DOW UNIVERSITY OF HEALTH SCIENCES

Excellence in Education | Innovation in Healthcare | Commitment to Society

ADMISSIONS in DOW INSTITUTE OF MEDICAL TECHNOLOGY (DIMT)

Empowering future healthcare professionals through quality education, practical training and advanced technology.



PROSPECTUS

Session 2026-27



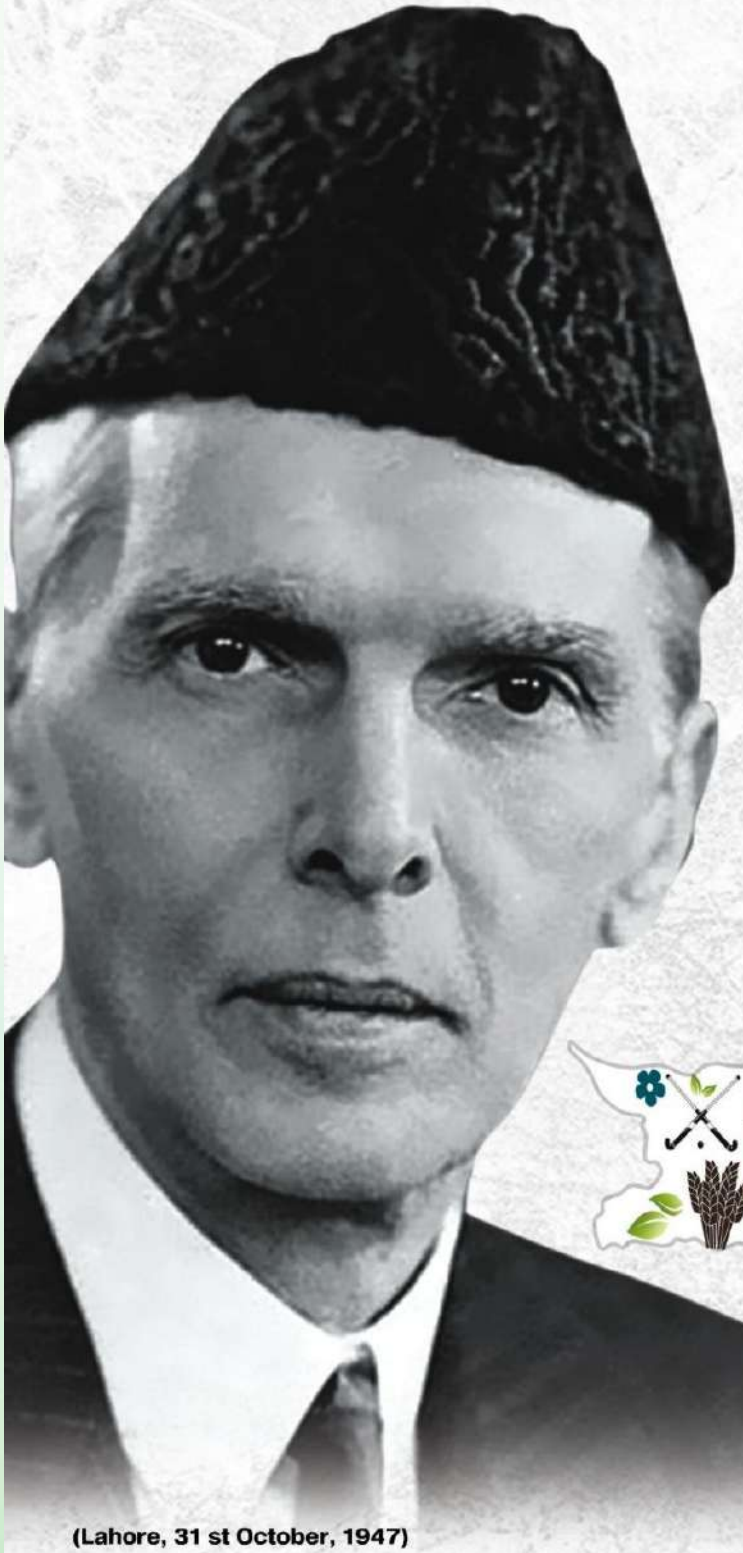




Email: admissions@duhs.edu.pk

Website: www.duhs.edu.pk

QUAID'S
Message To Youth



"**Pakistan** is proud of her youth, particularly the students who have always been in the forefront in the hour of trial and need. You are the nation's leaders of tomorrow and you must fully equip yourself by discipline, education and training for the arduous task lying ahead of you. You should realize the magnitude of your responsibility and be ready to bear it" **(Jinnah, 1947).**



(Lahore, 31 st October, 1947)



VICE CHANCELLOR'S *Message*

As the Vice Chancellor, I am privileged to welcome you and to witness the potential of these bright minds ready to make a positive impact on the world. The Institute of Business and Health Management (IBHM), DUHS, has been established to offer finest education in the specialized fields of business and healthcare management. Your decision to join IBHM will help you achieve a prosperous and successful future in line with your dream. This day marks the beginning of a new chapter filled with responsibility and purpose. You now stand as ambassadors of this institution.

IBHM is striving to produce young graduates in the fields of Business and Healthcare Management, and it is an excellent place to be groomed at. DUHS has always been committed to nurturing not only competent professionals but also compassionate human beings who serve society with empathy and integrity. Our graduates reflect our vision, which is to produce future leaders and innovators who will contribute meaningfully to healthcare, research, and education at both national and international levels. The learned and dedicated faculty of the institute and its administration work in collaboration to enhance the learning experience of the students.

IBHM provides up-to-date research facilities to students to keep them abreast of the changing demands of the industry. Furthermore, IBHM will prepare the youth for facing contemporary challenges and inculcating a true spirit of love, dedication and community service at home and abroad. Wherever your professional path takes you, strive to uphold the values of service, ethics, and lifelong learning.

We welcome you to IBHM, a wonderful platform to polish your skills and acquire relevant knowledge, which will help you compete in the dynamic marketplace. Looking forwards, the faculty and staff of the University would build a harmonious relationship with you over the period of your studies and the professional career ahead. I extend my deepest appreciation to the faculty, mentors, and staff whose dedication will guide you throughout this journey. Their tireless efforts will help to mold you into capable individuals.

May your journey ahead be marked by success, purpose, and fulfillment. I wish you the best of luck in your academic endeavors.

PROF. DR. NAZLI HOSSAIN
VICE CHANCELLOR
Dow University of Health Sciences



PRINCIPAL

Message

With the blessings of Almighty Allah, Dow Institute of Medical Technology is dedicated to provide academic and technical education and produce highly skilled and motivated graduates since its inception in 2006.

The vision is to be a center of excellence to impart education, skilled based learning and research for allied health sciences. This Institute is offering BS medical Technology program of four years in five major disciplines namely; Clinical laboratory Sciences, Optometry and Visual Sciences, Cardiovascular Perfusion, Respiratory and Critical care and surgical technology

Medical Technologists graduated from Dow Institute of medical Technology are educated and trained to impart their skills as a vital part of technical aspects in Allied Health care systems. The Alumni graduated from this Institute are serving by contributing to the development and application of latest technology to improve patient care not only at Nation al but also at International level. Lastly, I would emphasize that Dow Institute of Medical Technology is dedicated to produce Medical technologists, educated and trained to copeup with state-of-the-art advanced technology in Allied Health Sciences with a promising scope in career.

Prof. Dr. Muhammad Sameer Qureshi
MBBS, Ph.D (UK)
Principal (DIMT) DEAN
FACULTY OF ALLIED HEALTH SCIENCES

OUR VISION

To become a Center of excellence in education through research and technical skills in the field of medical technology

DIMT'S STATEMENT OF PURPOSE

To provide updated and advanced knowledge to our graduates in the field of Medical technology through learning ,training and practical skills along with critical thinking in multidisciplinary program for the betterment of community.

OVERVIEW

The term 'Allied health Sciences' was popularized during the deliberations that led to the inception of the Allied Health Professions Personnel Training Act in 1967. The passage of this legislation brought about a new and radical concept of unifying all the various disciplines that comprise allied health into academic units with a single administration.'' (Association of Schools of Allied Professionals websitewww.duhs.edu.pk)

The definition may vary across countries and context, but generally it is considered distinct from Nursing, Medicine and Pharmacy. The Center for Health Profession, California reported that 60 percent of the total health work force comprises of Allied Health Professionals. In Pakistan Allied Health Professionals a r e also known as Medical Technology that is a vital part of the entire Health Care System. This professional field comprises the challenges and rewards of medicine and surgery, and deals with technical aspect of the same.

DOW INSTITUTE OF MEDICAL TECHNOLOGY

Vision of the Chancellor to develop human resources in Allied Health disciplines transformed into reality in April 2005 with the inception of Dow Institute of Medical Technology (DIMT) in 2006 under the auspicious and dynamic guidance of Late Dr. Syed Sarwat Hassan. The Institute is one of its kinds where Bachelor of Science in four different technologies namely: Clinical Laboratory Sciences, Respiratory and Critical Care Technology, Surgical Technology and Clinical Ophthalmology Technology were started simultaneously. Later on programs for Occupational Therapy, Dental Hygiene and Dental Care Professional were introduced; which was followed by B.S program in Perfusion Sciences. The later three are being offered by their respective Institutes whereas, Cardiovascular Perfusion (later Perfusion Sciences) along with the previousfour is still being offered by DIMT.

