



MCM Peshawar



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CURRICULUM DOCUMENT

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MUHAMMAD COLLEGE OF MEDICINE

Message from Principal MCM

Dear Students, Faculty, and Stakeholders,

It is a pleasure to welcome you to Muhammad College of Medicine, an institution committed to advancing excellence in medical education, research, and healthcare delivery.

At Muhammad College of Medicine, we strive to prepare future healthcare leaders who reflect the highest standards of professionalism, compassion, and scientific rigor. Our curriculum is thoughtfully developed to provide students with the knowledge, skills, and core values required to excel in an evolving medical landscape.

Through a blend of strong academic foundations, practical clinical exposure, and opportunities for research and community engagement, our students are equipped to make meaningful contributions to the health and well-being of the communities they serve.

Our distinguished faculty, consisting of experienced clinicians and dedicated educators, work closely with students to offer mentorship, support, and guidance. With access to modern facilities, advanced technology, and clinical training sites partnered with leading healthcare institutions, students benefit from a rich and comprehensive learning environment.

As we move forward together, I encourage all members of our community to uphold the principles of lifelong learning, integrity, and empathy that define our institution's culture. Let us remain committed to excellence in medical education and to the positive impact we aim to create through our work.

Thank you for choosing Muhammad College of Medicine as your academic and professional home. I look forward to witnessing your achievements and contributions to the medical profession.

Warm regards,

Principal, Muhammad College of Medicine

MCM Mission

“To proffer our graduates quality medical education by developing core knowledge, skills, and ethical attitude towards patient care. We strive to provide well trained research oriented doctors, who can provide quality healthcare to the nation”

MCM Vision

“To be a global medical teaching institute by striving for excellence in the field of medical education, healthcare and research”

KMU Mission

Khyber Medical University aims to promote professional competence through learning and innovation for providing comprehensive quality health care to the nation

Vision KMU

Khyber Medical University will be the global leader in health sciences academics and research for efficient and compassionate health care.

Executive Summary

Muhammad College of Medicine is dedicated to providing a comprehensive and rigorous medical education program that prepares students to excel as compassionate and competent healthcare professionals. Our curriculum is meticulously designed to integrate theoretical knowledge with practical skills, fostering critical thinking, ethical reasoning, and lifelong learning habits among students.

The curriculum is structured into a preclinical phase, clinical phase, elective period, and internship/residency training, providing students with a well-rounded educational experience spanning foundational sciences to hands-on clinical practice. Courses are delivered by a highly qualified faculty using a variety of teaching methods, including lectures, laboratory sessions, small group discussions, and clinical rotations.

At Muhammad College of Medicine, we prioritize interdisciplinary collaboration, research, and evidence-based practice, preparing students to meet the evolving needs of healthcare in today's complex healthcare landscape. Our emphasis on professionalism, cultural competence, and community outreach ensures that graduates are equipped to serve diverse populations with integrity and empathy.

Continuous quality improvement is integral to our curriculum, with regular review and evaluation processes in place to ensure alignment with educational goals and industry standards. Feedback from students, faculty, alumni, and healthcare stakeholders is valued and utilized to enhance curriculum effectiveness and relevance.

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Introduction

Welcome to the Curriculum Document of Muhammad College of Medicine. This document serves as a comprehensive guide outlining the structure, goals, and principles of our medical education program. At Muhammad College of Medicine, we are dedicated to nurturing compassionate, skilled, and ethical healthcare professionals who will contribute to the well-being of individuals and communities locally and globally.

Established with a commitment to excellence in medical education, research, and patient care, Muhammad College of Medicine aims to provide a dynamic learning environment that fosters intellectual curiosity, critical thinking, and professional integrity. Our curriculum is designed to equip students with the knowledge, skills, and values necessary for successful careers in medicine, while also promoting a lifelong commitment to learning and service.

As we embark on this journey together, we invite all stakeholders – students, faculty members, administrators, and community partners – to actively engage in the ongoing development and enhancement of our curriculum. Through collaboration, innovation, and a shared commitment to excellence, we will continue to uphold the values and principles that define Muhammad College of Medicine as a center of academic excellence and a beacon of hope for the future of healthcare.

Objective: The Curriculum documents is to provide guideline on the development, implementation, evaluation, and continuous improvement of the medical curriculum at Muhammad Medical College of Medicine.

KMU & MCM VISION & MISSION ALIGNMENT

KMU mission statement	MCM Mission Statement	Alignment	LOs (PMDC 7 star Doctor)
<i>Khyber Medical University aims to promote professional competence through learning and innovation for providing comprehensive quality health care to the nation.</i>	<i>“To proffer our graduates quality medical education by developing core knowledge, skills, and ethical attitude towards patient care. We strive to provide well trained research oriented doctors, who can provide quality healthcare to the nation”</i>	• Quality Medical Education • Core Knowledge • Skills • Ethical Attitude • Patient Care • Well Trained • Research Oriented • Quality Health Care	• Skillful • Knowledgeable • Community Health Provider • Critical Thinker • Professional and Role Model • Researcher • Leader

1. Alignment

- Both KMU and MCM share a common goal of providing quality healthcare to the nation through education, innovation, and professional competence.
- KMU emphasizes on promoting professional competence through learning and innovation, while MCM emphasizes providing quality medical education and producing well-trained, research-oriented doctors.

2. The alignment lies in their shared commitment to developing competent healthcare professionals who can contribute effectively to the provision of comprehensive quality healthcare.

3. Learning Objectives (PMDC 7-star Doctor):

- The Pakistan Medical and Dental Council (PMDC) identifies seven key attributes, often referred to as the "7-star Doctor," that medical graduates should possess. These attributes align with the mission and goals of both KMU and MCM.

- **Skillful:** Graduates should possess practical skills necessary for clinical practice and patient care.
- **Knowledgeable:** Graduates should have a strong foundation in medical knowledge, including basic sciences and clinical principles.
- **Community Health Provider:** Graduates should be equipped to address the healthcare needs of diverse communities, promoting public health and preventive care.
- **Critical Thinker:** Graduates should demonstrate critical thinking and problem-solving abilities in clinical decision-making and research.
- **Professional and Role Model:** Graduates should exhibit professionalism, ethical integrity, and serve as role models for their peers and the community.
- **Researcher:** Graduates should be capable of conducting research and contributing to the advancement of medical knowledge and evidence-based practice.
- **Leader:** Graduates should possess leadership qualities and skills necessary for driving positive change in healthcare delivery and policy.

4. **Integration:**

- The learning objectives outlined by PMDC complement the mission and goals of both KMU and MCM by emphasizing the development of well-rounded healthcare professionals.
- Both institutions strive to equip graduates with the knowledge, skills, and attitudes necessary for providing quality healthcare, engaging in research, and serving as leaders and advocates for the health of the community.
- By aligning curriculum development with these learning objectives, KMU and MCM ensure that their educational programs are relevant, effective, and responsive to the evolving needs of healthcare and society.

COMPETENCIES REQUIRED IN A DOCTOR TO BE ACHIEVED AT AN UNDERGRADUATE LEVEL

1. General Competencies

A. Patient Care

- Perform an accurate and problem-focused medical history and physical examination.
- Develop and prioritize differential diagnoses.
- Perform basic clinical procedures safely and accurately.

B. Medical Knowledge

- Knowledge of the human body, its structure, function, and diseases
- Awareness of diverse medical conditions and their management
- Apply foundational science knowledge to understand and manage human health and disease.
- Demonstrate knowledge of the major categories of clinical conditions (acute, chronic, preventive).
- Integrate clinical findings with knowledge of epidemiology, pathophysiology, pharmacology, and therapeutics.

C. Communication Skills

- Effectively communicate with patients, families, and communities, adapting to cultural, social, and individual differences.
- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and professional associates.

D. Clinical Reasoning and Decision-Making

- Apply critical thinking and clinical reasoning to diagnose and manage patient health issues.
- Use evidence-based medicine principles to guide patient care decisions.
- Recognize and respond to signs that indicate immediate action is needed to prevent harm to the patient.

E. Professionalism

- Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

- Show respect, compassion, and integrity; responsiveness to patient needs that supersedes self-interest; accountability to patients, society, and the profession.

F. Procedural Skills

- Perform general clinical procedures, such as venipuncture, IV cannula insertion, basic life support, suturing, etc.
- Understand the indications, risks, and benefits of common procedures.

2. Specific Competencies

A. Patient Counselling

- Be able to communicate effectively with the patients
- educate and counsel the patient on common ailments and their prevention
- Be able to take informed consent of the patient for various procedures

B. Patient Assessment

No	Procedure	Description
1.	Take baseline physiological observation and record appropriately (all wards)	Measure temperature, respiratory rate, pulse rate, blood pressure, oxygen saturations
2.	Carry out systemic examination abdominal, chest, nervous system, CVS, vascular (all wards)	Systemic approach in clinical examination Completes all steps of examination and document appropriately
3.	Ophthalmoscopy- Eye ward rotation	Perform basic ophthalmoscopy and identify common abnormalities such as diabetic retinopathy and disc edema Be able to record color vision
4.	Oto-scopy- ENT Ward	Perform basic oto-scopy and identify common abnormalities such as CSOM

B. Procedural skills

No	Procedure	Description
5.	Carry out venipuncture	Insert a needle into a patient's vein to take a sample of blood for testing. Make sure that blood samples are taken in the correct order, placed in the correct containers, that these are labelled correctly and sent to the laboratory.
6.	Measure capillary blood glucose	Measure the concentration of glucose in the patient's blood at the bedside using appropriate equipment. Record and interpret the results.
7.	Carry out an ECG electrocardiogram	Set up a continuous recording of the electrical activity of the heart, ensuring that all leads are correctly placed.

C. Patient care

No	Procedure	Description
8.	Perform surgical scrubbing up / donning and doffing (OT)	Follow approved processes for cleaning hands and wearing appropriate personal protective equipment before procedures or surgical operations
9.	Set up an infusion	Set up an intravenous infusion..
10.	Use correct techniques for moving and handling of the patients	Use, approved methods for moving, lifting and handling people, in the context of clinical care, using methods that avoid injury to patients, colleagues, or oneself. Be able to carry out log roll, use of spinal board and be able to secure cervical spine using a cervical collar.

PRESCRIBING

No	Procedure	Description
11.	Instruct patients in the use of devices for inhaled medication	Explain to a patient how to use an inhaler correctly and check that their technique is correct. Should know about various types of inhalers
12.	Prescribe and administer oxygen	Prescribe and administer oxygen safely using mask and monitor and adjust oxygen as needed.
13.	Prepare and administer injectable (intramuscular, subcutaneous, intravenous) drugs	Prepare and administer injectable drugs and prefilled syringes

E. Therapeutic procedures

No	Procedure	Description
14.	Carry out intravenous cannulation	Insert a cannula into a patient's vein and be able to secure the cannula.
15.	Carry out Lumbar Puncture	Following the correct procedure, be able to carry out Lumbar puncture
16.	Carry out male and female urinary catheterisation	Insert a urethral catheter in both male and female patients. Should know its complications and management
17.	Carry out wound care and basic wound closure and dressing	Provide basic care of surgical or traumatic wounds and apply dressing appropriately.
18.	Carry out nasogastric tube placement (adult)	Pass a tube into the stomach through the nose and throat for feeding and administering drugs or draining the stomach's contents. Should know how to ensure correct placement.
19.	Use local anesthetics	Inject or topically apply a local anesthetic. Understand maximum doses of local anesthetic agents.

