







**INDUS COLLEGE OF** MEDICAL TECHNOLOGY AND ALLIED HEALTH

Korangi Crossing, Karachi, 75190, Sindh, Pakistan +92 21 3506 0715 | icmtah@gmail.com

# CONTENT

- Message from Dean 1.
- Message from Principal ICMAH Vision, Mission 2.
- 3.
- 4. Competencies and Outcomes
- 5. Student Professional Conduct
- General Performance Conduct 6.
- Dressing and Grooming 7.
- Programs offered at ICMAH: 8.

  - Undergraduate programs

     BS- Medical Technology (04-year degree program)
    - Program overview
    - Eligibility Criteria
    - Tuition & Fees
  - Certificate program
    - Technician programs (01-year certificate program)
    - Diploma programs (02-year certificate program)
      Program overview

      - Eligibility Criteria
      - Tuition & Fees
- Application and Selection
  Entry Test
  ICMAH Strength

- 12. Financial Assistance
- Teaching and Learning Strategy at ICMAH Assessment and Internal Evaluation 13.
- 14.
- 15. Attendance & Leave Structure

## MESSAGE FROM THE DEAN

The source of our passion is our Mission, which is centered on Education, Research and Services. We lead our way by educating our generation as competent compassionate healthcare provider and also providing frontline patient care.

With technological advancement and treatment innovation, the landscape of health care practice has changed over the period of time. The challenge in healthcare delivery is to widen the base of medical education into Allied Health Sciences. Since the delivery of health care is no longer limited to the medical practitioners, therefore, role of allied health professionals has gain significant importance. The opportunities seem limit less, as scope of practices and the need for health care practitioners continually expand.

At Indus College of Medical Technology & Allied Health, students receive career focused education in One-of-a-kind environment, not limited to classroom, as Health and Allied Health professionals play important role in patient care and health management information.

**Prof. Syed Zafar Zaidi** *FRCS, FEBU, MHPE* Chief Executive Officer, *Indus Hospital and Health Network* Dean, *Indus University of Health Sciences* 

## MESSAGE FROM PRINCIPAL

Allied Health Sciences is an emerging field in Medical Sciences giving new dimensions to solve the challenges that are being faced by health service providers. Allied health workers constitute nearly 60% of the healthcare workforce which includes hundreds of professionals employed in different health specialties with different job duties at different levels.

In aligning with the vision and mission of The Indus Hospital and Health network, we at Indus College of Medical Technology and Allied Health mold students with high-quality education standards and training that enables them to become complete professionals, with sympathy and empathy for the needy.

Our meticulously dedicated faculty members are always ready to facilitate and guide the students, maximize their learning potential by providing contemporary, state-of-the-art education. Our clinical faculty is also dedicated to allocating their clinical knowledge from their experience to the students in their respective fields.

The well-equipped learning resources include a digital and skills laboratory which imparts the students with practical skills with theoretical knowledge that they acquire from the module-based syllabus. Indus College aims to offer world-class education, which is both cost-effective and standardized. The College is not only aiming at academic excellence but also nourishing intellectual and personal development across a range of extra and co-curricular domains.

**Dr. Atiya Rohilla** MBBS, Dip. HCSM, MBA, CODE Principal Indus College of Medical Technology and Allied Health

## INDUS COLLEGE OF MEDICAL TECHNOLOGY AND ALLIED HEALTH

Allied Health Science is an emerging field in Medical Sciences. It covers a wide range of professions, giving new dimension to solving the healthcare challenges that are being faced by health service providers all over the world. Allied Health service deals with all major departments of any tertiary care hospital.

To deliver comprehensive, patient-centered care, allied health professionals collaborate well with physicians, nurses, and other professionals as effective team members. This patient centered approach is based on a strong culture of evidence-based practice, robust clinical governance and personal accountability for quality improvement and life-long continuing professional development. The allied health professions must be fully engaged in order to realize the system potential they offer as healthcare gets more complicated, necessitating seamless interdisciplinary coordination and maximum return on investments in our health workforce.