ABOUT THE PROGRAM

The program focuses on the development of scholarly activities designed to develop and advance competencies in clinical skills, critical thinking, and evidence-based practices. Maintenance and practice of ethical standards as well as development of collaborative perspective toward education and proper management and persistent goal-oriented efforts, are also integral part of the program. The medical technology program at DUHS offers 4-year Bachelor of Sciences degree. During the first two years the program comprises of courses in basic medical sciences, communication skills, general education and concerned technical sciences. This is followed by courses in advanced clinical sciences, clinical practices and technical skills. Throughout the program the students are placed in various clinical settings to not only apply the knowledge acquired but also to polish their technical skills. Research is also an integral part of the curriculum and courses in Research Methodology and Biostatics followed by undergraduate research projects is a prerequisite for the successful completion of the program. Upon successful completion of bachelor's program DUHS offers six months of paid internship in the approved affiliated clinical sites. Bachelor's programs are offered in the following different technologies:

- Clinical Laboratory Sciences
- Respiratory & Critical Care Technology
- Surgical Technology
- Cardiovascular Perfusion
- Neurophysiology
- Renal Dialysis Technology
- Emergency Clinical Medicine Technology
- Nuclear Medicine

In addition to the 4-year Bachelor's programs we also offer 5-year degree program with the following nomenclature:

- Doctor of Optometry

NUMBER OF SEATS:

Programs are offered in nine different technologies:

1.	Clinical Laboratory Sciences	25 Seats
2.	Respiratory & Critical Care Technology	25 Seats
3.	Surgical Technology	25 Seats
4.	Cardiovascular Perfusion	25 Seats
5.	Neurophysiology	15 Seats
6.	Renal Dialysis Technology	25 Seats
7.	Emergency Clinical Medicine Technology	50 Seats
8.	Nuclear Medicine	15 Seats

Eligibility Criteria :

- HSSC Pre-Medical or equivalent examination (e.g. A-Level, 12th grade etc) duly certified by IBCC with minimum 60% marks.
- Candidate's PRC & Domicile of Sindh Province

FEE STRUCTURE – BS MEDICAL TECHNOLOGY
Session 2026-27

- Clinical Laboratory Sciences
- Respiratory & Critical Care Technology
- Surgical Technology
- Cardiovascular Perfusion

Fee Type	Amount in PKR
Admission Fee – (at the time of admission)	PKR 45,000/-
Tuition Fee – (per annum)	PKR 157,500/-
Student Activity Charges – (per annum)	PKR 10,000/-
Library Fee Charges – (per annum)	PKR 10,000/-
Documents Verification Charges – (at the time of admission)	PKR 2,500/-
Without Transport	**PKR 225,000/-**
Transport Fee – (Optional) – (per annum)	PKR 50,000/-
With Transport	**PKR 275,000/-**

- Above amounts are excluding govt. taxes. Taxes apply as per Govt. & FBR rules.

FEE STRUCTURE – BS NEUROPHYSIOLOGY – Session 2026-27

DOW INSTITUTE OF MEDICAL TECHNOLOGY- DIMT

Fee Type	Amount in PKR
Admission Fee – (at the time of admission)	PKR 45,000/-
Tuition Fee – (per annum)	PKR 170,000/-
Student Activity Charges – (per annum)	PKR 10,000/-
Library Fee Charges – (per annum)	PKR 10,000/-
Documents Verification Charges – (at the time of admission)	PKR 2,500/-
Without Transport	**PKR 237,500/-**
Transport Fee – (Optional) – (per annum)	PKR 50,000/-
With Transport	**PKR 287,500/-**

Above amounts are excluding govt. taxes. Taxes apply as per Govt. & FBR rules.

FEE STRUCTURE – BS RENAL DIALYSIS
Session 2026-27

DOW INSTITUTE OF MEDICAL TECHNOLOGY- DIMT

Fee Type	Amount in PKR
Admission Fee – (at the time of admission)	PKR 45,000/-
Tuition Fee – (per annum)	PKR 135,000/-
Student Activity Charges – (per annum)	PKR 10,000/-
Library Fee Charges – (per annum)	PKR 10,000/-
Documents Verification Charges – (at the time of admission)	PKR 2,500/-
Without Transport	**PKR 202,500/-**
Transport Fee – (Optional) – (per annum)	PKR 50,000/-
With Transport	**PKR 252,500/-**

- Above amounts are excluding govt. taxes. Taxes apply as per Govt. & FBR rules.

FEE STRUCTURE – BS NUCLEAR MEDICINE – Session 2026-27

DOW INSTITUTE OF MEDICAL TECHNOLOGY-DIMT

Fee Type	Amount in PKR
Admission Fee – (at the time of admission)	PKR 45,000/-
Tuition Fee – (per annum)	PKR 150,000/-
Student Activity Charges – (per annum)	PKR 10,000/-
Library Fee Charges – (per annum)	PKR 10,000/-
Documents Verification Charges – (at the time of admission)	PKR 2,500/-
Without Transport	**PKR 217,500/-**
Transport Fee – (Optional**) – (**per annum**)**	PKR 50,000/-
With Transport	**PKR 267,500/-**

- Above amounts are excluding govt. taxes. Taxes apply as per Govt. & FBR rules.

– RULES FOR THE PAYMENT OF FEE –

The fee for each subsequent year of the respective category will have to be paid within one month of the commencement of 2nd, 3rd ,4th, Final Year.

If Payment is made after the due date, a late fee charge of 5% will be levied on the total fee.

Fee of all categories will be increased by 10% every year.

AFTER FOUR MONTHS OF NON-PAYMENT, THE SEAT IS LIABLE TO BE CANCELLED AND STUDENT WILL NOT BE ALLOWED TO APPEAR IN ANY EXAMINATION.

- Fee deposited is refundable as per the Refund policy guidelines of the DUHS.
- Taxes will be applied as per the FBR/SBR rules.
- Hostel and Transport fee will charge as per calendar year (i.e., Jan. to Dec.).
- Amounts stated in the fee vouchers are excluded of all Bank Charges.
- The Fee Structure may be revised by the university at any time during the course of the study, due to unavoidable circumstances.

All Professional Year & BS Program students are required to submit an **undertaking** affirming that they will not waste their allotted seat.
If a student withdraws from the program or fails to join after securing admission, a **SEAT WASTAGE PENALTY AS PER COMPLETE PROGRAM TUTION FEE** shall be imposed.

RECOGNITION BY THE ALLIED HEALTH PROFESSIONAL COUNCIL OF PAKISTAN

Dow Institute of Medical Technology is registered with the allied health regulatory council that is Allied Health Professional Council of Pakistan (AHPC). Our students are actively obtaining licenses for practice from AHPC.








Allied Health Professional Council visit at Dow Institute of Medical Technology

CURRICULUM
C O M P U L S O R Y / B A S I C S U B J E C T S

Serial No	Course Name	Course Code
1.	PAKISTAN STUDIES	PAK-STD 202
2.	PSYCHOLOGY	PSY 102
3.	HISTORY/PHILOSOPHY	HIS 102/PHIL 102
4.	MATHEMATICS	MATH 212
5.	BIOCHEMISTRY	BCHEM 202
6.	PHARMACOLOGY	PHARM 202
7.	CIVICS AND COMMUNITY ENGAGEMENT	CIVCM 204
8.	ENGLISH FOUNDATION	ENG-F 211
9.	PHYSICS	PHYS 201
10.	CHEMISTRY	CHEM 201
11.	ISLAMIAT/ETHICS	ISL 201/ ETHIC 201
12.	COMPUTER SKILLS AND INTEGRATED ARTIFICIAL INTELLEGENCE	CSAI 201
13.	PHYSIOLOGY	PIO 201
14.	ANATOMY	ANAT 201
15.	MICROBIOLOGY AND INFECTION CONTROL	MICRO 203
16.	ENTREPRENEURIAL STRATEGY	ENTP 203
17.	BIOSTATICS	BSTAT 323
18.	EXPOSITORY WRITING	ENG-W 323

