

Prospectus



Metro United Institute of Allied Health Science

(Affiliated to Rajiv Gandhi University of Health Sciences, Bengaluru and approved by Government of Karnataka)

Shivamogga



94815 25846, 08182-256488

B.MLS

Bachelor of Medical Laboratory Science

B.AOTT

Bachelor of Anaesthesia and Operation Theatre Technology

B.MRIT

Bachelor of Medical Radiology & Imaging Technology

B.Sc CCT

Bachelor of Cardiac Care Technology



About Metro United Group of Institutions

Metro United Institute of Allied Health Sciences, Shivamogga, established in 2025 is an emerging institution dedicated to providing quality education and training in the field of Allied Health Sciences. The institute is associated with Metro United Healthcare Hospital, a multi-specialty healthcare organization in Shivamogga, and aims to develop skilled allied healthcare professionals capable of meeting the growing demands of modern healthcare services. The institution emphasizes academic excellence, clinical competence, professional ethics, and patient-centered care.

The institute offers healthcare education that integrates theoretical knowledge with practical clinical training. Students receive hands-on exposure through hospital-based learning environments, enabling them to acquire essential diagnostic, therapeutic, and patient-care skills required in various allied health professions. The close association with a healthcare facility provides opportunities for experiential learning and professional development.

Our Vision

To become a center of excellence in allied health sciences education by producing competent, compassionate, and ethically responsible healthcare professionals who contribute effectively to the healthcare system and community well-being.

Our Mission

- To provide high-quality competency-based education in allied health sciences.
- To promote clinical excellence through practical and evidence-based training.
- To develop healthcare professionals with strong ethical values and social responsibility.
- To encourage lifelong learning, research, and innovation in healthcare.
- To contribute to improving healthcare services in the region and beyond.



Our Objectives

1. To prepare skilled allied health professionals for healthcare institutions.
2. To provide comprehensive clinical exposure and competency-based training.
3. To foster interdisciplinary collaboration in healthcare delivery.
4. To encourage research and evidence-based practice among students.
5. To develop leadership, communication, and professional skills.

Facilities and Clinical Training

The institute benefits from its association with Metro United Healthcare, which offers a wide range of specialty and super-specialty services including Internal Medicine, Intensive Care, Orthopedics, Neurology, Cardiology, Urology, Gastroenterology, Oncology, Physiotherapy, Radiology, Nursing, Laboratory Services, Emergency Care, and advanced diagnostic facilities. This provides students with valuable clinical exposure and practical learning opportunities.

Importance of Allied Health Sciences

Allied health professionals play a crucial role in healthcare delivery by supporting diagnosis, treatment, rehabilitation, and preventive healthcare services. Graduates from allied health sciences programs contribute significantly to hospitals, diagnostic centers, rehabilitation facilities, research laboratories, and community healthcare programs.

Metro United Institute of Allied Health Sciences, Shivamogga, strives to nurture competent healthcare professionals through quality education, advanced clinical training, and ethical practice. By combining academic learning with practical healthcare experience, the institute prepares students to meet the evolving challenges of the healthcare sector and contribute effectively to society.

Motto:

"Excellence in Education, Compassion in Healthcare, Service to Humanity."

B.MLS

(Bachelor of Medical Laboratory Science)

Duration :

4 year one year of Internship

Eligibility:

Candidate must have passed Senior Secondary (10+2) (PUC Science PCMB) or equivalent with Physics, Chemistry & Biology (Botany + Zoology) subjects.

Lateral Entry Eligibility:

Lateral entry to the candidates in second year (3rd semester) who have passed Diploma in Medical Laboratory Technology (D.MLT) with 50% Marks.

Course Overview

Bachelor of Medical Laboratory Science (B.MLS) is an undergraduate allied health sciences program designed to train students in the analysis of biological specimens for the diagnosis, treatment, and prevention of diseases. Medical Laboratory Scientists play a vital role in healthcare by performing laboratory investigations that assist clinicians in making accurate diagnoses and monitoring patient outcomes.

The program integrates basic medical sciences, laboratory technology, diagnostic procedures, quality assurance, and research methodology with extensive clinical training.

