Rawalpindi Medical University

Department of Medical Education (DME)

RMU- 12- Isolation to Beyond Boundaries -Tentative Study Guide 2026-4th Year MBBS.

Population Medicine and Reproductive Health Block-XII

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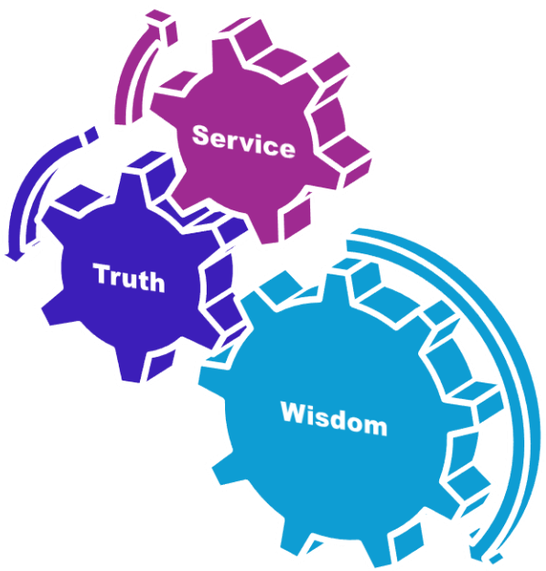
RMU Motto

University Moto, Vision, Values & Goals



Mission Statement

To impart evidence-based research-oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability.

Vision and Values

Highly recognized and accredited center of excellence in Medical Education, using evidence-based training techniques for development of highly competent health professionals, who are lifelong experiential learner and are socially accountable.

Goals of the Undergraduate Integrated Modular Curriculum

The Undergraduate Integrated Learning Program is geared to provide you with quality medical education in an environment designed to:

- Provide thorough grounding in the basic theoretical concepts underpinning the practice of medicine.
- Develop and polish the skills required for providing medical services at all levels of the health care delivery system.
- Help you attain and maintain the highest possible levels of ethical and professional conduct in your future life.

	• Kindle a spirit of inquiry and acquisition of knowledge to help you attain personal and professional growth & excellence.

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Harden RM. The integration ladder: a tool for curriculum planning and evaluation. Medical education. 2000 Jul 1;34(7).

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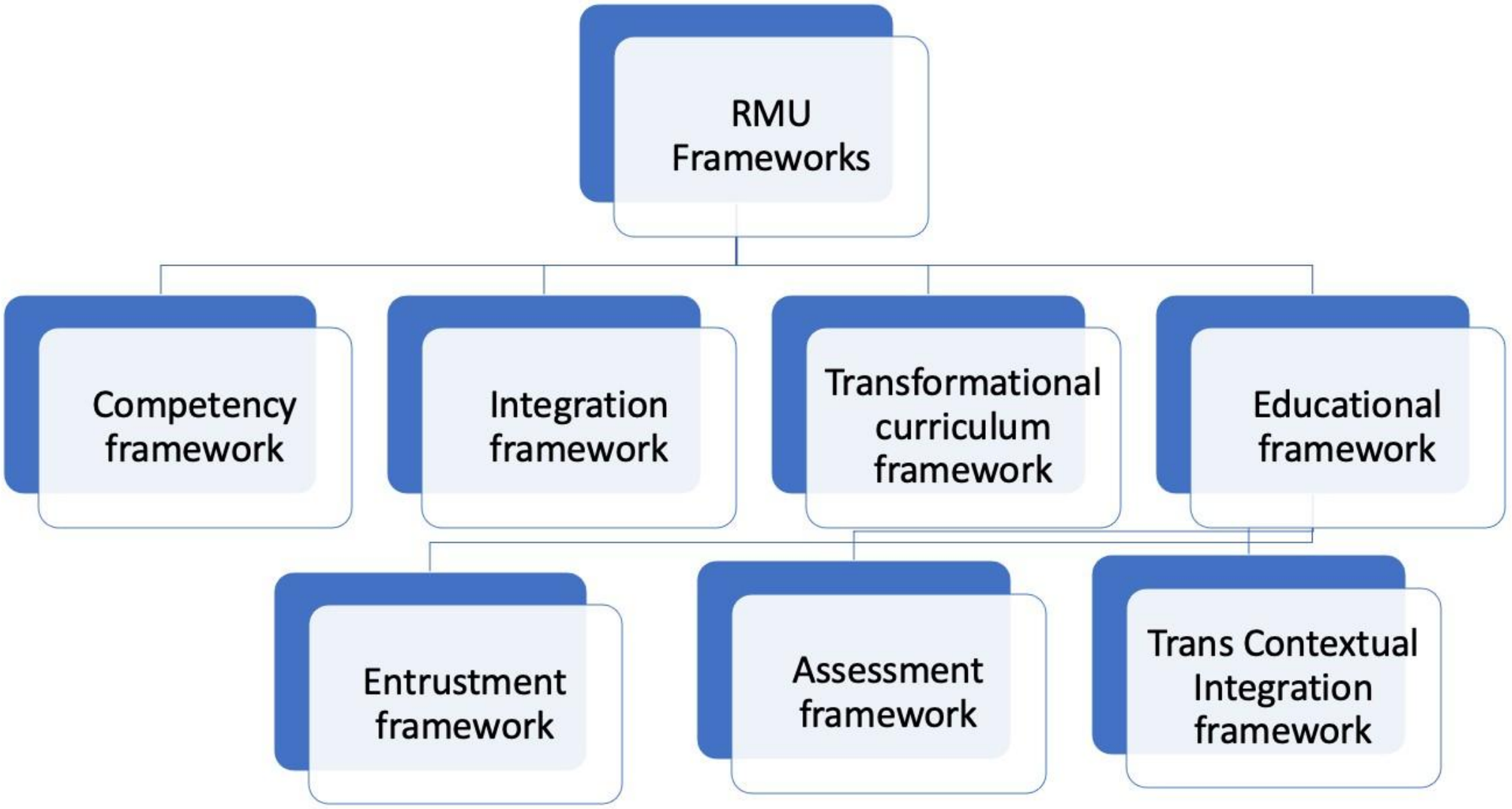
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Competency framework
Integration framework
Transformational curriculum framework
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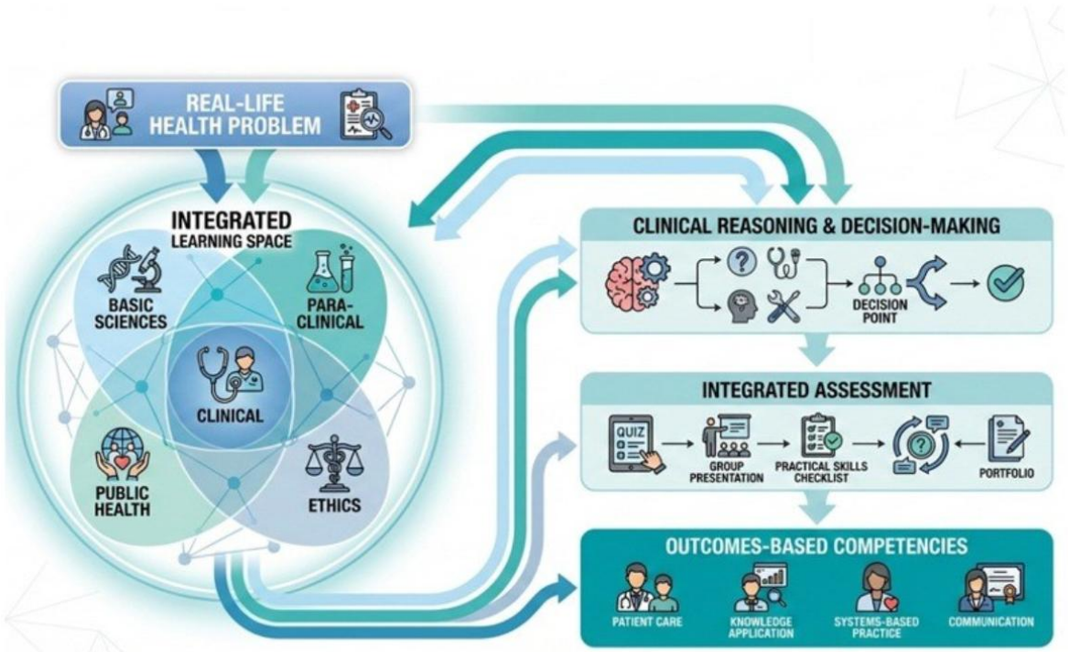
Entrustment framework
Assessment framework
Trans Contextual Integration framework

Structured Framework of RMU – 12 Integrated Modular MBBS Curriculum 2026
Isolation to Beyond Boundaries



Founadion	The Bridge	The Workplace Entrustment	Embeded Internship
• Pre-clinical sciences • Harden Level 8 (Complementary) MBBS Year (1 & 2)	• Para-clinical sciences • Harden Level 9,10 (Multidiciplinary & Interdiciplinary) MBBS Year (3 & 4)	• Clinical sciences • Harden Level 11 (Transdiciplinary) MBBS Year 5	

Figure 2

RMU – 12 Structured Framework of Integrated Modular MBBS Curriculum 2026

Isolation to Beyond Boundaries

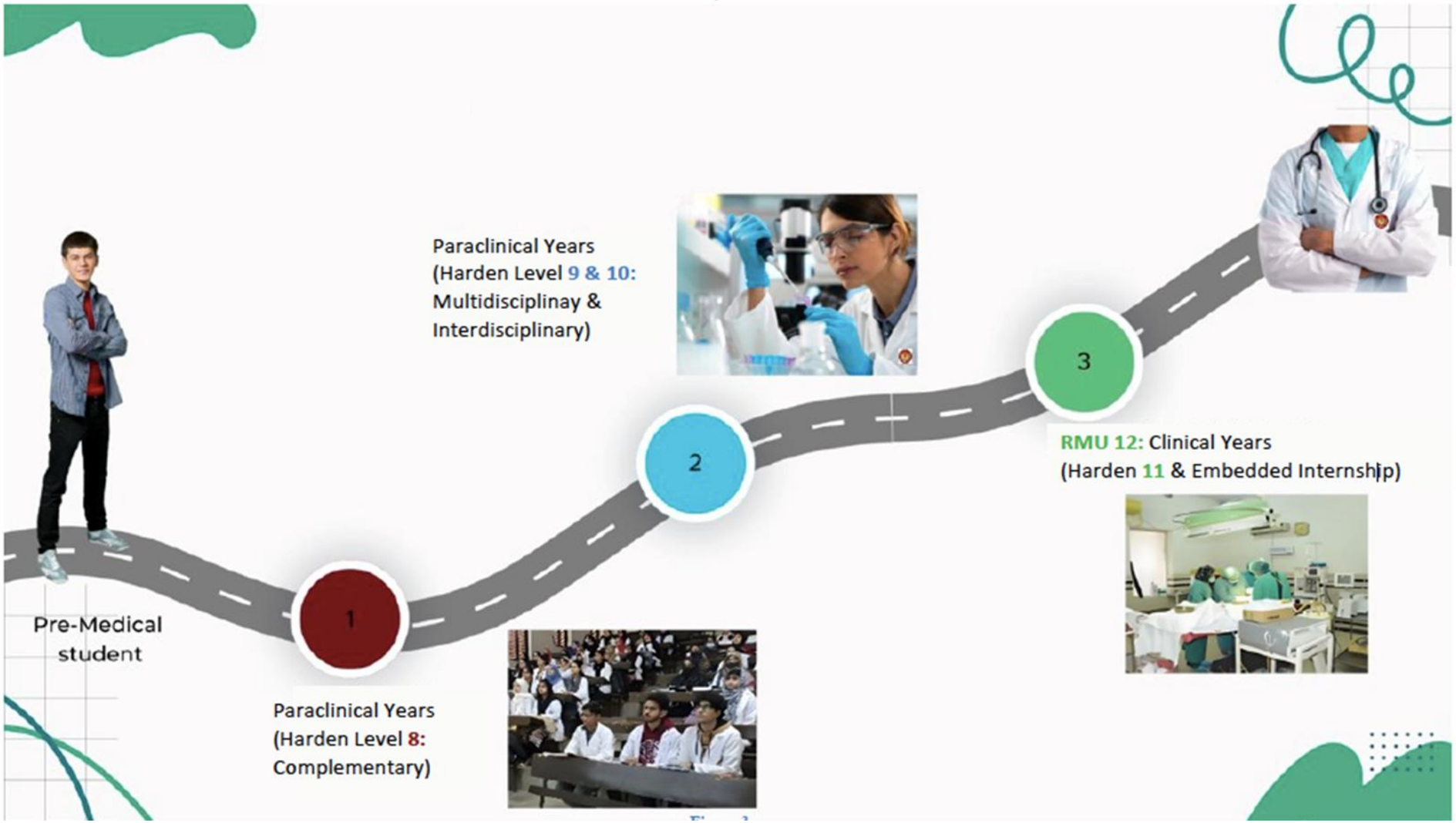
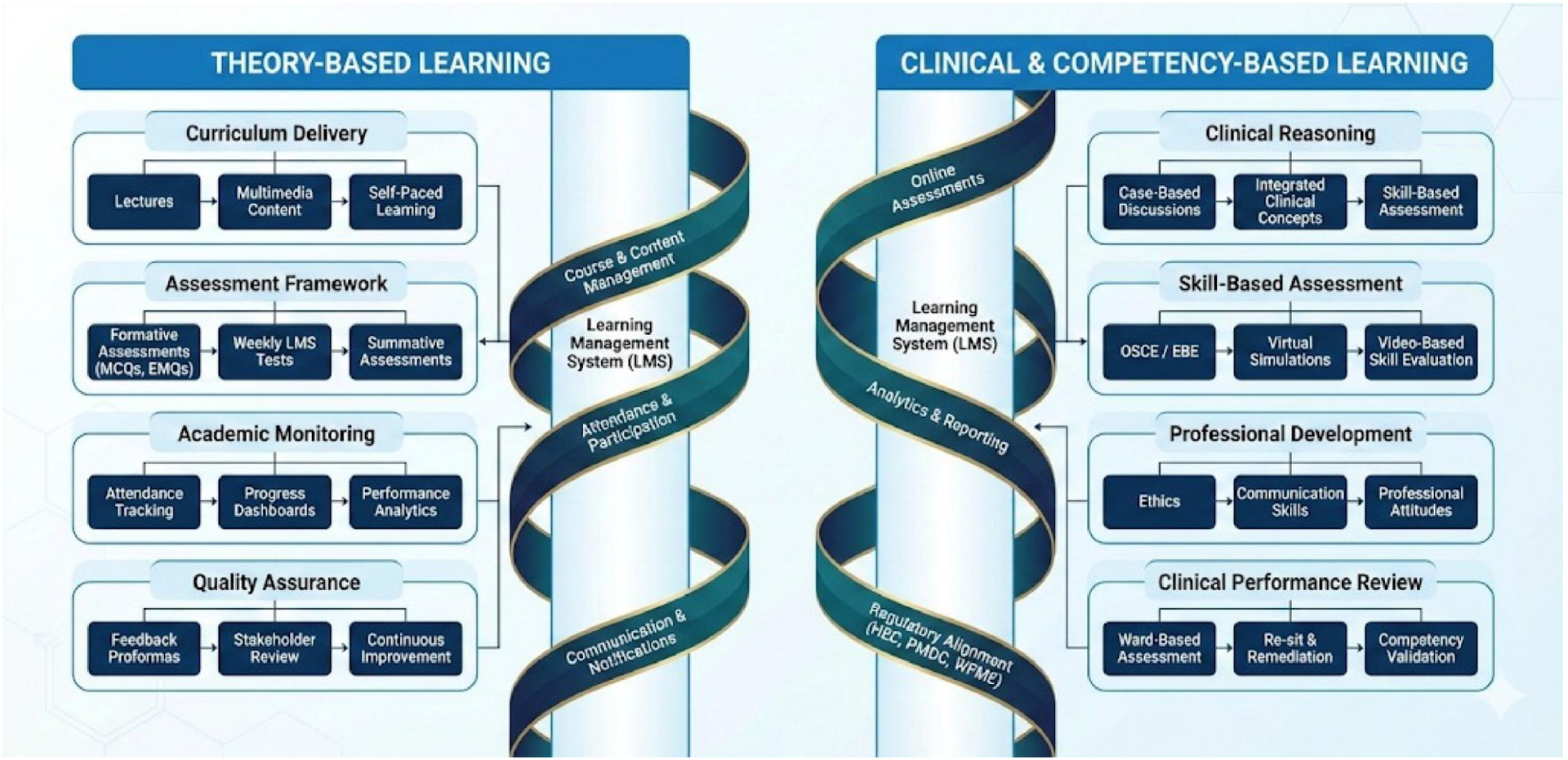
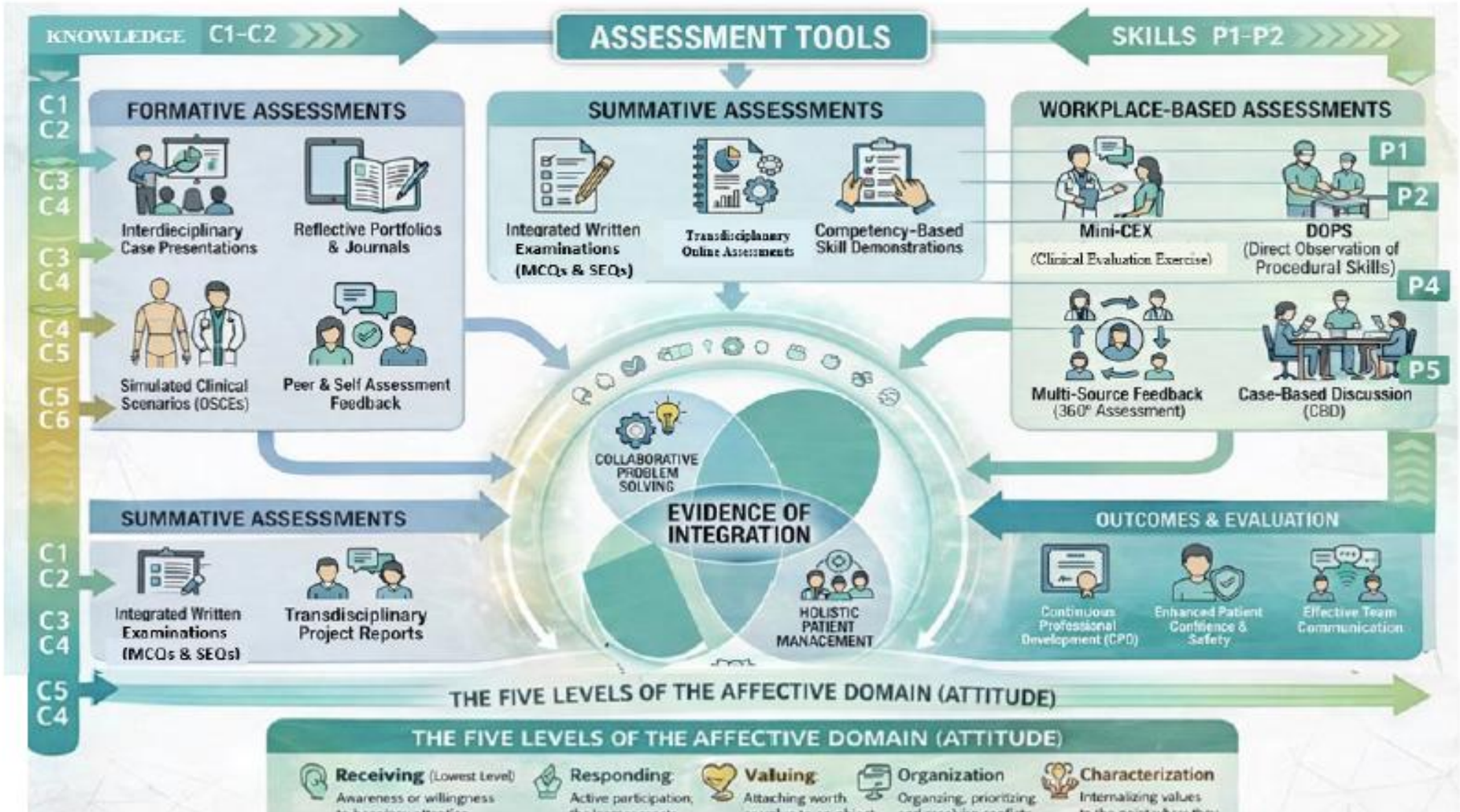