CURRICULUM

SURGICAL TECHNOLOGY

Serial No	Course Name	Course Code
1.	INTRODUCTION TO SURGICAL TECHNOLOGY	ST-INTRO 203
2.	OPERATING ROOM MANAGEMENT	ST-ORM 304
3.	SURGICAL INSTRUMENTS	ST-INS 305
4.	SURGICAL ANATOMY-I	ST-ANAT 314
5.	SURGICAL PHYSIOLOGY	ST-PIO 304
6.	SURGICAL TERMINOLOGY	ST-TERM 304
7.	SURGICAL TECHNOLOGY-CLINICAL PRACTICUM I	ST-CP 414
8.	APPLIED GENERAL SURGICAL PATHOPHYSIOLOGY-I	ST-PATH 315
9.	OPERATING ROOM PHYSICS	ST-PHYS 305
10.	PRE & POST-OPERATIVE MANAGEMENT	ST-PPMAN 305
11.	ASEPTIC TECHNIQUE AND INFECTION CONTROL	ST-ASTIC 306
12.	SURGICAL TECHNOLOGY-CLINICAL PRACTICUM II	ST- CP 425
13.	OR-PROCEDURE-I	ST-PROCD 316
14.	SURGICAL ANATOMY-II	ST-ANAT 326
15.	WOUND MANAGEMENT	ST-WONM306
16.	APPLIED GENERAL SURGICAL PATHOPHYSIOLOGY-II	ST- PATH 326
17.	SURGICAL TECHNOLOGY-CLINICAL PRACTICUM III	ST- CP 436
18.	OR-PROCEDURE-II	ST-PROCD 327
19.	SURGICAL PHARMACOLOGY AND ANESTHESIA	ST-PHARM 307
20.	CLINICAL DIAGNOSTICS IN SURGERY	ST-DIAG 307
21.	ARTIFICIAL INTELLIGENCE AND ROBOTICS IN SURGERY	ST-AIRS 207
22.	SURGICAL TECHNOLOGY-CLINICAL PRACTICUM IV	ST- CP 447
23.	OR PROCEDURES III	ST-PROCD 338
24.	STEREOTACTIC RADIOSURGERY	ST-SRS 208
25.	SURGICAL TECHNOLOGY-CLINICAL PRACTICUM V	ST- CP 458
26.	SURGICAL TECHNOLOGY-CLINICAL PRACTICUM VI	ST- CP 468

CURRICULUM
RESPIRATORY AND CRITICAL CARE TECHNOLOGY

Serial No	Course Name	Course Code
1.	INTRODUCTION TO CRITICAL CARE-I	RCC-ICC 213
2.	RESPIRATORY AND CRITICAL CARE MEDICAL TERMINOLOGY	RCC-RCCMT 203
3.	RESPIRATORY AND CRITICAL CARE TECHNOLOGY – CLINICAL PRACTICUM I	RCC-CP 413
4.	INTRODUCTION TO CRITICAL CARE-II	RCC-ICC 324
5.	DIAGNOSTICS IN CRITICAL CARE-I	RCC-DCC 314
6.	PROCEDURES AND THERAPEUTIC INTERVENTION-I	RCC-PTI 314
7.	INVASIVE AND NON-INVASIVE MECHANICAL VENTILATION-I	RCC-INMV 314
8.	RESEARCH METHODS AND PRINCIPLES	RCC-RMP 304
9.	RESPIRATORY AND CRITICAL CARE TECHNOLOGY – CLINICAL PRACTICUM II	RCC-CP 424
10.	APPLIED CARDIOPULMONARY PATHOPHYSIOLOGY-I	RCC-ACPP 215
11.	DIAGNOSTICS IN CRITICAL CARE-II	RCC-DCC 425
12.	PROCEDURES AND THERAPEUTIC INTERVENTION-II	RCC-PTI 425
13.	INVASIVE AND NON-INVASIVE MECHANICAL VENTILATION-II	RCC-INMV 425
14.	CARDIOPULMONARY PHYSIOLOGY	RCC-CPP 205
15.	RESPIRATORY AND CRITICAL CARE TECHNOLOGY – CLINICAL PRACTICUM III	RCC-CP 435

16.	PHYSICAL PRINCIPLES AND TECHNIQUES IN RESPIRATORY AND CRITICAL CARE*	RCC-PPTRC 306
17.	ANAESTHESIA IN CRITICAL CARE*	RCC-ACC 206
18.	APPLIED CARDIOPULMONARY PATHOPHYSIOLOGY-II	RCC-ACPP 326
19.	RESPIRATORY AND CRITICAL CARE TECHNOLOGY – CLINICAL PRACTICUM IV	RCC-CP 546
20.	NEONATAL AND PEDIATRIC RESPIRATORY CARE	RCC-NPRC 307
21.	CARDIOPULMONARY REHABILITATION	RCC-CPR 307
22.	INTERNSHIP	RCC-INTE 507
23.	RESPIRATORY AND CRITICAL CARE TECHNOLOGY – CLINICAL PRACTICUM V	RCC-CP 547
24.	ADVANCED RESPIRATORY AND CRITICAL CARE	RCC-ARCC 408
25.	RESPIRATORY AND CRITICAL CARE TECHNOLOGY – CLINICAL PRACTICUM VI	RCC-CP 568
26.	HEALTH AND HOSPITAL MANAGEMENT*	RCC-HHM 308
27.	DRUG THERAPY IN CRITICAL CARE	RCC-DTCC 308
28.	CAPSTONE PROJECT	RCC-CP 508

CURRICULUM

CARDIOVASCULAR PERFUSION

Serial No	Course Name	Course Code
1.	INTRODUCTION TO PERFUSION TECHNOLOGY	CVP-INTRO 203
2.	CARDIOVASCULAR ANATOMY	CVP-CVA 303
3.	CARDIOVASCULARPERFUSION- CLINICAL PRACTICUM I	CVP-CP 313
4.	RESEARCH METHODS AND PRINCIPLES	CVP-RMP 304
5.	CARDIOVASCULAR PHYSIOLOGY	CVP-CPIO 304
6.	PERFUSION MODULE	CVP-PM 404
7.	DIAGNOSTIC TECHNIQUES IN CARDIOVASCULAR PERFUSION	CVP-DIAG 304
8.	CARDIOVASCULAR PERFUSION- CLINICAL PRACTICUM II	CVP-CP 424
9.	PATHOLOGY	CVP-PATH 305
10.	PERFUSION HEMATOLOGY	CVP-HEM 305
11.	SPECIAL EQUIPMENT IN CARDIOVASCULAR PERFUSION	CVP-SEP 405

12.	PERFUSION PHARMACOLOGY	CVP-PHARM 305
13.	MONITORING OF CARDIOPULMONARY BYPASS	CVP-MCPB 405
14.	CARDIOVASCULAR PERFUSION - CLINICAL PRACTICUM III	CVP-CP 435
15.	OPERATION ROOM STANDARDS	CVP-ORS 206
16.	PATHOPHYSIOLOGY & SURGICAL REPAIR I	CVP-PSR 316
17.	BLOOD CONSERVATION IN PERFUSION	CVP-BCP 406
18.	CARDIOVASCULAR PERFUSION - CLINICAL PRACTICUM IV	CVP-CP 446
19.	ANESTHESIA MANAGEMENT IN CARDIOPULMONARY BYPASS	CVP-ANCPB 407
20.	PEDIATRIC CARDIOPULMONARY BYPASS	CVP-PCPB 407
21.	PATHOPHYSIOLOGY & SURGICAL REPAIR II	CVP-PSR 427
22.	NON CARDIAC SURGICAL APPLICATION	CVP-NCSA 407
23.	CARDIOVASCULAR PERFUSION - CLINICAL PRACTICUM V	CVP-CP 557
24.	INTERNSHIP	CVP-INTE 507
25.	HEALTH CARE MANAGEMENT	CVP-HCM 308
26.	EXTRACORPOREAL MEMBRANE OXYGENATION	CVP-ECMO 408
27.	CARDIOVASCULAR PERFUSION - CLINICAL PRACTICUM VI	CVP-CP 568
28.	CAPSTONE PROJECT	CVP-CP 508

CURRICULUM
CLINICAL LABORATORY SCIENCES

Serial No	Course Name	Course Code
1.	INTRODUCTION TO CLINICAL LABORATORY SCIENCES	CLS-INTRO 203
2.	QUALITY ASSURANCE AND CONTROL	CLS-QAC 303
3.	CLINICAL LABORATORY SCIENCES- CLINICAL PRACTICUM I	CLS-CP 313
4.	RESEARCH METHODS AND PRINCIPLES	CLS-RMP 304
5.	HISTOPATHOLOGY I	CLS-HISTO 314
6.	CLINICAL CHEMISTRY I	CLS-CCHEM 314
7.	LABORATORY MATHEMATICS	CLS-LMATH 304
8.	DIAGNOSTIC MICROBIOLOGY I	CLS-DM 314
9.	CLINICAL LABORATORY SCIENCES- CLINICAL PRACTICUM II	CLS-CP 424
10.	IMMUNOLOGY AND SEROLOGY	CLS-IMS 305
11.	HEMATOLOGY I	CLS-HEM 315
12.	MOLECULAR BIOLOGY AND TECHNIQUES I	CLS-MBT 315
13.	CLINICAL LABORATORY SCIENCES- CLINICAL PRACTICUM III	CLS-CP 435
14.	TRANSFUSION MEDICINE	CLS-TM 306
15.	BODY FLUID ANALYSIS	CLS-BFA 406
16.	CLINICAL LABORATORY SCIENCES- CLINICAL PRACTICUM IV	CLS-CP 546
17.	LABORATORY MANAGEMENT	CLS-LM 207
18.	BIOINFORMATICS	CLS-BINF 207
19.	CLINICAL LABORATORY SCIENCES- CLINICAL PRACTICUM V	CLS-CP 557

20.	INTERNSHIP	CLS-INTE 507
21.	CAPSTONE PROJECT	CLS-CP 508
22.	CLINICAL LABORATORY SCIENCES- CLINICAL PRACTICUM VI	CLS-CP 568
23.	DIAGNOSTIC MICROBIOLOGY II	CLS-DM 525
24.	CLINICAL CHEMISTRY II	CLS-CCHEM 525
25.	HEMATOLOGY II	CLS-HEM 526
26.	MOLECULAR BIOLOGY AND TECHNIQUES II	CLS-MBT 526
27.	ADVANCED DIAGNOSTIC TECHNIQUES	CLS-ADT 607
28.	HISTOPATHOLOGY II	CLS-HISTO 528
29.	CLINICAL ROTATION I	CLS-CR 517
30.	CLINICAL ROTATION II	CLS-CR 628