20. Apply splint for fractures (adult) Can apply routine splints for fractures like Thomas splint, Use of triangular bandage and crammer wire split

21. Interpretation of X-rays of upper and lower limbs should be able to identify simple and comminuted fractures of upper, lower limbs and pelvis

22. Interpretation of X-rays of chest, abdomen and pelvis should be able to identify rib fractures, hemothorax, pneumothorax, free air under diaphragm
23. Should be able to perform essential lifesaving procedure (Basic Life support) Should be competent at Basic Life Support and simple airway management. Be able to use bag and mask device, pocket mask, Laryngeal mask airway endotracheal intubation and use of Automated Electrical defibrillator. Be able to perform CPR using correct BLS algorithms
24. Digital rectal examination and Proctoscopy Should know common causes of bleeding per rectum and common perianal diseases and be able to identify them by means of digital rectal examination and proctoscopy.

MCM GRADUATE LEARNING OUTCOME

The outcomes of the MBBS program align with the vision and mission of KMU and MCM as well as the identified generic professional competencies for medical graduates set by the PM&DC. This alignment aims to provide optimal health care, ultimately leading to improved health outcomes for both patients and societies.

By the end of the MBBS program, our graduates will be able to

Knowledge

- Perform a complete and accurate patient-centred history and physical examination appropriate to the patient's presentation.
- Demonstrate an understanding of the scientific basis for health and disease, encompassing both foundational and emerging sciences.
- Develop a differential diagnosis and key clinical problem list following the assessment of a patient.
- Develop a management plan for key clinical problems following the assessment of a patient.
- Apply knowledge of clinical, socio-behavioral, and fundamental biomedical sciences relevant to a clinical problem.

Patient Care

- Demonstrate the ability to perform an appropriately focused and comprehensive medical history and physical exam.
- Critically evaluate clinical findings and initial diagnostic test results to develop appropriate management plans, considering patient preferences, ethical principles, and cost-effectiveness.
- Synthesize new information to refine and reprioritize differential diagnoses, adhering to clinical reasoning best practices.

Professionalism

- Discuss and apply ethical standards of practice
- Demonstrate humanistic and patient-centered care, including respect, cultural sensitivity, empathy, and compassion, in their role as the patient's advocate.
- Demonstrate humanistic and patient-centered care, including respect, cultural sensitivity, empathy, and compassion, in their role as the patient's advocate.
- Consistently demonstrate the attitudes, values, and behaviors expected of a future physician, embodying the mindset and actions integral to the profession.

Interpersonal and Communication Skills

- Demonstrate an understanding of how cultural issues impact responses to illness and interactions with the healthcare system.
- Apply doctor-patient communication strategies appropriate for various clinical situations
- Demonstrate honesty and integrity in all interactions with patients, families, and health care team members.
- recognize how personal beliefs and biases impact communication.
- Present patient information clearly and effectively to all members of an inter- and intra-professional healthcare team.
- Use communication technology effectively.
- Apply best practices for disclosing a medical error.
- Deliver bad news compassionately.
- Manage conflicts effectively.

Systems-based Practice

Develop an understanding of the Pakistani healthcare system in the contexts of:

- Healthcare systems
- Patient health and health disparities
- Demonstrate a patient-centered approach to diagnosis and treatment that promotes the delivery of safe, high value, and high quality patient care

- Describe physicians' roles in promoting population health, through advocacy, community service, and community engagement.

Researcher

- Develop a plan for personal continued education.
- Apply the principles of research, critical appraisal and evidence-based medicine to learning and practice.
- Continuously engage in improving knowledge and skills through critical reflection and self-improvement.
- Demonstrate facilitation of learning for health care professionals, patients and society as part of the professional responsibility.

COMPARATIVE AND INTEGRATIVE TABLE: PM&DC vs. MCM COMPETENCIES

By the end of the MBBS program, our graduates will be able to:

Competency Domain	PM&DC Competencies	MCM Competencies	Integrative Synthesis
Knowledge & Clinical Reasoning	• Perform an accurate and problem-focused history and physical exam. • Develop and prioritize differential diagnoses. • Apply foundational science knowledge. • Integrate clinical findings with epidemiology, pathophysiology, etc.	• Perform a complete and accurate patient-centred history and physical exam. • Develop a differential diagnosis and key clinical problem list. • Apply knowledge of clinical, socio-behavioral, and fundamental biomedical sciences. • Synthesize new information to refine differential diagnoses.	The MCM competencies explicitly emphasize the patient-centred approach and the dynamic process of re-evaluating diagnoses. Both stress the critical integration of basic sciences with clinical practice to form a diagnosis.
Patient Care & Procedures	• Perform basic clinical procedures safely (e.g., IV cannulation, suturing, BLS). • Understand indications,	• Develop a management plan for key clinical problems. • Critically evaluate findings and diagnostic tests to develop cost-	PM&DC provides a detailed, specific list of procedural skills. MCM complements this by focusing on the higher-order decision-making involved in creating a management plan that is ethical, cost-effective, and patient-specific.

	risks, and benefits of procedures. • Develop a management plan (implied in patient care).	effective plans considering patient preferences. • (Procedural skills are implied but not listed in this MCM excerpt).	
Professionalism	• Demonstrate commitment to professional responsibilities, ethical principles, and sensitivity to a diverse population. • Show respect, compassion, integrity, and accountability.	• Discuss and apply ethical standards. • Demonstrate humanistic, patient-centered care as the patient's advocate. • Embody the attitudes, values, and behaviors of a physician.	Both sets are strongly aligned. MCM explicitly uses the term " advocate " and " humanistic ", providing a deeper context for the respect and compassion outlined by PM&DC. The concept of consistently embodying a professional identity is a key integrative point.
Interpersonal & Communication Skills	• Communicate effectively with patients, families, and communities, adapting to cultural and social differences. • Ensure effective information exchange with the team.	• Understand how cultural issues impact illness and care. • Apply communication strategies for various situations. • Deliver bad news compassionately and disclose medical errors. • Manage conflicts	PM&DC sets the foundational expectation. MCM provides significant depth, detailing advanced communication scenarios (bad news, errors, conflicts) and highlighting self-awareness of personal biases, which is crucial for effective cross-cultural communication.

		and present clearly to the team.	
Systems-Based Practice & Community Health	(Not explicitly outlined as a separate domain)	• Understand the Pakistani healthcare system, health disparities, and physicians' roles in population health, advocacy, and community engagement. • Promote safe, high-value, high-quality care.	This is a distinct and critical area in the MCM competencies. It moves the graduate's focus beyond the individual patient to the broader healthcare system and public health, emphasizing advocacy and understanding of health disparities .
Practice-Based Learning & Research	• Use evidence-based medicine principles to guide care.	• Apply principles of research, critical appraisal, and evidence-based medicine. • Develop a plan for personal continued education. • Engage in critical reflection and self-improvement. • Facilitate learning for others.	Both value evidence-based practice. MCM expands this into a lifelong learning philosophy, explicitly including continuous self-improvement, critical reflection , and a scholarly role in educating peers and the public. This frames the physician as both a perpetual learner and a teacher.

STANDARD OPERATING PROCEDURES FOR CURRICULUM DEVELOPMENT

Goal

The goal of establishing SOPs for curriculum development at Muhammad College of Medicine is to ensure consistent, high-quality educational programs that align with institutional objectives and accreditation standards. By fostering collaboration, supporting student learning, and enabling continuous improvement, these SOPs aim to optimize resource utilization and enhance the institution's reputation as a provider of excellence in medical education.

Purpose

The purpose of developing SOPs for curriculum development at Muhammad College of Medicine is to establish clear guidelines and procedures for the systematic creation, implementation, and evaluation of educational programs. These SOPs serve to ensure consistency, quality, and alignment with institutional goals and accreditation standards, thereby fostering effective teaching and learning experiences for students and supporting continuous improvement efforts within the institution.

Procedure

1. The development of the curriculum document shall involve consensus among all stakeholders, including administration, management, faculty (both clinical and basic sciences), and students, ensuring comprehensive input from all involved parties.
2. The curriculum document shall adhere to the prescribed curriculum outlined by the Pakistan Medical & Dental Commission (PM&DC) for medical colleges in Pakistan, ensuring alignment with established standards.
3. The curriculum document shall be crafted in alignment with the institute's and university's vision and mission, ensuring coherence with overarching institutional goals.
4. The organizational structures of curriculum development committees and their meetings shall be documented within the curriculum document, reflecting their roles within the institute's overall framework.

5. Curriculum committees shall be composed according to PM&DC directives, with each stakeholder fully aware of their roles and responsibilities in the curriculum development process.
6. The terms of reference (TORs) for curriculum committees, as defined by the PM&DC, shall be clearly stated within the curriculum document.
7. The curriculum document shall undergo iterative development, incorporating extensive faculty deliberation and feedback from both students and faculty members.
8. All learning domains of medical education, encompassing knowledge, skills, and attitudes, shall be addressed within the curriculum document.
9. Clear instructions regarding instructional and assessment strategies, aligned with national and international standards, shall be outlined within the curriculum document.
10. The curriculum document shall allocate the prescribed weightage for basic and clinical sciences, ensuring the fulfillment of required MBBS graduate hours as mandated by the PM& DC.
11. Horizontal and vertical integration of subject matter shall be depicted within the organization of content across various modules for each professional year.
12. The curriculum shall outline the necessary administrative, infrastructure, and human resource requirements for successful implementation.
13. The curriculum document shall incorporate innovative instruction and assessment strategies to enhance learning outcomes.
14. Behavioral and social sciences shall be integrated into the curriculum, with allocated hours as per PMC guidelines.
15. Instruction and assessment of local health problems, infection control, patient safety, and soft skills development shall be included within the curriculum document.
16. Instruction and assessment strategies shall be identified through blueprints included in module guides outlined within the curriculum document.

17. Public health, family medicine, and research shall be integrated into all learning domains across all professional years within the curriculum.
18. The level of integration within the implemented curriculum shall be clearly defined based on published literature within the curriculum document.
19. Ample evidence for self-directed learning, electives, and student-based activities such as seminars and problem-based learning shall be provided within the curriculum document.
20. SOPs for each area included in the curriculum document shall be developed to ensure standardized procedures.
21. Meeting minutes of curriculum committees shall be maintained as evidence of TOR implementation within the curriculum document.
22. Study guides for each professional year shall be developed according to standardized guidelines and shared with all stakeholders.
23. curriculum document shall include All allied medical and surgical specialties, Islamiat and Pakistan Studies shall be represented within the curriculum document in accordance with PMC guidelines.
24. Feedback mechanisms, evaluation surveys (both student and faculty), and application of findings in curriculum development shall be depicted within the curriculum document.