Figure 4 – Educational Framework of RMU 12 Integrated Modular Curriculum 2026
Isolation to Beyond Boundaries



RMU – 12 Assessment Framework of Integrated Modular MBBS Curriculum 2026

Isolation to Beyond Boundaries



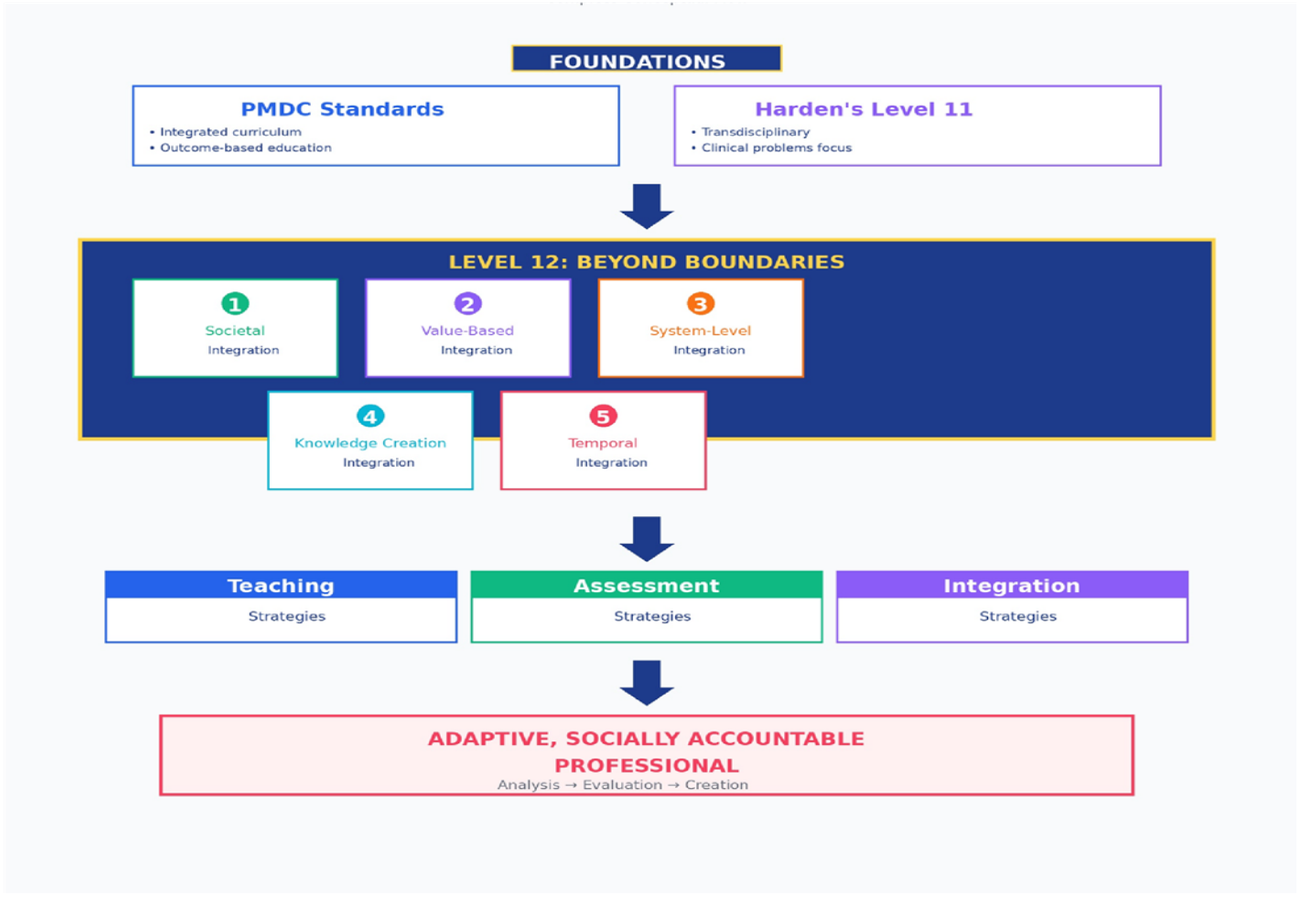
Structured Framework of Clinically Oriented Integrated Modular MBBS Curriculum 2026
RMU 12 - Isolation to Internship

RMU — Harden Level 11 — Harden Level 10 — Harden Level 9 — Harden Level 8

Phase	Curricular Highlights
Pre House-job Internship	**Undergraduate Internship** The Pre House-Job Internship is a structured, supervised transition phase that consolidates clinical skills and professional readiness before the statutory house job. Learning is workplace-based and centred on clearly defined Entrustable Professional Activities aligned with international standards. Assessment relies on programmatic workplace-based tools and entrustment decisions to ensure safe, consistent performance and smoother transition into supervised clinical practice.
Clinical Sciences The Workplace Entrustment	**Transdisciplinary** Clinical education is embedded within real patient care and organised around EPAs and graded responsibility. Students learn as supervised members of clinical teams. Assessment is workplace-based and progression is guided by entrustment decisions supported by portfolios.
Paraclinical Sciences The Bridge	**Multidisciplinary and Interdisciplinary** Pre-clinical sciences are organised around clinical problems and system themes with interdisciplinary learning outcomes and team-based teaching. Instruction uses case-based learning, simulation and integrated laboratories to promote cross-disciplinary reasoning, while advanced units introduce task-based competencies and EPAs using a spiral design. Assessment emphasises integrated performance through OSCEs, workplace-linked tools and portfolios, with progression informed by aggregated evidence rather than single examinations.
Pre-Clinical The Foundation	**Complementary** Basic Medical Sciences are organized into system and theme-based modules with coordinated teaching across disciplines. Subject teaching is aligned through module-level outcomes and planned integrated sessions that reinforce related concepts. Assessments include items to test applied understanding, supported by interdisciplinary planning to ensure coherence.

MBBS Year 5 — MBBS Year 3&4 — MBBS Year 1&2

Figure 7 – Competency framework of RMU 12 Integrated Modular Curriculum 2026 Isolation to beyond boundaries



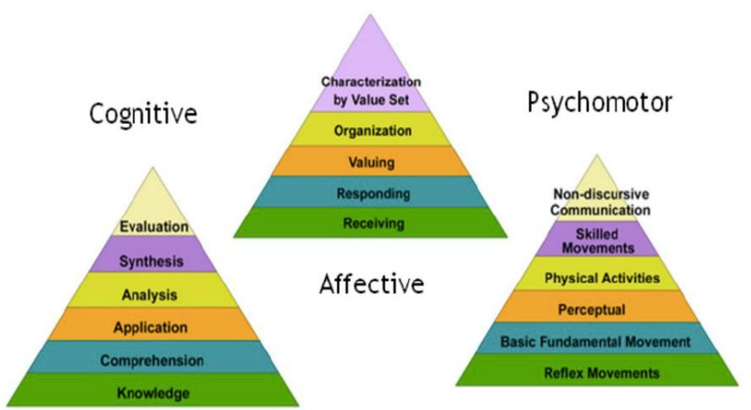
Rawalpindi Medical University has adopted a staged curricular framework that reflects a progressive movement along Harden's integration ladder, culminating in going beyond the ladder to RMU Integration level 12. The curriculum is designed to ensure that knowledge acquired in the early years is not isolated or terminal, but is progressively contextualized, applied and transformed into professional competence. This progression is achieved by aligning curricular structure, teaching approaches and assessment strategies so that students move from conceptual understanding to integrated reasoning and finally to authentic clinical performance with graded responsibility.

Phase 1- The Foundation

In the early phase, basic sciences are organised using a complementary approach. The curriculum is structured into system- and theme-based modules rather than isolated subject courses, allowing Anatomy, Physiology, Biochemistry and related disciplines to retain their academic identity while contributing in a coordinated and mutually reinforcing manner. Learning outcomes are written at the module level and are intentionally framed to reflect conceptual understanding of systems rather than discipline-specific factual recall alone. Teaching is primarily discipline-led, but content delivery is carefully sequenced so that related concepts across subjects are taught in close temporal proximity. This sequencing is reinforced through planned integrated multidisciplinary activities such as problem-based learning, case-based learning and joint sessions that require students to draw connections across disciplines. Teaching methods extend beyond lectures to include small-group discussions with structured clinical problem triggers that encourage early application of knowledge. Assessment in this phase is knowledge-focused, but incorporates integrated items and short clinical vignettes to test applied understanding (C4 level) across disciplines. These integrated assessment elements are deliberately introduced to prepare students for more complex synthesis (C6 level) in later phases, while maintaining the reliability. Regular interdisciplinary planning meetings and module coordination ensure coherence, avoid unnecessary duplication and maintain alignment between teaching and assessment.

Phase 2- The Bridge

As students enter the pre-clinical phase, the curriculum transitions into a multidisciplinary and subsequently interdisciplinary design. At this stage, curricular organisation shifts more clearly towards clinical systems and patient presentations, and learning outcomes emphasise the integration of knowledge, skills and reasoning across disciplines. Rather than subjects contributing independently, departments collaborate in the design and delivery of modules, and students encounter learning experiences that require simultaneous application of concepts from multiple domains. Teaching is increasingly delivered through team-based and co-facilitated sessions, with clinicians and basic scientists jointly guiding learning activities. Case-based learning, integrated practical sessions and simulation-based teaching become central modalities, allowing students to engage with clinically meaningful problems while still grounded in



Blooms Taxonomy

scientific principles. The curriculum adopts a spiral structure in which key concepts are revisited at increasing levels of complexity, enabling deeper understanding and clinical relevance. In advanced pre-clinical components, the curriculum becomes explicitly task-oriented, focusing on common clinical presentations and professional activities rather than disciplinary content. At this stage, portfolios are introduced to support longitudinal documentation of learning, and early forms of workplace-linked assessment and forms of workplace-linked assessment.

Entrust able activities are incorporated to familiarize students with performance-based expectations. Assessment strategies emphasize synthesis and reasoning, using integrated written examinations, complex case vignettes, OSCEs and structured simulation assessments. Decisions about student progress increasingly rely on aggregated evidence from multiple assessment tools and research projects.

Phase 3- The Workplace Entrustment

In the clinical phase, the curriculum becomes fully transdisciplinary, with learning embedded within authentic patient care and professional practice. Educational activities are organised around real clinical tasks, patient care pathways and Entrust able Professional Activities that reflect the core responsibilities of a graduating doctor. Students are integrated into clinical teams and participate in patient care under supervision, progressively assuming greater responsibility as competence is demonstrated. Teaching is predominantly workplace-based, supported by bedside teaching, coaching, reflective practice and targeted simulation for complex or high-risk activities. The distinction between disciplines becomes secondary to the holistic management of patients, as students are expected to integrate biomedical knowledge, clinical skills, communication, professionalism and teamwork in real settings. Assessment is programmatic and cantered on performance in the workplace, using tools such as mini-CEX, DOPS, case-based discussions and multisource feedback. Evidence from these assessments is collected longitudinally within portfolios and reviewed by entrustment or competence committees to make informed decisions about progression and readiness for practice. Summative judgment is therefore based on sustained performance over time. Faculty roles evolve from subject teachers to supervisors, assessors and coaches, with explicit responsibility for observation, feedback and entrustment decisions. Diverse clinical exposure in tertiary public sector hospitals and community settings ensure adequate exposure, supervision and assessment opportunities, while quality assurance processes focus on the validity and consistency of entrustment decisions and learning experiences.

Miller's Pyramid of Clinical Competence

Phase 4- The

Undergraduate Internship

The Undergraduate Internship is a structured, supervised transition phase designed to consolidate clinical competence and ensure readiness for the statutory house job. It provides learners with protected, workplace-based exposure focused on authentic patient care tasks, guided by clearly defined Entrustable Professional Activities aligned with international standards. Teaching emphasizes supervised clinical practice, simulation for high-risk scenarios, and interprofessional teamwork, while assessment uses programmatic workplace-based tools, portfolios and entrustment decisions to judge safe, consistent performance. This level strengthens patient safety, reduces transition shock, and ensures that graduates enter the house job with demonstrable, documented readiness for independent supervised practice.

Across all phases, the curriculum is underpinned by faculty development and continuous quality assurance. The staged movement from complementary through multidisciplinary and interdisciplinary learning to transdisciplinary clinical practice ensures that graduates are not only knowledgeable, but also capable of applying their learning effectively and safely in real clinical environments. This integrated and progressive design reflects contemporary best practices in medical education and aligns the educational experience with the expectations of modern healthcare systems.

RMU Level 12 Trans-Contextual Integration Framework

Introduction

Modern medical education emphasizes integration as a cornerstone for producing competent, reflective, and patient-centred physicians. Harden's Integration Ladder provides a structured framework to assess the degree of integration within a medical curriculum, ranging from isolated teaching (Level 1) to full transdisciplinary integration (Level 11). Rawalpindi Medical University (RMU), through its MBBS curriculum design, teaching strategies, and assessment framework, demonstrates clear alignment with PMDC's undergraduate medical education standards and fulfils the criteria for Level 11 on Harden's Integration Ladder and even beyond boundaries corresponding to ***RMU Level 12 Integration***. Furthermore, RMU's curriculum promotes higher-order thinking skills as defined by Bloom's Taxonomy, thereby extending beyond mere integration to the development of competent, reflective, and adaptive physicians.

Rawalpindi Medical University in the Context of Harden's Integration Ladder: Level 11 and Beyond Boundaries

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Rawalpindi Medical University (RMU), through its undergraduate MBBS curriculum and evolving educational strategies, demonstrates characteristics that place it at Level 11 of Harden's Ladder and, in several aspects, even beyond that RMU Level 12(beyond boundaries/internship). This is evident in RMU's holistic curriculum design, clinical immersion, problem-based learning, community-oriented education, and outcome-driven assessment strategies.