CURRICULUM
NEUROPHYSIOLOGY

Serial No	Course Name	Course Code
1.	NEUROANATOMY I	NP-ANAT 313
2.	NEUROPHYSIOLOGY I	NP-PHY 313
3.	NEUROPHARMACOLOGY	NP-NPH 315
4.	NEUROANATOMY II	NP-ANAT 324
5.	NEUROPHYSIOLOGY II	NP-PHY 324
6.	NEUROPATHOLOGY I	NP-NPAT 304
7.	NEUROPATHOLOGY II	NP-NP 315
8.	CELLULAR BASICS OF ELECTRICAL SIGNALS	NP- CES 305
9.	PRINCIPLES OF ELECTRONICS IN NEURODIAGNOSTICS	NP-PEN 313
10.	CLINICAL PRACTICUM I	NP-CP 314
11.	INTERDISCIPLINARY APPROACHES IN NEURODIAGNOSTICS	NP-IDN 508
12.	EEG FUNDAMENTALS AND NORMAL BRAIN ACTIVITY	NP-FEEG 304
13.	FUNDAMENTALS OF NERVE CONDUCTION STUDIES	NP-FNCS 305
14.	FUNDAMENTALS OF ELECTROMYOGRAPHY	NP-FEMG 306
15.	CLINICAL PRACTICUM II	NP-CP 315
16.	EEG INTERPRETATIONS IN NEUROLOGICAL DISORDERS	NP- END 315

17.	PEADIATRIC AND NEONATAL EEG	NP-PNE 326
18.	PERIPHERAL MONO-NEUROPATHIES OF UPPER AND LOWER LIMB	NP-PMN 316
19.	EVOKED POTENTIALS I	NP-EP 306
20.	CLINICAL PRACTICUM III	NP-CP 326
21.	ELECTRONEURDIAGNOSTIC OF NEUROMUSCULAR DIORDERS	NP-DNM 527
22.	EVOKED POTENTIAL II	NP-EP 417
23.	LONG TERM AND VIDEO EEG MONITORINGS	NP-LVE 437
24.	POLYSOMNOGRAPHY	NP-PSG 407
25.	CLINICAL PRACTICUM IV	NP-CP 437
26.	INTRAOPERATIVE NEUROMONITORING	NP-IOM 508
27.	RESEARCH METHODOLOGY	NP-RMP 304
28.	CLINICAL PRACTICUM V	NP-CP 448

CURRICULUM
EMERGENCY CLINICAL MEDICINE
TECHNOLOGY

Serial No	Course Name	Course Code
1.	FUNDAMENTALS TO EMERGENCY MEDICINE	ECM – INTRO 203
2.	MEDICAL EQUIPMENT AND TECHNOLOGY	ECM – MET 203
3.	FUNDAMENTALS TO TRIAGE AND ED FLOW	ECM – TRIED 203
4.	BASIC NURSING SKILLS AND PATIENT CARE	ECM – BNSPC 304
5.	DIAGNOSTIC PROCEDURES AND THERAPEUTIC EVENTS	ECM – DPTE 304
6.	DIAGNOSTIC IMAGING AND CLINICAL LABORATORY INVESTIGATIONS	ECM – DICLI 304
7.	EMERGENCY MEDICINE -CLINICAL PRACTICUM I	ECM – CP 314
8.	RESEARCH METHODS AND PRINCIPLES	ECM-RMP 304
9.	PATHOLOGY	ECM – PATH 305
10.	RESPIRATORY EMERGENCIES	ECM – REM 405
11.	ICU, ANESTHESIA AND SURGICAL CRITICAL CARE	ECM – IASC 405
12.	SHOCK MANAGEMENT	ECM – SM 405
13.	EMERGENCY MEDICINE -CLINICAL PRACTICUM II	ECM – CP 425
14.	AMBULANCE OPERATION AND MANAGEMENT	ECM – AOM 406
15.	FORENSIC MEDICINE	ECM – FM 406
16.	CLINICAL PHARMACOLOGY	ECM – PHARM 406
17.	CARDIOVASCULAR EMERGENCIES	ECM – CVEM 406

18.	NEUROLOGICAL EMERGENCIES	ECM – NLEM 406
19.	EMERGENCY MEDICINE - CLINICAL PRACTICUM III	ECM – CP 536
20.	NEONATAL AND PEDIATRIC EMERGENCY RESUSCITATION	ECM – NPR 407
21.	CARDIOPULMONARY EMERGENCIES IN NEONATES AND PAEDS	EM – CPENP 407
22.	CNS EMERGENCIES IN NEONATES AND PAEDS	ECM – CNSNP 407
23.	OBSTETRICAL EMERGENCIES	ECM – OEM 407
24.	EMERGENCY MEDICINE - CLINICAL PRACTICUM IV	ECM – CP 547
25.	HEALTH CARE POLICIES AND MANAGEMENT	ECM – HCM 308
26.	TRAUMA EMERGENCIES	ECM – TREM 408
27.	DISASTER MANAGEMENT	ECM – DISM 408
28.	BURNS AND TOXICOLOGY	ECM – BT 408
29.	EMERGENCY MEDICINE - CLINICAL PRACTICUM V	ECM – CP 558

CURRICULUM

RENAL DIALYSIS TECHNOLOGY

Serial No	Course Name	Course Code
1.	GENERAL PATHOLOGY	RD-GP 203
2.	RENAL ANATOMY AND PHYSIOLOGY	RD-RAP 303
3.	PRINCIPLES OF RENAL DIALYSIS	RD-PRD 304
4.	DIALYSIS ADEQUACY	RD-DA 304
5.	HEMATOLOGY	RD-HEM 304
6.	RENAL DIALYSIS – CLINICAL PRACTICUM I	RD-CP 314
7.	RESEARCH METHODS AND PRINCIPLES	RD-RMP 304
8.	CLINICAL NUTRITION AND DIET THERAPY	RD-CNDT 305
9.	VASCULAR ACCESS AND HEMODIALYSIS PROCEDURES	RD-VAHP 305
10.	OXYGEN THERAPY AND AIRWAY MANAGEMENT	RD-OTAM 305
11.	BODY FLUIDS AND TRANSFUSION OF BLOOD PRODUCTS	RD-BFT 305
12.	RENAL PATHOLOGY AND MANAGEMENT	RD-RPM 405
13.	RENAL DIALYSIS – CLINICAL PRACTICUM II	RD-CP 425
14.	PERITONEAL DIALYSIS	RD-PD 406
15.	DIALYSIS IN PEDIATRIC AND ELDERLY PATIENTS	RD-DIPE 406
16.	SPECIALIZED DIALYSIS	RD-SD 506
17.	ACUTE COMPLICATIONS DURING DIALYSIS	RD-ACD 406

18.	RENAL DIALYSIS – CLINICAL PRACTICUM III	RD-CP 436
19.	CHRONIC COMPLICATIONS DURING DIALYSIS AND PHARMACOLOGICAL MANAGEMENT	RD-CCDP 407
20.	HEALTH CARE ETHICS	RD-ETH 407
21.	RENAL EMERGENCY	RD-REM 507
22.	BLOOD PRODUCTS TRANSFUSION IN DIALYSIS PATIENTS	RD-BPT 407
23.	RENAL DIALYSIS – CLINICAL PRACTICUM IV	RD-CP 547
24.	LEADERSHIP AND HOSPITAL MANAGEMENT	RD-LHM 508
25.	RENAL DISEASE EPIDEMIOLOGY	RD-RDE 408
26.	PRINCIPLE OF RENAL TRANSPLANTATION	RD-PRT 508
27.	RENAL DIALYSIS – CLINICAL PRACTICUM V	RD-CP 558

CURRICULUM
NUCLEAR MEDICINE

Serial No	Course Name	Course Code
1.	INTRODUCTION & FLOW IN NUCLEAR MEDICINE	NMT-IFNM 203
2.	NUCLEAR PHYSICS	NMT-NPHY 203
3.	RADIOBIOLOGY	NMT-RADB 204
4.	INSTRUMENTATION – I (SPECT) + PRACTICUM	NMT-INST 214
5.	RESEARCH METHODS & PRINCIPLES	NMT-RMP 304
6.	RADIATION PROTECTION & DOSIMETRY + PRACTICUM	NMT-RPD 204
7.	RADIOPHARMACEUTICALS – I (SPECT + PET/CT) + PRACTICUM	NMT-RPH 315
8.	NUCLEAR MEDICINE SPECT-I + PRACTICUM	NMT-NMS 315
9.	NUCLEAR CARDIOLOGY – I + PRACTICUM	NMT-NCAR 315
10.	INSTRUMENTATION – II (PET/CT) + PRACTICUM	NMT-INST 224
11.	DEXA + PRACTICUM	NMT-DEXA 305
12.	RADIOPHARMACEUTICALS – II (QUALITY CONTROL) + PRACTICUM	NMT-RPH 326
13.	INSTRUMENTATION – III (RADIOPHARMACY) + PRACTICUM	NMT-NMS 336
14.	NUCLEAR MEDICINE SPECT – II + PRACTICUM	NMT-NMS 326
15.	NUCLEAR CARDIOLOGY – II + PRACTICUM	NMT-NCAR 326
16.	THERANOSTICS – I + PRACTICUM	NMT-THER 317
17.	HEALTH MANAGEMENT INFORMATION SYSTEM (HMIS) IN NUCLEAR MEDICINE	NMT-HMIS 307