Indus College of Medical Technology and Allied Health was started in the year 2016-17, in affiliation with Sind Medical Faculty, for 01-year and 2-year Certificate programs.

In the year 2020-21 Indus college of Medical Technology and Allied Health started Bachelors' 4-years degree program in affiliation with Jinnah Sindh Medical University.

## VISION

"EXCELLENCE IN HEALTHCARE FOR ALL TO PLEASE ALLAH (swt)."

## MISSION

- To maximize learners' potential to learn, grow, and become a successful member of society.
- Attain the highest standards in teaching and learning through quality education.
- To expand human capacity by preparing graduates in Allied Health Sciences equipped with evidence-based knowledge.

## GOAL

- Provide a model education system based on scientific knowledge and technology.
- Improve inter-professional collaboration with all healthcare peers.

## COMPETENCIES

- Care provider
- Communicator
- Professional
- Team worker

## OUTCOMES

- Provide safe and efficient health care services to patients.
- Demonstrate professional behavior when dealing with patients and healthcare team members.
- Demonstrate Compliance with institutional code of conduct.

## STUDENT PROFESSIONAL CONDUCT

**Integrity:** In carrying out their professional duties, students must be honest, sincere and trustworthy, acting in a manner that does not bring discredit to the profession.

**Respect:** Students must ensure their actions and treatment demonstrates respect for their supervisors, and the client as a person and that care is provided at the highest professional standard.

**Competence:** Students shall practice under supervision of a suitably qualified clinician and will not practice skills beyond their level and formal training. It is the student's responsibility to maintain and improve the necessary skills and knowledge, at their level of professional practice, by actively participating in critical reflection, either individually, or with their supervisor/s.

Punctuality: Punctuality is required for all classes /

### 04



lab, tests, seminar, group meetings, small and large group collaborations and for all field-based experiences. Students must comply with all verbal and written deadlines in assignment / logbook submission.

**Consent for Patient Care:** Wherever possible, students shall ensure that they receive informed consent from their clients/patients prior to assessing and providing treatment. This includes identifying themselves to the client as a student.

**Confidentiality:** All Paramedic students must maintain anonymity and confidentiality of any information they obtain during their clinical placements. They must not disclose any such information to a third party unless there is a legal or professional duty to do so.

## **GENERAL PERFORMANCE** CONDUCT

During clinical service rotations, students of Indus College of Medical Technology & Allied Health will adhere to the Professional conduct. Additionally, students must abide by the following:

- Any conduct that interferes with the goals of ICMAH or of the individual department or program, will result in disciplinary procedures in accordance with the Student Discipline Policy.
- Faculty or supervisors should address the • student's inappropriate conduct at the time it

## **DRESSING AND** GROOMING

Students are required to maintain a neat, professional appearance in all educational activities. Students whose attire or grooming does not meet occurs, in order to provide counseling and effect corrective behavior. Such conduct must be reflected in the Student's portfolio for necessary actions and permission for final exams

- Smoking is strictly prohibited throughout college space.
- Students must accept and follow the directions of their instructors in course, their academic advisor and other legitimate campus authorities.

the program's standards may be dismissed from the educational activity, and disciplinary action may be taken as specified in the program requirement.



## PROGRAMS OFFERED **AT ICMAH**

- Undergraduate programs
- BS- Medical Technology (04-year degree program) • Certificate program
- - Technician programs (01-year certificate program) Diploma programs (02-year certificate program)

### **Bachelor of Science in Medical Technology**

### **Program overview**

The BS in Medical Technology Program is a four-year degree program consisting of foundation education, compulsory and professional courses, directed to improve students' qualifications and enhance their interpersonal skills. The integration of these courses provide students with comprehensive knowledge to meet the educational needs of a medical technologist in different medical specialties, both in primary and tertiary healthcare hospitals.

The overall aim of the BS - MT program is to prepare competent entry-level technologists, in cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to work successfully in a multicultural diverse healthcare environment.

