

MEDICAL TEACHING INSTITUTION (MTI)

College of Medical Technology (CMT)

BACHA KHAN MEDICAL COLLEGE (BKMC), MARDAN





Prospectus 2023-24



WELCOME TO THE COLLEGE OF MEDICAL TECHNOLOGY

(Committed to excellence in Allied Health Sciences)



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MESSAGES

Message from Chairman Board of Governors, BKMC

Pakistan faces an acute shortage of different cadres of healthcare workers, which is bound to escalate further because of high population growth rate, inequitable distribution and out-migration of the healthcare workforce. Along with members of other disciplines, the role of Allied Health Professionals is equally imperative in the delivery of healthcare and related services pertaining to the identification, evaluation and prevention of diseases and disorders.

As members of an interdisciplinary team, all health professionals should be educated to deliver patient-centered care, emphasizing evidence-based practice, quality improvement approaches, and informatics. In this regard, BKMC added a new pillar in the field of health services and medical education by initiating College of Medical Technology. I really appreciate the determined efforts of all members associated with the CMT in any capacity. I assure my continuous help and support to the College.

Mr. Attaullah Khan Toru Chariman BOGs MTI, Mardan

MESSAGES

Project Director's Message

Many professionals work along with physicians and nurses to provide healthcare services that are safe, patient-centered, efficient, equitable, timely and effective. These professionals represent various Allied Health disciplines including Anesthesia, Radiology, Cardiology, Dental and Medical Laboratory Technology. Being the Project Director, I am immensely grateful to the Chairman BOG (MTI, Mardan) for his continuous support and guidance in the establishment of CMT.

There is a grave national level deficiency of qualified Allied Health Professionals. This urges for taking initiatives to establish such institutions in both public and private sectors in order to overcome the deficiency of such professionals; MTI, College of Medical Technology (BKMC-Mardan) is a significant step in this regard. The main purpose of the college is to improve the education status and training of Allied Health Professionals who are the most important part of health care system. I wish all of our students' success in their academic and professional life.

Dr. Amjad AliProject Director
MTI CMT (BKMC

MESSAGES

Principal's Message

Welcome to the College of Medical Technology (CMT), Bacha Khan Medical College (BKMC) Mardan. CMT is one of the first initiative of BKMC in Allied Health Sciences offering five different technologies including, Anesthesia, Radiology, Dental, Cardiology and Medical Laboratory Technology.

Allied Health professionals are globally recognized as vital, indispensable and distinct members of the health team. Though our college comprises of different medical technologies, however we share the common goals of medical excellence in Allied Health Sciences. Our aim is not only to equip our students with professional skills but also with the critical thinking and problem-solving skills. Our faculty comprises of highly qualified professionals having MPhil and PhD degrees. Our innovative and unique programs are designed to meet student's interests and career aspirations, along with the market-driven requirements of employers. It's an exciting time to be a part of this college as we will strive to prepare students to take an active role in shaping the future of Allied Health Sciences.

Dr. Nasir AliPrincipal
MTI CMT (BKMC)

INTRODUCTION

COLLEGE OF MEDICAL TECHNOLOGY, BKMC

College of Medical Technology (CMT) is an integral component of Bacha Khan Medical College (BKMC), Mardan. BKMC

is the first public sector medical college in Mardan, inaugurated on 1st January, 2010 and was recognized in the first year of its establishment by Pakistan Medical & Dental Council in 2010. The idea of CMT was conceived by Board of Governors (BOG), to meet the challenges of our current health services, which later was approved and the college was established in 2019, under the umbrella of BKMC. Degree Level college has also been the requirement of PMDC (as per clause: 46) to be initiated within a period of ten years of the establishment of medical college. In this regard, BKMC happens to be the pioneer in initiating such institutions. BKMC had already established the College of Nursing Mardan (CNM) in 2018.

The current campus of the college is located in the main academic block of BKMC. A dedicated land for the college has been acquired as part of BKMC extension project. CMT is affiliated with the Khyber Medical University (KMU), Peshawar. CMT is a valuable step towards the high-quality education in the field of Allied Health Science. Moreover, Mardan Medical Complex shall serve as a teaching hospital for the CMT, Mardan. CMT is looking forward in the near future to expand its horizon by offering/starting other educational programs.

VISION of CMT

To be the premier source of educational excellence and training in Allied Health Sciences.

MISSION of CMT

To provide innovative educational environment, opportunities and hands on experience that enables individuals, communities and the region to grow, thrive and prosper.

PROGRAMS OFFERED

CMT offers 4 years BS degree program in the following disciplines:

- 1. Medical Laboratory Technology
- 2. Anesthesia Technology
- 3. Dental Technology
- 4. Radiology Technology
- 5. Cardiology Technology



MEDICAL LABORATORY TECHNOLOGY

INTRODUCTION

Medical Laboratory Technology (MLT) is the pioneer field of Allied Health Sciences which basically deals with Laboratory investigations in terms of diagnosis, treatment and monitoring of diseases. The program has been designed with competency-based education and skills that enable professionals to perform variety of laboratory tests, handle modern laboratory equipment and have potential to use the latest scientific methods for accurate, precise and reliable diagnosis. MLT has evolved greatly with the passage of time due to increase demand of well educated, trained and competent laboratory personnel.

The **Significance of MLT** can be understood from the fact that around 70% of all decisions regarding diagnosis, treatment, admission in the hospitals and discharge are solely based on the laboratory results. Medical Lab technologist possesses advance knowledge and skills which enables them to perform complex test or assays.

CAREER:

A **Medical Laboratory Technologist/Scientist** works fulltime in hospital's laboratory, reference and research labs. However, they may also have opportunities of employment in forensic, food and environmental labs. Moreover, numerous manufacturer and supplier of

laboratory equipment and diagnostic kits also prefer experience Technologists for development of new products, sales and marketing of their products. A Medical Laboratory Technologist may pursue higher education like M.Phil and Ph.D in Medical Laboratory Sciences or other relevant fields. They can also work on academic or research positions at different universities.

CMT offers a four-year BS MLT program, where students will strongly be educated theoretically along with a robust emphasis on developing practical skills via rigorous training in the different labs of Mardan Medical Complex in order to meet the required challenges of modern health care system. This program will furnish the knowledge and skills which will enable a student to commence problem solving research, promote innovation in diagnosis along with monitoring and prevention of disease.