18.	NUCLEAR MEDICINE PATIENT CARE	NMT-NMPC 307
19.	PET/CT – I + PRACTICUM	NMT-PTCT 317
20.	INTERNSHIP	NMT-INTE 507
21.	THERANOSTICS – II + PRACTICUM	NMT-THER 428
22.	RADIOACTIVE WASTE MANAGEMENT	NMT-RWM 408
23.	PET/CT – II + PRACTICUM	NMT- PTCT 428
24.	CAPSTONE PROJECT	NMT-CP 508

GRADE/GPA REQUIREMENT FOR EACH SEMESTER & GRADUATION

All courses are continuously assessed during the semester through quiz, assignment, Oral Presentation, Midterm Examination, Post Viva Rotation and Final Examination. Grading is absolute, not relative grading. Percentages are converted in GPA and their respective grades as follows;

GRADE	PERCENTAGE	GPA
A+	80% to 100 %	4.0
A	75%to 79 %	4.0
A-	70%to 74 %	3.7
B+	67%to 69 %	3.3
B	60%to 66 %	3.0
C+	56%to 59 %	2.9
C	50%to 55 %	2.0
F	(< 50 %) Fail ..below	2.00

Fractional Grade Point Average will be calculated according to approved rules.

ASSESSMENT METHODS

EXAMS EVALUATION	
Terminal Examination – BCQ's	70%
Mid Term Examination – BCQ/MCQ	15%
INTERNAL EVALUATION (*VivaVoice, Presentation, Assignment, Quizzes, Workshops, Attendance)*	15%
CLINICAL PRACTICUM / ROTATIONS	
EXAMS EVALUATION *(conducted by HODs of respective departments)* *VIVA/ SHORT QUESTIONS*	50%
INTERNAL EVALUATION *(Structured VIVA by internal faculty of DIMT)*	50%

FACILITIES

SKILL'S LAB

The state of art skill's lab is established at the Institute of Medical Technology with latest and sophisticated models and full line of medical equipment under supervision of experienced medical technologist.

Before clinical training at affiliated hospitals every student receives extensive hands on training in relevant skills in the skill's lab under supervision of faculty. Respiratory & Critical care technology students are trained at Professional DC skills lab.

COMPUTER LAB

The Computer lab with 45 latest systems is fully operational. The computer lab offers following facilities.

i. *Computer Courses: Interactive lectures on basic computer skills such as MS- Word, Excel, PowerPoint, MS- Outlook express.*

ii. *Internet Facility: We give our students better chance to browse Medical Information, Current Updates, Research Articles or Concerned Topics.*

iii. *Hands-on Training: Students are given opportunity to apply their skills and thereby receive hands-on training and learn extensively to the best of their ability.*

iv. *Multimedia: Presentations and lectures are delivered through latest audiovisual aid.*

v. *Internet Training: Internet training is being given to the students in terms of sharing documents, protecting them online, difference between Intranet and Internet etc.*

Rules and Regulations for BS Medical Technology

For the Dow Institute of Medical Technology (DIMT), Dow University of Health Sciences (DUHS), Karachi, the rules and regulations for BS Medical Technology students should cover academic requirements, attendance, examinations, clinical and laboratory training, professional conduct, safety, research, and internship.

Proposed student rules and regulations

A. Academic regulations

1. *Students must attend all lectures, tutorials, practical sessions, demonstrations, seminars, and other scheduled academic activities.*
2. *Students must follow the attendance requirements prescribed by DUHS for eligibility to appear in examinations.*
3. *Students must complete all prescribed courses, credit hours, practical competencies, research projects, and internship or field experience requirements.*
4. *Students must appear in midterm, final-term, practical, viva voce, and other assessments as scheduled.*
5. *Students must comply with university policies regarding passing criteria, CGPA, supplementary examinations, repeating courses, promotion to the next semester, and maximum program duration.*
6. *Assignments, presentations, laboratory reports, and research work must be submitted within the prescribed deadlines.*
7. *Plagiarism, cheating, impersonation, fabrication of research data, and other forms of academic misconduct are prohibited.*

B. Laboratory and practical training regulations

1. *Students must wear the prescribed laboratory coat, appropriate personal protective equipment (PPE), and identification card during practical sessions.*
2. *Students must follow standard operating procedures (SOPs), biosafety protocols, infection prevention measures, and waste-disposal procedures.*
3. *Eating, drinking, smoking, and unauthorized handling of laboratory materials are prohibited.*
4. *Students must not operate laboratory instruments or equipment without authorization or appropriate supervision.*
5. *Accidents, needle-stick injuries, spills, equipment damage, and exposure to biological or chemical hazards must be reported immediately.*
6. *Students must maintain confidentiality of patient information, laboratory results, and clinical records.*
7. *Students must not perform tests, issue reports, or undertake clinical procedures independently beyond their authorized level of training.*

B. Laboratory and practical training regulations

1. *Students must wear the prescribed laboratory coat, appropriate personal protective equipment (PPE), and identification card during practical sessions.*
2. *Students must follow standard operating procedures (SOPs), biosafety protocols, infection prevention measures, and waste-disposal procedures.*
3. *Eating, drinking, smoking, and unauthorized handling of laboratory materials are prohibited.*
4. *Students must not operate laboratory instruments or equipment without authorization or appropriate supervision.*
5. *Accidents, needle-stick injuries, spills, equipment damage, and exposure to biological or chemical hazards must be reported immediately.*
6. *Students must maintain confidentiality of patient information, laboratory results, and clinical records.*
7. *Students must not perform tests, issue reports, or undertake clinical procedures independently beyond their authorized level of training.*

C. Clinical placement and internship regulations

1. *Students must follow the rules and regulations of affiliated hospitals, diagnostic laboratories, and clinical training centers.*
2. *Students must maintain punctuality, professional appearance, respectful behavior, and discipline during clinical rotations.*
3. *Attendance should be 75% and completion of assigned competencies must be documented and verified by the designated supervisor.*
4. *Students must maintain patient privacy and confidentiality and obtain appropriate authorization before accessing patient records.*
5. *Students must not disclose patient information, photographs, or clinical material on social media without lawful authorization.*
6. *Unsatisfactory clinical performance, unauthorized absence, or violation of patient-safety procedures may result in remedial training or disciplinary action under applicable policies.*

D. Code of conduct and discipline

1. *Students must comply with all university rules, lawful instructions, and departmental procedures.*
2. *Bullying, harassment, discrimination, violence, threats, and inappropriate behavior are prohibited.*
3. *Students must respect faculty, administrative staff, patients, clinical supervisors, and fellow students.*
4. *University property, laboratory equipment, library resources, and other facilities must be used responsibly.*
5. *Students must not falsify attendance, signatures, documents, clinical logbooks, or academic records.*
6. *Mobile phones and other electronic devices must be used only as permitted during lectures, examinations, and practical sessions.*
7. *Violations will be addressed through the university's applicable disciplinary procedures, including the opportunity to respond to allegations.*

E. Research and professional ethics

1. *Students must complete the prescribed research project or capstone requirement.*
2. *Research involving human participants, patient records, or biological specimens must receive the required ethical and institutional approvals before commencement.*
3. *Informed consent must be obtained wherever required.*
4. *Research data must be collected, stored, analysed, and reported honestly.*
5. *Students must acknowledge sources and contributions appropriately and comply with research-integrity and plagiarism policies.*

F. Examinations and assessment

1. *Students must bring their valid university identification cards to examinations.*
2. *Mobile phones, unauthorized notes, and other prohibited materials are not permitted in examination halls.*
3. *Students must follow the instructions of invigilators and examination staff.*
4. *Any unfair means, disruption, or impersonation will be dealt with under the applicable examination rules.*
5. *Requests for rechecking, examination deferral, medical leave, or special consideration must be submitted through the prescribed university procedure and within the applicable deadlines.*

G. Fee Payment and Withdrawal Policy

Students who withdraw, discontinue, or leave the BS Medical Technology program during an ongoing semester shall be liable to pay the full program fee, irrespective of the date of withdrawal or the number of classes attended, subject to the applicable approved DUHS fee and refund policy.

EXTRA-CURRICULAR ACTIVITIES

Annual Sports Week, Poster Competition, DUHS Independence Day Celebration, Workshops,Conferences,Community Services, Green Drive and plantation.

DEPARTMENTAL HIGHLIGHTS



Australia-Pakistan Workshop “Exploring Precision Medicine" A groundbreaking academic session on Exploring Precision Medicine was conducted, by the Dow Institute of Medical Technology (DIMT) in collaboration with the University of Technology Sydney (UTS) and Dow University of Health Sciences.