#### BS- Medical Technology (04-year degree program)

- BSMT Operation Theater Sciences
- BSMT Radiology & imaging
- BSMT Clinical laboratory Sciences
- BSMT Respiratory Therapy and Critical care

### About the BS\_MT program

### **BS - MT IN OPERATION THEATER SCIENCES**

Operation Theater Technologist, also known as a Surgical Technologist possesses the knowledge and procedural skills for work with sterile and aseptic techniques. Surgical technologists can assist the surgeon to make the procedure as



smooth and efficient as possible while working as part of the surgical team. They are also responsible for the management of operation theatre that includes looking after all surgical instruments, sterilization, and arrangement of operation theatre table, dressing table.

### Scope of Practice:

Operation theater technologists have vast scope in healthcare organizations including; operating room, emergency rooms, emergency ambulatory vehicles, and hospital delivery rooms.

### **BS - MT IN RADIOLOGY & IMAGING SCIENCES**

Medical Imaging Technologist is a health care profession concerned with imaging the body parts and diagnosing abnormalities. The Radiologic Technology program is designed to prepare students to function as Radiologic technologists. Students will gain knowledge and understanding of the diagnostic uses of x-ray, as well as the technical skills to use radiological and imaging equipment both in laboratory and clinical settings. The course is developed to enable students to operate x-ray equipment, assist in the diagnosis of disease observing proper medical ethics. Students will learn the nature of radiation, the principles of electricity, the structure of x-ray machines, and the operation of a clinical x-ray department.

### Scope of Practice:

Medical Imaging technologists operate modern and sophisticated Digital X-ray, CT, MRI and Interventional Angiography equipment to examine the anatomical structures by applying knowledge of anatomy, body positioning skills and medical imaging techniques.

#### **BS - MT IN CLINICAL LABORATORY SCIENCES**

The BS – MT Clinical Laboratory Sciences program of study aims to provide quality education and to equip students with in-depth knowledge, analytic skills, and professional attitude to perform clinical laboratory procedures in any healthcare setting.

During this four-year program, they perform several tests, detect test abnormalities, and give prompt information to physicians, which help in accurate diagnosis, treatment, and management of diseases. Such critical procedures require strong base knowledge, technical skills, and the ability to work under pressure.

#### Scope of Practice:

Those with a degree in Clinical Laboratory Sciences can contribute their services in primary and tertiary care hospitals, scientific equipment companies, chemical and pharmaceutical companies, and even in the educational sector as faculty members.

#### BS - MT IN RESPIRATORY THERAPY AND CRITI-CAL CARE SCIENCES

The BSMT Respiratory therapy & Critical Care Technology program is four-year bachelor degree programs aims to prepares qualified professional with refined knowledge skills, and attributes that enable them to meet their current professional goals. Respiratory Care is an allied health specialty, which plays a vital role in modern medicine and the health care industry.

Respiratory therapists work under the direction of physician and treat a range of patients, from premature infants whose lungs are not fully developed to elderly people with lung disease. Respiratory therapist assists in different diagnostic and therapeutic procedures for example administration of oxygen, manage ventilators and provide care to patient.

#### Scope of Practice:

BS - Medical Technologist in Radiological Imaging can contribute their services in areas like High dependency units and Intensive care Unit of Tertiary care health facilities, in Rehabilitation centers, in Pediatrics and Pulmonary function labs.

### Degree Awarding Authority

Jinnah Sind Medical University

### **BSMT Eligibility criteria**

- Students with minimum 50% marks in pre-medical (Biology Science) HSC / FSC examination
- Advance level (A-Level), and other equivalence to HSC / FSC {pre-medical (Biology Science)} as per HEC guidelines
- Age limit: 17 years-25 years

### **BSMT Program Fee Structure**

#### Application Fee | Rs. 30,000

Non-refundable, once at the time of Admission

Laboratory Fee | Rs. 5,000 One time

Security Deposit | Rs. 6,000 Refundable

Semester Tuition Fee | Rs. 60,000 Per semester

JSMU Admission Fee | Rs. 1,650 One time

JSMU Tuition Fee | Rs. 6,600 One time

Enrollment Fee | Rs. 2,000 One time

Examination Fee | Rs. 2,000 Per Semester / Per attempt

Other fee charges | Rs. 3,500 One time

**NOTE:** Tuition and fees charges are subject to change without notice.

### **Certificate Program**

- Technician Certificate program (01-year)
- Diploma Certificate program (02-year)

### Introduction

The Certificate program provides essential foundation knowledge as preparation for further applied learning and the acquisition of basic skills essential for entry-level practice. The intention of these program / courses is to prepare students to be part of health care team, thus training students and developing their skills to support the medical team with closely related functions for complete health care treatment. Further, TIH strives to meet challenges of the present and the future by being adaptive and innovative reviewing the ever-growing demands of the medical community for the associated support of Allied Health Services.