Key Highlights

- Transcends Harden's Level 11 through integration with society, systems, ethics, and lifelong learning
- Fully aligned with PMDC undergraduate medical education standards
- Emphasizes higher-order thinking: Analysis, Evaluation, and Creation (Bloom's Taxonomy)
- Produces socially accountable, adaptive physicians prepared for 21st-century healthcare challenges

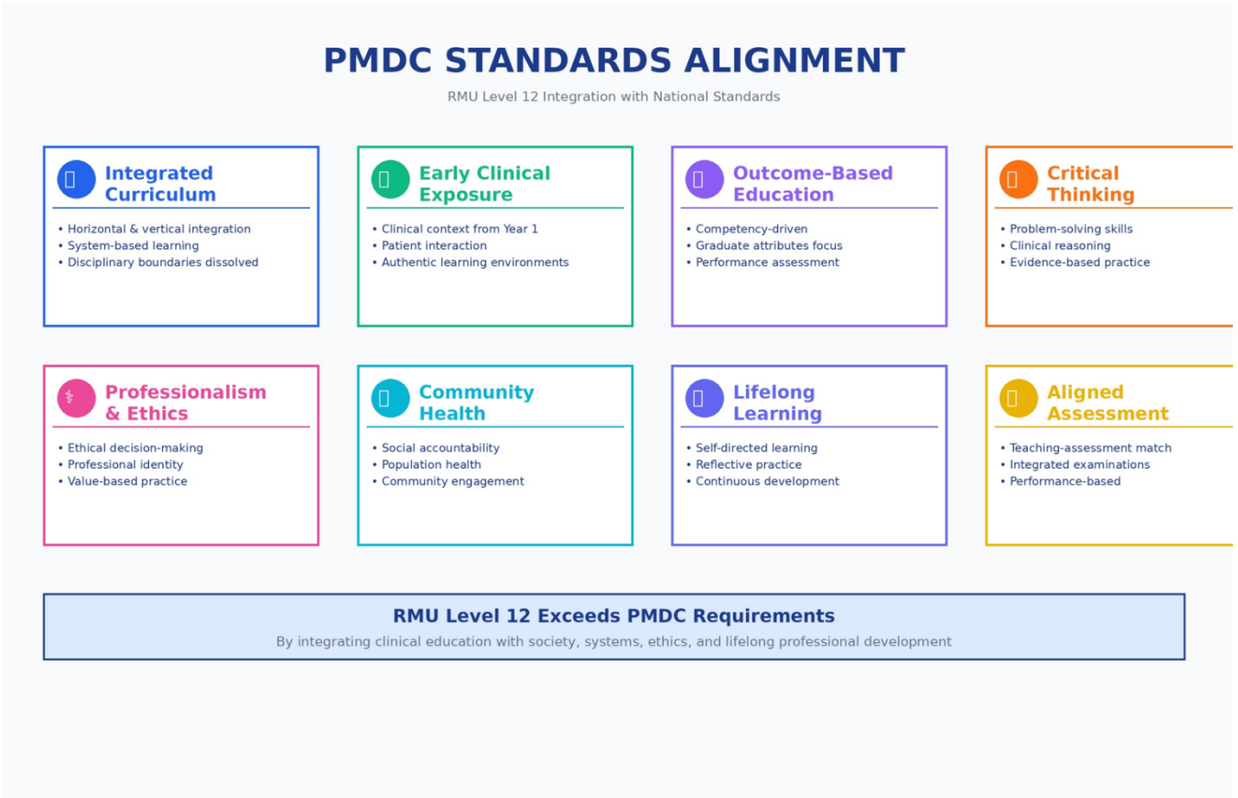
1. Foundations of Integration

1.1 PMDC Standards for Medical Education

The Pakistan Medical and Dental Council mandates a transformative approach to undergraduate medical education characterized by:

- **Integrated Curriculum:** Horizontal integration (across disciplines) and vertical integration (across years)
- **Early Clinical Relevance:** Clinical context introduced from initial years
- **Outcome-Based Education:** Focus on graduate competencies rather than content coverage

- **Critical Thinking & Problem-Solving:** Development of analytical and evaluative skills
- **Professionalism & Ethics:** Embedded throughout the curriculum, not as isolated modules
- **Alignment of Teaching, Learning, and Assessment:** Constructive alignment with graduate outcomes



1.2 Harden's Integration Ladder: Overview

Harden's Integration Ladder provides a systematic framework for evaluating curricular integration, progressing through 11 levels:

HARDEN'S INTEGRATION LADDER → **RMU BEYOND BOUNDARIES**

2. RMU Level 12—Beyond Boundaries

2.1 Conceptual Definition

RMU Level 12: Beyond Boundaries Integration

A curriculum in which learning is organized not merely around disciplines or clinical problems, but around real-world health systems, societal needs, ethical complexity, population health challenges, and professional identity formation—producing graduates who can adapt, lead, and innovate across contexts.

2.2 Why Level 12 Exists

While Harden's Integration Ladder culminates at Level 11 (Transdisciplinary Integration), contemporary medical education—particularly as mandated by PMDC—requires graduates who can function beyond the clinical encounter. RMU operates beyond transdisciplinary clinical integration by:

- Shifting the unit of integration from the patient alone to the patient embedded within society, systems, ethics, and professional identity
- Addressing health systems, governance, and resource allocation as integral learning domains
- Embedding knowledge creation and research literacy, not just knowledge synthesis
- Structuring lifelong learning and adaptive professionalism as explicit outcomes

2.3 Five Pillars of Level 12 Integration

A. Societal Integration: Patient-in-Society Problems

Level 11: Patient-centred clinical problems

RMU Level 12: Patient-in-society problems

RMU Implementation:

- Community-based medical education
- Analysis of social determinants of health
- Preventive and promotive healthcare strategies
- Health equity considerations in clinical decision-making

Students don't merely diagnose disease—they analyse population patterns and design interventions, requiring evaluation and creation (Bloom's highest levels).

B. Value-Based Integration: Contextual Ethics

Level 11: Ethics integrated within cases

RMU Level 12: Ethics embedded longitudinally in real decisions

RMU Implementation:

- Ethical dilemmas arising from real patient encounters, not hypothetical scenarios

- Continuous professional identity formation throughout the curriculum
- Assessment of reflective practice and ethical reasoning

Students must weigh competing values, manage uncertainty, and justify actions—hallmarks of evaluation-level cognition.

C. System-Level Integration: Healthcare Systems & Leadership

Level 11: Focus on individual patient care

RMU Level 12: Focus on healthcare systems and governance

RMU Implementation:

- Exposure to health systems functioning and policy implications
- Understanding resource allocation realities
- Leadership and teamwork competencies

Students evaluate trade-offs between individual benefit and population good—something no single discipline or clinical problem can teach.

D. Knowledge Creation: Beyond Synthesis

Level 11: Knowledge synthesis

RMU Level 12: Knowledge generation

RMU Implementation:

- Research literacy and critical appraisal skills
- Clinical audits and community health projects
- Evidence-based practice and innovation

Students formulate research questions, design solutions, and create outputs—aligning with the creation level of Bloom's Taxonomy.

E. Temporal Integration: Lifelong Professional Identity

Level 11: Competent graduate

RMU Level 12: Adaptive professional

RMU Implementation:

- Reflective portfolios documenting professional growth
- Self-directed learning plans
- Feedback-driven continuous improvement

Graduates leave with the ability to identify learning needs and adapt to new contexts—temporal integration across undergraduate education and professional life.

3. Alignment with PMDC Standards

The following table demonstrates explicit mapping between PMDC graduate competencies, RMU curriculum implementation, and justification for Level 12 integration:

PMDC Competency	RMU Implementation	Level 12 Justification
Medical Knowledge	Integrated system-based modules combining anatomy, physiology, pathology, pharmacology, radiology, and clinical medicine	Knowledge constructed through real patient problems; subject boundaries dissolved
Clinical Skills & Patient Care	Early clinical exposure, bedside teaching, skills labs, OSCEs	Skills and knowledge learned simultaneously in authentic clinical contexts
Clinical Reasoning	Case-based learning, problem-based tutorials, integrated examinations	Learning organized around clinical problems requiring synthesis beyond single disciplines
Communication Skills	Longitudinal communication training embedded in OSCEs and ward teaching	Communication competencies embedded within patient encounters, not isolated modules
Professionalism & Ethics	Longitudinal professionalism themes, ethics discussions during clinical rotations	**Ethical reasoning contextualized within patient care—extends to value-based integration**
Community & Preventive Health	Community-based medical education, public health projects, outreach programs	**Integrates clinical medicine with population health and social determinants—societal integration**
Lifelong Learning	Reflective practice, research literacy, self-directed learning tasks	**Students identify learning needs from clinical encounters—temporal integration**

4. Bloom's Taxonomy & Higher-Order Thinking

RMU's curriculum explicitly targets higher-order cognitive domains of Bloom's Taxonomy:

- **Analysis:** Breaking down complex clinical cases, interpreting investigations, differentiating diagnoses
- **Evaluation:** Appraising evidence, justifying management decisions, defending clinical choices
- **Creation:** Designing interventions, formulating research questions, developing solution

4.1 Learning Activities Mapped to Bloom's Levels

Learning Activity	Bloom's Level	Justification
Integrated case-based discussions	**Analysis**	Students deconstruct complex cases, interpret investigations, differentiate diagnoses
Ward-based clinical teaching	**Analysis → Evaluation**	Learners appraise patient data and justify management decisions in real time
OSCEs and scenario-based stations	**Evaluation**	Students defend clinical decisions, prioritize care, demonstrate judgment under pressure
Community health projects	**Evaluation → Creation**	Learners assess community needs and design context-specific preventive interventions
Research projects & clinical audits	**Creation**	Students formulate questions, design studies, generate new knowledge

GRADUATE OUTCOMES

Level 12 Integration Produces Adaptive Professionals

CORE COMPETENCIES

Clinical Excellence
- Evidence-based practice
- Diagnostic reasoning
- Patient safety

Professionalism
- Ethical decision-making
- Patient-centered care
- Accountability

Communication
- Effective patient interaction
- Interprofessional collaboration
- Cultural competence

Population Health
- Community engagement
- Preventive focus
- Health promotion

ADAPTIVE CAPABILITIES

Systems Thinking
- Health systems understanding
- Policy awareness
- Resource management

Research Literacy
- Critical appraisal
- Knowledge generation
- Evidence synthesis

Lifelong Learning
- Self-directed growth
- Reflective practice
- Adaptive expertise

Leadership
- Innovation
- Change management
- Team development

ADAPTIVE, SOCIALLY ACCOUNTABLE PROFESSIONAL

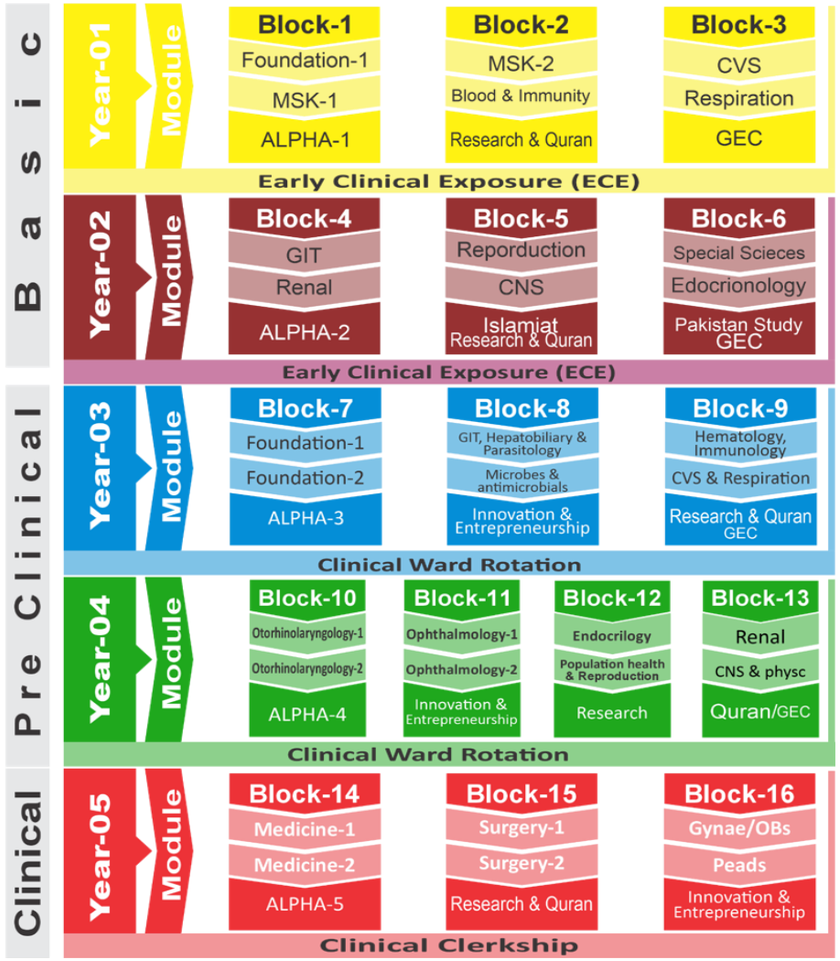


Figure 16 – Modules from basic to Clinical in RMU 12

Conclusion

Rawalpindi Medical University's curriculum exemplifies a transformational approach to medical education that extends beyond traditional disciplinary integration. By achieving **Level 12: Beyond Boundaries Integration**, RMU demonstrates that modern medical education must prepare graduates not only as competent clinicians but as adaptive, reflective, socially accountable professionals capable of navigating complex health systems, ethical dilemmas, and evolving healthcare landscapes.

This framework, fully aligned with PMDC standards and grounded in Bloom's higher-order cognitive domains, positions RMU as an innovator in outcome-based, student-centered medical education that produces physicians prepared for 21st-century healthcare challenges.

The Five Pillars of Level 12—Societal Integration, Value-Based Integration, System-Level Integration, Knowledge Creation, and Temporal Integration—collectively represent a holistic vision for medical education that transcends disciplinary boundaries and prepares graduates for lifelong professional excellence

Key Takeaways for Educators

- Level 12 integration is achievable through deliberate curriculum design aligned with regulatory standards
- Higher-order thinking (Analysis, Evaluation, Creation) must be explicitly embedded in learning activities
- Integration extends beyond clinical problems to encompass society, systems, ethics, and professional identity
- Assessment strategies must align with transdisciplinary learning objectives
- The ultimate goal is producing adaptive professionals, not merely competent graduates

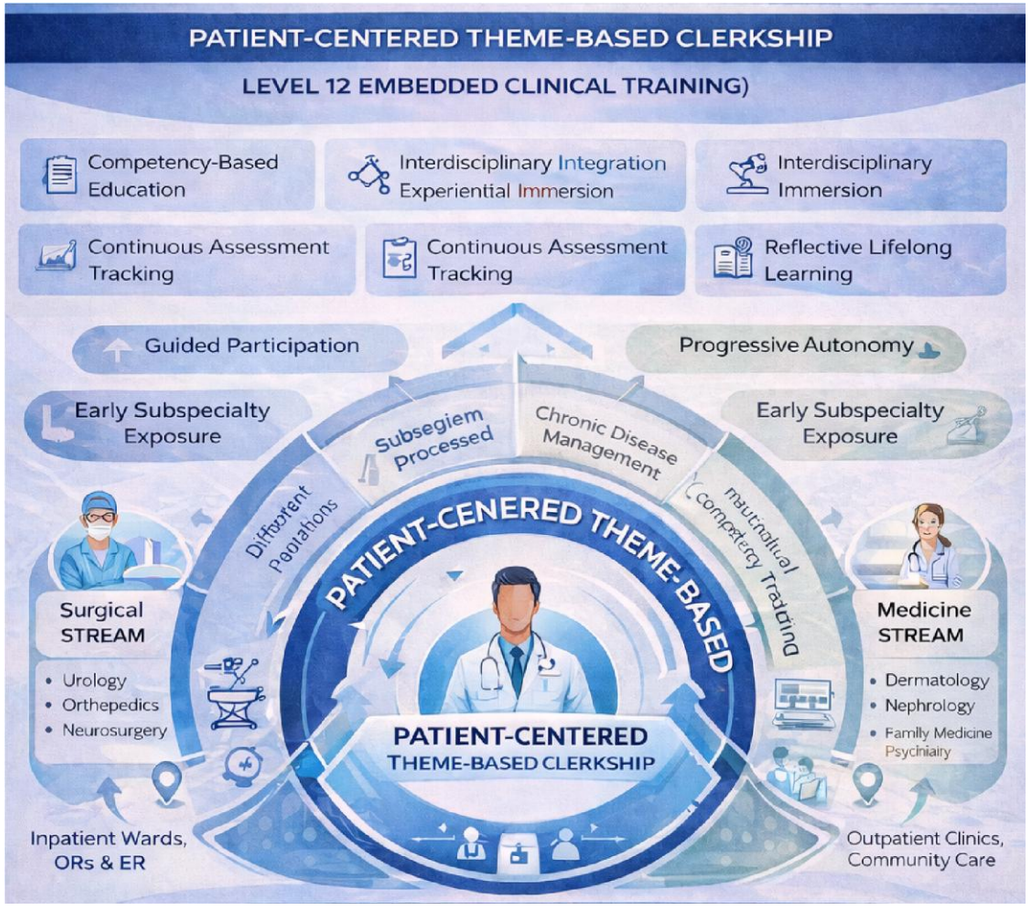


Figure 17 – RMU 12 Symptom Based Integrated Clinical Clerkship

Symptom Based Integrated Clinical Clerkship

Rawalpindi Medical University

Level 12 Clinical Clerkship

(Theme-Based Integrated Clinical Training)

1. Program Overview

The 4th Year MBBS Clinical Clerkship at Rawalpindi Medical University (RMU) is designed as a structured, competency-driven, Level 12 embedded clinical training model.