Faculty



Dr. Nasir Ali
Assistant Professor MLT
PhD, Biotechnology (Brazil)
M.Phil, Mol. Biology and Biotechnology (UVAS)
MSc, Mol. Biology and Biotechnology (UOL)
BSc, MLT (BMU)
CHPE (NUMS)



Mr. Muhammad Owais Lecturer MLT M.Phil-MLS (UOH) BS – MLT (KMU)



Mr. Muhammad Hilal Jan Lecturer MLT M.Phil, Microbiology (QAU) BSc (Hons) MLT, (NIH/KEMU) DMLT (Punjab Medical Faculty)



Mr. Hidayat Khan Lecturer MLT M.Phil (KUST) MSc Microbiology (AU) BSc- MLT (BMU)

Course Structure BS MLT

Semester 1			
Subject ID	Subject Name	Credit Hours	
PMS601	Biochemistry-I	4.00	
PMS602	Human Physiology-I	4.00	
PMS603	Human Anatomy-I	4.00	
PMS604	English-I	2.00	
PMS605	Pak Studies	2.00	
PMS606	Computer Skills	2.00	

Semester 2			
Subject ID	Subject Name	Credit Hours	
PMS607	Biochemistry-II	4.00	
PMS608	Human Physiology-II	4.00	
PMS609	Human Anatomy-II	4.00	
PMS610	English-II	2.00	
PMS611	Islamic Studies	2.00	

Semester 3			
Subject ID	Subject Name	Credit Hours	
PMS612	General Pathology-I	3.00	
PMS614	General Pharmacology-I	3.00	
MLT602	Clinical Bacteriology	3.00	
MLT601	Hematology-I	3.00	
MLT603	Molecular Biology	3.00	
PMS615	Communication Skills	2.00	

Semester 4			
Subject ID	Subject Name	Credit Hours	
PMS617	General Pathology-II	3.00	
PMS616	General Pharmacology-II	3.00	
MLT605	Red Blood Cell Disorders	3.00	
MLT606	Diagnostic Bacteriology	3.00	
PMS607	Human Genetics	3.00	
PMS619	Behavioral Sciences	2.00	

Course Structure BS MLT

Semester 5				
Subject ID	Subject Name	Credit Hours		
MLT608	WBCs and Platelet	3.00		
	Disorders			
MLT609	Clinical Parasitology	3.00		
MLT610	Chemical Pathology	3.00		
MLT611	Clinical Pathology	3.00		
MLT612	Laboratory Mathematics	3.00		
MLT613	Biotechnology	3.00		

Semester 7			
Subject ID	Subject Name	Credit Hours	
MLT620	Laboratory Management Skills	3.00	
MLT621	Bioinformatics	3.00	
PMS621	Research Methodology	3.00	
PMS622	Biostatistics	3.00	
PMS623	Epidemiology	2.00	
MLT624	Biosafety and Security	2.00	

Semester 6		
Subject ID	Subject Name	Credit Hours
MLT614	Blood Banking	3.00
MLT615	Immunology & Serology	3.00
MLT616	Medical Laboratory Instrumentation	3.00
MLT617	Clinical Virology and Mycology	3.00
MLT618	Cytology and Cytogenetics	3.00
MLT619	Histo-techniques	3.00

Semester 8		
Subject ID	Subject Name	Credit Hours
MLT622	Toxicology & Forensic	3.00
	Serology	
PMS627	Seminar	3.00
PMS626	Research Project/Final	3.00
	Project	
PMS625	Bioethics	3.00

ANESTHESIA TECHNOLOGY

INTRODUCTION

Bachelor of Science in Anesthesia Technology is one of the allied health sciences educational programs during which students become familiar with advance anesthetic techniques, principles and drugs. Safe Surgical procedure would not be possible without safe Anesthesia. Anesthesia Technologists are members of a specialized team, work in collaboration with surgical team to ensure safe anesthesia for safe and painless surgical procedures. The responsibilities of such professionals are to prepare the anesthetic drug, instruments and assist the anesthesiologist to perform peri-operative patient care.

In recent era, the anesthesiology has become specialized as subspecialty trained anesthesia professionals are available in many areas like General, Cardiac, Gynae & Obstetrics and Critical care unit. Moreover, students will be able to open the door of new research in anesthesia technology and ensure the safety of the patient at the maximum.

CAREER:

There are many job opportunities for the Anesthesia Technologists as they will be mainly employed in Operating theatre suites, but can be found in other areas of clinical practice including emergency departments and intensive care units (ICU).

CMT offers a four-year BS Anesthesia degree program, where students will be educated theoretically along with a robust emphasis on developing practical skills via rigorous training in the different sections of the Operating Room to meet the required challenges of the modern health care system.



Faculty



Mr. Muhammad Tayyeb Lecturer Anesthesia MPH (SUIT) BS Anesthesia (KMU)



Mr. Bahrul Amin Lecturer Anesthesia MPH (AUST) BS Anesthesia (KMU)



Ms. Ayesha Jehad Lecturer Anesthesia BS Anesthesia (KMU)



Mr. Naqash Ahmad Lecturer Anesthesia MPH (AWKUM) BS Anesthesia (KMU)



Mr. Muhammad Asad Lecturer Anesthesia MPH (SUIT) BS Anesthesia (KMU)

Course Structure BS Anesthesia

Semester 1			
Subject ID	Subject Name	Credit Hours	
PMS601	Biochemistry-I	4.00	
PMS602	Human Physiology-I	4.00	
PMS603	Human Anatomy-I	4.00	
PMS604	English-I	2.00	
PMS605	Pak Studies	2.00	
PMS606	Computer Skills	2.00	

Semester 3			
Subject ID	Subject Name	Credit Hours	
PMS612	General Pathology-I	3.00	
PMS614	General Pharmacology-I	3.00	
MLT601	Hematology I	3.00	
PMS615	Communication Skills	2.00	
PMS613	Medical Microbiology-I	3.00	
ANS601	Anatomy Related to Anesthesia	3.00	

Semester 2		
Subject ID	Subject Name	Credit Hours
PMS607	Biochemistry-II	4.00
PMS608	Human Physiology-II	4.00
PMS609	Human Anatomy-II	4.00
PMS610	English-II	2.00
PMS611	Islamic Studies	2.00