### **Program outcomes**

At the end of the Certificate program, learner will be able to:

- Demonstrate skills necessary for safe patient care,
- Communicate effectively to serve the needs of patients with relevant stake holders.
- Demonstrate professional behavior with patients and healthcare team members.

## SPECIALTY OFFERED - CERTIFICATE PROGRAMS (01-YEAR)

- Anesthesia Technician
- Dialysis Technician
- ICU Technician {Anesthesia Technician certificate is must for ICU Tech course}
- Operation Theater Technician
- Pharmacy Dispenser Technician
- X-Ray Technician

## SPECIALTY OFFERED - DIPLOMA PROGRAMS (02-YEAR)

- Diploma in Cardiology Technician
- Diploma in ICU & Anesthesia Technology
- Diploma in Operation Theater Technology
- Diploma in Radiology and Imaging Technology

### Scope of practice

Allied Health workers can provide services in specific field in:

- Tertiary care hospitals
- Community centers
- Ambulatory Services
- Rehabilitation centers
- Home health services
- Nursing and Elderly care facilities

### **Certificate awarding authority**

Sind Medical Faculty

### **Eligibility criteria**

#### DIPLOMA CERTIFICATE PROGRAM

- Matric Science (Biology Science), minimum 50% passing marks.
- Intermediate Pre Medical, minimum 50% passing marks.
- Matric, Intermediate and Domicile from Sind Province only.
- Age limit 17yrs -29 yrs.

#### TECHNICIAN CERTIFICATE PROGRAM

- Matric Science (Biology science), minimum 50% passing marks.
- Matric and Domicile from Sind Province only.
- Age limit 17 yrs 29 yrs.

### Certificate program Fee structure

Admission Fee | Rs. 6,000 One time {Non-refundable}

Tuition Fee | Rs. 5,000 Monthly

Examination Fee | Rs. 2,200 Subject to SMF

Enrollment Fee | Rs. 1,200 Subject to SMF

Other Fee Charges | Rs. 3,000 One time

**NOTE:** Tuition and fees charges are subject to change without notice.

### **Application and Selection**

### **BS Medical Technology Program**

Every candidate shall submit his / her online Application Form, available at Indus University of Health Sciences website.

Applicants are screened as per BS Medical Technology program eligibility criteria. He / she may be offered a place in program, placed on waiting list or decline entry.

#### **ENTRY TEST**

- Entrance test date shall be announced at time of commencement of program on the IUHS website.
- All candidates applying will have to appear in the written Multiple-Choice Questions based Entrance test
- Entry Test paper will be conducted at Indus College of Medical Technology and Allied Health by IUHS Examination department.
- Candidate must score 60% marks to be

selected for the Final interview by the Selection committee.

• Decision of the Selection Committee shall be final.

#### CANDIDATE SELECTION

#### **Selection Procedure**

- FSC / HSC result | 40% weightage
- Entry test result | 40% weightage
- Interview | 20% weightage

Selection committee will compromise of

- College Principal
- Specialty Representative
- Program coordinator

### **Diploma and Certificate program**

Every candidate shall submit his / her application for admission on the prescribed Sind Medical Faculty Admission form in the desired Certificate / Diploma program.

Applicants should clearly select the choice of Institute as center of study. Entry Test will be conducted by Sind Medical Faculty

Applicants has to score minimum 40% marks in entry test to apply for desired place in any Sind Medical Faculty program,

**NOTE:** If any selected candidate does not get him / her self-registered within 20 days of announcement of program then 2nd candidate shall be called from Waiting List

### ALLOCATION OF SEATS

- 10 seats for each Technician/ Diploma course, shall be offered on Open merit bases. However, extra 04 / 05 candidates shall be enrolled, keeping in view of drop out of candidates per Specialty.
- One candidate cannot apply for more than one Technician / Diploma course.