At this stage, students transition from supervised academic learners to progressively independent clinical participants. The program emphasizes immersive patient care exposure, deliberate practice, interdisciplinary integration, reflective learning, and longitudinal competency tracking.

Unlike traditional block rotations that isolate disciplines, RMU adopts a **theme-based embedded structure**, where allied specialties are integrated within broader clinical streams. This ensures continuity in clinical reasoning, patient care responsibility, and professional identity formation.

The clerkship prioritizes:

- Authentic clinical participation
- Early subspecialty exposure
- Competency-based progression
- Structured formative feedback
- Reflective practice
- Continuous internal assessment
- Longitudinal skill development

Students are expected to function as active members of clinical teams rather than passive observers.

2. Educational Philosophy

The RMU 12 Embedded Clerkship is grounded in:

- Competency-Based Medical Education (CBME)
- Experiential learning through clinical immersion

- Progressive scaffolding of autonomy
- Continuous formative assessment
- Reflective and self-directed learning
- Interdisciplinary integration
- Patient-centered professionalism

Clinical learning is organized around **patient presentations and themes**, not isolated subject boundaries. Students develop clinical reasoning across systems rather than within silos.

3. Theme-Based Integrated Structure

The clerkship is organized into **integrated clinical themes** embedded within two major streams:

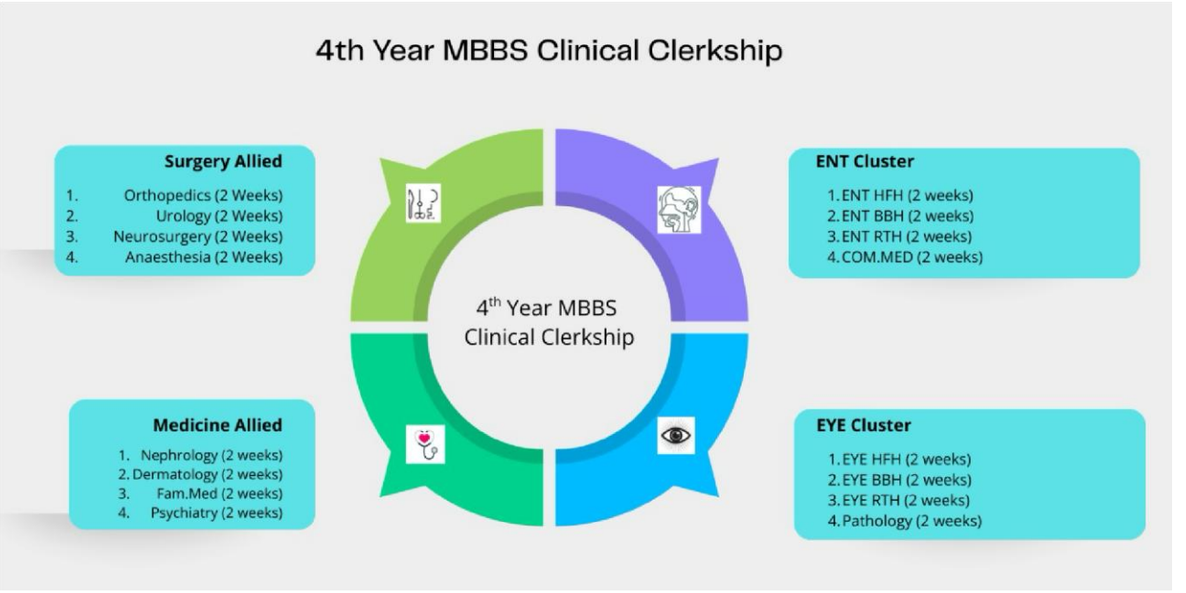


Figure 18 – 4th year MBBS Clinical Clerkship

3.1 Surgical Stream (Allied Rotations – 2 Weeks Each)

Themes emphasize procedural exposure, surgical reasoning, and perioperative care.

Specialties include:

- Urology
- Orthopedics
- Neurosurgery Students experience:

- Acute surgical presentations
  - Trauma and emergency care
  - Operative indications
  - Post-operative monitoring
  - Procedural skill development under supervision

3.2 Medicine Stream (Allied Rotations – 1 Week Each)

Themes emphasize chronic disease management, systemic evaluation, and community-based care.

Specialties include:

- Dermatology
- Nephrology
- Family Medicine
- Psychiatry (3 weeks integrated exposure)

Students engage in:

- Outpatient clinics
- Ward rounds
- Multidisciplinary discussions
- Community and psychosocial assessments
- Longitudinal patient follow-up

The theme-based structure ensures exposure to:

- Acute conditions
- Chronic diseases
- Surgical decision-making
- Medical management
- Community care
- Mental health integration

4. Core Learning Outcomes (RMU 12 Competency Expectations)

Upon completion of the 4th Year Clerkship, students will be able to:

1. Conduct focused clinical history and examination across subspecialties
2. Perform selected procedural skills safely under supervision

3. Formulate prioritized differential diagnoses
4. Develop rational investigation plans
5. Participate in multidisciplinary case discussions
6. Communicate effectively with patients and healthcare teams
7. Apply ethical and professional standards consistently
8. Demonstrate reflective clinical learning
9. Show emerging independent clinical judgment

These outcomes align with Level 12 expectations of embedded participation and progressive autonomy.

5. Assessment Model – 40% Continuous Internal Assessment (CIA)

RMU distinguishes itself through a robust Continuous Internal Assessment system.

CIA Structure:

- **30% Theory & Clinical Assessments**
- **10% LMS-based assessments** CIA evaluates:

- Clinical skills performance
- Case presentations
- Bedside participation
- Procedural competence
- Professionalism
- Logbook completion
- Reflective portfolio entries
- Mini-CEX and DOPS
- Supervisor feedback

Continuous assessment ensures:

- Sustained engagement
- Real-time feedback

- Early identification of learning gaps
- Remediation opportunities
- Skill consolidation over time

Competence is evaluated longitudinally rather than through a single high-stakes examination.

6. Progressive Scaffolding of Autonomy

The Level 12 clerkship follows a structured autonomy model: **Stage**

1 — Guided Participation

Students observe and assist in patient care.

Stage 2 — Supervised Performance

Students perform clinical tasks with structured faculty oversight.

Stage 3 — Supported Independence

Students lead patient encounters with supervision available.

Each rotation increases responsibility while maintaining safety and accountability.

This scaffolding:

- Builds confidence
- Reduces cognitive overload

Encourages reflective learning

- Reinforces mastery through repetition
- Develops clinical judgment

Competence emerges through repeated exposure, structured feedback, and deliberate practice.

7. RMU 12 Embedded Clerkship

The RMU 12 model integrates:

- Vertical curriculum alignment
- Interdisciplinary collaboration
- Competency mapping
- Longitudinal evaluation
- Reflective learning cycles

Students follow patients across services, linking classroom knowledge to real clinical decision-making.

This embedded design:

- Prevents fragmented learning
- Promotes continuity of care understanding
- Encourages systems thinking
- Strengthens teamwork skills
- Supports professional identity formation

Students learn not only clinical content but also how to function within healthcare systems.

8. Development of Self-Directed Lifelong Learners

The clerkship intentionally cultivates:

- Self-assessment skills

Adaptive expertise

- Curiosity-driven inquiry
- Evidence-based reasoning

- Professional resilience

Students maintain portfolios, set learning goals, and engage in guided reflection. They learn to:

- Identify personal knowledge gaps
- Seek evidence independently
- Critically appraise information
- Update clinical reasoning continuously

The goal is transformation from exam-focused learners into evolving, self-sustaining professionals.

9. Distinctive Features of the RMU 12

Compared to traditional clerkship systems, RMU stands out by:

- Early subspecialty integration
- Embedded participation within clinical teams
- Strong 40% continuous internal assessment
- Structured scaffolding of independence
- Longitudinal competency tracking
- Emphasis on reflective growth
- Alignment with national and international competency frameworks

The outcome is a graduate who is:

- Clinically competent
- Adaptable • Ethical
- Reflective
- Team-oriented

Prepared for increasing responsibility in final year and house job

Preamble

This curriculum is according to the standards set by following organizations.

1. Foundation for Advancement of International Medical Education and Research (FAIMER)
2. Accreditation Council for Graduate Medical Education (ACGME)
3. World Federation for Medical Education (WFME)
4. Undergraduate Education Policy 2023 from Higher Education Commission (HEC)
5. Pakistan Medical and Dental Council (PMDC) guidelines for undergraduate Medical Education Curriculum (MBBS) 2022

It is based on **SPICES** model of educational strategies which is student cantered, problem based, integrated, community oriented and systematic. *

Teacher cantered	□	Student cantered	S
Information oriented	□	Problem based	P
Discipline based	□	Integrated	I
Hospital based	□	Community based	C
Standardized curriculum	□	Elective programs	E
Opportunistic	□	Systematic	S

*Harden, R. M., Sowden, S., & Dunn, W. R. (1984). Educational strategies in curriculum development: The SPICES model. Medical Education, 18, 284-297. http://dx.doi.org/10.1111/j.1365-2923.1984.tb01024.x

Reference Documents

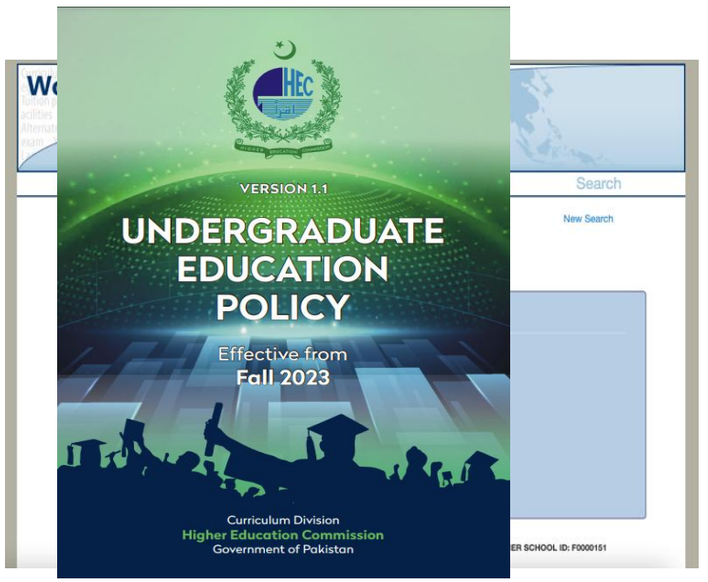
FAIMER™
A Division of Intealth

Foundation for Advancement of International Medical Educatic and Research

https://search.wdoms.org/?_gl=1*b2ddww*_ga*MTQyNTAwNzIxMi4xNzA2ODEwNjcx*_ga_R5BJZG5EYE*MTcwNjgzNjg3Ni4yLjAuMTcwNjgzNjg3Ni4wLjAuMA..

https://wfme.org/wp-content/uploads/2020/12/WFME-BME-Standards-2020.pdf

ACGME
Accreditation Council for Graduate Medical Education



2022

GUIDELINES
FOR

UNDERGRADUATE
MEDICAL EDUCATION
CURRICULUM (MBBS)

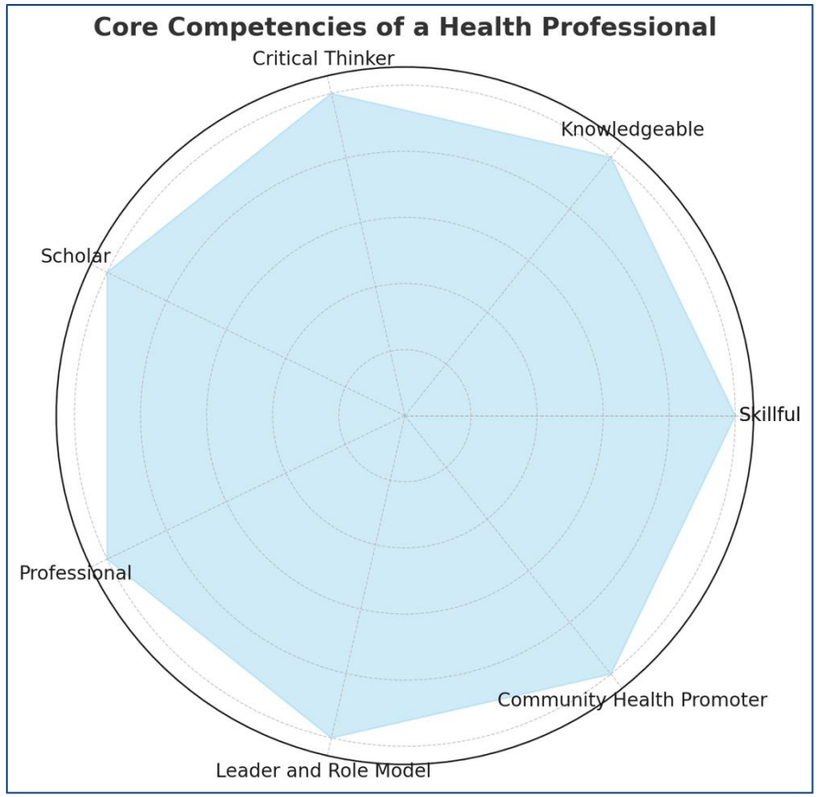
https://pmc.gov.pk/Documents/Examinations/Guidelines%20for%20Undergraduate%20Medical%20Education%20Curriculum%20(MBBS).pdf

https://www.hec.gov.pk/english/services/students/UEP/Documents/UGE-Policy.pdf

According to Pakistan Medical and Dental Council (PMDC) guidelines for undergraduate Medical Education Curriculum (MBBS) 2022

Seven-star doctor

Skilful	Knowledgeable
Community health promoter	Critical thinker
Professional	Scholar
Leader and role model	



1. Skilful (Clinical, Cognitive and Patient Care Skills)

Takes a focused history
Perform physical and psychological examination
Formulates a provisional diagnosis
Orders appropriate investigation
Performs various common procedures
Debates, formulates management plans
Manages time and prioritizes tasks
Ensures patient safety.
Advises and counsels, educates, recognizes and takes in to consideration issues of equality
Describes and debates the reasons for the success or failures of various approaches

2. Knowledgeable (Scientific Knowledge for Good Medical Practice)

Differentiates, relates, applies and ensures knowledge is gained.

3. Community Health Promoter (Knowledge of Population Health and Healthcare Systems)

Understands their role and be able to take appropriate action
Determinants of health impact on the community
Takes appropriate action for infectious non-communicable disease and injury prevention
Evaluates national and global trends in morbidity and mortality
Works as an effective member of health care team

Adopts a multidisciplinary approach for health promotion
Applies the basics of health systems
Makes decisions for health care.

4. Critical thinker (Problem Solving and Reflective Practice)

Use of information Critical data evaluation Dealing effectively with complexity, uncertainty and probability
Regular reflection on their practice Initiating participating in or adopting to change,
flexibility and problem-solving approach Commitment to quality assurance,
Raising concerns about public risks and patient safety.

5. Professional (Behaviour and Professionalism)

Life long, self-directed learner Demonstrates continuous learning
Seeks peer feedback Manages information effectively
Provides evidence of continuing career advancement Functions effectively as a mentor and a trainer,
responds positively to appraisals and feedback Altruistic and empathetic
Ethical, Collaborator, Communicator.

6. Scholar and Researcher

a. Identifies a researchable problem and critically reviews the literature
b. Phrases succinct research questions and formulates hypotheses
c. Identifies the appropriate research design(s) in epidemiology and analytical tests in biostatistics to answer the research question.
d. Collects, analyses and evaluates data, and presents results.
e. Demonstrates ethics in conducting research and in ownership of intellectual property.

7. Leader and Role Model

Demonstrates exemplary conduct and leadership potential in a. advancing healthcare b. enhancing medical education c. initiating, participating in and adapting to change, using scientific evidence and approaches d. Enhancing the trust of the public in the medical profession by being exceptional role model at work and when away e. accepting leadership roles f. Providing leadership in issues concerning society.