MCM Curriculum Map

MUHAMMAD COLLEGE OF MEDICINE - MCM PESHAWAR CURRICULUM MAP																	
YEAR	MODULES											PRIME					
I	Foundation		Blood and Immunology	Musculoskeletal System		Cardiovascular System		Respiratory			Behavioral Sciences	Pre-fundamental Biomechanics	Medical Research Ethics	Public Statistics / Biostatistics	Family Medicine	Leadership and Management	Clinical Placement / Community Visits
	Weeks: 6		Weeks: 5	Weeks: 7		Weeks: 5		Weeks: 4									
	Start Date: 08-02-2023 End Date: 17-03-2023		Start Date: 20-03-2023 End Date: 21-04-2023	Start Date: 08-05-2023 End Date: 23-06-2023		Start Date: 17-07-2023 End Date: 18-08-2023		Start Date: 17-07-2023 End Date: 18-08-2023									
	Block - A		Block - B		Block - C												
	Exam Dates: 02-05-2023 (Theory), 03-05-2023 (OSPE)		Exam Dates: 17-07-2023 (Theory), 18-07-2023 (OSPE)		Exam Dates: 27-09-2023 (Theory), 28-09-2023 (OSPE)												
II	Neurosciences IA		Neurosciences IB	GIT		Renal	Endocrine System		Reproduction								
	Weeks: 8		Weeks: 8	Weeks: 8													
	Start Date: 13-12-2023 End Date: 02-02-2024		Start Date: 12-02-2024 End Date: 26-03-2024	Start Date: 08-02-2024 End Date: 12-06-2024		Start Date: End Date:	Start Date: End Date:		Start Date: End Date:								
	Block - D		Block - E		Block - F												
	Exam Dates: 02-04-2024 (Theory), 04-04-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)												
III	Foundation - II		Infection and Inflammation	Multisystem	Blood and Immunology - II	Musculoskeletal System - II	Cardiovascular System - II		Respiratory - II								
	Weeks: 4		Weeks: 5	Weeks: 5	Weeks: 3	Weeks: 5	Weeks: 4		Weeks: 4								
	Start Date: 08-02-2023 End Date: 03-03-2023		Start Date: 06-03-2023 End Date: 07-04-2023	Start Date: 10-04-2023 End Date: 12-05-2023	Start Date: 15-05-2023 End Date: 02-06-2023	Start Date: 05-06-2023 End Date: 28-07-2023	Start Date: 31-07-2023 End Date: 25-08-2023		Start Date: 28-08-2023 End Date: 22-09-2023								
	Block - G		Block - H		Block - I												
	Exam Dates: 10-04-2023 (Theory), 11-04-2023 (OSPE)		Exam Dates: 31-07-2023 (Theory), 01-08-2023 (OSPE)		Exam Dates: 05-10-2023 (Theory), 06-10-2023 (OSPE)												
IV	Neurosciences-II		GIT	Renal-II		Endocrine and Reproduction	ENT		EYE								
	Weeks: 10		Weeks: 8	Weeks:		Weeks:	Weeks:		Weeks:								
	Start Date: End Date:		Start Date: 22-04-2024 End Date:	Start Date: End Date:		Start Date: End Date:	Start Date: End Date:		Start Date: End Date:								
	Block - J		Block - L		Block - M1		Block - M2										
	Exam Dates: 08-05-2024 (Theory), 09-05-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)								
V	Foundation - III	Blood and Immunology - III	Musculoskeletal System - III	Cardiorespiratory - III		Renal - III	Endocrine and Reproduction - III	Neurosciences - III	GIT - III	Multisystem - II							
	Weeks:	Weeks:	Weeks:	Weeks:		Weeks:	Weeks:	Weeks:	Weeks:	Weeks:							
	Start Date: End Date:	Start Date: End Date:	Start Date: End Date:	Start Date: End Date:		Start Date: End Date:	Start Date: End Date:	Start Date: End Date:	Start Date: End Date:	Start Date: End Date:							
	Block - N		Block - O		Block - P		Block - Q										
	Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)		Exam Dates: 00-00-2024 (Theory), 00-00-2024 (OSPE)										

EDUCATION AT MUHAMMAD COLLEGE OF MEDICINE

A spiral curriculum is an educational approach that revisits core concepts throughout the curriculum, increasing in complexity and depth. Here is a suggested spiral curriculum for MBBS (Bachelor of Medicine, Bachelor of Surgery):

1st & 2nd Professional MBBS

- Introduction to Medical Sciences
 - Basic Sciences: Anatomy, Physiology, Biochemistry, Pharmacology
 - Professional development: Patient communication, history-taking, and basic clinical skills

3rd Professional MBBS

- Clinical Sciences
 - Internal Medicine, Surgery, Pediatrics, Obstetrics, and Gynecology
 - Clinical Correlations: Patient management, clinical decision-making, clinical skills and basic procedures

4th Professional MBBS

- Integrating Clinical Sciences
 - Clinical specialties: Cardiology, Neurology, Psychiatry, and others
 - Clinical Correlations: Advanced clinical decision-making, complex cases, and multidisciplinary approaches, community outreach program

5th Professional MBBS

- Consolidation and Preparation for Practice
 - Electives and selective in various specialties
 - Clinical Correlations: Independent patient management, research, and professional development

Throughout the curriculum

- Spiral themes:

- Professionalism
- Communication and interpersonal skills
- critical thinking
- Healthcare systems and policy
- interactive learn

MCM CURRICULUM LEARNING OUTCOME

Learning Outcome

1st & 2nd Professional MBBS

1. Outline the fundamental structures, functions, and biochemistry of body systems according to the prescribed curriculum of MCM and KMU for 1st & 2nd Professionals MBBS.
2. Clarify intricate concepts and theories concerning the function and biochemistry of the designated systems-based curriculum for each academic year.
3. Connect the structure and function of organs/systems to prevalent pathologies.
4. Detail the pharmacokinetics and pharmacodynamics of pharmacological substances.
5. Understand the basics of primary healthcare within the context of Pakistan.
6. Acquaint oneself with the infrastructure, operations, and procedures of various sections within a tertiary care hospital (OPD, Ward, OT, Lab, Radiology, Nursing, etc.).
7. Engage in practical laboratory work according to the prescribed curriculum while adhering to safety and hygiene protocols.
8. Demonstrate basic clinical skills in a clinical skills lab under supervision, meeting the required competency levels outlined in the curriculum.
9. Describe the common signs and symptoms of diseases prevalent in the Pakistani context relevant to system/block-based modules.
10. Grasp the fundamentals of medical research in the first year and develop a synopsis by the end of the second year.
11. Understand the basics of behavioral science, leadership, management, communication skills, and professionalism.

12. Develop an understanding of Family Medicine and its principles within national and international healthcare frameworks.
13. Observe clinical facilitators during integrated modular hospital placements, developing an understanding of the doctor-patient relationship, history-taking skills, and basic examination techniques, and recording them in provided logbooks/portfolios.

3rd & 4th PROFESSIONAL MBBS

1. Apply pharmacological understanding to practical scenarios. Master fundamental pharmacology principles, encompassing drug absorption, distribution, metabolism, excretion, adherence, compliance, drug reactions, and ethical and legal aspects.
2. Draft medico-legal reports and certificates and Analyze autopsy findings to determine cause, manner, and time of death.
3. Analyze autopsy findings to determine cause, manner, and time of death.
4. Implement medical ethics and legal responsibilities toward patients, the profession, society, and the state.
5. Diagnose common poisonings, apply therapeutic principles, and understand their medico-legal implications.
6. Apply principles of analytical, environmental, occupational, and preventive toxicology.
7. Discuss the relationship between pathology and clinical sciences.
8. Explain the impact of sample handling on laboratory results.
9. Outline disease causes, the body's response to injury, and disease manifestations.
10. Compare cellular adaptations, reversible, and irreversible cell injuries.
11. Relate the pathological basis of diseases to their clinical presentations.
12. Counsel patients using simulated clinical skills.
13. Describe preventive, educational, and promotional health concepts as per PM&DC curriculum.
14. Conduct field Interpret, present, and publish research data.
15. Perform basic life support skills.
16. Document and present patient histories in various clinical disciplines.
17. Conduct physical examinations across multiple specialties during hospital rotations.
18. Manage and submit portfolios and logs promptly.
19. Describe system-based disease mechanisms and processes.

20. Classify diseases and their clinical and histopathological manifestations.
21. Diagnose diseases from clinical scenarios.
22. Apply pathological concepts in disease diagnosis, staging, and management.
23. Interpret pathological reports to articulate differential diagnoses.
24. Assess community health status to understand the general practitioner's role.
25. Conduct community-based research to improve community health.
26. Describe principles of epidemiology and biostatistics.
27. Identify major study designs in community-based research.
28. Calculate sensitivity and specificity and apply statistical tests.
29. Conduct research using medical literature and databases.
30. Find and interpret current evidence to optimize patient care.
31. Relate clinical subject concepts to pathology and community-based topics.
32. Follow patient interaction protocols with respect and discipline during clinical rotations.
33. Describe clinical subjects as per regulatory curriculum.
34. Perform clinical skills such as history taking, examinations, and test interpretations.
35. Understand and apply and Take detailed histories ENT (conduct ear, nose, throat, and eye examinations) and Ophthalmology basics.
36. Devise prescription plans for common ENT and eye problems in the Pakistani community.

5th Professional MBBS

Knowledge-Based Objectives

1. Basics of Diseases: Understand the fundamentals of medical, surgical, pediatric, and obstetric & gynecological diseases, and their relevant clinical presentations as per the prescribed curriculum.
2. Clinical Signs and Symptoms: Differentiate the basic clinical signs and symptoms specific to each discipline according to regulatory body guidelines.
3. Examination Principles: Explain the principles of general and systemic examinations as outlined in the curriculum.
4. Diagnostic Interpretation: Interpret laboratory and radiological reports to develop differential diagnoses.
5. Patient Assessment: Assess patients across various disciplines and formulate appropriate management plans.

6. Routine vs. Emergency Care: Distinguish between routine and emergency cases and understand their respective management protocols.
7. Pathology Correlation: Relate clinical presentations to underlying pathological issues to arrive at accurate diagnoses.
8. Critical Thinking: Exhibit critical thinking and clinical reasoning when formulating differential diagnoses.
9. Clinical Research: Develop and complete a clinical research project by the end of the fifth professional year.
10. Pharmacological Agents: Relate signs and symptoms to underlying diseases and identify the most effective pharmacological agents for prescriptions.

Skill-Based Objectives

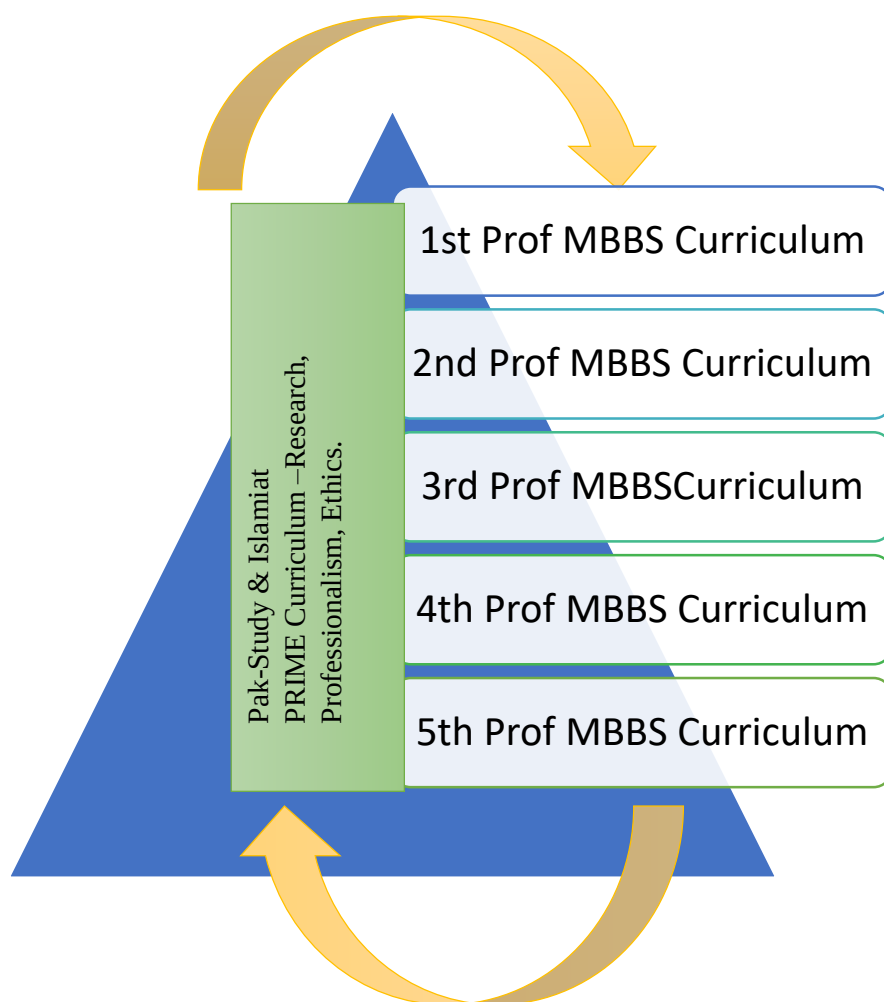
1. Systemic Examination: Perform systemic examinations in various contexts of major clinical and allied disciplines.
2. Patient Respect: Demonstrate respect for patient confidentiality, autonomy, and preferences.
3. Skill Competency: Show competence in performing clinical skills according to regulatory guidelines and relevant to each discipline.
4. Management Plans: Develop and execute management plans for diseases at the level of a general practitioner.
5. Test Interpretation: Relate laboratory and radiological test results to disease diagnoses effectively.
6. Knowledge and Skill Integration: Demonstrate coherent knowledge and skill in patient management.
7. Supervised Execution: Execute management plans accurately under supervision.
8. Procedural Proficiency: Perform procedures as per the prescribed curriculum and graduate learning outcomes in wards and clinical skills centers.
9. Emergency Management: Manage basic life-threatening emergencies, such as myocardial infarction, hypertension, and asthma, in A&E settings.
10. ECG Interpretation: Interpret ECG changes related to major cardiac diseases.
11. Leadership and Ownership: Exhibit leadership and management skills, taking ownership of your learning.