Semester 4		
Subject ID	Subject Name	Credit Hours
PMS617	General Pathology-II	3.00
PMS616	General Pharmacology-II	3.00
ANS604	Community Medicine	2.00
MLT604	Hematology II	3.00
ANS602	Physiology Related to Anesthesia	3.00
ANS603	Physics related to Anesthesia	3.00

Course Structure BS Anesthesia

Semester 5		
Subject ID	Subject Name	Credit Hours
ANS605	Pharma related to Anesthesia	3.00
ANS606	Anesthesia Equipments	3.00
ANS607	History Taking, Pre-operative assessment & Medication, Post-Operative Care	3.00
ANS608	Anesthesia & Co-existing Disease	3.00
ANS609	Critical care	3.00
ANS610	Leadership & Management	2.00

Semester 7		
Subject ID	Subject Name	Credit Hours
ANS615	Anesthesia for G/Surgery	3.00
	orthopedic & Urological Procedure	
PMS622	Biostatistics	3.00
ANS616	ANT for Eye Surgical Procedures	3.00
ANS618	Anesthesia for Obstetrics and	3.00
	Pediatric Surgery	
PMS621	Research Methodology	3.00
PMS623	Epidemiology	2.00

Semester 6		
Subject ID	Subject Name	Credit Hours
ANS619	Electrocardiograph for Anesthetist	2.00
ANS611	Different types of Anesthesia	3.00
ANS612	Anesthesia related Complications	3.00
	and their Management	
ANS613	Anesthesia for Cardiology Surgery	3.00
ANS614	Anesthesia for Neuro, Emergency	3.00
	& Geriatric Surgery	
ANS617	Anesthesia for ENT Surgery	3.00

Semester 8		
Subject ID	Subject Name	Credit Hours
PMS626	Research Project	6.00
PMS627	Seminar	2.00
ANS620	Anesthesia for Dental,	3.00
	Maxilofacial, H & Neck Surgery	
PMS625	Bioethics	2.00
PMS625	Bioethics	2.00

DENTAL TECHNOLOGY

INTRODUCTION

Dental Technology; a science which deals with esthetics, functional stability and artificial replacements of oral structures.

Significance of BS Dental is clear from the fact that dentists, maxillofacial surgeons, Prosthodontists or any other dental professional cannot work without a Dental Technologist. They possess advance knowledge and skills which enable them to perform an effective role in delivering simple dental treatment. Moreover, they have command over lab work as well like construction of crown, bridges, implants, dentures, ocular prosthesis, craniofacial prosthesis, auxiliaries, and mouth guards.

CAREER:

A **Dental Technologist** may have opportunity in both Private and Public Sector University as teaching faculty and in hospitals as Dental Technologist where they can assist complex dental surgical procedures including maxillofacial surgeries. They may also open dental labs where dental prosthetics are manufactured.

CMT offers 4 years BS program, where students will learn theoretical knowledge with strong emphasis on furnishing practical skills. CMT is committed to provide opportunity to all the students who aspired to become highly qualified health specialists and enable them to work as professional.



Faculty



Ms. Sana Ali Lecturer Dental BS Dental Technology (KMU)





Ms. Sadaf Gul Lecturer Dental BS Dental Technology (KMU)



Ms. Sana Batool Lecturer Dental BS Dental Technology (KMU)



Ms. Iqra Ijaz Lecturer Dental BS Dental Technology (KMU)



Ms. Uroosa Zeb Lecturer Dental BS Dental Technology (KMU)

Course Structure BS Dental

Semester 1		
Subject ID	Subject Name	Credit Hours
PMS601	Biochemistry-I	4.00
PMS602	Human Physiology-I	4.00
PMS603	Human Anatomy-I	4.00
PMS604	English-I	2.00
PMS605	Pak Studies	2.00
PMS606	Computer Skills	2.00

Semester 3		
Subject ID	Subject Name	Credit Hours
PMS612	General Pathology-I	3.00
PMS614	General Pharmacology-I	3.00
PMS615	Communication Skills	2.00
PMS613	Medical Microbiology-I	3.00
DEN601	Chemistry of Dental Materials-I	3.00
DEN602	Oral Histology	3.00

Semester 2		
Subject ID	Subject Name	Credit Hours
PMS607	Biochemistry-II	4.00
PMS608	Human Physiology-II	4.00
PMS609	Human Anatomy-II	4.00
PMS610	English-II	2.00
PMS611	Islamic Studies	2.00

Semester 4		
Subject ID	Subject Name	Credit Hours
PMS619	Behavioral Sciences	2.00
DEN603	Tooth Morphology	3.00
DEN604	Dental Materials-II	3.00
DEN605	Periodontology	3.00
DEN606	Oral Pathology & Oral Medicine	3.00
PMS616	General Pharmacology-II	3.00

Course Structure BS Dental

Semester 5		
Subject ID	Subject Name	Credit Hours
DEN607	Partial denture prosthodontics	3.00
DEN608	Oral pathology and oral Med-II	3.00
DEN609	Minor oral surgery-I	3.00
DEN610	Community & preventive DNT	3.00
DEN611	Fundamentals of oral And maxillofcial radiology	3.00
DEN612	Operative dentistry	3.00

Semester 7		
Subject ID	Subject Name	Credit Hours
DEN617	Orthodontics-ii	3.00
DEN618	Fixed prosthodontics	3.00
PMS624	Fundamental of Infection	3.00
	control	
DEN620	Medical emergencies in dental	3.00
	practice	
PMS622	Biostatistics	3.00
PMS621	Research methodology	3.00

Semester 6		
Subject ID	Subject Name	Credit Hours
DEN613	Endodontics	3.00
DEN614	Complete Denture	3.00
	Prosthodontics	
DEN615	Orthodontics-i	3.00
DEN616	Pediatric dentistry	3.00
DEN619	Fundamentals of implantology	3.00
DEN621	Minor oral surgery-II	3.00

Semester 8		
Subject ID	Subject Name	Credit Hours
PMS626	Research Project	6.00
PMS627	Seminar	1.00
PMS625	Bioethics	1.00
DEN622	Maxillofacial Prosthodontics	1.00

RADIOLOGY TECHNOLOGY

INTRODUCTION

Radiology Technology (now a day's known as Medical Imaging Technology) is an emerging field which encompasses a variety of advanced imaging modalities that are used in medical diagnosis and interventional procedures. Medical Imaging is undergoing a revolution from analog imaging to digital imaging. It shifted from conventional x-ray to new modalities such as Magnetic Resonance imaging (MRI).