- Appreciate concepts & importance of
    - **Research**
    - **Biomedical ethics**
    - **Family medicine**
    - **Artificial Intelligence**

This module will run in 6 weeks duration. The content will be covered through introduction of topics. Instructional strategies are given in the time table and learning objectives are given in the study guides. Study guides will be uploaded on the university website

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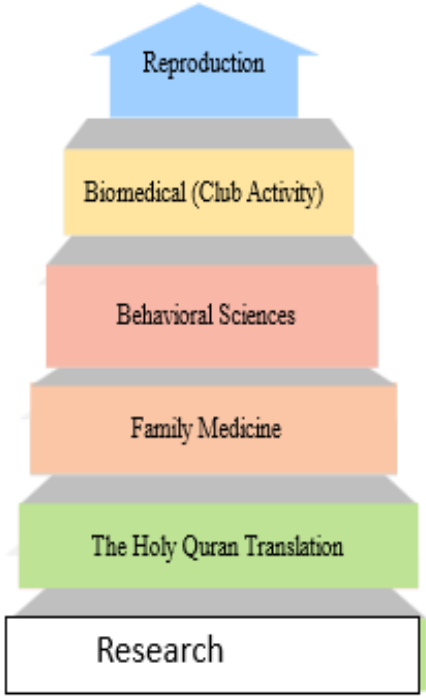
Integration of Disciplines in Population Medicine & Reproductive Health Block

Spiral Courses



Discipline Wise Details of Module Content

Subjects	Contents		Subjects	Contents
Community Medicine	Reproductive health-preventive obstetrics-maternal death (MCH-I) Reproductive health-preventive obstetrics-maternal health (MCH-II) Reproductive health-preventive obstetrics-safe-mother hood (MCH-III) Family planning & Population control approach & practices (FP-I) Family planning & Population control and National perspective (FP-II) Preventive Aspects of Neonatal care (Preventive Pediatrics-I) Preventive Aspects of infants and childcare (Preventive Pediatrics-II)		**Community Medicine**	Demography- Population growth transition & trends-I (Demography-I) Demography-Population growth trends & transition. (Demography-II) Population Migration and urbanization (Demography-III) Breast feeding School health services Child abuse & Handicapped children Health economics Framework, structure & Evaluation Global Public Health- WHO, NGOs
Pharmacology	Prolactin antagonist Gonadal hormones: I Estrogens Gonadal hormones : II Progestin Gonadal hormones: III Anabolic		**Pharmacology**	Hormonal contraceptives Oxytocic drugs and Uterine Relaxants Drug used in the treatment of infertility

Pathology	Benign Diseases of Ovary Benign Diseases of breast (Non-Neoplastic Lesions) Malignant Diseases of Ovary. Malignant neoplasm of breast Malignant Diseases of Cervix.

Pathology	Testicular tumors GTD & Choriocarcinoma Benign and Premalignant Lesions of Cervix Diseases of Lower Urinary Tract Proliferative lesions of Endometrium and Myometrium

Spiral Courses	
The Holy Quran	**Translation**
Bioethics & Professionalism	Abortion ethics
Radiology & Artificial Intelligence	Imaging in obstetrics & anomaly scan
Family Medicine	Core concepts of family medicine in antenatal care during normal pregnancy
Research	IUGRC viva

Vertical Integration

Gynae/Obs	Basic terminologies in obstetrics Basic antenatal care Minor pregnancy disorders Nutrition in pregnancy Prenatal diagnosis Early pregnancy complications (miscarriages, ectopic pregnancy) Induced and septic abortions Diagnosis of labour First stage of labour and management Abnormalities of 1st stage of labour Normal CTG Second stage of labour Normal labour Episiotomy Operative vaginal delivery

Gynae/Obs	Abdominal delivery Third stage of labour and its complications (retained placenta, uterine inversion) Post-partum hemorrhage Puerperium and its complications Contraception Multiple pregnancy Antepartum hemorrhage Perineal infections Preterm labor PPROM Prolonged pregnancy/Induction of labour Hypertension in pregnancy IUGR & oligohydramnios Rh Incompatibility Medical disorders in pregnancy

	Revision of stages of labour and management Intra-uterine Death Management of GTD Physiology of Menstrual Cycle Management of STDs Management of benign & malignant disease of vulva & vagin

	Management of premalignant & malignant disease of cervix Management of benign & malignant disease of uterus. Management of benign and malignant ovarian tumors AUB & PMB

Pediatrics	Neonatal resuscitation Breast feeding LBW / prematurity Immunization
Surgery	Pelvic cellulitis& abscess Complication of laparotomy (visceral & vascular injury) Surgical intervention of breast
Medicine	Infections in pregnancy (RTI's, GIT, EYE/ENT, Dermatitis) Diabetes in pregnancy Anemia in pregnancy Liver disorders & thrombocytopenia in pregnancy Epilepsy in pregnancy Asthma in pregnancy Thrombotic disorders in pregnancy Rheumatological disorders in pregnancy osteoarthritis

1-POPULATION MEDICINE & REPRODUCTIVE HEALTH BLOCK TEAM

S.#	MODULE TASK FORCE TEAM	
1.	Coordinator	Dr. Sana Bilal
2.	Co- Coordinator (Module 1)	Dr Mehjabeen Qureshi
3.	Co- Coordinator (Module 2)	Dr Imrana Saeed
4.	CMS /LMS support	Dr Saba Maryam & Dr Maria Jabeen
DME IMPLEMENTATION TEAM		
1.	Director DME	Prof. Dr. Ifrah Saeed
2.	Additional Director DME	Dr. Khola Noreen
3.	Deputy Director DME	Dr. Saadia Chaudhary
4.	Assistant Director DME /Module planner & Implementation coordinator	Dr. Omaima Asif

DURATION OF BLOCK 07 WEEKS		
S.#	**MODULE COMMITTEE**	
1.	Vice Chancellor RMU	Prof. Dr. Muhammad Umar
2.	Director DME	Prof. Dr. Ifrah Saeed
4.	Additional Director DME	Dr. Khola Noreen
3.	Dean Basic Sciences	Prof. Dr. Samia Sarwar
5.	HOD Community Medicine	Prof. Dr. Rozina Shahadat Khan
6.	Focal Person Pharmacology	Dr. Zari
7.	Focal Person Community Medicine	Dr. Sana Bilal
8.	Focal Person Pathology	Dr. Mehreen
9.	Focal Person family medicine	Dr. Saadia Khan
10.	Focal Person Surgery	Dr. Sidra
11.	Focal Person medicine	Dr. Faran Maqbool
12.	Focal Person Pediatrics	Dr. Verda Imtiaz

2- BLOCK PREPARATION TEAM

Department of Community Medicine

Rawalpindi Medical University

1. **Professor. Dr. Rozina Shahadat Khan** _____
   HOD Community Medicine Department
   Final Review/Editing

2. **Dr. Sana Bilal** _____
   Associate Prof, Coordinator

3. **Dr. Imrana Saeed** _____
   APWMO, Co-Coordinator

4. **Dr. Mehjabeen Qureshi** _____
   Sr Demo, Co-Coordinator

3-Introduction to Population Medicine & Reproductive Health module

Introduction: Reproduction module provides integration of core concepts that underlie the foundation of basic sciences and their use in clinical medicine. This will eventually lead to develop critical thinking for integration and application of basic knowledge for clinical application.

Rationale: The Reproduction module is designed to impart basic knowledge about Obs/Gynae, Pathology, Pharmacology, and Community Medicine. This knowledge will serve as a base on which the student will construct further knowledge about the etiology, pathogenesis and prevention of diseases; the principles of their therapeutics and management.

Module Outcomes

Knowledge

1. Each student will be able to acquire knowledge about the basic concepts of diseases in the community**,** use technology based medical education and to appreciate concepts & importance of
    a. **Research**
    b. **Biomedical ethics**
    c. **Family medicine**
    d. **Artificial Intelligence Skills**

2. Interpret and analyze various practical & practices of clinical sciences.

Attitude

Demonstrate a professional attitude. Team building spirit and good communication skills.

This block will run in 7 weeks. The content covered will be made visible through introductory titles of the teaching sessions. Instructional strategies are given in the timetable and learning objectives are briefed in study guides. Study guides will also be available on university website.

4-TERMS & ABBREVIATIONS

1. Large Group Interactive Session (LGIS)
2. Small Group Discussion (SGD)
3. Self-Directed Learning (SDL)
4. Case Based Learning (CBL)
5. Peer assisted learning (PAL)
6. Clinical / skill lab (SL)

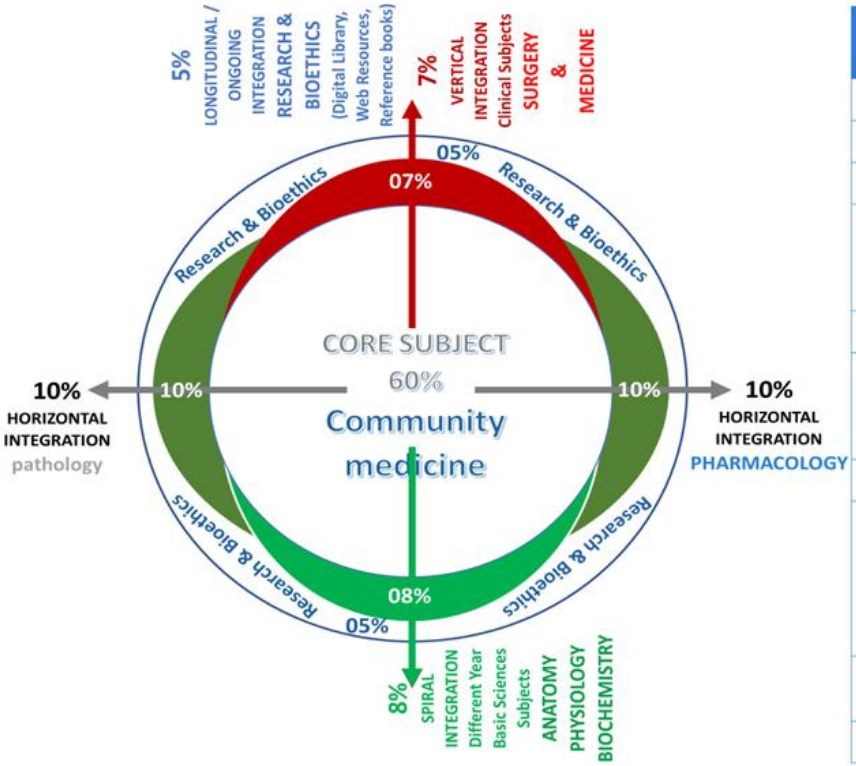
5- DOMAINS OF LEARNING ACCORDING TO BLOOMS TAXONOMY

1.	**C**	**Cognitive Domain:** knowledge and mental skills.
	• C1	Remembering
	• C2	Understanding
	• C3	Applying
	• C4	Analyzing
	• C5	Evaluating
	• C6	Creating
2.	**P**	**Psychomotor Domain:** motor skills.
	• P1	Imitation
	• P2	Manipulation
	• P3	Precision
	• P4	Articulation
	• P5	Naturalization
3.	**A**	**Affective Domain:** feelings, values, dispositions, attitudes, etc.
	• A1	Receive
	• A2	Respond
	• A3	Value
	• A4	Organize
	• A5	Internalize

6-TEACHING AND LEARNING METHODOLOGIES / STRATEGIES

Large Group Interactive Session (LGIS)

The large group interactive session is structured format of Prof Umar Model of Integrated lecture. It will be followed for delivery of all LGIS. Lecturer will introduce a topic or common clinical condition and explains the underlying phenomena through questions, pictures, videos of patients, interviews and exercises, etc. Students are actively involved in the learning process.



4th Year community medicine LGIS (≈30 slides)	
Core Subject – 60% (≈ 18-20 slides)	
Community medicine (≈ 18-20 slides)	
Horizontal Integration – 20% (≈ 5-6 slides)	
Same Year Subjects	• Pharmacology (10%) (≈ 2-3 slides) • Pathology (10%) (≈ 2-3 slides)
Vertical Integration – 07% (≈ 2-3 slides)	
Clinical Subjects	• Medicine (3-5%) (≈ 1-2 slides) • Surgery (3-5%) (≈ 1-2 slides)
Spiral Integration – 08% (≈ 2-3 slides)	
Different Year Basic Sciences Subjects	• Anatomy (1-3%) (≈ 1-2 slides) • Physiology (1-3%) (≈ 1-2 slides) • Biochemistry (1-3%) (≈ 1-2 slides)
Longitudinal / Ongoing Integration – 05% (≈ 1-2 slides)	
Research & Bioethics (≈ 1-2 slides)	

Small Group Discussion (SGD)

This format helps students to clarify concepts acquire skills and attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics or power point presentations. Students exchange opinions and apply knowledge gained from lectures, SGDs and self-study. The facilitator role is to ask probing questions, summarize and helps to clarify the concepts.

Standardization of teaching content in SGDs

S. No	Contents
1	Title of SGD
2	Learning Objectives from Study Guides
3	Horizontal Integration 5%+5% = 10%
4	Core Concepts of the Topic 70%
5	Vertical Integration 10%
6	Related Advance Research points 3%
7	Biomedical Ethical points 2%
8	Spiral integration 5%

Steps of taking Small Group Discussions

Step 1	Sharing of Learning objectives by using students Study guides	5 minutes
Step 2	Asking students pre-planned questions from previous teachingsession to develop co-relation (these questions will be standardized)	5minutes
Step 3	Students divided into groups of three and allocation of learningobjectives	5minutes
Step 4	ACTIVITY: Students will discuss the learning objectives amongthemselves	15 minutes
Step 5	Each group of students will present its learning objectives	20 min
Step 6	Discussion of learning content in the main group	30min
Step 7	Clarification of concept by the facilitator by asking structuredquestions from learning content	15 min
Step 8	Questions on Core Concepts	1 min
Step 9	Questions on Horizontal Integration	1 min
Step 10	Questions on Vertical Integration	1min
Step 11	Questions on related research article	1 min
Step 12	Questions on related Ethics Content	1 min
Step 13	Students Assessment on online MS teams (5 MCQs)	5 min
Step 14	Summarization of main points by the facilitator	5 min
Step 15	Students feedback on the SGD and entry into log book	5 min
Step 16	Ending remarks	5 min

Self-Directed Learning (SDL)

- Self- directed learning is a process where students take primary charge of planning, continuing, and evaluating their learning experiences.
- Home based / time assignment.
- Learning objectives are briefed in study guide
- Learning resources including pages, book names etc. or link / web site
- Assessment: it will be online on LMS on a predefined schedule

Case Based Learning (CBL)

- It's a learner centered model which engages students in discussion of specific scenarios that resemble typically are real world examples.
- Case scenario will be given to the students
- Will engage students in discussion of specific scenarios that resemble or typically are real-world examples.

Transdisciplinary Clinical Reasoning Forum (TCRF)

- It's a learner centered model which engages students in discussion of specific scenarios that resemble real world examples.
- Case scenario will be given to the students
- Will engage students in discussion of specific scenarios that resemble or typically are real-world examples.
- Learning objectives will be given to the students and will be based on:
    i. To provide students with a relevant opportunity to see theory in practice
    ii. Require students to analyze data in order to reach a conclusion.
    iii. Develop analytic, communicative and collaborative skills along with content knowledge

Horizontally Integrated Basic Sciences

S no	Subjects	Teaching hours without practical/PAL
1	Pathology (LGIS+SGD+CBL)	18
2	Community medicine (LGIS+SGD)	16
3	Pharmacology (LGIS+SGD+CBL)	09

Vertically Integrated Clinical Subjects

S no	Subjects	Teaching hours
1	Gynae & Obs (LGIS+CBL)	41
2	Medicine (LGIS)	11
3	Anesthesia (LGIS)	03
4	Pediatrics (LGIS)	04

THEMES FOR ENOCRINOLOGY MODULE 2026

WEEK	THEME No.	TOPICS
Week 1	**Theme 1**	**Metabolic Homeostasis & Diabetes Care Continuum**
Week 2	**Theme 2**	**Regulation of Thyroid & Parathyroid Hormones**
Week 3	**Theme 3**	**The HPA Axis in Health and Disease**
Week 4	**ASSESSMENT**	

Theme 1: Week 1: Metabolic Homeostasis & Diabetes Care Continuum

Theme	Rationale	General learning objectives (SMART)
Metabolic Homeostasis & Diabetes Care Continuum	Diabetes mellitus is a major global and national public health problem and a leading cause of morbidity and mortality. It affects multiple organ systems and requires integration of physiology, biochemistry, pathology, pharmacology, medicine, ophthalmology, nephrology, cardiology, and community medicine. In 4th year MBBS, students must transition from theoretical knowledge to patient-centered management of chronic diseases. Understanding the continuum from insulin resistance to microvascular and macrovascular complications enables rational prescribing, early complication detection, and preventive counseling. Acute complications of diabetes such as diabetic ketoacidosis (DKA), hyperosmolar hyperglycemic state (HHS), and severe hypoglycemia are life-threatening emergencies commonly encountered in emergency and ICU settings. Early recognition and prompt management significantly reduce mortality. Teaching this theme integrates physiology, biochemistry, internal medicine, emergency medicine, and critical care. It equips students with essential competencies required for safe clinical practice.	By the end of this theme, the student will be able to: 1. Describe the pathophysiology of Type 1 and Type 2 diabetes mellitus with at least 80% accuracy in written/viva examinations. 2. Differentiate between insulin resistance and beta-cell dysfunction during structured case discussions. 3. Diagnose diabetes using standard laboratory criteria in at least 75% of case-based assessments. 4. Outline comprehensive management plans including lifestyle modification and pharmacotherapy in simulated clinical scenarios. 5. Identify and classify microvascular and macrovascular complications during ward-based discussions. 6. Counsel patients regarding diet, exercise,

		and self-monitoring effectively in observed clinical encounters. 7. Explain the pathophysiology of DKA and HHS during structured assessments with at least 75% accuracy. 8. Interpret arterial blood gas, serum ketones, and electrolyte reports correctly in at least 3 out of 4 simulated cases. 9. Formulate stepwise management plans for DKA according to undergraduate-level guidelines. 10. Recognize early warning signs of hypoglycaemia and initiate immediate management in OSCE simulations. 11. Demonstrate appropriate fluid and insulin therapy prescription in case-based exercises.