12. Communication Skills: Demonstrate good communication and interpersonal skills.
13. Counseling Skills: Show competence in counseling a variety of patients in the medical field.

Attitude-Based Objectives

By the end of the fifth professional year, the student should be able to:

1. Equity and Equality: Acknowledge the concepts of equity and equality in healthcare.
2. Guideline Adherence: Conform to mandatory guidelines and protocols for health professionals.
3. Patient Respect: Respect patient confidentiality, autonomy, and personal preferences in treatment.
4. Cultural Sensitivity: Respect ethnic and cultural diversity in healthcare provision and understand individual needs.
5. Professionalism: Show professionalism and adhere to the ethical and legal norms of the country.
6. Self-Reflection: Critically evaluate and modify personal practices.
7. Discipline: Display discipline in personal, professional, and social interactions.
8. Reflective Practice: Reflect on experiences and demonstrate the impact on practice through reflective writing.
9. Lifelong Learning: Show enthusiasm for the lifelong learning processes required for medical professionals.



MODULE WISE GENERAL LEARNING OUTCOMES

1st Year MBBS

Foundation Module

By the end of this module the students would be able to;

Knowledge

1. Familiarize with the MBBS system-based curriculum
2. Recognize the role of different disciplines in studying human body and its diseases.
3. Describe the structure, function and biochemical composition of cell.

4. Describe the cell division, its types and genetic material along with its clinical correlation.
5. Describe the basic organization of human body.
6. Explain the maintenance of homeostatic mechanism.
7. Describe the various stages of pre embryonic human development and correlate them with various malformations.
8. Describe the importance of buffer and PH system.
9. Describe various cellular adaptations during cell growth, differentiation and cell injury.

Skills

1. Describe the basic laboratory techniques and use of microscope.
2. Follow the basic laboratory protocols.
3. Perform biochemical analysis of carbohydrates.

Attitude

1. Follow the basic laboratory protocols.
2. Participate in class and practical work efficiently.
3. Maintain discipline of the college.
4. Follow the norms of the college properly.
5. Communicate effectively in a team with colleagues and teachers.
6. Demonstrate professionalism and ethical values in dealing with patients, cadavers, colleagues and teachers.
7. Communicate effectively in a team with colleagues and teachers.

Demonstrate the ability to reflect on the performance.

Blood Module

Cognitive Domain

By the end of this module, first year MBBS students shall be able:

1. Identify & describe the various cellular and non-cellular components of blood in relation to its Anatomy, Physiology & Biochemistry
2. Describe structure, synthesis and degradation of Hemoglobin
3. Describe the regulatory mechanisms of normal hemostasis and coagulation

4. Describe the conditions associated with dysfunction of cellular and non-cellular components of blood
5. Describe the basic characteristics of immune system.
6. Discuss the structure, functions and biochemical aspects of the Lympho-reticular system.
7. Explain the principles and clinical significance of ABO/RH blood grouping system
8. Explain the pathophysiology of various bleeding disorders
9. Identify the role of pharmacology in anemia and bleeding disorders.

PSYCHOMOTOR DOMAIN

Description of the psychomotor skills to be developed and the level of performance required:

By the end of BLOOD Module, the student should be able to:

1. Carry out practical work as instructed in an organized and safe manner
2. Make and record observations accurately.
3. Identify slide of Lymph node, thymus, tonsils and spleen under microscope
4. Identify slide of Gut associated lymphoid tissue
5. Determine percentage of formed blood elements.
6. Identify RBC and should be able to do its counting on counting chamber and to know normal values. And also classify Anemia morphologically.
7. Determine the Hemoglobin with the apparatus and have knowledge of normal and abnormal value.
8. Identify WBC morphology and its different types, should be able to count them on counting chamber and to know the normal values. Diagnostic importance of each WBC.
9. Identify Platelets and should be able to do its counting on counting chamber and to know normal values. Its diagnostic importance in relation to bleeding disorders
10. Perform bleeding time and clotting time and to know normal values and its diagnostic importance in relation to bleeding disorders.
11. Perform Blood groups typing and Rh factor.
12. Perform ESR and to know its normal value and prognostic importance.
13. Detect blood, bile pigments & bile salts in the given sample of urine

Attitude and Behavior

By the end of BLOOD Module, the student shall gain the ability and carry responsibility to:

1. Demonstrate ability to give and receive feedback, respect for self and peers.

2. Demonstrate empathy and care to patients.
3. Develop respect for the individuality and values of others - (including having respect for oneself) patients, colleagues and other health professionals
4. Organize& distribute tasks
5. Exchange opinion & knowledge
6. Develop communication skills and etiquette with sense of responsibility.
7. To equip themselves for teamwork
8. Regularly attend the classes
9. Demonstrate good laboratory practices

Musculoskeletal System – MSK Module

By the end of this module the students should be able to;

1. Knowledge

By the end of this module, students should be able to:

1. Develop an understanding of the fundamental components of the musculoskeletal system.
2. Explain the structure & function of the musculoskeletal (MSK) components of limbs and back.
3. Describe how injury and disease alter the MSK structure & function.
4. Integrate concepts relating to various metabolic processes, their disorders and relevant lab investigations in the study of human MSK system.
5. Describe the role of the limbs (upper/lower) in musculoskeletal support, stability and movements.
6. Describe the development of the limbs & correlate it with organization and gross congenital anomalies of the limbs.
7. Identify the anatomical features of bones, muscles & neurovascular components of the limbs and correlate them with their functions, injuries and clinical problems.
8. Describe the types, formation, stability, function & clinical significance of joints of the upper and lower limb.

9. Describe the basic histology of muscle fibers including its molecular structure (Sarcomere).
10. Explain the mechanism of excitation and contraction of skeletal and smooth muscles.
11. Describe the basis for the use of therapeutic agents to modulate neuromuscular transmission.
12. Describe the general principles of MSK pain management.
13. Describe ergonomics and its principles. Prevention of different MSK disorders.
14. Interpret the mechanism of post-mortem rigidity. (spiral II)
15. Give an overview of pathology of bones, muscles and joints.
16. Explain the role of different minerals, hormones and specific metabolic products related to the musculoskeletal system and correlate them with their relevant clinical metabolic disorders.
17. Interpret the relevant laboratory investigations for diagnosis of common musculoskeletal disorders. (Spiral two)
18. To develop the critical thinking and analysis in the context of various case scenarios pertaining to locomotors system.

2. Skills

By the end of this module, it is a core objective that students should have acquired the following skills:

1. Demonstrate the anatomical structures of the limbs in a dissected cadaver / Model / prosecuted specimen & X-ray.
2. Demonstrate the provision of first aid measures in case of a limb fracture.
3. Communicate effectively in a team with colleagues and teachers.

3. Attitude

While not necessarily taught explicitly, students are expected to develop following attitudes throughout the course:

1. Demonstrate humbleness and use socially acceptable language during academic and social interactions with colleagues and teachers.

2. Demonstrate humbleness and use socially acceptable language during academic and social interactions with colleagues and teachers.
3. Make ethically competent decisions when confronted with an ethical, social or moral problem related to MSKS in professional or personal life.
4. Discuss ethical issues social and preventive aspect of health care in the context of MSK system.
5. To create awareness about the ethical, social and preventive aspect of health care in the context of locomotor system.

4. Teaching Strategy

The content of this module will be delivered by a combination of different teaching strategies. These include small group discussions (SGD), large group interactive sessions (LGIS), demonstrations in dissection hall, lab practical, general club and clinical skill sessions at skill lab. Group projects will be assessed at the end of the block.

5. Organization of Module

The module consists of seven themes, and 8 PBLs each based on a real life situation. Each theme has its explicate LOs. The module will employ different modes of instruction, briefly described below. Major emphasis will be on discussion, analysis and deductions; all by the students and guided by the faculty.

Content Delivery

Entire curriculum will be delivered by clinical case scenarios each covering a theme. Read the cases and the objectives of the theme which you are supposed to encounter next day, understand and explain the case to yourself and read the relevant information. Following learning/teaching strategies will be employed to discuss the cases:

6. Small Group Discussion

Main bulk of the course content will be delivered in small group sessions. Each theme has an associated case. The case will be the centre around which learning will take place. Depending on the case you might be required to deduce objectives and learning issues or only learning issues. Every group will have a facilitator assigned to it. The facilitator will be there to keep you on track, giving you maximum liberty to discuss and achieve the objectives as a group. Small groups will

be followed by a wrap up session to standardize learning. Rest of the information will be in the schedule/ time table.

7. Large group

Large group instruction will be employed at times sparingly. Attend large group sessions with the following focus

1. Identify important points
2. Ask questions on concepts not well understood in the text books
3. Measure your learning comprehension

8. Videos

Video demonstrations on dissection history taking and clinical examination, will be shown to give you an idea into the disease process, clinical testing and practical aspect of communication with the patients

9. Hands-on Activities/ Practical

Practical activities, linked with the case, will take place.

10. Lab

Attend your scheduled lab and take advantage of free time for study. Use your labs to correlate text structures to actual specimens in lab practice.

11. Self-Directed Learning

A few SDLs have been added in between to create an environment for you to search literature as well as to deduce and synthesize information from different sources to meet the learning objectives. It will also help in breaking the monotonous / strenuous schedule and make your life-long learner.

12. Assessment

In this 8-weeks duration module, you will have formative surprise quizzes and intermittent short tests. A full-fledged summative assessment will be conducted at the end of module. This will give

you an idea about the format of the examination that you will go through at the end of the year. Of course, this will be followed by feedback on your performance in the exam.

Marks obtained in the module examination will contribute 30% (internal assessment) towards end of year Professional University Examination. There is no resit exam for module written assessment and block IPE. If you miss them, your internal assessment will be recorded as zero. No excuse of any kind is permissible for absence in module or IPE assessment.

Cardio Vascular System Module

At the end of this module, the students will be able to;

1. Describe the structure and surface markings of the heart, valves and great vessels.
2. Describe the steps of development of the heart.
3. Describe the steps of development of arterial, venous and lymphatic system.
4. Describe the conduction system of the heart.
5. Describe the anatomy of valves of the heart.
6. Describe the microscopic structure of myocardium, and blood vessels.
7. Describe the cardiac cycle.
8. Discuss cardiac output, and venous return.
9. Discuss blood pressure and its regulation.
10. Discuss coronary circulation and diseases associated with it.
11. Describe the mechanisms and types of circulatory shock and associated compensatory mechanisms.
12. Describe the anatomy and common pericardial diseases.
13. Describe the cardiac enzymes.
14. Discuss the hyperlipidemias and the roles lipoproteins and cholesterol in the development of thermogenesis.
15. Describe the mechanisms of impulse generation, conduction and excitation of myocardium.