The significance of Radiology can be understood from the disease management, with a wide choice of tools and techniques available for the detection, staging and treatment of various diseases. A variety of imaging techniques such as radiation-based modalities i.e plain radiography, fluoroscopy, computed tomography (CT), nuclear medicine, magnetism-based modality i.e magnetic resonance imaging (MRI) and ultrasound, are used to diagnose or treat diseases. Interventional radiology is the performance of usually minimally invasive medical procedures with the guidance of imaging technologies.

CAREER:

There is an acute shortage of Medical Imaging technologists country wide; because of which, there is a great scope for graduates having BS in Medical Imaging Technology in public and private sectors throughout Pakistan. The employment opportunities are excellent abroad as well specially in Middle East, Australia, USA, and Canada. It is an internationally recognized profession with great career opportunities. The Radiology Technologist can work as computed Tomography technologist, Sonographer, Mammographer, Nuclear Medicine Technologist, and Magnetic resonance Imaging Technologist

CMT (College of Medical Technology) offers four-years BS Radiology program, where the students will completely be educated theoretically as well as practically via proper training in the different sections of Radiology department in Mardan Medical Complex in order to meet the required challenges of modern health care system.



Faculty



Ms. Areena Khan Assistant Professor Radiology MS-Biomedical Sciences (NUST) BS-Radiology (RMU)



Mr. Yasir Shahid Lecturer Radiology BS Radiology (KMU)



Mr. Muhammad Shahzeb Lecturer Radiology MPH (AUST) BS Radiology (KMU)



Ms. Aqsa Siddique Lecturer Radiology BS Radiology (KMU)



Ms. Sadiqa Lecturer Radiology BS Radiology (KMU)

Course Structure BS Radiology

Semester 1		
Subject ID	Subject Name	Credit Hours
PMS601	Biochemistry-I	4.00
PMS602	Human Physiology-I	4.00
PMS603	Human Anatomy-I	4.00
PMS604	English-I	2.00
PMS605	Pak Studies	2.00
PMS606	Computer Skills	2.00

Semester 3		
Subject ID	Subject Name	Credit Hours
RAD601	Regional and Radiological	3.00
	Anatomy -I	
RAD602	General Radiology	3.00
RAD603	Radiation Science and Technology	2.00
PMS612	General Pathology-I	3.00
PMS614	General Pharmacology-I	3.00
PMS615	Communication Skills	2.00

Semester 2		
Subject ID	Subject Name	Credit Hours
PMS607	Biochemistry-II	4.00
PMS608	Human Physiology-II	4.00
PMS609	Human Anatomy-II	4.00
PMS610	English-II	2.00
PMS611	Islamic Studies	2.00

Semester 4		
Subject ID	Subject Name	Credit Hours
RAD604	Clinical Medicine-I	2.00
RAD605	Regional and Radiology Anatomy II	3.00
RAD606	Conventional Radiological	4.00
	Procedures & Clinical practice	
RAD607	Radiological Positioning & Clinical	4.00
	Practice	
RAD608	Computed & Digital Radiography	2.00
RAD609	Radiobio & Radiation Protection	2.00

Course Structure BS Radiology

Semester 5		
Subject ID	Subject Name	Credit Hours
RAD610	Computed Tomography (CT)	4.00
RAD611	Mammography & Special Radiological techniques	3.00
RAD612	Magnetic Resonance Imaging (MRI)	4.00
SUR608	General Surgery	2.00
RAD613	Interventional Radiology	2.00
RAD614	Clinical Medicine-II	2.00

Semester 7		
Subject ID	Subject Name	Credit Hours
RAD619	Clinical Sonography	4.00
RAD620	Angiography & Cardiac Imaging	4.00
RAD622	Echocardiography	2.00
RAD624	Clinical Pathology & Radiological	2.00
	Presentation-II	
PMS621	Research Methodology	3.00
PMS622	Biostatistics	3.00

Semester 6		
Subject ID	Subject Name	Credit Hours
RAD615	Radiological & Cross-Sectional Anatomy	3.00
RAD616	Computed Tomography (CT) Procedure & Clinical Practice	3.00
RAD617	MRI Procedures & Clinical Practice	3.00
RAD618	Therapeutic Radiology	3.00
RAD621	Nuclear Medicine	3.00
RAD626	Clinical Pathology & Radiological Presentation-I	2.00

Semester 8		
Subject ID	Subject Name	Credit Hours
PMS626	Research Project	6.00
PMS625	Bioethics	2.00
RAD625	Patient Care & Management	2.00
PMS627	Seminar	1.00

CARDIOLOGY TECHNOLOGY

INTRODUCTION

Cardiology Technology is an emerging field of Allied Health Sciences. This field basically covers the domain of different invasive and non-invasive procedures for diagnostic, therapeutic and preventive purposes in cardiovascular care. The main procedures involved in Cardiology Technology are Electrocardiography, stress ECG, Echocardiography, Electrophysiology, Interventional Cardiology, Preventive Cardiology, Nuclear Cardiology and Cardiac surgeries. Despite these, this field also focus on medical researches specially related to cardiovascular sciences.

CAREER:

The Cardiology Technologists have opportunities both in public and private sector universities and hospitals, as Teaching faculty and clinically as Cardiology Technologist to assist in different invasive procedures such as implanting cardiac catheters during Angiography/Angioplasty, inserting Pacemakers, assisting Electrophysiology, assisting cardiac surgeons during Cardiac surgeries. Cardiology Technologists also perform and report noninvasive diagnostic procedures such as Electrocardiography, Echocardiography, and Exercise tolerance test (ETT). Last but not the least,

these professionals will also have opportunities in health-related research organizations.

CMT will play a major role in producing professional Cardiac Technologists through a taught course of four years BS-degree program in Cardiology Technology. During the course, students will be allowed for clinical rotations in different hospitals to learn the clinical aspects of different diseases. The clinical rotations also enable the students to build their practical skills, and to utilize their knowledge in diagnostic procedures such as ECG, ETT, Echocardiography, Ambulatory B.P monitoring, Event/Loop monitoring, Interventional and others. Moreover, CMT will provide suitable platform to learn different aspects of medical researches and their applications to advance health care system in order to face health challenges.