Pathology						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives** **At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-P-001	Diabetics mellitus	Introduction classification & causes of Diabetes Mellitus Plasma glucose regulation	• Classify Diabetes Mellitus • Diagnose, and explain pathogenesis • of diabetes along with glucose homeostasis.	C2 C3	LGIS	MCQs, SEQs, OSPE, Viva

		Pathophysiology of DM Investigation for DM				
M1-PMRH-P-002	Complications of Diabetes Mellitus	Pathophysiology diagnosis and complications of diabetes mellitus	• Describe in detail the complications, pathological findings and organ involvement in diabetes • Explain the lab investigations required to diagnose diabetes	C2 C2	CBL	MCQs
M1-PMRH-P-003	Pancreatic tumors, Neuroendocrine	Introduction to Pancreatic tumors, Neuroendocrine, clinical features, pathophysiology and its Investigations	• Explain Pancreatic tumors, Neuroendocrine diseases	C3	SGD	MCQs, SEQs, OSPE, Viva
M1-PMRH-P-004	Chronic pancreatitis & pancreatic carcinoma	Pancreatic pathologies and differences between them	• Identify and explain the gross and microscopic features of chronic pancreatitis • Differentiate between normal pancreas and pancreatic adenocarcinoma /pancreatic carcinoma. • Differentiate between pancreatic carcinoma and chronic pancreatitis	C3 C3 C3	Skill lab	OSPE/OSCE

Pharmacology						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-PH-001	Drugs Used in Diabetes I	Oral hypoglycemic Sulfonylureas Meglitinides	• Classify Oral Hypoglycemic • Describe the mechanism of action of Sulfonylureas • Compare first- and second-generation Sulfonylureas	C2 C2 C2	LGIS	MCQs, SEQs, OSPE, Viva

			• Describe adverse effects of sulfonylureas • Describe the mechanism of action of Meglitinides • Compare Sulfonylureas & Meglitinides	C2 C2 C3		
M1-PMRH-PH-002	Drugs Used in Diabetes II	Biguanides Alpha-glucosidase inhibitors Thiazolidinediones Amylin analogs	• Discuss the mechanism of action & adverse effects of Biguanides • Differentiate between Sulfonylureas and Biguanides • Discuss the mechanism of action & adverse effects of • Alpha-Glucosidase Inhibitors • Discuss the mechanism of action & adverse effects of • Thiazolidinedione • Describe the mechanism of action & adverse effects of • Amylin analogs • Describe the mechanism of action & adverse effects of • GLP-1 analogs and Gliptins • Discuss uses of Oral Anti-diabetics	C2 C2 C2 C2 C2 C2 C2 C3	LGIS	MCQs/SEQs
M1-PMRH-PH-003	Drugs used in diabetes III	Insulin	• Classify Insulins • Compare animal & human insulins • Discuss the kinetics of different insulins with clinical significance • Describe the uses & adverse effects of Insulins • Describe insulin resistance	C1 C2 C2 C2 C2	LGIS	MCQs/SEQs

M1-PMRH-PH-004	Diabetes mellitus		• Classify the drugs used in the management of DM • Identify the drug group preferred in the given case	C2 C3	CBL	PBQ / Scenario Based Questions Identify the drug group preferred in the given case

Community Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-CM-001	Non-Communicable Disease introduction (Hypertension, CHD)	Epidemiology of Hypertension, CHD Prevention of hypertension, CHD Classification Rules of halves	• Explain criteria of Chronic Non-Communicable diseases. (NCDs) • Appraise the burden of NCDs in inter- & national context. • Describe list of major NCDs of the region. • Describe common Risk Factors of NCDs. • Explain gaps in knowledge in natural history of NCDs & General preventive approaches • Explain epidemiology, prevention & control strategies for cardiovascular diseases (CHDs) • Explain epidemiology, prevention & control strategies for Hypertension	C2 C2 C2 C2 C2 C3 C3 C3	LGIS	MCQs, SEQs, OSPE, Viva

			• Explain rules of halves & tracking of Blood Pressure strategy (hypertension)			
M1-PMRH-CM-002	Non-Communicable Disease (Diabetes, obesity)	Epidemiology of diabetes & obesity Prevention & control of diabetes & obesity Classification of diabetes & obesity Assessment of Body mass index	• Describe the risk factors and their importance in causation of diabetes & obesity • Apprehend the burden of diabetes & in Pakistan • Classify diabetes & obesity • Define & Measure obesity via different methods of obesity assessment • Calculate body mass index and interpret the results • Recommend approaches to prevention and control of diabetes and obesity in community	C2 C2 C2 C2 C3 C3	LGIS	MCQs, SEQs, OSPE, Viva

Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives** **At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-M-001	Diabetes Insipidus	Clinical features & management of diabetes insipidus	• Explain the clinical presentation and physical findings in DI. • Differentiate between central DI and nephrogenic DI and describe etiology of both types. • Describe importance of water deprivation test in diagnosis and differentiation between both types of DI	C2 C3 C2 C2 C2	LGIS	MCQ/SEQ

			• Discuss various treatment options available for management of diabetes insipidus.			
M1-PMRH-M-002	Diabetes and Hypoglycemia	Types of diabetes	• Enlist types of diabetes mellitus. • Diagnose diabetes mellitus. • Develop management plan for diabetes mellitus, including both pharmacological and nonpharmacological therapies. Identify clinical features of hypoglycemia and discuss management plan	C2 C3 C3	LGIS	MCQs, SEQs,
M1-PMRH-M-003	Diabetes Mellitus/DKA	C/F of diabetic ketoacidosis and its diagnosis Managing complication of DM	• Define Diabetes ketoacidosis • Discuss its clinical features • Plan relevant investigations • Diagnose and manage complications of diabetes mellitus. • (DKA, HONK) • Discuss treatment and management plan. Outline DKA and its management • Counsel the parents. • Do follow-up	C1 C2 C3 C3	LGIS	MCQs/SEQs

Surgery						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives** **At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**

M1-PMRH-S-001	Surgical intervention of pancreatic tumor	Surgical diseases of pancreas and their management	• Discuss the surgical anatomy of pancreas • Explain the prevention of pancreatic tumors • Enlist the surgical diseases of pancreas • Approach towards a patient with suspected SOL in pancreas • Do pre-operative preparation of patient with SOL • Elaborate the protocol for surgery of distal pancreas	C2 C3 C2 C2 C2	LGIS	MCQ/SEQ

Paediatrics						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-Ped-001	Diabetes Mellitus	Diabetes mellitus and its complications	• Explain pathophysiology and clinical presentation of Diabetes Mellitus • Plan relevant investigations • Recognize complications of diabetes mellitus • Manage disease and its complications • Counsel the parents and patient	C2 C3 C2 C2	LGIS	MCQ/SEQ

Family Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub- Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**

M1-PMRH-FM-001	Core concepts of family medicine in (Noncommunicable diseases)	Discussion will cover; Diabetes mellitus and obesity its psychological impacts on families	• Explain the management strategies of a diabetic patient in general practice including the psychosocial impact of disease on patient and their families • Describe the strategies for prevention of diabetes mellitus and its complications • Identify the red-flags in a diabetic patient and appropriately refer to specialty care when required • Describe the aetiology, risk factors and complications of obesity • Explain the role of diet, exercise and anti-obesity drugs in the management of obesity and its complications • Identify the red-flags in an obese patient and appropriately refer to specialty care when required • Explain the psychosocial impact of disease on patient and their families	C2 C3 C2 C2 C2	LGIS	MCQ

Peer assisted learning (PAL)* IUGRC Contact Session

Indictors of accomplishment Prior readings / assigned work	Learning objectives/ competencies	Learning outcomes	Assessment strategy
Session 6 **Preparing students for data collection, entry,**	1. Task of data collection during summer vacation completed under	At the end of session students should be able to; 1. Compile & interpret study data	MCQ in module exam

analysis and result compilation	constant guidance and supervision of respective batch in-charges 2. Data collection is submitted to respective batch in-charges and hard copy as marker for task completion and evidence 3. Final Data entry & analysis into SPSS Software started under guidance of senior faculty 4. Result compilation and discussion writing marker for task completion and evidence 5. All task done under guidance of senior faculty	2. Make observable improvements or changes in data collection skills 3. Completion of data analysis by application of relevant statistical test 4. Finalize result compilation & discussion writing	

Transdisciplinary Clinical–Reasoning Forum (TCRF-1)

Theme-1

Theme	Week	Topics	Clinical Case Scenario
Theme 1	**Week 1**	Hyperglycemia, polyuria, weight loss, diabetic ketoacidosis, diabetic complications	**A diabetic with acute metabolic complications**

Clinical Scenario

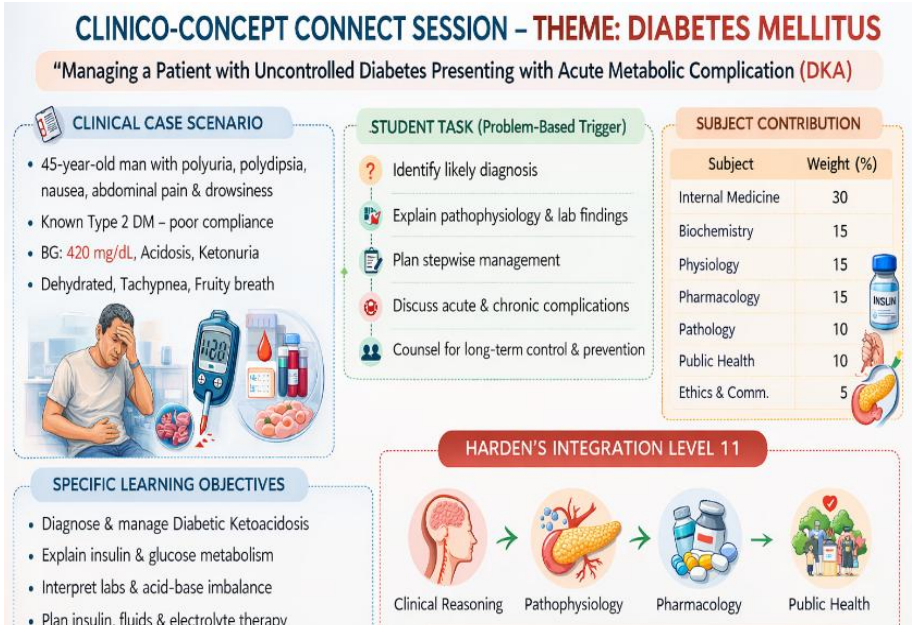
A 45-year-old man presents to the emergency department with excessive thirst, frequent urination, nausea and abdominal pain for two days. His family reports increasing drowsiness and confusion.

He was diagnosed with type 2 diabetes mellitus five years ago

but admits poor adherence to medications and diet.

On examination he is dehydrated and tachycardic with deep rapid breathing

and fruity breath odor.
Laboratory findings show:
Blood glucose: 420 mg/dL
Arterial blood gas demonstrates metabolic acidosis



Urine is positive for ketones
He is admitted for urgent management.

Student Task (Problem-Based Trigger)

- Identify the key clinical problem and most likely diagnosis.
- Explain the underlying pathophysiological mechanisms.
- Interpret relevant laboratory and imaging findings.
- Develop a comprehensive management plan.
- Identify potential complications.
- Counsel the patient regarding long-term disease control.
- Suggest preventive strategies at community level.

What Makes This Harden Level 11 Integration?

Learning is organized around an authentic patient problem rather than separate disciplines. Students integrate biomedical sciences, clinical reasoning, therapeutics and public health perspectives while developing a comprehensive care pathway.

Students integrate:

- Biochemistry (implicitly)
- Pathophysiology (implicitly)
- Pharmacotherapy (within management)
- Ethics and communication (within counselling)
- Public health (within prevention)
  But none are taught separately.

Teaching Format

- Small group facilitated learning
- Faculty from different backgrounds present but not teaching in silos
- Students build the care pathway themselves
- Assessment based on competence and clinical reasoning

Academic Justification Statement

“The case has been designed to reflect Harden Level 11 (transdisciplinary integration), where learning is structured around authentic patient problems rather than disciplinary categories. Knowledge from biomedical, clinical, and public health domains is integrated seamlessly within professional practice.”

Subject Contribution in Clinico-Concept Connect Session

Subject / Discipline	Nature of Contribution	Approximate Integration Weight (%)
Internal Medicine	Diagnosis and management of diabetic ketoacidosis	30%
Biochemistry	Glucose metabolism and ketone body formation	15%
Physiology	Insulin regulation and metabolic homeostasis	15%
Pharmacology	Insulin therapy and fluid management	15%
Pathology	Microvascular complications of diabetes	10%
Public Health	Diabetes prevention strategies	10%
Ethics & Communication	Lifestyle counseling and adherence	5%

Subject-Wise Specific Learning Objectives

Subject	Learning Objective	Bloom Level
Internal Medicine	Analyze clinical presentation and formulate management plan	Analyze/Evaluate

Physiology	Explain hormonal regulation mechanisms	Understand
Pathology	Describe disease mechanisms causing symptoms	Analyze
Pharmacology	Select appropriate pharmacological therapy	Apply
Public Health	Propose preventive strategies at community level	Create

Theme 2: Week 2: Regulation of Thyroid & Parathyroid Hormones

Theme	Rationale	General learning objectives (SMART)
Regulation of Thyroid & Parathyroid Hormones	Thyroid diseases are highly prevalent and frequently encountered in clinical practice. Disorders such as hypothyroidism, hyperthyroidism, thyroid nodules, and autoimmune thyroid disease require integration of anatomy, physiology, pathology, immunology, pharmacology, radiology, and internal medicine. Early diagnosis prevents serious complications including cardiovascular disease, infertility, growth delay, and thyroid storm. Teaching thyroid disorders at 4th year MBBS level enhances diagnostic reasoning, interpretation of thyroid function tests, and rational management strategies. Thyroid nodules are common in the general population, and a subset may represent malignancy. Proper evaluation requires integration of clinical examination, endocrinology, radiology (ultrasound), pathology (FNA cytology), and surgery. Early detection of thyroid cancer improves prognosis and survival. This theme develops students' competencies in risk stratification, diagnostic reasoning, and referral decision-making.	By the end of this theme, the student will be able to: 1. Describe thyroid hormone synthesis, transport, and regulation with at least 80% accuracy in written examinations. 2. Differentiate primary, secondary, and subclinical thyroid disorders in structured case discussions. 3. Interpret thyroid function tests (TSH, T3, T4) accurately in at least 75% of formative assessments. 4. Outline management plans for hyperthyroidism including conditions such as Graves' disease during simulated clinical scenarios.

		5. Recognize features of severe hypothyroidism and thyroid storm in OSCE stations. 6. Counsel patients regarding long-term follow-up and medication adherence effectively in outpatient settings. 7. Perform a focused thyroid examination correctly in at least 3 out of 4 observed clinical encounters. 8. Identify red-flag features suggestive of malignancy in case-based discussions with at least 75% accuracy. 9. Outline the role of ultrasound and fine-needle aspiration cytology (FNAC) in evaluation of thyroid nodules. 10. Differentiate benign from malignant thyroid conditions during structured assessments. 11. State indications for surgical referral in simulated clinical scenarios.