Objectives of the Course

The program aims to:

1. Provide comprehensive knowledge of medical laboratory sciences.
2. Develop technical skills in diagnostic laboratory procedures.
3. Train students in quality control and laboratory management.
4. Promote safe laboratory practices and infection control.
5. Develop research and analytical skills.
6. Prepare competent healthcare professionals for diagnostic services.

Clinical Skills Acquired

Students gain proficiency in:

- Collection and processing of biological specimens
- Hematological investigations
- Clinical biochemistry testing
- Microbiological culture and identification
- Histopathological techniques
- Cytological examination
- Blood grouping and cross-matching
- Molecular diagnostic techniques
- Operation and maintenance of laboratory equipment
- Quality control and quality assurance procedures
- Laboratory safety and infection control



Career Opportunities

Graduates can work as:

- ☛ Medical Laboratory Scientist
- ☛ Clinical Laboratory Technologist
- ☛ Biochemistry Technologist
- ☛ Hematology Technologist
- ☛ Microbiology Technologist
- ☛ Histopathology Technologist
- ☛ Cytology Technologist
- ☛ Blood Bank Technologist
- ☛ Molecular Diagnostic Technologist
- ☛ Research Assistant
- ☛ Quality Control Officer
- ☛ Laboratory Manager



Employment Areas

- ☛ Multi-specialty Hospitals
- ☛ Government Hospitals
- ☛ Medical Colleges
- ☛ Diagnostic Laboratories
- ☛ Blood Banks
- ☛ Research Institutions
- ☛ Public Health Laboratories
- ☛ Biotechnology Industries
- ☛ Pharmaceutical Industries
- ☛ Academic Institutions

Professional Roles and Responsibilities

A Medical Laboratory Scientist is responsible for:

- ☛ Performing laboratory investigations accurately and efficiently.
- ☛ Ensuring quality assurance in diagnostic testing.
- ☛ Maintaining laboratory instruments and equipment.
- ☛ Interpreting laboratory data and reporting results.
- ☛ Following biosafety and ethical guidelines.
- ☛ Supporting clinicians in disease diagnosis and patient management.



Syllabus

FIRST SEMESTER	SECOND SEMESTER	THIRD SEMESTER	FOURTH SEMESTER	FIFTH SEMESTER	SIXTH SEMESTER	SEVENTH & EIGHTH SEMESTER
Human Anatomy	Fundamentals of Microbiology	Bacteriology	Virology and Immunology	Mycology & Parasitology	Applied Pathobiology	INTERNSHIP (clinical lab posting/research dissertation)
Human Physiology	Basics of Biochemistry	Intermediary Metabolism and Endocrinology	Genetics and Molecular biology	Analytical Biochemistry	Cytology and Histopathology	
Fundamentals of the Healthcare System and Medical Laboratory Science (MLS) #	Fundamentals of Haematology	Clinical Haematology	Clinical Pathology	Immunohemato logy and Transfusion Medicine	Clinical Biochemistry	
Communication and Professionalism #	Preventive and Social Medicine	Basics of Pharmacology	Medical Laboratory Management and Quality control	Medical Law and Ethics	Biostatistics and Research Methodology	
Basic Emergency care and First	Fundamentals of Microbiology Practical	Bacteriology Practical	Virology and Immunology Practical	Mycology & Parasitology Practical	Cytology and Histopathology Practical	
Basics of Computer Application	Basics of Biochemistry practical	Intermediary Metabolism and Endocrinology Practical	Genetics and Molecular Biology Practical	Analytical Biochemistry Practical	Clinical Biochemistry Practical	
Human Anatomy practical	Fundamentals of Haematology Practical	Clinical Haematology Practical	Clinical Pathology Practical	Immunohemato logy and Transfusion Medicine Practical	Applied Pathobiology Practical	
Human Physiology practical						

B.Sc CCT

(Cardiac Care Technology)

Duration :

4 year one year of Internship

Eligibility:

Candidate must have passed Senior Secondary (10+2) (PUC Science PCMB) or equivalent with Physics, Chemistry & Biology (Botany + Zoology) subjects.

Lateral Entry Eligibility:

Lateral entry to the candidates in second year (3rd semester) who have passed Diploma in Cardiac Care Technology (D.CCT) with 50% Marks.