Faculty



Mr. Abid Ullah Shah Lecturer Cardiology MPH (AUST) BS Cardiology (KMU)



Mr. Adeel Ahmad Khalil Lecturer Cardiology BS Cardiology (KMU)



Mr. Waleed Ahmad Lecturer Cardiology MSc Public Nutrition (AIOU) BS Cardiology (KMU)



Mr. Jaffar Iqbal Lecturer Cardiology BS Cardiology (KMU)



Mr. Syed Arshad Ullah Lecturer Cardiology BS Cardiology (KMU)

Course Structure BS Cardiology

Semester 1		
Subject ID	Subject Name	Credit Hours
PMS601	Biochemistry-I	4.00
PMS602	Human Physiology-I	4.00
PMS603	Human Anatomy-I	4.00
PMS604	English-I	2.00
PMS605	Pak Studies	2.00
PMS606	Computer Skills	2.00

Semester 3		
Subject ID	Subject Name	Credit Hours
MLT-601	Hematology-I	3.00
PMS-613	Medical Microbiology-I	3.00
CAR-601	Cardiopulmonary Anatomy	3.00
PMS-614	Pharmacology-I	3.00
PMS-615	Communication Skills	2.00
PMS-612	General Pathology-I	3.00

Semester 2				
Subject ID	Subject ID Subject Name			
PMS607	S607 Biochemistry-II			
PMS608 Human Physiology-II		4.00		
PMS609	PMS609 Human Anatomy-II			
PMS610	English-II	2.00		
PMS611	Islamic Studies	2.00		

Semester 4			
Subject ID	Subject ID Subject Name		
MLT-604	Hematology- II	3.00	
PMS-616	PMS-616 Pharmacology- II		
PMS-617 Pathology- II		3.00	
PMS-618	PMS-618 Medical microbiology- II		
PMS-619	Behavioral sciences	2.00	
CAR-602	Electrocardiography- I	3.00	
CAR-603	Cardiopulmonary Physiology	2.00	

Course Structure BS Cardiology

Semester 5			
Subject ID Subject Name Credit Hou			
CAR-604	Clinical Medicine-I	3.00	
CAR-605	Electrophysiology	3.00	
CAR-606	Echocardiography-II	3.00	
CAR-607	Electrocardiography-II	3.00	
CAR-608	Interventional Cardiology	3.00	
CAR-609	Medical Physics	3.00	

Semester 7				
Subject ID		Subject Name		Credit Hours
CAR-614	Nucle	Nuclear Cardiology		3.00
CAR-615	Heart	Heart Diseases		3.00
PMS-621	Resea	Research Methodology		3.00
CAR-617	Preve	Preventive Cardiology		3.00
PMS-623	Epide	Epidemiology		2.00
PMS-622	Biost	atistics		3.00

Semester 6			
Subject ID	Subject ID Subject Name		
CAR-616	Critical Care	3.00	
CAR-610	AR-610 Clinical Medicine-II		
CAR-618	CAR-618 Cardiac Surgery		
CAR-611	Diagnostic Equipments in Cardiology	3.00	
CAR-612	Echocardiography-II	3.00	
CAR-613	Pulmonary Diseases	3.00	

Semester 8			
Subject ID	Credit Hours		
PMS-626	Research Project	6.00	
PMS-627	MS-627 Seminar		
CAR-619	CAR-619 Subject of Own Interest		
PMS-625	PMS-625 Bioethics		

LIST OF VISITING FACULTY & TEACHING STAFF

S No.	Name	Designation
1.	Dr. Muhammad Naeem	Assistant Professor Dentistry
2.	Dr. Noor Ul Hadi	Assistant Professor Cardiology
3.	Dr. Salman	Assistant Professor Anesthesia
4.	Ms. Neelam	Lecturer English
5.	Mr. Mohsin	Lecturer Computer
6.	Ms. Maria	Lecturer Pak-study

LIST OF ADMINISTRATIVE STAFF

S No.	Name	Designation
1.	Mr. Fahad	Account Officer
2.	Mr. Wasid Amin	Store keeper
3.	Mr. Shoaib	Computer Operator

LIST OF TECHNICAL STAFF

S No.	Name	Designation
1.	Mr. Syed Muhammad Bilal	JCT Radiology
2.	Mr. Faiq Khan	JCT Cardiology
3.	Mr. Wasim Ullah	JCT Medical Lab Technology
4.	Mr. Sher Rahman	JCT Medical Lab Technology
5.	Mr. Muhammad Idrees	JCT Anesthesia

Teaching and Learning Facilities

Lecture Halls:

All lecture halls are air conditioned and fully equipped with multimedia, white boards and other teaching facilities.

Library:

Library is well furnished and having sufficient books of Allied Health Sciences and Basic Medical Sciences. Access to National Digital Library Program has been initiated.

Skill Labs:

At CMT, we have the following fully equipped skill Labs:

- Skill Lab MLT
- Skill Lab Anesthesia
- Skill Lab Dental
- Skill Lab Radiology
- Skill Lab Cardiology
- Anatomy Museum

Self-Learning Resource Centre: SLRC

SLRC or Computer/IT Lab is fully equipped with advance computer systems and high-speed internet connectivity. Students have access to online literature

and they can utilize it for their routine academic requirements.

Hospital/Clinical Training

All the clinical trainings will be provided at Mardan Medical Complex which is a 720 bedded tertiary care hospital. It is the largest health care facility at the northern zone of Khyber Pakhtunkhwa having around 20 departments. It has all the major and minor specialties with state of the art diagnostic facilities such as pathology, radiology (CT scan & MRI), dental (maxillofacial unit), anesthesia and cardiology.

Quality Enhancement Cell

To ensure Quality education, the Quality Enhancement Cell (QEC) was created under the umbrella of MTI Bacha Khan Medical College. It started functioning with full vigor and impetus. QEC carries out exhaustive evaluation at the end of each semester with the objectives that the national and international standards in health education are met. QEC Committee periodically conduct Regular workshops/ awareness programs in the context of Self-Assessment Report and yearly progress Report.

Other Facilities

Hostel Facilities:

Hostel facility is available only for out district female students (subject to availability of seats) in the campus with all necessary requirements. Student will have to apply on the prescribed form available in the campus.

Sports/Extra Curricular Activities:

CMT encourages all the students to take part in cocurricular activities like sports week and study trips etc.

Safety & Security:

The college is provided with good security arrangements e-g CCTVs/DVR and the services of security guards. They provide round the clock security to the campus. Fire extinguishers are available at every floor along with emergency exit.