Pathology						
Code	**Topic**	**Contents Outlines (Major Topics & Sub- Topics)**	**Learning Objectives** **At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-P-005	Hypothyroidism and Thyroid Tumors	Pathophysiology of thyroid gland	• explain hypothyroidism • classify and explain benign and malignant	C2 C2	LGIS	MCQs, SEQs, OSPE Viva

		Introduction types, causes &sign symptoms of hypothyroidism Pathophysiology of Hashimoto's Thyroid function test	• neoplasms of thyroid			
M1-PMRH-P-006	Hyperthyroidism	Introduction types, causes &sign symptoms of hyperthyroidism Pathophysiology of Grave's disease Thyroid function test	• Compare and differentiate between hyperthyroidism and hypothyroidism To describe pathophysiology of graves' disease.	C3	LGIS	MCQs, SEQs, OSPE Viva
M1-PMRH-P-007	Parathyroid Disorders	Introduction to parathyroid disorders and its Investigations	• Explain Parathyroid Disorders, clinical features and pathophysiology	C2	SGD	MCQs, SEQs, OSPE, Viva
M1-PMRH-P-008	Parathyroid Adenoma/carcinoma	Introduction to parathyroid adenoma /carcinoma, clinical features, pathophysiology and its Investigations	• Explain Parathyroid Adenoma/carcinoma, clinical features and pathophysiology	C2	SGD	MCQs, SEQs, OSPE, Viva
M1-PMRH-P-009	Thyroiditis, Multinodular goiter	Classify and identify various types of thyroiditis & Multinodular goiter	• Classify different types of thyroiditis • Identify gross features and microscopic features such as Massive lymphoplasmacytic infiltration with lymphoid follicles formation and large active germinal center in Hashimoto's thyroiditis • Explain the gross features asymmetrically enlarged gland with Irregular nodules and	C1 C2 C2	Skill Lab	OSPE/OSCE

			microscopic features such as varied sized dilated follicles with hyperplastic epithelium in multinodular goiter and grave's disease • Identify microscopic features such as closely packed small follicles lined by cuboidal epithelium, within a fibrous capsule in follicular adenoma • Identify gross and microscopic features as complex, branching, randomly oriented papillae with fibrovascular cores and specific nuclear features in papillary carcinoma of thyroid			
M1-PMRH-P-010	Parathyroid adenoma/ carcinoma	Pathogenesis of parathyroid adenoma	• Identify and explain the gross and microscopic features of pituitary adenoma • Identify and explain the gross and microscopic features of parathyroid adenoma and how to differentiate it from carcinoma	C2 C3	Skill Lab	OSPE/OSCE

Pharmacology						
Code	**Topic**	**Contents Outlines (Major Topics & Sub- Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**

M1-PMRH-PH-005	Anti-thyroid Drugs I	Thyroid preparations	• Describe different Thyroid Preparations • Describe the drugs that block each step of thyroid hormone synthesis • Classify Anti-thyroid Drugs	C2 C2 C2 C2	LGIS	MCQs, SEQs,
M1-PMRH-PH-006	Anti-thyroid Drugs II	Mechanism of action Adverse effects Use of beta blockers in hypothyroidism	• Describe the mechanism of action & adverse effects of the groups of anti-thyroid drugs • Explain the use of Beta Blockers in the treatment of Hyperthyroidism • Enumerate the uses of Anti-thyroid Drugs • Explain the rationale for use of different drugs in thyroid storm	C2 C2 C2 C2	LGIS	MCQs/SEQs
M1-PMRH-PH-007	Drugs that Affect Bone Mineral Homeostasis I	Principal hormonal Regulators Pharmacokinetics and pharmacodynamics of vitamin d	• Enumerate principal hormonal regulators of bone mineral homeostasis • Explain pharmacokinetics and pharmacodynamics of Vitamin D • Enumerate non hormonal agents affecting bone mineral homeostasis			
M1-PMRH-PH-008	Hypothyroidism		• Describe different Thyroid Preparations • Dose adjustment in different scenarios	C2 C3	CBL	PBQ / Scenario Based Questions

	P-Drug & Prescription writing		• P -Drug and prescription writing on • Diabetes Mellitus type II • Graves' Disease • Adrenal Insufficiency	C2	Skill Lab	OSPE

Community Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub- Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-CM-003	**Non-Communicable Diseases (Cancer)**	Epidemiology of cancers Prevention & control of cancers Warning signs of cancer	• Differentiate categories of cancers • Identify epidemiology of cancers • recommend the approaches for prevention of cancers in the community	C2 C2 C2	LGIS	MCQs, SEQs, OSPE, Viva
M1-PMRH-CM-004	**Health programs of Pakistan**	Malaria Control Program TB Control Program AIDS Control Program Hepatitis Control Program National Program of Family Planning	• Explain program and National Health programs. • Enlist & elaborate important national health programs • Discuss the key points regarding National Program for family planning and primary healthcare, EPI, AIDs Control program, Hepatitis control	C2 C2 C2 C3	SGD	MCQs, SEQs, OSPE, Viva

Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**

M1-PMRH-M-004	Hypothyroidism	Causes, C/F, investigations, treatment & complications of hypothyroidism	• Define hypothyroidism • Discuss Causes of hypothyroidism • Discuss clinical features (especially congenital hypothyroidism) • Discuss lab investigations and their interpretation. • Treatment and plan of management • Discuss Complications and counseling aspects	C2 C3 C2 C2	LGIS	MCQ/SEQ
M1-PMRH-M-005	Hyperthyroidism Thyroid Disorder	Thyroiditis & Grave's disease Comparison of hyper and hypothyroidism	• Compare and differentiate between hyperthyroidism and hypothyroidism • Explain thyroiditis and graves' disease. • Enlist various types of thyroid disorders. • Differentiate between clinical features of hyperthyroidism and hyperthyroidism.	C2 C3 C3	LGIS	MCQs, SEQs,

Surgery						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-S-002	Surgical intervention of Thyroid gland	Surgical anatomy of thyroid, diseases of thyroid and their management	• Briefly describe anatomy of the thyroid gland and vascular supply	C2 C3 C2	LGIS	MCQ/SEQ

			• Enlist important clinical signs and symptoms of different benign and malignant diseases of thyroid • Approach towards a patient with thyroid pathology. • Outline pre-operative work up for thyroid gland • Managing patient with thyroid pathology • Enlist the surgical procedure of thyroid	C2 C2		
M1-PMRH-S-003	Surgical intervention of parathyroid gland	Surgical anatomy of parathyroid gland, managing patient with parathyroid pathology	• Discuss the surgical anatomy of parathyroid gland • Enlist diseases treatable with surgery • Discuss briefly parathyroid adenoma, hyperplasia and carcinoma • Outline pre-operative work up for parathyroid gland • Approach towards a patient with parathyroid pathology.	C2 C3 C2	LGIS	MCQ/SEQ

Paediatrics						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-Ped-002	**Hypothyroidism**	Hypothyroidism and its clinical presentation	• Enlist causes • Discuss clinical presentation at various ages	C2 C3	LGIS	MCQ/SEQ

			• Plan, interpret Investigations and take appropriate action • Treat and counsel the parents • Do follow-up	C2 C2		

Gynaecology & Obstetrics						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-G-001	Thyroid in pregnancy	C/F of thyroid disorders in pregnancy & management	• Enlist thyroid disorders during pregnancy • Illustrate clinical presentation of thyroid disorders in pregnancy • Discuss feto-maternal effects of thyroid disorder • Discuss the management of these disorders	C2 C3 C2 C2	LGIS	MCQ/SEQ

Theme 3: Week 3: The HPA (Hypothalamic-Pituitary-Adrenal) Axis in Health and Disease

Theme	Rationale	General learning objectives (SMART)

The HPA Axis in Health and Disease	Cortisol plays a vital role in maintaining homeostasis, regulating metabolism, immune response, blood pressure, and adaptation to stress. Disorders of the hypothalamic–pituitary–adrenal (HPA) axis can lead to life-threatening conditions such as adrenal crisis or chronic morbidity due to adrenal insufficiency or hypercortisolism. In 4th year MBBS, understanding the physiological basis of cortisol regulation enables integration of anatomy, physiology, biochemistry, pathology, and clinical medicine. Early recognition of adrenal emergencies is essential for all future physicians regardless of specialty. Corticosteroids are among the most widely prescribed drugs across multiple specialties including medicine, pediatrics, dermatology, pulmonology, rheumatology, and obstetrics. Their potent anti-inflammatory and immunosuppressive effects make them life-saving in conditions such as asthma exacerbations, autoimmune diseases, septic shock, and organ transplantation. However, inappropriate dosing or duration can lead to serious adverse effects. Teaching their rational use at 4th year MBBS level promotes safe prescribing practices and integration of pharmacology with real-world patient care.	By the end of this theme, the student will be able to: 1. Describe the anatomy and physiology of the HPA axis and cortisol synthesis pathway with at least 80% accuracy in written/viva examinations. 2. Explain the feedback regulation and circadian rhythm of cortisol during structured case discussions. 3. Differentiate primary and secondary adrenal insufficiency in simulated clinical scenarios with at least 75% diagnostic accuracy. 4. Identify clinical features of acute adrenal crisis and outline emergency management correctly in OSCE stations. 5. Interpret laboratory investigations (serum cortisol, ACTH levels) appropriately in at least 3 out of 4 case-based exercises. 7. Classify corticosteroids according to potency and duration of action with at least 80% accuracy in assessments. 8. Explain the mechanism of action (genomic and non-genomic) during pharmacology viva or structured discussions. 9. Select appropriate corticosteroid therapy

		(drug, dose, route, duration) for common conditions such as asthma, SLE, and nephrotic syndrome in at least 75% of case-based evaluations. 10. Demonstrate correct principles of steroid tapering in simulated prescription-writing exercises. 11. Counsel patients regarding benefits and potential adverse effects of steroid therapy effectively in observed clinical encounters..

Pathology						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-P-011	Adrenal Gland/ Hyperadrenalism	Introduction to Hyperadrenalism Types & Investigation of Hyperadrenalism	• Explain pathophysiology of Cushing syndrome • Explain the pathophysiology of hyperaldosteronism and adrenogenital syndromes	C2 C3	LGIS	MCQs, SEQs, OSPE,Viva
M1-PMRH-P-012	Hypoadrenalism and adrenal tumors	Introduction to hypoadrenalism Types & Investigation of hypoadrenalism	• Describe the pathophysiology of Addison's disease and other hypo adrenal disorders • To describe the pathophysiology and microscopic features for diagnosis of adrenal cortical adenoma and carcinoma	C2, C3	LGIS	MCQs, SEQs, OSPE, Viva

M1-PMRH-P-013	Disorders of Post-Pituitary Hormones	Introduction to post pituitary gland and hormones secreted, Diseases /disorders of post pituitary gland, Investigations	• Explain hypopituitarism and posterior pituitary gland diseases	C2	SGD	MCQs, SEQs, OSPE, Viva
M1-PMRH-P-014	Disorders of Adrenal medulla & MEN Syndrome	Introduction to adrenal medulla gland, Diseases /disorders of adrenal medulla, Features of MEN, S syndrome and Investigations	• Describe the pathophysiology and microscopic features of pheochromocytoma • Explain the diagnostic features of men 1 and men 2 syndromes.	C2 C3	SGD	MCQs, SEQs, OSPE, Viva
M1-PMRH-P-015	Pineal gland	Pathophysiology, functions, diagnosis and investigations	• Describe in detail the pathological findings • Explain the lab investigations required for diagnose	C2 C2	CBL	MCQs

Pharmacology						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-PH-009	Corticosteroid I	Classification & Mechanism of action	• Classify corticosteroids • Describe the mechanism of action of Corticosteroids	C2 C2	LGIS	MCQs, SEQs, OSPE Viva
M1-PMRH-PH-010	Corticosteroid II	Classification & Mechanism of action	• Describe the actions of glucocorticoids • Describe the Uses of Corticosteroids	C2 C2	LGIS	MCQs/SEQs
M1-PMRH-PH-011	Corticosteroid III	Uses Adverse effects Contraindications	• Describe the adverse effects of Corticosteroids	C1 C2	LGIS	MCQs/SEQs

			• Justify the tapering off of corticosteroids • Describe the contraindications of corticosteroids			
M1-PMRH-PH-012	Mineralocorticoid Antagonist		• Enumerate mineralocorticoid antagonists • Describe the mechanism of action of mineralocorticoid antagonists	C2 C2	SGD	MCQs
M1-PMRH-PH-013	Glucocorticoid Antagonists		• Enumerate glucocorticoid antagonists • Describe the mechanism of action of glucocorticoid antagonists	C2 C2	SGD	MCQs
M1-PMRH-PH-014	Corticosteroid		• Classify corticosteroids • Describe the mechanism of action of corticosteroids • Describe the actions of glucocorticoids • Describe the Uses of Corticosteroids • Describe the adverse effects of Corticosteroids • Justify the tapering off of corticosteroids • Identify the contraindications of corticosteroids	C2 C2 C2 C2 C2 C3	CBL	PBQ / Scenario Based Questions

Community Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives** **At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**

M1-PMRH-CM-005	Health care delivery system	Objectives, components & models of Health care system	• Define health system • Enlist health system models • Comprehend components of healthcare delivery system • Illustrate the functions and objectives of health system	C2 C2 C2 C2	LGIS	MCQs, SEQs, OSPE, Viva
M1-PMRH-CM-006	Health care delivery system of Pakistan	Levels and functions of healthcare system Tiers & functions of healthcare system of Pakistan	• Describe the levels of health care system • Elaborate the healthcare services available at all levels of healthcare system • Describe the tiers of health care system of Pakistan • Discuss the functions of healthcare system of Pakistan	C2 C2 C2 C3 C3	LGIS	MCQs, SEQs, OSPE, Viva

Medicine						
Code	**Topic**	**Contents Outlines (Major Topics & Sub- Topics)**	**Learning Objectives** **At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-M-006	Cushing's Syndrome and Addison's Disease	C/F, diagnosis, causes and management of Cushing's Syndrome and	• Identify clinical presentation of Cushing's disease and describe diagnostic workup and management plan of • Cushing's syndrome.	C2 C3 C2	LGIS	MCQ/SEQ

		Addison's Disease	• Differentiate between Cushing's disease and syndrome. • Enlist various causes of Cushing's syndrome • Identify causes and clinical features of Addison's disease Differentiate between primary and secondary Addison's disease	C2 C2		
M1-PMRH-M-007	Hyperaldosteronism	C/F, diagnosis, causes and management of Hyperaldosteronism	• Identify clinical presentation of • Hyperaldosteronism and describe diagnostic workup and management	C1 C2	LGIS	MCQs/SEQs
M1-PMRH-M-008	Acromegaly	Clinical features & investigations of acromegaly along with its management	• Identify clinical presentation and physical findings in acromegaly. • Describe laboratory workup of acromegaly. • Explain various therapeutic options in management of acromegaly • Recall clinical conditions associated with acromegaly.	C1 C2 C2	LGIS	MCQs/SEQs

Surgery						
Code	**Topic**	**Contents Outlines (Major Topics & Sub-Topics)**	**Learning Objectives At the end of the session students should be able to;**	**Learning Domains**	**Teaching Strategy**	**Assessment Tool**
M1-PMRH-S-004	Surgical intervention of adrenal gland	Surgical anatomy and surgical intervention of adrenal gland	• Discuss the surgical anatomy of adrenal gland	C2 C3	LGIS	MCQ/SEQ

			• Approach adrenal towards a patient with incidental SOL in gland • Describe pheochromocytoma • Illustrate pre-operative workup for pheochromocytoma • Prepare a patient for pheochromocytoma • Discuss Surgical procedure for pheochromocytoma including minimally invasive surgery	C2 C2 C2		

Peer assisted learning (PAL)* IUGRC Contact Session

Indictors of accomplishment Prior readings / assigned work	Learning objectives/ competencies	Learning outcomes	Assessment strategy
Session 7 **Preparing students for report writing according to SJRMC guidelines**	a. Review of task of result writing and discussion write up under guidance and supervision of respective batch in-charges b. Briefing on manuscript writing according to SJRMC guidelines c. Detailed session on report writing according to standard guidelines	• Guidance on report writing as per guidelines shared • Finalization of manuscript writing, report writing and manuscript wiring according to SJRMC guidelines	MCQ in module exam

Transdisciplinary Clinical–Reasoning Forum (TCRF-2)

Theme-3

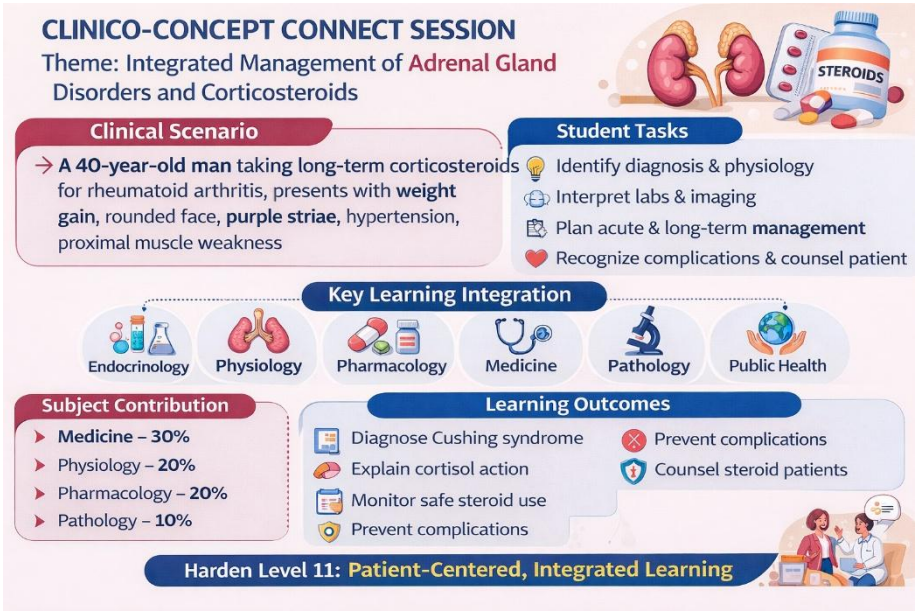
Theme	Week	Topics	Clinical Case Scenario
Theme 3	Week 3	Hypertension, obesity, cortisol excess, Cushing syndrome, steroid therapy	A female patient with Cushing Syndrome Due to Prolonged Steroid Use

Clinical Scenario

A 40-year-old woman presents with progressive weight gain, facial rounding, fatigue and muscle weakness.