16. Discuss normal ECG and common ECG abnormalities.
17. Enlist the drugs used in ischemic heart disease and hyperlipidemias.
18. Describe preventive strategies of cardiovascular diseases.

Respiratory Module

By the end of this module the students will be able to;

1. Describe the anatomy and abnormalities of thoracic cage
2. Describe the development and gross anatomy of the diaphragm
3. Describe the contents of mediastinum and their relations
4. Describe the anatomy of pleura and its reflections
5. Describe the gross and microscopic structure, development, nerve supply and blood supply of trachea, bronchi and lungs
6. Describe the epithelia and connective tissues lining the respiratory passageways.
7. Describe pulmonary ventilation
8. Discuss the mechanisms of gaseous exchange between alveoli, and blood and blood and tissues
9. Elaborate the transport of gases in the blood
10. Describe the mechanisms of regulation of respiration
11. Define hypoxia, and cyanosis
12. Describe the effect of aging on respiratory system
13. Describe the biochemical structure and functions of enzymes
14. Describe the mechanisms of O₂ and CO₂ transport in the blood
15. Classify anti-asthmatic and anti-tuberculous drugs
16. Describe the types and signs of asphyxia
17. Enlist the causes and signs of pneumonias, bronchial asthma, tuberculosis, Acute Respiratory Distress Syndrome (ARDS), and pulmonary edema
18. Describe the parameters of Pulmonary Function Tests (PFTs)

INSTRUCTIONAL STRATEGIES AT MCM

Muhammad College of Medicine employs a variety of instructional strategies to cater to the diverse learning needs of its students. These strategies include:

INSTRUCTIONAL FORMAT	DETAIL
LGF	At Muhammad College of Medicine (MCM), the Large Group Format (LGF) sessions are designed to accommodate up to 100 students at a time. These sessions are a fundamental component of the curriculum and are arranged for students across all undergraduate years, from the first year to the final year of the MBBS program
PRACTICAL	• Practical sessions are hands-on learning experiences conducted in laboratory or clinical settings. • These sessions provide students with opportunities to apply theoretical knowledge and develop technical skills under the guidance of faculty members. • Practical sessions are commonly used in basic science courses such as anatomy, physiology, and biochemistry, as well as in clinical rotations to reinforce clinical skills.
SGDS	• SGDS involve small groups of students engaging in structured discussions on specific topics or issues. • These sessions facilitate in-depth exploration of concepts, encourage active participation, and foster critical thinking and problem-solving skills. • SGDS may be used to address complex or sensitive topics that require focused attention and collaborative exploration among students.
STUDENTS SEMINARS	At Muhammad College of Medicine (MCM), student seminars are integrated as instructional strategies. In this approach, a topic is

	assigned to a group of 4-5 students who present it from various perspectives, including physiological, anatomical, and clinical viewpoints. This method encourages students to explore topics comprehensively and enhances their understanding through diverse viewpoints
CASE-BASED	: Assign students to present clinical cases or scenarios relevant to their coursework. Encourage them to analyze the case, propose diagnoses or treatment plans, and facilitate class discussions on the topic.
HOSPITAL POSTING	At MCM, hospital posting is an integral part of the medical education curriculum, offering students hands-on experience in diverse medical specialties. Under the guidance of healthcare professionals, students participate in patient care activities across various departments, including internal medicine, surgery, pediatrics, obstetrics and gynecology, Eye, ENT, cardiology, orthopedic in short and psychiatry. These postings provide invaluable practical exposure, allowing students to apply theoretical knowledge in real-world clinical settings. Hospital postings bridge the gap between classroom learning and clinical practice, fostering the development of competent and compassionate healthcare professionals.

**CONTINUOUS
PROFESSIONAL
DEVELOPMENT
(CPD)**

MCM offers a continuous professional development (CPD) program for faculty, as outlined in the Manual of Faculty Training & Capacity Building. This program includes regular activities organized at the departmental and college levels on a weekly, fortnightly, and annual basis.

**Problem Based Learning
(PBL)**

PBL encourages students to work through clinical scenarios in small groups. They identify learning n

eeds, research relevant information, and apply concepts from basic and clinical sciences to understand and solve the problem. This approach helps build clinical reasoning, teamwork, and self-directed learning

Flipped Classroom

In the flipped classroom model, students study core content on their own before class using videos, readings, or other learning materials. Class time is then used for discussion, problem solving, and application of knowledge with guidance from faculty. This strategy promotes active learning and deeper understanding.

integrated session

MCM organizes one integrated session in every module, focused on a locally relevant disease. Each session runs for 1.5 to 2 hours and is developed by student groups under the supervision of multiple faculty members. Over a period of two to three weeks, students prepare the session in coordination with the Department of Medical Education and concerned faculty.

The final consolidated presentation highlights the clinical problem from the perspective of various related disciplines. A faculty panel chairs the session, provides feedback, and conducts a question-and-answer segment

Assessment Strategies

Assessment methods at MCM encompass both formative and summative evaluations. Students undergo numerous formative assessments as preparation for internal and external summative evaluations. These assessments at MCM include:

Assessment	Detail
End of Lesson Assessment	A brief evaluation conducted at the conclusion of a lesson to gauge student understanding and retention of key concepts.
End of Module	Comprehensive examination administered at the conclusion of a module to assess mastery of the module's learning objectives.
Midterm Exam	In MCM Evaluation conducted halfway through the academic term to assess student comprehension of material covered up to that point.
End of Session Exam	Like other educational institute in MCM final assessment conducted at the end of a session or academic term to evaluate overall student performance and understanding.
Internal Assessment	Muhammad College of Medicine follows a comprehensive and structured approach. Marks are allocated according to PM&DC and university guidelines. The total internal assessment marks for both theory and practical components are further distributed based on the weightage assigned to different assessment methods used in the college. Each professional year has a specific internal assessment template for written and practical examinations. Marks for each component are awarded in line with the allocation approved by KMU.
Reflective Portfolios, Logbooks, Mini-CEX	These tools are used regularly for assessment and feedback and form an essential part of the internal assessment system. They help track student progress, professionalism, and competency development throughout the academic year.
Conduct & Behaviour	Student conduct and professional behaviour are included in the internal assessment for every professional year. Each student receives marks for conduct and behaviour as awarded by the respective Head of Department.

Attendance	The college follows the PM&DC and university requirement of maintaining at least 75 percent attendance in each academic session for eligibility to appear in the annual examination. Students with full attendance receive additional marks from the internal assessment quota.
Research Publication	Students involved in approved research projects or publications may receive recognition under internal assessment, depending on university policy. Participation in research reflects academic engagement, scientific contribution, and professional development.
Distinction in KMU Result	Students who secure a distinction in KMU examinations are acknowledged for their exceptional performance. This achievement is recorded as part of their academic progress and may contribute to additional recognition as per university guidelines.

PRIME DOCUMENT

PRIME MODULE MBBS

Part 2 Table of Specification

	Year 1					
Topic	Contents	Learning Objectives	Teaching Method	Module	Hours	Assessment
A) Behavioral sciences						
Model of healthcare	Bio-Psycho-Social model of health care	Describe Bio-Psycho-Social model of health care	Lecture/ Discussion	Foundation 1	1	MCQs and Formative
	Health and behavioral sciences	Correlate health with Behavioral sciences. Describe Important of behavioral sciences in health.	Lecture/ Discussion	Foundation 1	1	MCQ and Formative
Affective domain	attitude	Describe Attitudes in health professionals. Describe factors affecting it.	Lecture/ Discussion	Foundation 1	1	MCQ and Formative
	Attention and concentration	Define attention and concentration. What factor affect them?	Lecture/ Discussion	Blood 1	1	MCQ and Formative
	Personality	Define personality. Describe factor affect personality development		MSK 1	1	MCQ and Formative
	Motivation	Define motivation and describe the types of motivation			1	MCQ and Formative
Stress	Stress and its management	Define and classify stress and stressors. Describe relationship of stress and stressor with illness. Describe the concept of life events and their relationship with stress and illness.	Lecture/ Group Discussion	MSK 1	1	MCQ and Formative
	Coping skills and Defense mechanism	Describe the concepts of adjustment and maladjustment? explain coping skills and describe the psychological defense mechanisms	Lecture/ Group Discussion	MSK 1	1	MCQ and Formative

B) Professionalism						
Introduction to Professionalism	Definition of a professionalism, behavior's, attitudes, emotions, and their attributes	Define Professionalism, and its attributes	Lectures/Group discussion	Foundation 1	2	MCQ, SAQ,
Dynamics of Professionalism	Trust definition, its attributes, and components, and its' application	Dynamics of trust in health professional-patient relationship	Lecture Role Play Workplace	Foundation 1	1	Formative
Attributes of prof	Differences between empathy and sympathy	Discriminate between empathy and sympathy	Lecture/ Group discussion/ Role play	MSK 1	2	MCQ, SEQ, Formative and
Prof identity formation	White coat ceremony Types, multiple identities, Components, Professional identity formation	Students' roles in terms of professional identity	White coat ceremony	Foundation 1	2	Formative
Attributes	Accept errors and mistakes in responsible manner	Accept errors and mistakes in responsible manner	Lecture	CVS1	2	Formative
PIF	Identifies his own strengths and weaknesses	Identifies his own strengths and weaknesses	Lecture/Group discussion/Role Play	Foundation 1	1	Formative Portfolio
Emotional intelligence	Emotional and social intelligence in given contexts	Describe & Display appropriate emotional and social intelligence	Lecture/Group discussion/Role Play	Blood 1	2	Formative
Personal Development Plan (PDP)	Personal development plan & reflective portfolios	Prepare personal development plan & reflective portfolios	Lecture/ Group Discussion	Foundation 1	2	Assignment
PDP	Peer feedback session on PDP	Analyze critically his personal development plan (PDP)	Group Discussion among peers	MSK 1	2	Formative
Social accountability	Describe social accountability	Definition, types, components, theoretical background	Lecture	Respiration 1	2	MCQ
C) Communication skills						
Cultural sensitivity	Concepts of Equality and Equity, Cultural sensitivities.	Display sensitivity towards individual and cultural differences keeping in view the principles of equality and equity	Lecture equity, equality/Role play,	Blood 1	1	Continuous Formative
Teamwork	Dynamics of Teamwork	Display team work in group activities for creativity and problem solving	Role play,	SGTs in first year	2	Formative

Communicating with administration	Share with administration on matters one feels sensitive about	Communicating with administration	DME Orientati	Foundation 1	3	Formative
Confidentiality	Confidentiality of colleagues and patients Appropriate use of social media	Ensuring confidentiality		Blood 1	1	continuous Formative
Communicate as a peer-teacher	Recognizing the limits of one's knowledge and skills; and to ensure the accuracy of teaching content delivered to others	Knowing limitations	Lecture /Group Discussion,	MSK 1	2	continuous Formative
	Evaluating the quality of teaching	Understanding of methods to evaluate the effectiveness and quality of teaching	Lecture/Group Discussion	Foundation 1	1	
	Evaluating the quality of teaching and quality of teaching	Understanding of methods to evaluate the effectiveness and quality of teaching	Lecture/Group Discussion	Foundation 1	1	continuous Formative
Communicate with media and press	Use of Social media/blogs for communication Communicating with Media and Press	Understanding of who should give information to the media and press and what form it should take, including the need to maintain confidentiality where individual patients are concerned	Lecture/Group Discussion, Role Play	MSK 1	2	Continuous Formative
D) Leadership and Management						
Introduction	Definition of a leader & manager Differences between leadership and management	Differentiate between leadership and management	Lecture	Orientation session foundation 1 of	1	MCQ, SAQ
	What is self-management? Its importance.				1	
Self-management skills	Self-management Mechanisms	Demonstrate self-management skills	Task	foundation 1		Continuous Formative
	Attributes and style of leadership	Describe different attributes and styles of leader in their own cultural context	Lecture/ Group Discussion	Respiratory 1	2	MCQs Formative
E) Ethics						

Ethical principles	Ethical principles. (Autonomy, Beneficence, Non-maleficence, Justice)	Explain the pillars of medical ethics and their application in different situations	Lecture/Group Discussion	foundation 1	1	MCQ, Formative
F) Research						
Introduction	Background, concepts, uses. Definition of medical research Need of medical research	Describe the background and purpose of research.	Lecture/ Group Discussion	Foundation 1	1	MCQs
Types of Research	Types of Research & Epidemiological methods (descriptive, analytic and experimental).	Explain different types of research.	Lecture/ Group Discussion	Foundation 1	1	MCQs
Formulation of Research Question	Importance of Research Question in starting research Scope of research question Study design implications for research question Describe how to develop a research question.	formulate research question	Lecture/ Discussion	Foundation 1	1	MCQs Assignment
Research objectives Hypothesis	Developing Objectives and hypothesis	Write research objectives for a research study. Develop hypothesis for a study. Select a study design for a study.	Lecture/ Discussion	Foundation 1	2	MCQs Assignment
Literature Search	Literature Review (Background, keywords)	Describe techniques of literature search and review. conduct literature search to finalize the research question using Boolean logic	Lecture/ Discussion	Blood 1	4	MCQs Assignments
Title, Rationale, Purpose	Title, Rationale, Purpose	Explain the process of title selection for a research study.	Lecture/ Discussion	Blood 1	2	MCQs Assignment
		Describe the purpose and justification of any selected title.				