Entrepreneurial Strategy Course – Second Year (Odd Semester)
The selling activity under the course Entrepreneurial Strategy was successfully conducted at the Gymnasium, DUHS. The theme of the event was “Food Fun Festival.”










Dow Institute of Medical Technology organized **International Allied Health Sciences Research Conference**, inviting all Karachi-based institutes like Liaquat National Hospital, JSMU, Tabba Heart Institute, and Ziauddin University, among others involved in med ical technology. The event featured 29 pre-conference workshops bringing together experts and professionals in the field to share knowledge and advancements in medical technology





Dow Institute of Medical Technology On February 12, the International Allied Health Sciences Research Conference at Dow Institute of Medical Technology (DIMT) hosted Day 3 of Pre-Conference Workshops, featuring a session on **"Unleashing Mind Mysteries by Quantitative Electroencephalography (QEEG)."**








Dow Institute of Medical Technology continues to play an active role in promoting community health. Students of 3rd Year Surgical Technology, Dow Institute of Medical Technology, visited Darul Sukun, a home for older people, with the aim of spreading awareness about hygiene practices and wound care in old age.







Youth Engagement through Co-Curricular Activities

The Dow Institute of Medical Technology (DIMT) successfully organized its Youth Engagement Program on Saturday, September 20, 2025 Themed **"Islam as a Religion of Peace,"** lecture delivered by Mufti Muhammad Anas (Manager – Shariah Compliance, Certified Shariah Auditor & Advisor).













Perfusion Week, by Cardiovascular Perfusion, DIMT







A community outreach and career awareness session was successfully conducted on **12th February 2026** by the Dow Institute of Medical Technology, Dow University of Health Sciences, at N. J. V. Higher Secondary School, Karachi.








As a part of the Cardiopulmonary Rehabilitation course and commitment to community engagement, students from Dow Institute of Medical Technology (DIMT) visited Dar ul Sukun orphanage to conduct an awareness session on choking management, basic CPR, first aid, and hand hygiene. Organized by faculty of Respiratory and Critical Care Technology.














In compliance with the HEC advisory on fire safety measures and the mandatory training directive of the Dean, Allied Health Sciences & Principal DIMT, Prof. Dr. M. Sameer Qureshi, a comprehensive fire drill session was conducted at the Dow Institute of Medical Technology (DIMT).











A **Two-Day Hands-on Workshop** on **Point-of-Care Ultrasound (POCUS) for the Assessment and Management of Mechanically Ventilated Patients** was organized by the **Dow Institute of Medical Technology (DIMT), DUHS**. Led by expert faculty from **Aga Khan University Hospital (AKUH)**, the workshop provided participants with practical training in bedside ultrasound techniques, enhancing their skills in the assessment and management of critically ill patients.











Dow Institute of Medical Technology (DIMT), Dow University of Health Sciences (DUHS) organized a **one-day workshop on Integrated Respiratory Care: Mechanical Ventilation and Tracheostomy Management**. The workshop provided hands-on training in adult and neonatal respiratory care, focusing on ventilator operation, troubleshooting, airway safety, suctioning techniques, and tracheostomy management.

Dow Institute of Medical Technology, Dow University of Health Sciences





The visit to **Edhi Village** was conducted as part of the students' internal evaluation following their donation collection campaign. Students donated lunch and gifts to the children and participated in storytelling, interactive games, and painting activities. The visit fostered civic responsibility, empathy, compassion, and meaningful community engagement through hands-on service.










The Respiratory and Critical Care Department, Institute of Medical Technology, is organizing an educational visit to the Sindh Emergency Service Rescue 1122 in accordance with celebrating **Respiratory Care Day**
The purpose of this visit is to provide our students with practical exposure to emergency response systems, technical operations, and potential industrial linkages relevant to their academic and professional development.



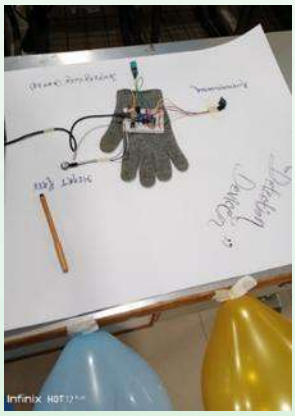






Comprehensive Eye Health Screening for School Children and **World Sight Day** by Optometry and Visual Science Department DIMT







Surgical technologist week "REVOLUTION OF SURGICAL TECHNOLOGIST IN TECHNOLOGY ERA**"** Project Exhibition



Abdur Rehman 1st year student DIMT, DUHS in Ashara Rehmatullil Alameen Won First prize in all DUHS. Topic: **Youth in the Light of Seerat Un Nabwi S.A.W.W.** MashaAllah.



DIMT student Jenny won 2nd Prize in Song Competition on Independence Day celebrations.



INTRA–DUHS INDOOR GAMES,DIMT students won prize.



One of IMT's student Soha Khan participated in All Pakistan Declamation contest by PAF Academy Risalpur



The Green Youth Movement (GYM) CLUB Beach cleaning activity by DIMT and







Dow Institute of Medical Technology (DIMT) — along with other institutes of Dow University of Health Sciences (DUHS) — proudly stands united with our brave armed forces in the face of aggression.
During the May protests, our unwavering spirit of solidarity, strength, and patriotism shone brightly through the participation of faculty, students, and staff alike.









DIMT and other DUHS students with faculty Celebrating "**Youm-e-Tashakur**" and Independence day to collectively thank the Almighty for his countless blessings and to pay heartfelt tribute to the guardians of our nation after the victory of **"Operation Bunyan ul Marsoos"**





A **Solidarity Rally** in support of the Pakistan Armed Forces was scheduled on Thursday, 15th May 2025. The Rally started from Nishan-e-Pakistan and conclude at Clock Tower. DIMT participated with students, faculty, and staff.










The **Green Youth Movement (GYM) CLUB** Plantation Activity by DIMT students

INFRASTRUCTURE AND FACILITIES OF DOW INSTITUTE OF MEDICAL TECHNOLOGY





Surgical technology, Respiratory and critical care laboratories, DIMT





Quantitative Electroencephalography (QEEG) facility, DIMT



Conference room







Clinical Laboratory Sciences Labs, DIMT



Girls common room



Spacious and air – conditioned lecture halls for students at DIMT



Digital Library DUHS Ojha Campus



Gymnasium DUHS Ojha Campus

FUTURE PROSPECTS

CLINICAL LABORATORY SCIENCES

Clinical laboratory technologists seek their career opportunities in clinical laboratories at hospitals; doctor's /physician's offices, reference and private laboratories Clinical Laboratory Technologists are an integral part of Clinical and Research laboratories.

SURGICAL TECHNOLOGY

A Surgical Technologist is expected to always anticipate the needs of the supervising surgeon and to provide quality patient care with a special focus on safety and efficiency. With advancing experience they can specialize in progressively more demanding, and more difficult medical specialties e.g. neurosurgery, orthopedic and cardiac surgery and furthermore; they can specialize to become surgical first assistant or circulating surgical technologists. According to the Bureau of Labor Statistics, the circulator helps interview the patient before and after surgery and may also assist with anesthesia. Professional scope includes: Outpatient clinics (for physicians and dentists), Ambulatory surgical centers (places that perform same/day care surgeries), Special mobile surgical teams and Private physician practices, surgical marketing units, research and development industries. Employment opportunities for surgical technologists can include: Hospitals, private clinics, R&D Institutions, Surgical Marketing Units, Post graduate Institutions, Managerial roles.

RESPIRATORY AND CRITICAL CARE TECHNOLOGY

Although Respiratory and Critical Care Technologists practice under the supervision of a physician, they are required to exercise considerable independent judgment in providing respiratory therapy to patients. They can advance the practice of respiratory therapy by doing research and creating clinical practice guidelines.

About 75% of respiratory therapists are employed in acute care Units in hospitals (ICU, ER, OR, Neonatal nurseries and general wards) and some of them find employment in diagnostic laboratories, sleep disorder centers, rehabilitation, long-term acute care and skilled nursing

facilities, patients' homes, patient transport systems, physician offices, convalescent and retirement centers, educational institutions and wellness centers. They can fill managerial and administrative positions and work in different types of jobs in private industries such as sales, service and clinical support.

PERFUSIONISTS

Perfusionists usually work in hospitals affiliated with large medical centers and as a chief perfusionist generally directs a perfusion team. Additional scope of practice includes blood conservation, long term support for respiratory failure, and isolated limb perfusion for the treatment of malignant tumors . Allied health professionals are usually at the forefront of research and innovations so that patients are continually receiving the very best healthcare. For example, in clinical perfusion sciences, staff could be investigating how less invasive surgical procedures of the heart impact on their work, or analyzing how their practices should differ when open heart surgery is performed on children rather than adult patients. Therefore, they may also work in educational institutions as teachers or researchers.

NEUROPHYSIOLOGY

The BSMT Neurophysiology is an emerging allied health program with promising career opportunities both in Pakistan and internationally. With the increased prevalence of the diseases like Epilepsy, Stroke, Dementing illnesses, Brain injuries, Brain tumors, Spinal cord disorders, Neuropathies, Neuromuscular disorders and sleep disorders, the demand for Qualified Neurophysiology technologist is also increasing. The Neurophysiology technologists are the

professionals that work with the neurologists and neurosurgeons to help diagnose and monitor neurological disorders by performing specialized diagnostic procedures like Electroencephalography (EEG), Electromyography (EMG), Nerve Conduction Studies (NCS), Evoked Potentials (EP), Polysomnography (sleep studies) and Intraoperative Neuromonitoring (IONM).