Canteen:

The campus has a canteen that serves during working hours. Besides catering for the food and drinks, some daily need items are also available.

Scholarships:

CMT offers the following scholarships to the deserving/eligible students.

1. **Merit Scholarship** (1 per discipline/semester) will be awarded to the student securing first position in the previous final examination of

- KMU. While for 1st semester, highest merit score will be considered. This scholarship will only cover 50% of the tuition fee.
- 2. Need based/Poverty Scholarship (1 per discipline/batch) will be awarded to the neediest student unless withdrawn due to any reason. The scholarship committee will decide after analyzing different aspects of all applicants. Student need to maintain the passing status of each subject in every semester; failure to which would lead to withdrawal of scholarship and will not be allotted to any other student. This scholarship will cover 50% of the tuition fee.

Note: Rules and regulations approved by the competent authority will be followed for awarding and withdrawal of any scholarship at any time during the study program. .



Rules & Regulations/Policies

Admission:

CMT offers admission in 5 different disciplines with a limited number of seats. The candidates will APPLY **ONLINE** by clicking (https://admissions.cmt.edu.pk/) directly or by visiting the official website of CMT (www.cmt.edu.pk). Admissions will be opened to all genders having domicile of Khyber Pakhtunkhwa with Higher Secondary School Certificate (e-g Pre-medical) from a recognized board or Equivalent qualification certified from Inter Board Committee of Chairmen (IBCC) with minimum 50% marks. Admission will purely be merit based, approved by admission/selection committee of CMT-BKMC as per policies. The decision of admission committee will be deemed as final. Selected candidates will be medically checked by college medical board for their fitness or otherwise. After selection, the student has to submit original documents to the college which will be returned at the time of leaving the college as per policies.

The following criteria will be followed for admission:

•	F.Sc/Equivalent Examination	50%
•	SSC	10%
•	KMUCAT	40%

Note:

- Candidates having Hafiz ul Quran Certificate will be given additional 20 marks, which will be added to their FSc marks (if they pass the oral Quran test).
- 2) Reserved Quota for MTI Mardan employees and their children (1 seat per discipline). If the quota seat remains vacant, it will be allotted to next candidate in open merit list.
- 3) If there is a tie in the final merit score, the candidate having higher marks in F.Sc will be given advantage. If the tie continues, higher marks in the KMU-CAT and then in SSC will be given advantage respectively.

Rules & Regulations/Policies

Admission/Selection Committee

Principal Chairman
Vice Principal Member
Academic Coordinator Member
Program Coordinators Member
Representative from MTI BKMC Member

Cancellation of Admission

- CMT has the right to cancel admission at any stage if the documents presented are found fake.
- ii. A written application for cancellation of admission with suitable reasons on stamp paper will be required if any selected student wants to cancel his/her admission at any stage of the program.
- iii. Claim for fee refund after cancellation will not be entertained. In addition, if a candidate wants to cancel his/her admission at any stage, he/she will have to pay 50% of the remaining tuition fee of the program.

Migration Policy

• There is No Migration Policy.

Change of Discipline

 There will be no change of discipline once selected.

Examinations Policies

a) Exam Eligibility Criteria:

A student will be considered eligible for final exam if he/she

- Has undergone the specified period of theoretical/clinical course for the said semester to the satisfaction of the department concerned.
- Satisfied the minimum attendance criteria for both classes (75%) and clinical rotation (85%).
- Has cleared all the college/hostel dues along with examination fee.

b) Mode of Examination:

- a. There will be continuous assessment and evaluation of the students, which includes attendance, class behavior, assignments, presentations, quizzes and examinations.
- b. A mid-term exam will be conducted by the college in each semester.
- c. Final examination will be conducted by KMU at the end of each semester.
- d. In order to get promoted to the next semester, a student has to pass 50% of the total subjects offered in the semester and all subjects of the previous semester as per KMU policies.
- e. There is no make-up examination and the students failing the module/semester will have to Re-appear in the following semester with junior class.
- f. Sick leave even sanctioned on medical certificates leading to absence in final examination will mean failure in that exam.

Note:

- All examinations will be conducted according to KMU rules and regulations. These rules are available on KMU website https://www.kmu.edu.pk/
- 2. Out of 100 marks (both in case of theory & practical), Internal Assessment carries 30 marks while final KMU examination carries 70 marks.
- 3. If a student fails in practical examination, his theory will also be considered as failed and vice versa.

Fee Policies

FEE STRUCTURE FOR BS AHS

S.NO	DESCRIPTION	AMOUNT
1.	Admission Fee	15,000/-PKR
2.	Security	5000/- PKR
3.	Tuition Fee (Per semester)	60,000/- PKR
4.	Student Fund (Per Annum)	2000/- PKR
5.	Hostel Fee (Per Annum)	12500/-PKR
6.	Examination Fee	As Per actual
7.	Registration Fee	As per actual
8.	University Retention Fee	As per actual
9.	Any Other	As per actual

Fee Policy:

- The fee and dues will be charged from each student per semester as per details given in the prospectus.
- All fee and dues of the first semester must be paid on or before the last date mentioned in the offer letter of admission, otherwise his/her admission will be cancelled and seat will be offered to the next candidate on merit list.
- For subsequent semesters, fee and dues for academic year if not paid by the due date the student will not be allowed to sit in the classroom and a fine of Rs. 100/- per day will be imposed.
- All those students who are detained/non promoted will have to pay 50% of the all the prescribed dues/fee on or before the deadline.

 Any change in the fee is subjected to decision of administration/Project Director.

Note:

- The College has the right to increase the fee as per decision of competent authority.
- There is no fee concession/installment policy.
- Fine once levied will not be condoned.
- The fine shall be calculated from the due date till the date of deposition of semester fee.

• Fee Refund Policy (1st semester) *		
% age of Tuition Fee**	Timeline*** for Semester	
Full (100%) fee Refund	Up to 7 th day of commencement of classes	
Half (50%) fee Refund	From 8 th to 15 th day of commencement of classes	
No Fee (0%) Refund	From 16 th day of commencement of classes	

^{*} Fee refund policy is only applicable to 1st semester

***Timeline shall be calculated continuously, covering both weekdays and weekend.

Note: All late admission cases (Admission offered after commencement of classes), the days for fee refund shall be counted from the date of admission as per above table.

Dress-code:

In order to maintain academic dignity and sanctity of the institute and to promote proper academic environment, students are required to be properly dressed.