Operational Definitions	Operational Definitions	Describe Operational Definitions	Lecture/ Discussion	Blood 1	1	MCQs Assignment
A) Professionalism and Beha			vioral science			
Dealing with patients	Culture, Life style, and Belief System in the society	Serve the patient as an individual, considering lifestyle, beliefs and support system	Lecture	Neurosciences 1A	2	Formative
Power Dynamics	Power dynamics, bullying, harassment, its influences on interrelationships	Avoids misuse of power for personal gains	Lecture Group Discussion/ Role Play		1	Formative
Social accountability	Definition and concept of social accountability	Describe the concept of social accountability	Lecture/ Small group Teaching	Neurosciences 1B	1	MCQ
Mental illness	Definition, types, components, theoretical background	Define mental illness, its importance, impact, and prevention	Lecture/ Small group Teaching		1	MCQ and formative
Social psychology, health & terrorism	Definition, types, components, theoretical background	Describe social psychology, and its relation on health and terrorism	Lecture		1	MCQ and formative
Stigma and reactions to illness	Stigma and reactions to illness, Strategies for not being judgmental	Describe Stigma and reactions to illness, and how not to be judgmental	Lecture	GIT	1	MCQ and formative
B) Communication Skills						
Verbal and non-verbal communication skills	Verbal and non-verbal communication skills	Develop and Demonstrate effective verbal and non-verbal communication skills	Role play, Discussion	GIT 1/ Renal 1	0.5	MCQ and Continuous Formative OSPE
Listening skills	Listening skills	Develop and demonstrate active listening skills for learning purposes and to the patient's problems	Role play, Discussion	GIT1/ Renal 1	0.5	MCQ and Continuous Formative OSPE
Reading skills	Reading skills	Develop and demonstrate effective reading skills	Role play, Discussion	GIT 1/ Renal 1	0.5	MCQ and Continuous Formative
C) Research						

Qualitative research methodology	Introduction to qualitative research methodology	Describe qualitative research methodology.	Lecture/ Group Discussion	Neurosciences (IB)	3		MCQs/Assignment
Sample size	Sample Size Calculation	Calculate sample size for different research projects. Calculate sample size for a specific research project.	Lecture and Hands on Exercise in Computer lab	GIT 1	1		MCQs/Assignment
Sampling techniques and sample selection	Probability and nonprobability Sampling techniques Sample Selection i. Inclusion Criteria ii. Exclusion Criteria	Describe various sampling techniques. Justify sampling techniques chosen for a specific research project. Select sample for a specific research project	Lecture/ Group Discussion	Renal 1	1	MCQs/Assignment	
Designing of a Questionnaire	Steps for making a questionnaire	design a questionnaire. Identify validated questionnaire	Lecture/ Discussion Group	Renal 1	2	MCQ and Assignment	
Data Collection Procedures	Data Collection Procedures	Discuss procedure of data collection for your study.	Lecture/ Discussion	Endocrine 1	2	MCQ and Assignment	
Ethical Review	Ethical principles for medical research application for ethical approval	Describe ethical principles for the purpose of medical research.	Lecture	Endocrine 1	1	MCQ and Assignment	
Plagiarism	Definition, Types, Strategies to avoid it	Describe plagiarism and how to avoid it	Lecture/ Discussion Group	Reproduction 1	1	MCQ and formative	

D) Management and Leadership

Models of Leadership management	Models of leadership & management	Compare different models of leadership and management	Lecture discussion	Endocrine 1/ Reproduction 1	1	MCQs	
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Year 3

A) Professionalism and Behavioral sciences

Dynamics of professionalism	Trust definition, its attributes, and components, and its' application	Dynamics of trust in health professional-patient relationship	Workplace	Foundation 2	2		
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						Formative	
Attributes of professionalism	Differences between empathy and sympathy	Discriminate between empathy and sympathy	group discussion/ Role play	Infection and inflammation	2	MCQ, SAQ Formative	and
Professional identity formation	Types, multiple identities	Students' roles in terms of professional identity	Group Discussion/ Role Play	Foundation 2		Formative	
Attributes of professionalism	Empathy levels & its application	Demonstrate empathy in patient health professional interaction	Group Discussion and Role Play	MSK2	1	MCQ, SAQ Formative	
	Principles of trust daily work activities	Adheres to principles of trust in day-to-day professional interactions	Group Discussion/ Role Play	Foundation 2 2	2	Formative	
B) Communication skills							
Counselling skills	Counselling skills		Develops counselling skills in professional life	Lecture/Group Discussion	CVS-2	2	Formative
Dealing with patient	Patient reception, respect	and	Receive patients with respect	Role play, Group Discussion	Foundation 2 2	1	Continuous Formative
Listening skills	Listening skills		Listen to the patient's problems	Role play, Group Discussion	MSK 2	1	Continuous Formative
Communicating with administration	Communicating administration	with	Share administration matters one feels sensitive about	Role play, Hospital teaching	Foundation 2 2	3	Continuous Formative
Principles of ethics	Privacy and confidentiality of the patients, Medico-legal and cultural aspects		Display privacy and confidentiality of the patients keeping in view a-cultural traits b- medico-legal law cases	Role play, Hospital teaching	Blood 2	3	Continuous Formative

dealing with patients	Professional behavior while dealing with patients	Adhere to professional behavior while dealing with patients	Group Discussion, Hospital teaching	Respiratory 2	2	Continuous Formative
	Answering to patient queries	Answering questions and giving explanations and/or instructions	Role play, Group Discussion	Respiratory- 2	1	Continuous Formative
Informed consent	Informed consent Special Situations	Obtaining informed consent	Lecture Bedside teaching	CVS -2	2	Continuous Formative
Confidentiality	Confidentiality of colleagues and patients Appropriate use of social media	Ensuring confidentiality	Lecture/Role play, Group Discussion	Blood 2	2	Continuous Formative
Communicate as a peer-teacher	Knowing limitations	Recognizing the limits of one's knowledge and skills; and to ensure the accuracy of teaching content delivered to others	Group Discussion, Hospital teaching	MSK 2	2	Continuous Formative
Motivation	Motivation. Team working	Explain motivational skills for team members for clinical tasks	Small group/team based	Foundation 2	Formative	
Positive attitude	Positive attitude processes	Exhibit positive attitude and outlook in workplace environment	Bedside/community Visit	CVS-2	Formative	
		C) Leadership and Management				
SWOT Analysis	SWOT Analysis	Perform SWOT analysis for a particular task	Group Discussion	CVS 2 1	MCQ, Formative	SAQ,
Power dynamics	Power dynamics Power and empower	Delegate powers to juniors and team mates	Lecture, and Role Play	Respiratory 2 1	MCQ, Formative	SAQ,
		D) Research				
Purpose and process of health research	Background, concepts, uses. Definition of medical research	1.1 Define and categorize types of health research Explain the purpose of health research	Teaching method	Foundation 2 2	MCQ	

	Need of medical research Broad overview of the different types of research (qualitative, quantitative, mixed methods and the common research methods/design used in each					
Steps of research process		Explain the steps involved in the research process	lecture	Infection and inflammation	1	MCQ
Identifying study question	Brainstorming for identifying a research topic. Selecting a general topic Narrowing from a broad general topic to a more specific focused area of research	Develop a list and mind map of possible research topics	Lecture/SGD	Infection and inflammation	2	Assignment

				t i o n		
Literature review	Types of literature review	Elaborate the types of literature review	Hands on	Infection and inflammation		Assignment
	Strategies of literature review	Explain the strategies literature search for	Hands on	Infection and inflammation		Assignment
	Search engines and their limitations such as google, google scholar, PubMed Databases for thesis, abstracts, full text article Difference between the various sources of information Selecting information for academic writing	2.2 Select a single topic of interest from the list 2.3 Review the literature	Lecture/SGD Small group discussion	Infection and inflammation 2		Assignment
	Academic reading and writing	Explain the art of academic writing				
	Evidence table	Develop an evidence table				
	Research question	Formulate / refine research question from gaps from evidence table				
Referencing	Bibliography Intacts (secondary citation Mandeley / zotero)	Differentiate between references, citation & bibliography List different styles of referencing	Lecture Self-directed learning	Multisystem module 1		MCQ
	Select appropriate referencing style for research project.					
	Explore and practice free reference software Zotero for referencing(open access)	4.5 Apply referencing software to word document	Lecture Small group format	Multisystem module 2		Assignment

Academic Reading and writing and Plagiarism	Grammarly		Practical Small group discussion Practical	Blood 2 2	MCQ	
Academic integrity	Define academic integrity. Define plagiarism. Explain how to avoid plagiarism. List and explain software used to check plagiarism.					
		Develop writing skills with Grammarly checker				
Proposal writing	Guidelines and Templates for proposal writing /synopsis writing	Write a proposal for research project using KMU or CPSP guidelines or any other standard guidelines		MSK 2	7	Assignment (develop a literature review and synopsis for your topic of interest)
GANTT Chart	How to make a GANTT Chart	Make a GANTT Chart for a research project	Hands-on exercise in computer lab	CVS 2	1	MCQ Assignment and

Year 4

A) Professionalism and Behavioral sciences

Dealing with patients	Culture, Lifestyle, and Belief System in the society	Serve the patient as an individual, considering lifestyle, beliefs, and support system	Group Discussion/ Role Play	Endocrine and reproduction 2	2	Formative
Community Need analysis (approaches to professionalism)	Needs analysis & SWOT analysis	Identify the health care needs of community	Lecture/ Group Discussion	Renal endocrine and reproduction	1	MCQ, SAQ
Power Dynamics	Power dynamics, bullying, harassment, its influences on interrelationships	Avoids misuse of power for personal gains	Lecture/ Group Discussion/role play	NEUROSCIENCE-2	1	Formative portfolio
Emotional intelligence	Emotional and social intelligence in given contexts	Describe & Display appropriate emotional and social intelligence	Group Discussion/role play	Neurosciences 2	2	Formative
social accountability	Simulated situations	Differentiate between different social accountability issues	Group discussion /Role play	GIT Hepatobiliary and metabolism 2	2	