Graduates in Pakistan are eligible to be employed in government and private hospitals, department of neurology and neurosurgery, neurodiagnostic laboratories, rehabilitation centres, teaching hospitals, research institutes and universities. They may also opt for higher education, such as MS/MPhil programs in Neurosciences, Physiology or related subjects, leading to careers in research, teaching and clinical specialization. Globally, Neurophysiology Technologists are sought after in countries with robust health care systems such as the United Kingdom, Saudi Arabia, the United Arab Emirates, Qatar, Australia, Canada and the United States. Graduates who meet applicable licensing, certification, and registration requirements may find employment in hospitals, specialized neuroscience centers, epilepsy monitoring units, sleep laboratories, rehabilitation centers, and academic institutions. The profession offers competitive salaries, opportunities for professional growth, and access to the latest in neurodiagnostic technology. There are also opportunities in many countries to progress to senior technologist, supervisor, educator or research roles. On the whole, the future of a BSMT in Neurophysiology is very bright. This degree is a valuable choice for those looking for stable employment and long-term career growth in Pakistan and abroad, as the burden of neurological diseases is increasing, neurodiagnostic technology is advancing rapidly, healthcare services are expanding and there is a global demand for skilled allied health professionals.

EMERGENCY CLINICAL MEDICINE TECHNOLOGY

Emergency Clinical Medicine Technologists have promising career opportunities due to the increasing demand for skilled professionals in emergency and pre-hospital healthcare services. The increasing incidence of trauma, cardiovascular emergencies, disasters and critical illness has led to an increasing need for adequately trained emergency care providers in Pakistan and internationally. Graduates can work in emergency medical services (EMS), ambulance services, emergency departments, trauma centers, intensive care units, disaster response organizations, and health care institutions. They can move on to become Emergency Clinical Medicine Technologists, Emergency Clinical Medical Technicians, Pre-hospital Care Providers and Trauma Care Specialists. There are opportunities in Pakistan with government and private hospitals, rescue 1122, disaster management

organizations and healthcare setups. Internationally, qualified professionals may find opportunities in countries with existing EMS systems including the Gulf region, United Kingdom, Australia, Canada and the United States, subject to required certifications and licensing. Graduates also have the opportunity to further their education and professional development in areas such as emergency clinical medicine, critical care, disaster management, public health, and healthcare leadership. Emerging medical technologies and the growing emphasis on rapid response systems mean the field is rife with opportunities for career advancement, specialization, and improving patient outcomes.

RENAL DIALYSIS TECHNOLOGY

The future prospects of the program addresses a growing global healthcare needs while offering graduates stable entry in to a meaningful in-demand career. Renal Dialysis Technology program holds significant importance in today's healthcare landscape, as chronic kidney disease continues to rise globally alongside diabetes, hypertension, and an aging population. This program equips students with specialized knowledge of dialysis machinery, patient care protocols, and renal physiology, preparing them to fill a critical gap in the healthcare workforce. Renal dialysis technologist serve as an essential link between patients and the broader medical team, operating life-sustaining equipment, monitoring vital signs, and ensuring patient safety during treatment. Without adequately trained professionals in this field, the growing number of patients requiring dialysis would face serious gaps in care, making this program vital not just for individual career development but for the overall functioning and capacity of the healthcare system.

Employment in this field is projected to grow around 5% from 2024 to 2034, faster than the average across all occupations, with roughly 24,000 related job openings anticipated annually. Graduates benefit from relatively fast entry into the workforce, along with clear opportunities for advancement into specialized roles such as biomedical equipment handling or further study toward nephrology related careers. As Renal Dialysis technology becomes more advanced incorporating automated systems, sophisticated water treatment, and telehealth-based monitoring the program's relevance will only increase, reinforcing its importance as both a stable career path and a critical contributor to addressing the growing global burden of kidney diseases.

DOCTOR OF OPTOMETRY

Program, offered by the Department of Optometry and Visual Sciences DIMT, is a comprehensive five-year professional degree program designed to provide students with an advanced foundation in vision science and primary eye care. The program aims to equip graduates with the clinical expertise, diagnostic skills, and practical experience necessary to excel as autonomous optometric practitioners and healthcare professionals.

NUCLEAR MEDICINE

The Department of Nuclear Medicine and Theranostics is dedicated to advancing precision oncology through excellence in diagnostic imaging, targeted therapies, education, and research.
As a key pillar of the Comprehensive Cancer Center, we integrate state-of-the-art technology with clinical expertise to deliver personalized care and improved patient outcomes. Our commitment extends beyond service delivery to shaping the future of nuclear medicine through innovation and knowledge generation.

- *Provide comprehensive educational and clinical training opportunities in Nuclear Medicine Technology for allied healthcare professionals.*
- *Develop research capacity and promote the dissemination of emerging knowledge, skills, and technologies in nuclear medicine and theranostics.*
- *Deliver evidence-based, high-quality clinical practice in diagnostic imaging and radionuclide therapies to improve patient care.*
- *Foster interdisciplinary collaboration and professional skills among healthcare professionals, students, researchers, and the local community.*
- *Design and implement innovative projects in nuclear medicine, theranostics, and healthcare technology to support fiscal sustainability through collaboration with healthcare organizations, industries, and research institutions.*

RESEARCH AND DEVELOPMENT AT DOW INSTITUTE OF MEDICAL TECHNOLOGY

Dow Institute of Medical Technology holds the honor to publish scientific work nationally and internationally. Here are some publications from the faculty of Dow Institute of Medical Technology:

1. *Aftab, M. F., Afzal, M., Ejaz, O., Ahmed, S., Hasan, M. A., & Yusuf, I. M. (2025). Bayesian modeling of heartbeat evoked potentials (HEP) and heart rate variability (HRV) as biomarkers of spiritual and mental wellbeing; an exploratory study. Cogent Psychology, 12(1). https://doi.org/10.1080/23311908.2025.2597724*

2. *Syed Aliraza Jafri,Aqsa Suri,Fariha Khan,Kamila Mariam Iftikhar,Fouzia Imtiaz. (2026). BEYOND SIGHT: UNDERSTANDING SOCIAL AND EMOTIONAL PERCEPTIONS OF BLINDNESS AMONG SIGHTED INDIVIDUALS. In Frontier in Medical & Health Research. Zenodo. https://doi.org/10.5281/zenodo.20609553*

3. *Sahar Abdul Rauf, Mishqaat Rizwan, Kamila Mariam Iftikhar, Prof. Fauzia Imtiaz. (2026). MOBILE CARDIAC CARE UNITS IN KARACHI: A PATIENT-CENTERED EVALUATION OF EMERGENCY CARDIAC RESPONSE, SATISFACTION, AND HEALTHCARE ACCESSIBILITY. In Pakistan Journal of Medical & Cardiological Review. Zenodo. https://doi.org/10.5281/zenodo.20505296*

4. *Shamim, S., Baig, S., Shaukat, S., Asghar, B., & Nadeem, I. (2025). In-silico identification and evaluation of natural nucleotide metabolites as a hit targeting CHIKV nsP3 for antiviral therapy. RADS Journal of Pharmacy and Allied Health Sciences, 3(2), 112-122.*

5. *Hussain, Z., Farooqui, F., **Ibrahim, A.**, & Baig, S. (2025). Patients and Surfaces: Integrated Clinical–Environmental Surveillance of MDR Gram-Negative Bacteria in Critical-Care Units (Karachi, 2024–2025). **Microorganisms, 13**(12), 2762. https://doi.org/10.3390/microorganisms13122762*

6. *Ahmed S, Aftab MF, Ahmed N, Yusuf IM, Qureshi MS. Restoration of C-type natriuretic peptide and glial fibrillary acidic protein expression in fear centers and intrinsic cardiac ganglia by theta frequency sound during chronic stress in mice. Journal of Neurorestoratology. 2024/06/12/2024:100133. doi:https://doi.org/10.1016/j.jnrt.2024.100133*

7. *Aftab, M. F., Afzal, M., Ejaz, O., Ahmed, S., Hasan, M. A., & Yusuf, I. M. (2025). Bayesian modeling of heartbeat evoked potentials (HEP) and heart rate variability (HRV) as biomarkers of spiritual and mental wellbeing; an exploratory study. Cogent Psychology, 12(1). https://doi.org/10.1080/23311908.2025.2597724*

8. *Faisal, A., Waqar, M., Fatima, T., Aftab, M. F., & Khan, M. A. (2024). Effect of three months high-intensity anaerobic treadmill-based exercise on intuitive decision-making capability: A prospective cohort study. Journal of Human Sport and Exercise, 19(3), 815-826. https://doi.org/10.55860/6fm4sk70*

9. *Arshad, F., Masroor, M., Zafar, J., Hanif, K., Kumar, A., Nooruddin, K., Malik, E. S., Malik, E., & Farman, T. (2024). Relationship between the extent of coronary artery disease and neutrophil-to-lymphocyte, neutrophil-to-monocyte, and platelet-to-lymphocyte ratios in coronary angiography patients. African Journal of Biological Sciences, 6(14), 12646–12670. https://doi.org/10.48047/AFJBS.6.14.2024.12646-12670*