Summer:

For Male students; White shirt, Black tie, Black pantaloons with simple black belt along with black shoes and white socks.

For Female Students: Aqua/sea green shirt with white trouser and plain white dupatta is compulsory along with simple black shoes and white socks.

Winter: Only Black Coat/Sweater is allowed for both male and female students.

Note:

- Wearing Lab coat all the time inside the campus is mandatory.
- Female students must come without jewelry and makeup.
- Hair of male students should be above from collar. Hoodies and Jackets are strictly not allowed

^{** %}age of fee shall be applicable on all components of fee, except for admission charges.

ID Card

Every student will carry their own Institute Identity card duly displayed on his/her uniform. ID card will be issued by the college after applying on the prescribed form along with depositing ID card fee. If a student loses his/her card, he/she has to report to the competent authority. Once the competent authority approves the issuance of new card, then it will be issued upon submitting normal fee along with fine. Note that No student will be allowed to enter the college without ID card.

LIBRARY RULES AND REGULATIONS:

Students are expected to observe the following rules while using the library services; any violation of these rules will incur appropriate disciplinary action.

- Leave your personal belongings such as handbags, briefcases, etc. outside the library entrance on your own responsibility. The library disclaims any liability for loss or damage.
- Books will be issued to the students who have library card.

- Books will not be issued to any student for more than 15 days and if any student fails to return the book within stipulated time, a fine of Rs 10/day will be charged.
- Not more than 2 books will be issued to the student at one time. In order to get other book, he/she must first submit the previous books.
- Do not write, underline or mark any book.
 Library books will be carefully examined on return and the borrower will be held responsible for the damage.
- Any damage or loss of the book by the student, will be replaced by the respective student.
- Complete silence should be observed except for brief and subdued talk with the library staff.
- Drinks and eatables are not allowed in the library.
- Keep your mobiles off within the library premises.
- Student can also download the required books in soft form from E-library by scanning QR code.

CLASS ROOM POLICIES

The class room session runs from Monday to Friday, between 0800 - 1600 hours.

Attendance:

It is mandatory that students attend all academic sessions including lectures, tutorials, seminars, practicals, clinicals, assignments and examinations.

Following are specific policies related to attendance

- A minimum of 75% overall attendance is required for all subjects. The 25% margin of absence is intended to cover the informed absence only on account of sickness, or other emergencies.
- Attendance of each student will be assessed before all exams. Those failing to meet required attendance will be penalized according to the rule and regulations.
- Students should be present in class at scheduled time. Student arriving within ten minutes of schedule time will be marked late where as

- those arriving after ten minutes will be marked absent. Three times being late will be considered as one absent.
- Student must be aware that informed/ Sick/emergency leaves will also reduce the percentage of attendance as absentee will.
- Habitual/repeated absenteeism may be taken as offense and appropriate disciplinary action will be taken against the respective student/s.
- No Student is allowed to leave the classroom without permission of the teacher or until the class is finished.
- Students are not permitted to remain inside the classroom except at the prescribed hours of lectures.

Hospital/Clinical Training Policies

- Attendance and timings in the clinical training will also be observed critically. Students are expected to follow the scheduled time strictly.
- If a student fails to secure 85% attendance in the clinical training, their marks will be deducted.
- Students are required to wear proper uniform and white lab coat all the time while on clinical rotation
- In addition, students are also required to update their Log books on daily basis and must submit them on time at the end of the term (before commencement of final exam). If any student did not submit the Log book, he/she will be given zero marks.

Note: Any unsafe practice or unethical behavior found in the clinical area during the program will be dealt accordingly as per the following process.

• For Unsafe Practice

- Documentation in "Incidence Form"
- Learning contract / corrective action

For Unethical Behavior

- Any of misbehave /misconduct will never be tolerated
- There will be formal hearing
- If the student is found guilty, he/she will be dealt accordingly as per rules.

GENERAL POLICIES

- Students are primarily responsible for their own learning and completion of the scheduled examinations and attendance of all academic activities.
- The entire building of College and Hospital including washrooms and student lounges have been declared as "No Smoking Zone". Students are expected to respect it.
- Eating and drinking is prohibited in the classrooms/tutorial rooms, learning resource center and libraries etc.

- The students are expected to dress in a simple and decent manner at all times in campus. Tight trousers / Jeans, unpleasant shades and undesirable figures on shirts must be avoided. Students must wear lab coats while going to lecture halls, library and in hospital premises during duty hours.
- Students are not permitted to use mobile phone unnecessarily at any time while they are in campus or in the clinical areas. If they are found doing so, their mobiles will be taken into the custody by concerned faculty till submission of fine. Students are also not allowed to use Admin office phone for their personal use.
- Students are not allowed to attend visitors inside the college at any time or leave the college premises without permission.
- Students are expected to keep classroom/Lab clean and are responsible for the good care and maintenance of items/equipments used.

- Any student damaging the college property, must be required to pay the cost of repair or replacement of the item. In case of intentional damage, he/she may be punished by competent authority accordingly.
- Written authorization from the Principal is required before making any public statement, communication or correspondence with the press or other media for mass communication.
- Unnecessary stay of any student after the college hours are not allowed inside campus.

Disclaimer: For all the policies, there could always be an exception. For individual cases, depending on the nature of case, decisions are given by the relevant committee/competent authority.

CODE OF CONDUCT:

- The College expects its students to strive for the acquisition of attributes that benefit objectives of CMT. These attributes, in turn should be reflected in their everyday behavior, attitude and attire.
- All students are expected to show high standards of honesty, morality and discipline.
- Students will always respect the rights and privileges of all members of CMT and hospital and abstain from the conduct that might damage the reputation of CMT and that may lead to the disruption of any academic program of the College.
- Hostelite students should follow all the Hostel rules and regulations (mentioned in the prospectus of BKMC)
- Students are expected to show tolerance, understanding and respect to others while sharing their point of views. In case of any misunderstanding with peers, faculty members

- or college authorities' discussions and open exchange of view is encouraged.
- Issues of the students are can be discussed through proper channel.
- Parents/Guardians are expected to co-operate with the college authorities in all matters regarding their child/ward.
- Students are expected to be respectful to members of the opposite gender and be cognizant of Pakistani cultural norms in cross gender interaction at all times. In addition, they will refrain from any behavior that can be interpreted by others as Harassment.