B) Communication skills							
Conflict resolution	Problem solving skills		Show the ability to solve problems regarding difficult patients/attendant.	Group discussion /Role play	Neurosciences 2	2	Continuous Formative
dealing with patients	Dealing with difficult patients		Demonstrate ability to deal difficult patients such as psychiatrics and aggressive	Group discussion /Role play	Medicine	1	Continuous Formative
Dealing with vulnerable groups		Knowing the art of dealing with vulnerable groups such as children, elders, handicapped and women.	Dealing with vulnerable groups	Group discussion/ Role play	Paeds/Gyana e	1	Continuous Formative
Counselling/breaking bad news		Educating patients and facilitating self-management of illness	Explain the concept of SPICES model of breaking bad news	Role play, Hospital teaching	Endocrine and Reproductive health	1	Continuous Formative
Leadership and Management							
Emotional intelligence	Practice in an emotionally intelligent manner in different situations		Emotional intelligence	Practical/ bedside	ENT	2	Formative
Creativity innovation leadership	a n d i n	Dynamics of Healthcare situations	Display visionary approach for health care situations	Group Discussion and Role play	Eye	1	SAQ, and Formative
Conflict management		Conflict management	Raising and acting on concerns	Group Discussion and Role Play	ENT	1	SAQ, and Formative
confidentiality	Maintaining confidentiality		Participate confidently in a problem and choose to act in the most proper leadership style	Group Discussio n and Role Play	Blood 2	1	SAQ, and Formative
D) Research and biostatistics							
Epidemiology	Introduction		Define epidemiology	LGF	NS-2	1	
			Explain the basic concepts of epidemiology				

	Study design	Classify and elaborate study designs			1	
	Screening	Explain the screening in epidemiology			1	
	Measures of mortality and morbidity	Explain the measures of morbidity and mortality	LGF			1
Biostatistics	Introduction to biostatistics	Describe the significance of biostatistics in health and epidemiology	SGD	BLOCK 1	2Hrs	
	Data and variable types	Define and classify variables				
Sampling	Sampling	Define sampling	LGF	Block 1	1 hr	
		Discuss types of sampling				
Bias	Biases in epidemiological studies	Define Bias	LGF		1 hrs	
		Discuss different types of bias Discuss ,how bias can be prevented				
Measures of central tendency	Measures of central tendency	Classify measures of central tendency	LGF		1 hr	
		Calculate measures of central tendency				
		Interpret and signify the results				
		Describe the advantages and disadvantages of different measures				
Measures dispersion	Measures of dispersion	Classify measures of dispersion	LGF		1 hr	
		Calculate measures of dispersion				
		Interpret the results of measures of dispersion				

		Explain the advantages and disadvantages of measures of dispersion				
		Explain the use of different measures in specific circumstances				
Normal distribution	Normal distribution	Define normal distribution			1 hr	
		Describe normal distribution				
		Calculate and graphically represent normal distribution				
		Explain it's use & significance in relation to data				
		Describe percentile and interquartile range				
		Calculate and depict percentile and interquartile range				
		Explain use and significance of these in different situations				
Confidence Interval, Confidence level, Standard error	Confidence interval, Confidence level, standard error	Define confidence level and interval	LGF	Block 1	1 Hr	
		Describe confidence level and interval				
		Calculate confidence level and interval				
		Explain their use and significance in different situations				

P value, critical region, rejection region, alpha beta errors	P value, critical region, rejection region, α β errors	Define P value, critical region, rejection region, α β errors	SGD		2 hrs	
		Describe P value, critical region, rejection region, α β errors				
		Calculate P value, critical region, rejection region, α β errors				
		Describe their use and significance in different situations				
Z test & it's application, Types / shapes of frequency distribution	'z' test & it's application in hypothesis testing, applications of parametric and non parametric tests	Define & Describe 'z' test Describe it's use in different statistical settings Calculate 'z' test Explain it's application in hypothesis testing Interpret and apply to clinical settings Discuss various shapes of frequency distribution Describe the applications of parametric and non parametric tests	LGF	Block 1	1 hr	
T test & application it's	t' test & it's application in hypothesis testing, degree of freedom	Define & Describe 't' test Explain it's use in different statistical settings Calculate 't' test	LGF	Block 1	1 hr	

		Describe it's application in hypothesis testing				
		Interpret and apply to clinical settings				
		Calculate degree of freedom				
Chi square test & it's application	Chi square & application hypothesis testing it's in	Describe 'x ² ' test	LGF	Block 1	1 hr	
		Describe it's use in different statistical settings				
		Calculate 'x ² ' test				
		Explain it's application in hypothesis testing				
		Interpret and apply to clinical settings				
Correlation, regression	Correlation, regression,	Describe Correlation & Regression	LGF	Block 1	1 Hr	
		Interpret and apply to clinical settings				
Transformation for not normal distribution	Transformations for Not Normal distributions	Know the use of Transformations for Not Normal distributions				
Referencing						
Practical Problems in biostat		Practical problems in biostat		SGD	2Hrs	
Data analysis	Data analysis Hands on		Use of MS Excel for data analysis	SGD	2 HRS	
			Use of SPSS for data analysis	3x SGD	6hrs	
			Use of Endnote for referenc	SGD	2hr	

			e manage ment			
			Data compilation, analysis and dissertation writing		8 hrs	
Final Year						
A) Communication skills						
Counseling	Case discussions on health problems and their management	Discuss with the patients regarding health problems and available management options	Role play, Group Discussion	Medicine	1	Continuous Formative
Cultural sensitivity	Concepts of Equality and Equity, Cultural sensitivities.	Display sensitivity towards individual and cultural differences keeping in view the principles of equality and equity	Role play, Hospital teaching	Gynae	2	Continuous Formative
Counseling	Empathetic communication with patients	Inform the patients in empathetic and responsible manners about their health	Group Discussion, Hospital teaching	Surgery	2	Continuous Formative
Breaking the bad news	Breaking the bad news	Display sensitivity in breaking bad news	Group Discussion	Medicine	1	Continuous Formative
Informed consent	Informed consent Special Situations	Obtaining informed consent	Lecture Bedside teaching	surgery	2	Continuous Formative
Communicate with colleagues	Oral and written communication (daily progress report) with colleagues. Subjective, objective, assessment, plan (SOAP) (bedside teaching)	Passing on and sharing information orally, in writing and electronically	Role play, Hospital teaching	Peds /surgery	2	
Communicate with colleagues	Writing patient referral to colleagues. Setting, background, assessment, recommendation (SBAR protocol)	Writing a good management summary and patient referral	Role play, Hospital teaching	Medicine	1	Continuous Formative
Communicate with colleagues	Providing all necessary clinical information on request forms to	Filling lab investigation forms	Role play, Hospital teaching	Surgery	1	

	laboratorybased colleagues					
Communicate as a peer-teacher peer-teacher	Communicating complex information in different settings	Conveying complex information to others, individually or in groups, in a variety of settings and using a range of teaching tools and presentation aids	Group Discussion, Hospital teaching	Medicine	1	Continuous Formative
Communicate as a patient advocate patient advocate	Patient Advocacy	Recognizing when patient advocacy is appropriate and how it may be accomplished effectively	Group Discussion, Role Play	Paeds/Gynae	2	Continuous Formative
Communicate with media and press with media and press	Use of Social media/blogs for communication	Understanding of who should give information to the media and				
	Communicating with Media and Press	press and what form it should take, including the need to maintain confidentiality where individual patients are concerned	Group Discussion, Role Play	Surgery	2	
B) Leadership and Management						
Team work	Strategies to Improve performance	Willing to work with other people and team members for maintenance and improvement of performance	Role Play	Surgery	2	Formative
Change management	Change management	Willingness to assist and bring change of the system in right direction	Lecture and play Role	Gynae	1	MCQ, SAQ, and Formative
Dealing colleagues with	. Respect for colleagues	Be able to respect the leadership and management role of other team members	Role Play	Surgery	1	Formative
		3- Healthcare quality and patient safety	patient safety			
Organization structure of	Organizational types, hierarchies, and cultures	Describe organizational hierarchical structures	Lecture	Foundation -3	1	SAQ, Formative
Health care system						
Patient safety	Medical errors	Describe the types of medical errors	Lecture	Foundation -3		MCQ/formative
		Describe the means and ways				

		to avoid diagnostic errors				
	System errors	Describe system errors with examples				
		Describe the methods of avoiding system errors using the Swiss cheese model				
	Critical incidents report	Describe the basic concepts of critical incident reports				
Patient records	Daily progress reports	Describe the SOAP format of writing DPRs	Lecture/Bed side teaching			
	Patient referrals discharge summaries and	Describe the SBAR protocol for patient referrals and discharge	Lecture/Bed teaching side			
Evidence based medicine and evidence based medical practice	EBM	Describe the concept of EBM in clinical practice	Lecture			
		Elaborate the different levels of evidence	Lecture			
		Emphasize the role of RCT, metaanalysis and systematic review in EBM	Lecture			

MCM Clinical Placement

Medical education is a journey that extends beyond textbooks and classrooms. While theoretical knowledge lays the foundation, it is the hands-on experience gained through clinical rotations that truly transforms aspiring medical professionals into competent practitioners.

Muhammad College of Medicine students absorb theoretical concepts, ranging from anatomy and physiology to disease pathology and treatment methods. However, it is during clinical rotations that these concepts come to life. Students can apply their textbook knowledge to real patients, helping them understand how medical theories translate into actual practice. This practical application reinforces their understanding of the subject matter and provides a context that textbooks alone cannot offer.

Recognizing the critical role of clinical placements in medical education, the MCM has implemented and meticulously planned a structured clinical placement program starting from the 2nd Professional MBBS year through to the 5th Professional MBBS year. This program is designed to provide students with comprehensive exposure to various medical specialties, including but not limited to Medicine, Surgery, Ophthalmology, ENT (Ear, Nose, and Throat), Pediatrics, and many others.

Through these placements, students gain invaluable hands-on practice and learning opportunities. By working directly within these diverse departments, students are able to apply theoretical knowledge in real-world settings, develop essential clinical skills, and enhance their understanding of patient care. This immersive experience is crucial for fostering the practical competencies and professional confidence required for their future roles as healthcare providers.