10. *Majeed U, Aftab MF, Baloch DM, Ahmed S, Yusuf IM, Hasan MA, Qureshi MS. Modulation of Heart and Brain Function by Surah Al-Rehman Recitation Among Distressed Diabetic Patients in Pakistan. J Relig Health. 2022 Oct;61(5):3852-3865. doi: 10.1007/s10943-021-01431-2. Epub 2021 Sep 23. PMID: 34554380.*

11. *Muhammad, Nizamuddin & Hussain, Mehwish & Adnan, Syed. (2021). Screen time and Sleep Quality among College and University Students of Karachi. Journal of Health & Biological Sciences. 9. 1. 10.12662/2317-3076jhbs.v9i1.3214.p1-14.2021.*

12. *Noor R, Shahid F, Hydrie MZ, Imran M, Shah SH. Factors influencing birth preparedness and complication readiness among childbearing age women in Thatta district, Sindh. PloS one. 2022 Sep 29;17(9):e0275243.*

13. *Talat Roome, Maha Qasim, Sabahat Aziz, Ahsana Dar Farooq, Anam Razzak, Syed Farooq Ali, . Assessment of acute, sub-acute, chronic and genotoxicity of polyherbal formulation DCD-684 in mice. Pak. J. Pharm. Sci., Vol.34, No.4 (Suppl), July 2021, pp.1485-1498*

14. *Talat Roome, Maha Qasim, Ahsana Dar Farooq, Qibtiya Ilyas, Sabahat Aziz, Syed Farooq Ali. Antispasmodic activity and mechanism of action of polyherbal formulation DCD-684 on rabbit jejunum Pak. J. Pharm. Sci., Vol. 34, No.2 (Suppl), March 2021, pp.711-722*

15. *Hanif F, Washdev W, Bilwani F, Simjee SU, Haque Z. A Novel Variant in Dopamine Receptor Type 2 Gene is Associated with Schizophrenia. Archives of Medical Research. 2021 Apr 1;52(3):348-53.*

16. *Javed L, Hanif F, Malhi SM, Zaman U, Jahan N, Amir Q, Javed A, Malik AB, Abrar H. Diclofenac sodium enhances the antiepileptic effect of levetiracetam in pilocarpine induced epileptic mice model. Pakistan Journal of Pharmaceutical Sciences. 2021 Sep 2;34.*

17. *Arzoo, A., & Ali, S. (2022). Prevalence of stress, anxiety, depression, and job dissatisfaction in health care professional dealing with covid-19 patients. Annals of Psychophysiology, 9(1), 28-38. https://doi.org/10.29052/2412-3188.v9.i1.2022.28-38*

18. *Rehman, A. U., Farooqui, N. A., Siddiqui, N. Z, Alam,G., Gul,A., Ahmed,B., Asim.M., Khan,A.I.,et al Morchella esculenta mushroom polysaccharide (MEP) attenuates diabetes, modulate intestinal permeability and gut microbiota in type 2 diabetic mice model. Frontier in Nutrition 2022 Sep.*

19. *Rehman, A. U, Khan, A. I., Xin, Y., & Wang, L. Lactobacillus acidophilus CGMCC 878 impacts colorectal cancer in Sprague-Dawley rats through changing the gut microbiota. Medicine in Microecology. 2022 Sep 20:100062*

20. *Siddiqui NZ, Rehman AU, Yousuf W, Khan AI, Farooqui NA, Zang S, Xin Y, Wang L. Effect of crude polysaccharide from seaweed, Dictyopteris divaricata (CDDP) on gut microbiota restoration and anti-diabetic activity in streptozotocin (STZ)-induced T1DM mice. Gut Pathog. 2022 Sep 17;14(1):39.*

21. *Rehman, A.U., Khan, A.I., Xin, Y. et al. Morchella esculenta polysaccharide attenuate obesity, inflammation and modulate gut microbiota. AMB Expr 12, 114 (2022)*

22. *Khan, A. I., Rehman, A. U., Farooqui, N. A., Siddiqui, N. Z., Ayub, Q., Ramzan, M. N., Zexu, W., Zhang, X., Yu, Y., Xin, Y., & Wang, L. (2022). Shrimp peptide hydrolysate modulates the immune response in cyclophosphamide immunosuppressed mice model. Journal of Food Biochemistry, 00, e14251.*

23. *Khan AI, Rehman AU, Farooqui NA, Siddiqui NZ, Ayub Q, Ramzan MN, Wang L, Xin Y. Effects of Shrimp Peptide Hydrolysate on Intestinal Microbiota Restoration and Immune Modulation in Cyclophosphamide-Treated Mice. Molecules. 2022 Mar 6;27(5):1720.*

24. *Rehman AU, Khan AI, Zhiying T, Zhang X, Yuqi W, Bilal H, Abdallah Alsholi DM, Xin Y, Wang L. Morchella esculenta Polysaccharide Attenuates Obesity through Ameliorating Adipose and Liver Tissue Inflammation in Obese Mouse Model. J Biomed Res Environ Sci. 2022 May 05; 3(5): 488-500*

25. *Khokhar, A. M.., Khan, S.., Zahid, M., Lail, A., Khan, B. A., Khan, A. I., Baig, S., Hanif, S. N., Khan, H., Ullah, A., & Khan, A. (2021). Analysis of the HBV small S gene partial sequences and its implications for detection, prevention and treatment in Pakistani patients. Molecular Medicine Communications, 1(1), 69–81.*

(Sample of Affidavit should be on Rs. 100 stamp paper)

AFFIDAVIT

I, _____ S/o, D/o, am offered admission in BS Medical Technology Program at Dow Institute of Medical Technology, Dow University of Health Sciences Karachi, hereby undertake that:

1. All my documents statement and particulars are true to the best of my knowledge. In case these are found false/ incorrect, I will be liable to refusal of my admission in "BS Medical Technology Program" by the university and if admitted would be liable to expelled from institute at any time during the course undertake that I will not get admission in any other college / university of Pakistan during this 04 years period.
2. I also hereby undertake that I have been informed about the fee structure for program and duly accepted by me. I will submit the prescribed fee within due dates and will not ask for any concession/waiver/relief in fee till the completion of the program.
3. I also undertake that after my final selection/provisional admission in BS Medical Technology program, I shall complete the program of four years. However, if I leave the seat before completion of program, I shall be liable to pay the penalty fee as per university rules and regulations for wasting the precious seat, else I will not be entitled to issuance any certificate/ document from the institution.
4. I also undertake that I hold PRC & domicile of Sindh Province only. In case of my domicile is found fake, my admission will be cancelled with immediate effect.
5. I also undertake that I will abide by all the rules and regulations of the university. If I fail to observe the discipline of university at any time during the program, the disciplinary action could be taken by the university authorities.

In case of violation of any of the above said rules / regulations, the DUHS has the full right to cancel my admission and will have no legal bindings upon DUHS.

_____
Candidate Signature
Candidate Name_____
CNIC No.:_____

Witness 01:
Name:_____
Signature:_____
CNIC No.:_____

Witness 02:
Name:_____
Signature:_____
CNIC No.:_____

(Sample of Affidavit should be on Rs. 100 stamp paper)

AFFIDAVIT

I, _____ S/o, D/o, am offered admission in BS Emergency Clinical Medicine Technology Program at Dow Institute of Medical Technology, Dow University of Health Sciences Karachi, hereby undertake that:

1. All my documents statement and particulars are true to the best of my knowledge. In case these are found false/ incorrect, I will be liable to refusal of my admission in "BS Emergency Clinical Medicine Technology Program" by the university and if admitted would be liable to expelled from institute at any time during the course undertake that I will not get admission in any other college / university of Pakistan during this 04 years period.
2. I also hereby undertake that I have been informed about the fee structure for program and duly accepted by me. I will submit the prescribed fee within due dates and will not ask for any concession/waiver/relief in fee till the completion of the program.
3. I also undertake that after my final selection/provisional admission in BS Emergency Clinical Medicine Technology program, I shall complete the program of four years. However, if I leave the seat before completion of program, I shall be liable to pay the penalty fee as per university rules and regulations for wasting the precious seat, else I will not be entitled to issuance any certificate/ document from the institution.
4. I also undertake that I hold PRC & domicile of Sindh Province only. In case of my domicile is found fake, my admission will be cancelled with immediate effect.
5. I also undertake that I will abide by all the rules and regulations of the university. If I fail to observe the discipline of university at any time during the program, the disciplinary action could be taken by the university authorities.

In case of violation of any of the above said rules / regulations, the DUHS has the full right to cancel my admission and will have no legal bindings upon DUHS.

_____
Candidate Signature
Candidate Name_____
CNIC No.:_____

Witness 01:
Name:_____
Signature:_____
CNIC No.:_____

Witness 02:
Name:_____
Signature:_____
CNIC No.:_____

DOW UNIVERSITY
OF HEALTH SCIENCES

Baba-e-Urdu Road, Off M.A. Jinnah Road, Karachi.
Tel: 021-32732194 email: admissions@duhs.edu.pk
visit website: www.duhs.edu.pk