Following conditions will be considered as offense to the institution and will be dealt according to disciplinary policies:

- Beating or assault on students, faculty or clients or member of staff.
- Any form of unauthorized rallies, demonstration or any sort of organized obstructions against

student/college, hospital function in any manner whatsoever.

- Malicious acts, thefts, willful damage or misuse of college property.
- Unauthorized housing of persons in the hostel or other building in the college.
- Cheating, plagiarism or the use of unfair means in examination or any other academic setting, the student will be assigned zero credit in that particular paper/assignment.
- Possession, use and display of firearms, drugs, alcohol or other contraband items in campus or at college related events.
- In case a student is involved in any illegal or criminal case, the concerned student will be responsible to put up his/her defense.
- Usage of mobile phone inside the classroom is not allowed. Taking pictures or making videos of the students or teachers are strictly prohibited.

"ZERO TOLERANCE TO AGGRESSION".

Disciplinary Action Procedure:

- Written complaint against the defaulter from students/ complaint to chairperson.
- Chance of defense in shape of explanation in writing by the defaulter.
- Based on information from different sources, decision would be made by disciplinary committee whether it is a minor or major infraction

Minor Infractions/Offenses:

- It includes irregularities, absenteeism, defamation of profession and institution, for example blackmailing in newspapers, negative projection, repeated failure in examinations, late submission of assignments/tasks, unacceptable usage of mobile phones inside college premises, dressings breaking rules and damage of property etc.
- For minor infraction three written warnings will be issued, if there is no improvement then the

case will be treated as a major infraction.

Major Infraction/Offenses:

 Major infractions/Offenses include Assault (verbal or physical), theft, malpractice, usage of mobile inside college premises, taking pictures or making videos, misconduct, strikes, involvement in politics, keeping weapons, unethical attitude with patients, addiction, suicide attempts, medication errors, plagiarism, cheating in examination and sexual abuse or harassment etc.

Note: Any instances of harassment or sexual abuse will be addressed in strict accordance with Terms of Reference (TOR) proposed by harassment committee.

Penalty

Final decision of penalty could be either:

- Written warning/Show cause/Apology/Fine
- Written Consent from the parents to not repeat the same offence in future.
- Withdrawal of scholarship (if availing any)
- Termination from the Program/Blacklisting from the institution.



CMT (BKMC)

LECTURE HALL

CENTRAL LIBRARY

LIBRARY

COMPUTER LAB

CMT (BKMC)





SKILL LAB MLT

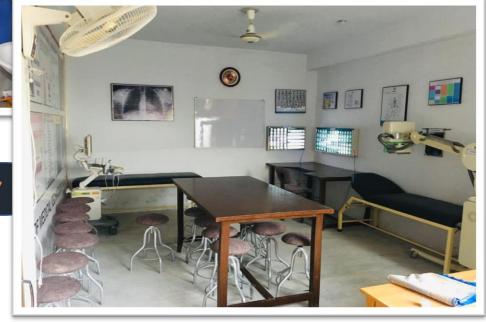
ANATOMY MEUSEM





SKILL LAB DENTAL

SKILL LAB RADIOLOGY





VEGE OF MECICAL

SKILL LAB ANESTHESIA

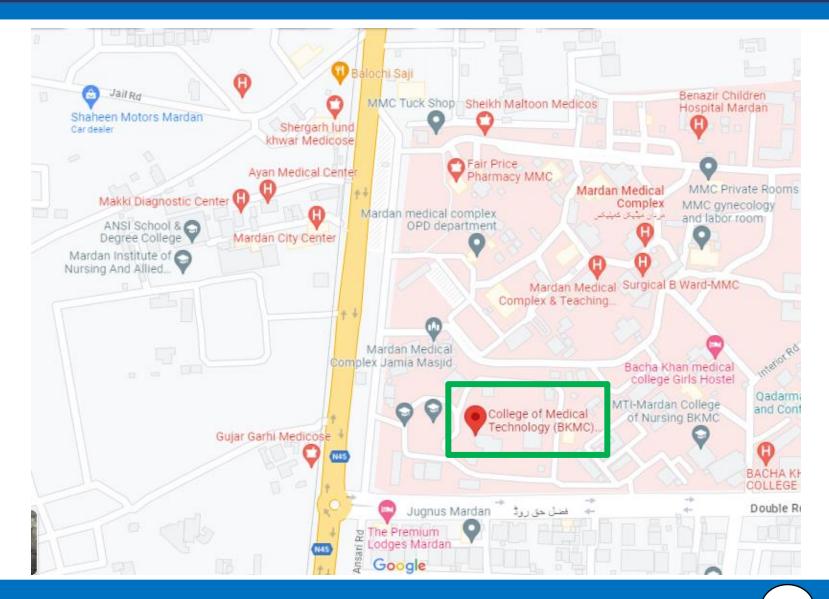
SKILL LAB CARDIOLOGY

DISCLAIMER:

Contents of this prospectus of CMT-BKMC for Allied Health Sciences programs are intended to be implemented in good faith. Any adversity occurring to the students, faculty and others because of the content shall not be brought to the court of law against the institution or its functionaries. Rules and regulation governing various aspects of the students conduct in institution (e-g eligibility, admission, syllabus, discipline, examinations, migration, fee and other charges etc) are given in this document as they stand decided at the time of its publication. The institution authorities reserved the right to modify, add or delete any statement in it without prior notice. Published rules, criteria and protocols do not in any way restrict the institution to modify these whenever in its judgment it is called for and to implement the modified rules/regulations from a date deemed appropriate.

The CMT-BKMC will take all responsible steps to provide educational services according to their vision in a manner set out in the prospectus and in the documents that will be issued to the students, who are accepted as students of the CMT-BKMC should certain circumstances beyond the control of the institution dilute their ability to provide educational services, the CMT-BKMC will take all the responsible steps to minimize the resultant disruption to the educational services. Application for admission would imply acceptance of the contents of the prospectus and amendments issued from time to time. Furthermore, none of the candidate is eligible for admission at CMT-BKMC without Undertaking/Affidavit duly signed by Notary Public on a legal stamp paper. The administration reserves the rights to bring changes in the policies and rules, regulations time to time without any prior notice.

This prospectus sets forth new rules and regulations and repeals all the prospectuses published before. These regulations will be applicable on all the students of CMT-BKMC.



CMT

College of Medical Technology

Committed to excellence in Allied Health sciences

MTI MMC



MTI BKMC



MTI CNM



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