IUHS holds the authority to terminate any candidate if his / her documents are found bogus.

### General Information for In-service Candidates

Candidate will have to get themselves relieved or at least get No Objection Certificate from their respective departments and inform Indus Hospital and Health Network Human Resource department before joining the course at ICMAH.

Only 20% In-service candidates shall be allowed to take admission per year, in any Specialty offered.

## TIH holds the authority to terminate any candidate if his / her documents are found bogus

#### NOTE:

- Announcement of Certificate and Diploma program: in accordance with Sind Medical Faculty
- Announcement of BS Medical Technology program: November / December each year

### **ICMAH Strength**

- Safe campus life
- Good academic reputation Academic Supporting Services:
  - Skills Lab: well equipped with basic as well advance manikins and apparatus to give students hands-on learning experience.
  - Science Laboratory: equipped with all necessary tools to complete experiential learning. They get first-hand learning experience by performing various experiments on their own.
  - Digital Library: well-equipped Digital library with free access to Wi-Fi. Students can easily get access to digital lab on the basis of institute ID Card.
  - Library: all the latest editions of reference books, articles, and newspapers, helpful in self-directed studies. The reading materials are issued to students for in-campus learning.
- Centralized curricular and co-curricular activities to give equal opportunities to all students.
- Well experience Teaching and Clinical Faculty
- Regular Faculty training sessions so that they

can efficiently monitor students' personality development and academic growth.

- Learning Management System to assess students in their courses and expose them to recent developments in technology.
- Good reputation in community work
- Financial assistance to deserving students; based on their academic performance.

### **Financial Assistance**

In recognition of students' talent and performance, ICMAH offers Need-Based Financial Assistance to deserving students.

### ICMAH Teaching & Learning Strategy

### **Instructional Method**

- Large group interactive lectures followed by discussion and Q/A session.
- Small group discussions
- Group presentations
- Individual presentations
- Case studies
- Project assignment
- Practical / Skill lab sessions

**NOTE:** English and Urdu language will be used as medium of Instruction. However, exams will be conducted in English language only.

# Assessment and Internal Evaluation

### Assessment

- Class Tests / Assignments
- MCQs, SAQs, Short essays
- Viva
- OSPE / OSCE
- Formative feedback

#### NOTE:

- Each candidate must pass by securing at least 80% marks in both theory and practical papers.
- Candidates failing in one or more subjects shall be allowed to re-appear only in maximum two consecutive attempts.
- Candidate failing in any practical shall be required to repeat the whole practical / session.

### **Responsibilities of Candidates**

- Candidate shall pursue the training at ICMAH & IHHN , according to the curriculum
- Every candidate must maintain his her LOG / SKILLs BOOK in consultation with the Program coordinator and IHHN Faculty
- Every student shall maintain his / her Specialty Clinical Portfolios in consultation with Specialty Clinical coordinator.
- He / She will have to attend all mandatory workshops, failing which the examination form will not be accepted.
- Students shall strictly follow the ICMAH Rules and Regulations.
- Students will not be allowed to take part in any political activity.

### Attendance & Leave Structure

- Each candidate must have 90% attendance before qualifying for the Final exam.
- Regularity and Punctuality is essential. In case any candidate is absent for a 03 days without prior approval, he / she will give a written explanation along with the supporting documents to College management. Failing to provide the supporting document and valid reason for absenteeism disciplinary action will be taken against student.
- Leave application less than 01 weeks shall be recommended by the Program coordinator.
- Deficit leaves exceeding 02 weeks has to be completed at the end of course.

### For further queries please contact ICMAH Information Office

### E-MAIL ID

icmah.info@tih.org.pk

#### ADDRESS

Indus College of Medical Technology and Allied Health, Hunar foundation building, Block # 5, brahim Hyderi Road, Korangi, Karachi.