CLINICAL ROTATION PLAN
MCM HOSPITAL BASE ROTATION 2023
PHASE-I ROTATION PLAN

Roll #	Week-01	Week-02	Week-03	Week-04	Week-05	Week-06	Week-07	Week-08
01-08,12	Med	Anesthesia	ER	ENT	EYE	Peads	OBS	Surg
14,24	Surg	Med	Anesthesia	ER	ENT	Eye	Peads	OBS
25,33	Obg	Surg	Med	Anesthesia	ER	ENT	Eye	Peads
39,57	Paeds	Obg	Surg	Med	Anesthesia	ER	ENT	Eye
64,67	Eye	Peads	Obg	Surg	Med	Anesthesia	ER	ENT
73,76	ENT	Eye	Peads	Obg	Surg	Med	Anesthesia	ER
79,81	ER	ENT	Eye	Peads	Obg	Surg	Med	Anesthesia
88,97	Anesthesia	ER	ENT	Eye	Peads	Obg	Surg	Med

- ❖ Each Batch/Group will comprise of 02 students one group will be contain 03 students
- ❖ Morning Rotation timing:
- ❖ Evening Rotation timing:

3rd PROFESSIONAL MBBS CLINICAL PLACEMENT

PHASE-II

Roll #	Week-09	Week-10	Week-11	Week-12	Week-13	Week-14	Week-15	Week-16
01-08,12	Med	Gastroenterology	Radiology	Neurosurgery	Neurology	Nephrology	Cardiology	Surg
14,24	Surg	Med	Gastroenterology	Radiology	Neurosurgery	Neurology	Nephrology	Cardiology
25,33	Cardiology	Surg	Med	Gastroenterology	Radiology	Neurosurgery	Neurology	Nephrology
39,57	Nephrology	Cardiology	Surg	Med	Gastroenterology	Radiology	Neurosurgery	Neurology
64,67	Neurology	Nephrology	Cardiology	Surg	Med	Gastroenterology	Radiology	Neurosurgery
73,76	Neurosurgery	Neurology	Nephrology	Cardiology	Surg	Med	Gastroenterology	Radiology
79,81	Radiology	Neurosurgery	Neurology	Nephrology	Cardiology	Surg	Med	Gastroenterology
88,97	Gastroenterology	Radiology	Neurosurgery	Neurology	Nephrology	Cardiology	Surg	Med

4TH PROFESSIONAL MBBS CLINICAL PLACEMENT
MUHAMMAD COLLEGE OF MEDICINE

Weeks	Wk-01-04	Wk-05-08	Wk-09 & Wk-12	Wk-13 & Wk-16	Wk-17 & Wk-20	Wk-21 & Wk-24	Wk-25	Wk-26	Wk-27	Wk-28	Wk-29	Wk-30	Wk-31	Wk-32
1st 12025	20 th Jan to 14 th Feb 2025	17 th Feb to 14 th Mar 2025	17 th Mar to 11 th April 2025	14 th April to 2 nd May 2025	5 th to 29 th May 2025	2 nd to 27 th June 2025	3 rd to 08 to Aug 2025	11 th to 15 th Aug 2025	18 th to 22 th Aug 2025	25 th to 29 th Aug 2025	1 st to 5 th September 2025	8 th to 12 Sept 2025	15 th to 19 th Sept 2025	22 nd to 26 th Sept 2025
Dep't	General Medicine	General Surgery	Pediatric	OBG/Gynae	EYE	ENT	Urology	Dermatology	Anesthesia/ICU	Orthopedic	Cardiology	Nephrology	Emergency	Neurosurgery

4th Prof MBBS Students Clinical Placement 2024-25

DME

5TH PROF MBBS CLINICAL PLACEMENT 2025
CLERKSHIP POSTING
PHASE-A

Batch	W-01 To W-06	W-07 To W-12	W-13 To W- 18	Week-19	Summer Break 30th Jun to 3rd August 2025	W-20 To W- 24
Date	17 th March to 25 April 2025	28 th April To 6 th May 2025	09 th May To 20 th June	23 st June To 27 th June		3 rd August To 5 th September
Batch A	General Medicine	General Surgery	OBG	Peads		Peads
Batch- B	General Surgery	General Medicine	Peads	OBG		OBG
Batch- C	OBG	Peads	General Medicine	General Surgery		General Surgery
Batch- D	Peads	OBG	General Surgery	General Medicine		General Medicine



DEPARTMENT OF MEDICAL EDUCATION

5TH PROF MBBS CLINICAL PLACEMENT
ALLIED MEDICINE & ALLIED SURGERY SPECIALTIES
PHASE-II - SESSION 2024-2025

Batch	Department & Weeks									
	Week-01	Week-02	Week-03	Week-04	Week-05	Week-06	Week-07	Week-08	Week-9	Week-10
Date	8 th to 12 th September 2025	15 th to 19 th September 2025	22 nd to 26 th September 2025	29 th September to 3 rd October	6 th to 10 th October 2025	13 th to 17 th October 2025	20 th to 24 th October 2025	27 th to 31 th October 2025]	3 rd to 7 th November 2025	10 th to 14 th November 2025
Batch -A	Urology	Pulmonology	Neurosurgery	Nephrology	Orthopedic	Dermatology	Cardiology	Gastro	Anesthesia Medical ICU	Anesthesia /Surgical ICU
Batch -B	Pulmonology	Urology	Nephrology	Neurosurgery	Dermatology	Orthopedic	Gastro	Cardiology		
Batch -C	Neurosurgery	Nephrology	Urology	Pulmonology	Cardiology	Gastro	Orthopedic	Dermatology	Anesthesia /Surgical ICU	Anesthesia Medical ICU
Batch -D	Nephrology	Neurosurgery	Pulmonology	Urology	Gastro	Cardiology	Dermatology	Orthopedic		



Department of Medical Education

Code of Conduct Muhammad College of Medicine

Introduction

The Code of Conduct at Muhammad College of Medicine (MCM) is designed to promote a respectful, safe, and ethical environment conducive to academic excellence, professional growth, and personal integrity.

Scope

This policy applies to all individuals associated with MCM, including but not limited to:

- Students
- Faculty
- Administrative and Support Staff

General Principles

- Respect: Treat all members of the MCM community with dignity, respect, and consideration.
- Integrity: Act with honesty and integrity in all academic, professional, and personal matters.
- Accountability: Take responsibility for one's actions and their impact on others.
- Excellence: Strive for excellence in all academic and professional endeavors.
- Inclusivity: Promote an inclusive environment that respects diverse perspectives and backgrounds.

Academic Conduct

- Academic Honesty: Uphold the highest standards of academic integrity. Cheating, plagiarism, and any form of academic dishonesty are strictly prohibited.
- Collaboration and Individual Work: Clearly distinguish between collaborative work and individual assignments, ensuring proper credit is given.
- Use of Resources: Utilize college resources responsibly and ethically.

Professional Conduct

- Confidentiality: Respect and maintain the confidentiality of patient information, research data, and other sensitive information.
- Clinical Practice: Adhere to ethical standards in all clinical practices, ensuring patient safety and well-being.
- Research Integrity: Conduct research ethically, ensuring accuracy, honesty, and transparency in reporting findings.

Personal Conduct

- **Behavior:** Exhibit courteous and professional behavior at all times, both on and off campus.
- **Substance Abuse:** Abstain from the use of illegal substances and the abuse of alcohol or prescription drugs.
- **Conflict of Interest:** Avoid conflicts of interest and disclose any situations that may compromise objectivity or integrity.

Discrimination and Harassment

- **Non-Discrimination:** MCM prohibits discrimination based on race, color, religion, gender, sexual orientation, age, disability, or any other characteristic protected by law.
- **Harassment:** Any form of harassment, including sexual harassment, is strictly prohibited. Complaints of harassment will be addressed promptly and confidentially.

Use of College Property

- **Facilities:** Use college facilities and equipment responsibly. Report any damage or misuse of property.
- **Information Technology:** Follow college policies on the appropriate use of information technology resources, including computers, networks, and email.

Health and Safety

- **Safety Protocols:** Comply with all safety protocols and procedures to ensure a safe learning and working environment.
- **Emergency Procedures:** Be familiar with and follow emergency procedures in case of fire, medical emergency, or other crises.

Disciplinary Actions

- Violations of the Code of Conduct may result in disciplinary action, which can include warnings, probation, suspension, expulsion, or termination of employment, depending on the severity of the violation.

Reporting and Enforcement

- **Reporting Violations:** Report any violations of the Code of Conduct to the appropriate college authorities. Confidentiality will be maintained to the extent possible.
- **Investigation:** The college will investigate all reported violations promptly and fairly.
- **Enforcement:** The college will enforce this policy consistently and impartially.

Review and Revision

This Code of Conduct will be reviewed periodically and revised as necessary to reflect the evolving needs of the MCM community.

COVID-19 PREVENTION TIPS

Tips to Prevent Coronavirus Transmission



Wash your hands frequently



Cough and sneeze into the elbow



Dispose of used tissues immediately



Avoid contact with others



Avoid crowds and public gatherings



Avoid touching your face



Clean all shared surfaces frequently



Avoid all nonessential travel



Call ahead before going to a clinic or hospital



Isolate yourself if sick or at risk of complications



Work from home if possible



Wear a mask if you are sick, have COVID-19, or are caring for someone with it



Remember the **P A S S** Word

Pull

Pull the pin (or other motion) to unlock the extinguisher.



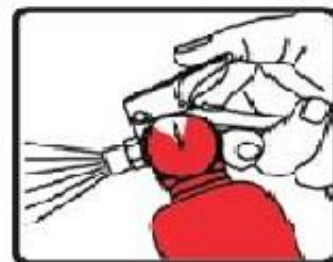
Aim

Aim at the base (bottom) of the fire and stand 6 - 10 feet away.



Squeeze

Squeeze the lever to discharge the agent.



Sweep

Sweep the spray from left to right until the flames are totally extinguished.



MUHAMMAD TEACHING HOSPITAL CODE OF CLINICAL CONDUCT

RESPECTED FOR PATIENTS

Treat every patient with dignity, compassion, and cultural sensitivity.

Confidentiality

Maintain patient confidentiality at all times in accordance with medical ethics and institutional policy.

Informed Consent

Never examine or perform a procedure on a patient without their informed consent and supervisor approval

PROFESSIONAL APPEARANCE

Wear proper attire including white coat, ID badge, and required PPE during clinical hours.



Punctuality and Conduct

Be punctual, disciplined, and respectful to faculty, staff, patients, and peers.

SUPERVISION PROTOCOL

Do not perform any diagnostic or therapeutic procedures without explicit permission and presence of a supervisor.

MOBILE DEVICE POLICY

Refrain from using personal mobile devices during clinical activities unless for approved medical learning purposes

REPORTING CONCERNS

Promptly report any unsafe practices, unprofessional behavior, or patient safety concerns to faculty or the Clinical Safety Committee.

KMU Attendance Policy

KMU Examination Regulations, 2008



THE KHYBER MEDICAL UNIVERSITY EXAMINATIONS REGULATIONS, 2008

1. These regulations may be called "The Khyber Medical University Examinations Regulations, 2008" in terms of Section 24(1)(c) and 28(1)(C) of The Khyber Medical University Act, 2006 (NWFP Act No. 1 of 2007).
2. These Regulations shall come into force at once.
3. Eligibility to appearing in the University: A student shall be eligible to appear in a professional examination if he / she fulfil the following conditions:
 - a. Has passed all the subjects of the previous examination.
 - b. Has undergone the specified period of theoretical and practical courses and clinical training including demonstrations for the said examination to the satisfaction of the Department concerned.
 - c. No student is eligible for university examination without having attended at least 75% of lecturers, demonstrations, tutorials and practical / clinical work both in-patient and out-patient departments in that academic session.
 - d. Has his / her name submitted to the Controller of Examination KMU by the Principal on clearance by the Head of Institute / teacher concerned?
 - e. Has paid the requisite fees for the examination to the KMU and has cleared all the college / hostel dues.
 - f. Any student who fails to clear the 1st Professional MBBS Part-I examination in FOUR chances availed or un-availed after becoming eligible for the examination shall cease to become eligible for further medical education in Pakistan.
 - g. Any student who fails to clear the 1st Professional MBBS Part-II examination in FOUR chances availed or un-availed after becoming eligible for the examination shall cease to become eligible for further medical education in Pakistan.
 - h. Maximum of FOUR chances availed or un-availed will be allowed to a student to clear First Professional BDS Examination. If a student fails to pass First Professional BDS in stipulated FOUR chances, his / her name will be struck off the college. He / she will be considered ineligible (to undertake) BDS studies anywhere in the country.
 - i. The Principal will not forward the examination form of any student unless he / she produces clearance certificate from the college cashier, hostel warden and the college librarian.
 - j. A student who fails in part of the exam and does not avail two consecutive chances will have to clear all the subjects in the subsequent chances. However there is no bar on the number of chances except for 1st Professional as described in f & g.
1. Each theory and Practical / Oral examination shall be of at least three hours duration.
2. The minimum passing marks in each subject shall be 50% each in theory and practical.

A student who fails in theory or in practical examination of a subject shall be considered to have failed in the subject and will have to reappear both in theory and practical.
3. Any student who fails both in annual and supplementary examinations in any subject including part-I and part-II of 1st Professional examination shall not be promoted to the

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