Course Overview

Bachelor of Science in Cardiac Care Technology (B.Sc. CCT) is an undergraduate allied health sciences program that prepares students to assist cardiologists in the diagnosis, monitoring, and supportive management of heart diseases. Students learn to operate cardiac diagnostic equipment, monitor patients during procedures, and work in cardiac ICUs, cath labs, and non-invasive cardiology departments.

Objectives of the Course

1. Develop knowledge of cardiovascular anatomy and physiology.
2. Train students in cardiac diagnostic procedures.
3. Develop skills in operating cardiac equipment.
4. Prepare students for critical and emergency cardiac care.
5. Promote patient-centered and ethical healthcare practice.
6. Enable effective teamwork in cardiology departments.

Clinical Skills Acquired

Students gain proficiency in:

- ☛ Recording and interpreting ECGs
- ☛ Assisting in echocardiography (ECHO) and stress testing (TMT) procedures
- ☛ Operating cardiac monitoring equipment
- ☛ Assisting in cardiac catheterization and angiography
- ☛ Monitoring hemodynamic parameters
- ☛ Preparing patients for cardiac catheterization and angiography.
- ☛ Providing basic and advanced life support (BLS/ACLS)
- ☛ Assisting in pacemaker procedures
- ☛ Managing critically ill cardiac patients
- ☛ Infection control and patient safety practices



Career Opportunities

After graduation, candidates can work as:

- ☛ Cardiac Care Technologist
- ☛ ECG Technician
- ☛ Echocardiography Technician
- ☛ Cath Lab Technologist
- ☛ Cardiac Monitor Technician
- ☛ CCU/ICU Technician
- ☛ Pacemaker Technician
- ☛ Cardiothoracic OT Technician
- ☛ Medical Equipment Specialist
- ☛ Clinical Instructor

Employment Areas

- ☛ Multi-specialty Hospitals
- ☛ Cardiac Hospitals
- ☛ Government Hospitals
- ☛ Medical Colleges
- ☛ Cardiac Diagnostic Centers
- ☛ Critical Care Units
- ☛ Research Institutions
- ☛ Medical Device Companies



Syllabus

1 st Year	2 nd Year	3 rd Year	4 th Year
Human Anatomy	Medicine relevant cardiac care to technology	Cardiac care Technology -Clinical-	Internship
Physiology	Section A : Applied pathology Section B: Applied Microbiology	Cardiac care Technology -Applied-	
Biochemistry I	Applied Pharmacology	Cardiac care Technology -Advanced-	
Pathology I (Clinical pathology, Hematology & Blood bank	Introduction to cardiac care Technology		
Microbiology			



B.MRIT

(Bachelor of Medical Radiology Imaging Technology)

Duration :

4 year one year of Internship

Eligibility:

Pass in Senior Secondary (10+2) (PUC / Class XII Science PCMB) or equivalent with Physics, Chemistry & Biology (Botany + Zoology) subjects.

Lateral Entry Eligibility:

Lateral entry to the candidates in second year (3rd semester) who have passed Diploma in Medical Imaging Technology (D.MIT) with 50% Marks.

Objectives of the Course

The program aims to:

1. Develop knowledge of radiological sciences and imaging modalities.
2. Train students in operating diagnostic imaging equipment.
3. Promote safe radiation practices and patient care.
4. Develop competency in image acquisition and quality assurance.
5. Prepare students for multidisciplinary healthcare teamwork.
6. Foster ethical and professional conduct in radiology practice.

Clinical Skills Acquired

Students gain proficiency in:

- ☛ Patient positioning for imaging procedures
- ☛ Operating X-ray, CT, MRI, and ultrasound equipment
- ☛ Image acquisition and processing
- ☛ Radiation protection and dosimetry
- ☛ Contrast media administration assistance
- ☛ Quality control of imaging equipment
- ☛ Patient communication and care
- ☛ Emergency response during imaging procedures
- ☛ Infection control practices

Course Overview

Bachelor of Medical Radiology and Imaging Technology (B.MRIT) is an undergraduate allied health sciences program that trains students in the use of medical imaging technologies for the diagnosis and management of diseases. The course combines medical sciences with imaging techniques such as X-ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound (USG), Fluoroscopy, Mammography, and Nuclear Medicine. Graduates become skilled imaging professionals who play a vital role in modern healthcare.



