotherapy Technology (AERB approved)	05	50,000	50,000	50,000	<b>1,50,000</b>

### Refund of fees:

Generally, no refund of the fees paid is permitted on account of withdrawal/cancellation of the admission. In case a candidate wishes to withdraw from the course after admission, but before the commencement of the course, s/he should apply at least 15 days prior to the date of commencement of classes. The refund of the fees, after deducting the applicable administrative charges, as decided by the competent authority, is subject to filling of the seat by a wait-listed candidate.

### Accommodation:

Shared accommodation at the hostels on campus is provided to limited students on payment basis. Admission to the course does not, however, guarantee hostel accommodation.

### Medical Insurance:

Students admitted would be covered under a suitable scheme of "Krupa Arogya Suraksha" for hospitalization at the Shree Krishna Hospital, Karamsad for a coverage of Rs. 5,000/- per annum.

### Internet Facilities:

Central Internet facilities are made available to all the students at college Library on payment of nominal charges.

### Discipline:

All the students are expected to maintain strict discipline on the campus and adhere to rules and regulations particularly in relation to their overall conduct, academic performance and attendance through out their academic tenure.

*“Ragging” is categorically banned in the institution as per the Judgment of Supreme Court of India. Any one indulging in ragging or any kind of indiscipline is likely to be punished appropriately, which may include expulsion from the institution.*

### **Sports & Recreation:**

Facilities for indoor and outdoor games are available on campus at the Student Activity Center along with a well-equipped gymnasium at nominal charges.

### **Course subjects:**

#### **First Year Subjects**

<b>Main Subjects:</b> 1. Human Anatomy 2. Human Physiology 3. Microbiology 4. Biochemistry 5. Pathology	<b>Subsidiary Subjects:</b> English Health-Care
There shall be no University Practical Examination in First year.	

#### **Second Year Subjects**

<b>Main Subjects:</b> Relevant to the respective specialization	<b>Subsidiary Subjects: (Bioethics)</b> Computer organization and PC software
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#### **Third Year Subjects**

<b>Main Subjects:</b> Relevant to the respective specialization	<b>Subsidiary Subjects:</b> No Subsidiary
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### **Standard of passing:**

To pass the B.Sc. examination, a candidate must obtain at least 35% marks (aggregate of external and internal) in each of the theory papers as well as in practical separately.

### **Award of degree/diploma:**

On successful completion of the programme, students will be awarded the degree of B.Sc.- Medical Technology in respective specialization from Sardar Patel University, Vallabh Vidyanagar-388 120, Gujarat, India.

### **Production of No Due Certificate:**

On successful completion of the course the students are required to submit a “No Due Certificate” from Library and other concerned department / Hostel, in case of residing at hostel, to enable them to receive the University mark sheet and other dues, if any, from the institute.

### **How to Apply:**

1. The Prospectus & Application form are available at the Student Section, Smt. L.P.Patel Institute of Medical Laboratory Technology. P.S. Medical College Campus, Karamsad – 388 325, Gujarat, India on payment of Rs.300 by cash. (No additional payment is required at the time of submitting duly filled application form available with prospectus).

2. The Prospectus & Application form can also be downloaded from our website [www.charutarhealth.org](http://www.charutarhealth.org) The downloaded application form, duly filled up, must be submitted along with all the required documents and a D.D. of Rs 300 to be drawn in favour of “Charutar Arogya Mandal” payable at Anand.

3. Admission Procedure: Candidates should submit the prescribed application form duly completed along with attested photocopies of requisite documents. Selection of the candidates will be based on the performance in XII Std. Science or equivalent examination and Personal Interview at the institute.

Completed Application form should be submitted to:

The Principal,  
Smt. L.P. Patel Institute of Medical Laboratory Technology.  
P.S. Medical College Campus,  
Karamsad - 388 325, Gujarat (India)

### **Contact Details:**

Phone: (02692) 222130,222567, Ext.3500

Fax: (02692) 223466

E mail: [lpimlt@charutarhealth.org](mailto:lpimlt@charutarhealth.org)

website: [www.charutarhealth.org](http://www.charutarhealth.org)