Career Opportunities

After graduation, candidates can work as:

- ☛ Radiology Technologist
- ☛ Radiographer
- ☛ CT Technologist
- ☛ MRI Technologist
- ☛ Mammography Technologist
- ☛ Ultrasound Assistant
- ☛ Nuclear Medicine Technologist
- ☛ Radiation Safety Officer (after additional qualifications)
- ☛ Application Specialist for Medical Imaging Companies
- ☛ Research Assistant in Medical Imaging
- ☛ Academic Instructor

Employment Areas

- ☛ Multi-specialty Hospitals
- ☛ Government Hospitals
- ☛ Medical Colleges
- ☛ Diagnostic Imaging Centres
- ☛ Cancer Hospitals
- ☛ Trauma Centres
- ☛ Research Institutions
- ☛ Medical Equipment Industries
- ☛ Tele-radiology Services



Syllabus

I (studentship)				
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B.AOTT

(Bachelor of Anaesthesia and Operation Theatre Technology)

Duration :

4 year one year of Internship

Eligibility:

Pass in Senior Secondary (10+2) (PUC / Class XII Science PCMB) or equivalent with Physics, Chemistry & Biology (Botany + Zoology) subjects.

Lateral Entry Eligibility:

Lateral entry to the candidates in second year (3rd semester) who have passed Diploma in Anaesthesia and Operation Theatre Technology (D.AOTT) with 50% Marks.

Course Overview

Bachelor of Anaesthesia and Operation Theatre Technology (B.AOTT) is an undergraduate allied health sciences program that prepares students to assist anesthesiologists, surgeons, and other healthcare professionals in operation theatres, intensive care units, and emergency departments. The course focuses on anesthesia techniques, operation theatre management, patient monitoring, infection control, and perioperative patient care.

Objectives of the Course

The program aims to:

1. Develop knowledge of anesthesia equipment and techniques.
2. Train students in operation theatre procedures and management.
3. Teach patient monitoring during surgical procedures.
4. Develop skills in infection prevention and sterilization.
5. Prepare students for emergency and critical care support.
6. Promote ethical and professional healthcare practice.

Clinical Skills Acquired

Students learn :

- Preparation of anesthesia machines
- Airway management assistance
- Monitoring vital signs during surgery
- Handling anesthesia drugs under supervision
- Surgical instrument preparation
- Sterilization and aseptic techniques
- Management of OT equipment
- Emergency response procedures
- Basic and advanced life support skills (BLS/ACLS)



Career Opportunities

After graduation, candidates can work as:

- Anaesthesia Technologist
- Operation Theatre Technologist
- Anaesthesia Assistant
- OT Technician
- Critical Care Technician
- ICU Technician
- Emergency and Trauma Care Technician
- Surgical Assistant
- Sterilization Specialist
- Medical Equipment Specialist

Employment Areas

- Multi-specialty Hospitals
- Government Hospitals
- Medical Colleges
- Trauma Centres
- Critical Care Units
- Day Care Surgical Centres
- Specialty Clinics
- Healthcare Equipment Companies



Syllabus

FIRST SEMESTER	SECOND SEMESTER	THIRD SEMESTER	FOURTH SEMESTER	FIFTH SEMESTER	SIXTH SEMESTER	SEVENTH & EIGHTH SEMESTER
Introduction to Healthcare Delivery System in India	Medical Law and Ethics, Professionalism & Values, Principles of Management	Basic techniques of Anaesthesia	Advanced Anaesthesia Techniques	Specialized Anaesthesia 1	Specialized Anaesthesia 2	AOTT Internship (should contain six months of Anaesthesia, six months of surgery, and at least one month of each specialty)
Medical Terminology and Record keeping (including anatomical terms)	Basics of Biomedical sciences in surgery and Anaesthesia	Basics of Surgical procedures	Advanced Surgical Procedures	Specialized surgery 1	Specialized Surgery 2	
Anatomy	Biochemistry & Haematology	CSSD & Manifold Area.	Basic Intensive Care	Recent Advances in Anaesthesia and Surgical fields	Specialized Anaesthesia & Surgery 3	
Physiology	Pathology & Microbiology	Industrial orientation and Industrial Visit	Clinical Medicine & Related Management	Community Medicine & Environmental Sciences	Research Methodology and Biostatistics	
Health Care Quality & Patient Safety	Basic Concepts in Pharmacology					
	Basic computers and information Science, Communication and soft skills.					



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