She has been receiving long-term corticosteroid therapy for severe rheumatoid arthritis.

Examination findings include moon face, central obesity, purple abdominal striae, hypertension (160/95 mmHg)



and proximal muscle weakness.

Investigations reveal elevated blood glucose

and decreased bone mineral density.

Student Task (Problem-Based Trigger)

- Identify the key clinical problem and most likely diagnosis.
- Explain the underlying pathophysiological mechanisms.
- Interpret relevant laboratory and imaging findings.
- Develop a comprehensive management plan.
- Identify potential complications.
- Counsel the patient regarding long-term disease control.
- Suggest preventive strategies at community level.

What Makes This Harden Level 11 Integration?

Learning is organized around an authentic patient problem rather than separate disciplines. Students integrate biomedical sciences, clinical reasoning, therapeutics and public health perspectives while developing a comprehensive care pathway.

Students integrate:

- Anatomy (implicitly)
- Pathophysiology (implicitly)
- Radiological Imaging interpretation (within reasoning)
- Pharmacotherapy (within management)
- Ethics and communication (within counselling)
- Public health (within prevention)

But none are taught separately.

Teaching Format

- Small group facilitated learning
- Faculty from different backgrounds present but not teaching in silos

- Students build the care pathway themselves
- Assessment based on competence and clinical reasoning

Academic Justification Statement

> "The case has been designed to reflect Harden Level 11 (transdisciplinary integration), where learning is structured around authentic patient problems rather than disciplinary categories. Knowledge from biomedical, clinical, and public health domains is integrated seamlessly within professional practice."

Subject Contribution in Clinico-Concept Connect Session

Subject / Discipline	Nature of Contribution	Integration Weight (%)
Internal Medicine	Diagnosis of Cushing syndrome	30%
Physiology	Hypothalamic-pituitary-adrenal axis regulation	20%
Pharmacology	Corticosteroid pharmacology and adverse effects	20%
Pathology	Metabolic effects of cortisol excess	10%
Radiology	Imaging of adrenal glands	10%
Public Health	Safe steroid prescribing practices	5%
Ethics & Communication	Counseling regarding steroid risks	5%

Subject-Wise Specific Learning Objectives

Subject	Learning Objective	Bloom Level
Internal Medicine	Analyze clinical presentation and formulate management plan	Analyze/Evaluate
Physiology	Explain hormonal regulation mechanisms	Understand

Pathology	Describe disease mechanisms causing symptoms	Analyze
Pharmacology	Select appropriate pharmacological therapy	Apply
Public Health	Propose preventive strategies at community level	Create

Self-Directed Learning (SDL)

Pathology			
Sr. No.	**Topic**	**Learning outcomes At the end of session students will be able to:**	**Reference**
01	Contributions of the endocrine system to homeostasis	• Describes the effects of endocrine system on homeostasis.	Robin basic pathology 10th edition Chapter endocrine system Page: 749
02	Summarize the site of production, regulation, thyroid gland	• Discuss steps of production and regulation of thyroid hormone	Robin basic pathology 10th edition Chapter endocrine system page: 755 – 756
03	Investigations of a case of goiter	• Know basic laboratory investigations of a case of goiter	Robin basic pathology 10th edition Chapter endocrine system page: 762 – 763
04	Investigations of diabetes mellitus	• Know basic laboratory investigations of a case of diabetes mellitus	Robin basic pathology 10th edition chapter endocrine system page: 772

Community Medicine			
#	**Topics**	**Learning objectives.** **Students will be able to …**	**Learning resource**
1	**Epidemiology of Stroke**	1. Describe problem statement of stroke. 2. Risk factors of stroke 3. Strategies for stroke control in population	K Park Ed. 27th (pg. 377-78)
2	**Epidemiology of Rheumatic Heart disease (RHDs)**	1. Describe problem statement of RHDs. 2. Epidemiological factors of RHDs. 3. WHO criteria for diagnosis of RHDs 4. Approaches for Prevention of RHDs in population	K Park Ed. 27th (pg. 378-81)
3	**Adolescent health**	1. Discuss normal adolescent development, its impact on health 2. Counselling of adolescents with specific conditions 3. Identification of normal growth and pubertal development 4. Manage common health &mental health conditions, nutrition related disorders 5. Identify signs of substance use and substance use disorders	K Park Ed. 27th (pg. 670-73)

Pharmacology		
TOPIC	**LEARNING OUTCOMES** **At the end of session students will be able to:**	**REFERENCE**

Post Covid incidence of thyroid diseases and their pharmacological treatment	• define hypothyroidism • Correlate lab results of thyroid function tests and patient's symptoms • Discuss pathophysiology of thyroid disease in association with Covid • Discuss the role of drugs used for hypothyroidism in post Covid patients	Thyroid and COVID-19: a review on pathophysiological, clinical and organizational aspects https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7992516/#:~:text=Thyroid%20and%20COVID%2D19%3A%20a%20review%20on%20pathophysiological%2C%20clinical%20and%20organizational%20aspects The Association Between COVID-19 and Thyroxine Levels: A Meta- Analysishttps://www.frontiersin.org/articles/779692
Bisphosphonates and bone mineral diseases	• Classify drugs used for bone mineral diseases • Describe mechanism of action and uses of bisphosphonates • Describe adverse effects of bisphosphonates	The Effect of Bisphosphonates on Fracture Healing Time and Changes in Bone Mass Density: METAAnalysishttps://www.frontiersin.org/articles/10.3389/fendo.2021. 688269/full#:~:text=10.3389/fendo.2021.688269-,The%20Effect%20of%20Bisphosphonates%20on%20Fracture%20Healing%20Time%20and %20Changes%20in
Nuclear receptors coactivators	• Descried Steroid receptor signaling mechanisms • Discuss the role of coactivators in steroid receptor functioning • Enumerate the drugs acting through steroid receptor activation	Nuclear Integration of Glucocorticoid Receptor and Nuclear Factor-κB Signaling by CREB-binding Protein and Steroid Receptor Coactivator-1* https://www.jbc.org/article/S0021-9258(19)59316-4/fulltext#:~:text=Nuclear%20Integration%20of%20Glucocorticoid%20Receptor%20and%20Nuclear%20Factor%2D%CE%BAB%20Signaling

		%20by%20CREB%2Dbinding%20Protein%20and%20Steroid%20Recep tor%20Coactivator%2D1*
DPP-4 INHIBITORS AND PANCREATIC CARCINOMA	Risk of dipeptidyl peptidase-4 (DPP-4) inhibitors on sitespecific cancer: A systematic review and meta-analysis https://onlinelibrary.wiley.com/doi/abs/10.1002/dmrr.3004	Dipeptidyl Peptidase-4 Inhibitor–Associated Pancreatic Carcinoma https://journals.sagepub.com/doi/abs/10.1177/1060028015610123?jou rnalCode=aopd#:~:text=Dipeptidyl%20Peptidase%2D4%20Inhibitor%E2%80%93Associated%20Pancreatic%20Carcinoma

Themes for Population Medicine & Reproductive Health Module 2026

Week	Theme number	Theme Topics	Subthemes
Week 1,2,3	Theme 1	Maternal Health	1. Antenatal care 2. Natal care 3. Postnatal care
Week 4	Theme 2	Maternal Gynecological Problems	1. Benign & Malignant Diseases of Vulva, Vagina & Breast 2. Benign & Malignant Diseases of Ovary & Uterus
Week 5	Theme 3	Child Health	1. Intrauterine Care 2. Newborn Care 3. Integrated Management of Neonatal and Childhood Illness) & growth monitoring
Week 6	Theme 4	Population Health	1. Demography & population trends 2. Family Planning

Week 1,2,3 ; Theme 1: Maternal Health

Theme / Subtheme	General Learning Outcomes (GLOs)(Aligned with Obstetrics, Medicine, Community medicine, Pathology & Pharmacology	Rationale
Theme: Maternal Health	By the end of the week, the student should be able to: 1. Explain the epidemiology and determinants of maternal morbidity and mortality at global and national levels. 2. Describe the continuum of maternal care (antenatal, intra-natal, postnatal) within the framework of primary health care. 3. Identify major causes of maternal mortality and outline evidence-based preventive strategies. 4. Discuss the role of health systems, referral pathways, and skilled birth attendance in improving maternal outcomes. 5. Demonstrate respectful maternity care principles and ethical considerations in maternal health services.	Maternal health remains a major public health priority, particularly in low- and middle-income countries where preventable causes contribute significantly to maternal morbidity and mortality. For 4th year MBBS students transitioning into clinical practice, teaching about maternal health provides an opportunity to integrate obstetrics, medicine, pathology, pharmacology, ethics, and public health principles into patient-centered care. The continuum of care—from antenatal, intrapartum, to postnatal services—demonstrates how preventive strategies, early risk identification, skilled birth attendance, and timely referral collectively reduce adverse outcomes. Teaching maternal health at this stage strengthens competencies in: • Risk assessment and screening of high-risk pregnancies • Early recognition of obstetric emergencies • Evidence-based preventive strategies • Respectful maternity care and ethical practice
Subtheme 1: Antenatal Care (ANC)	By the end of this section, the student should be able to: 1. Describe objectives and components of quality antenatal care. 2. Outline recommended ANC visit schedules and essential assessments (history, examination, investigations). 3. Identify high-risk pregnancy through screening and risk stratification. 4. Counsel pregnant women on nutrition, immunization, birth preparedness, and danger signs. 5. Discuss prevention and early detection of common antenatal complications (e.g., anemia, hypertensive disorders, gestational diabetes).	

Subtheme 2: Natal Care (Intrapartum Care)	By the end of this section, the student should be able to: 1. Describe the stages and physiology of normal labor. 2. Explain monitoring of labor using partograph and clinical parameters. 3. Recognize warning signs and complications during labor (e.g., obstructed labor, postpartum hemorrhage risk factors). 4. Discuss principles of clean and safe delivery practices. 5. Outline indications for referral and emergency obstetric care.	• Health systems understanding and referral pathways Additionally, maternal health is directly linked to neonatal survival and long-term child outcomes, reinforcing its intergenerational impact. A strong foundation in maternal care prepares graduates to contribute effectively to safe motherhood initiatives, primary health care services, and national reproductive health program
Subtheme 3: Postnatal Care (PNC)	By the end of this section, the student should be able to: 1. Describe the components and timing of postnatal visits for mother and newborn. 2. Identify early and late postpartum complications. 3. Counsel mothers on breastfeeding, nutrition, family planning, and newborn care. 4. Discuss psychological aspects including postpartum depression and social support systems. 5. Explain the importance of postnatal follow-up in reducing maternal and neonatal morbidity and mortality.	

Specific Learning Objectives --- Obstetrics

Code	Topic	Learning objectives At the end of the lecture the student should be able to	Cognitive Levels	Assessment Tool
M2-PMRH-G-001	**Basic terminologies in obstetrics** **Prenatal diagnosis**	• Enlist the aims of antenatal care. • Discuss the importance of early booking and regular anc. • Define prenatal diagnoses. • Enlist the conditions diagnosed with prenatal tests. • Identify the high-risk women for prenatal diagnostic testing. • Name the noninvasive and invasive tests. • Elaborate the timing, method, complications and diagnostic accuracy of each test. • Explain the risk prediction method for down's syndrome.	C1 C2 C2 C1 C1 C1 C1 C2 C2	MCQS/ SAQ
PMRH-G-002	**Early pregnancy complications (miscarriages, ectopic pregnancy)**	• Define miscarriage and its types. • Elaborate the risk factors. • Explain the clinical features of all types of miscarriage. • Discuss key management principles of different types of miscarriages including counseling for futurepregnancies.	C1 C2 C2	MCQ
PMRH-G-003	**Induced and septic abortions** **&** **Abortion Ethics**	• Define induced septic abortion. • Describe their clinical presentations and investigations required. • Enumerate the complications of induced septic abortion. • Discuss the management plan and follow up.	C1 C2 C1 C2	MCQ, SAQ

PMRH-G-004	**Diagnosis of labour First stage of labour, management & Abnormalities** **Normal CTG**	• Define labour and its different stages. • Discuss the maternal and fetal anatomy relevant to labor and delivery. • Identify the signs of onset of labour. • Describe the normal progress of labor in relation to portogram. • Explain the methods of fetal monitoring during labor and their normal values. • Describe the significance of power, passage and passengers. • Discuss the importance of adequate hydration and diet during labour. • Describe the abnormalities of 1st stage of labour. • Discuss the contribution of power, passage and passenger in progress of labour. • Identify the abnormal progress of labor on portogram • Scenario based discussion on fetal monitoring during labour • Identify the 04-basic f hr. Parameters to be interpreted on CTG trace. • Differentiate between normal and abnormal CTG patterns.	C1 C2 C1 C2 C1 C2 C2 C2 C2 C1 C1 C2 C2 C2	MCQ, SAQ
PMRH-G-005	**Second stage of labour** **Normal labour**	• Define the second stage of labour and its normal duration. • Discuss the management of second stage of labour. • Discuss role of power passage and passenger in prolong second stage of labour. Describe the mechanism of normal labour	C1 C2 C2 C2	MCQ, SAQ

PMRH-G-006	**Episiotomy,** **Operative vaginal delivery**	• Define episiotomy. • Enlist its different types. • Explain anatomical structures involved in episiotomy. • Identify indications of episiotomy in correlation with the patient's condition. • Discuss complications of episiotomy. • Define operative vaginal delivery. • Discuss the urgency of operative vaginal deliveries & enumerate its indications. • Discuss prerequisites of operative vaginal delivery. • Discuss methods for application of forceps and vacuum. Enlist the complications of operative vaginal delivery	C1 C1 C2 C3 C2 C1 C2 C1 C2 C2	MCQ, SAQ
PMRH-G-007	**Abdominal delivery**	• Define abdominal delivery. • Discuss briefly the anatomy of anterior abdominal wall. • Discuss the indications of c-section. • Categorize the caesarean section according to RCOG. • Explain the steps of LSCS. • Describe the steps of cesarean section. Discuss the complications associated with LSCS.	C1 C2 C2 C3 C2 C2 C2	MCQ, SAQ
PMRH-G-008	**Third stage of labour and its complications (retained placenta, uterine inversion)**	• Define third stage of labour • Discuss management of third stage of labour. • Define post-partum hemorrhage. (Primary & secondary post-partum hemorrhage) Discuss the risk factors for post-partum hemorrhage.	C1 C2 C1 C2	MCQ, SAQ
PMRH-G-009	**Post-partum hemorrhage**	• Describe the signs, symptoms and diagnosis of primary PPH.	C2 C2	MCQ, SAQ

		• Discuss the investigations and management of primary post-partum hemorrhage. • Describe the signs, symptoms and diagnosis of secondary post-partum hemorrhage. Discuss investigations and management of secondary postpartum hemorrhage.	C2 C2	
PMRH-G-010	**Puerperium and its complications**	• Define puerperium. • Explain the normal physiological changes of normal puerperium. • Discuss the postnatal care during puerperium. Enlist the common disorders of puerperium and their management.	C1 C2 C2 C1	MCQ, SAQ
PMRH-G-011	**Multiple pregnancy**	• Define multiple pregnancy. • Discuss the types of twin gestation according to chorionicity and zygosity. • Interpret the ultrasound findings of multiple pregnancy in first trimester. • Discuss the antenatal care in twin pregnancy. • Discuss the fetomaternal complications associated with multiple pregnancy. • Plan the mode of delivery according to presentation of first twin. . Describe the mechanism of delivery of twins.	C1 C2 C3 C2 C2 C3/C4 C2	MCQ, SAQ
PMRH-G-012	**Antepartum hemorrhage**	• Define antepartum hemorrhage • Enlist causes of APH. • Differentiate clinically between placenta previa and placental abruption. • Elaborate the emergency approach towards the patient with massive hemorrhage. • Discuss management plan for placenta previa.	C1 C1 C3 C2 C3	MCQ SAQ

		Discuss the management plan for placental abruption	C3	
PMRH-G-013	**Preterm labor** **PPROM**	• Define preterm labour. • Enlist its causes. • Plan the management of patient with preterm labour. • Discuss fetal implications of preterm birth. • Define p-prom. • Enlist its causes. • Plan the management of patient with P-Prom. Discuss Fetomaternal Complications Of P-Prom	C1 C1 C3 C2 C1 C1 C3 C2	MCQ SAQ
PMRH-G-014	**Prolonged pregnancy/Induction of labour**	• Define prolong pregnancy. • Correlate fetomaternal risks associated with prolong pregnancy. • Enlist indications and contraindications for IOL. • Describe modified bishop scoring system. • Explain methods of IOL. Discuss complications of IOL.	C1 C2 C1 C2 C2 C2	MCQ SAQ

Specific learning objectives --- Medicine

Code	Topic	Learning objectives At the end of the lecture the student should be able to	Cognitive Level	Assessment tool
PMRH-M-001	Infections in pregnancy (RTIs, GIT, EYE/ENT, Dermatitis)	• Enlist common infections which occur more frequently in pregnancy and risk factors for these infections • Know obstetric complications of infections • Treatment of infections in pregnancy and during breastfeeding	C1 C1 C2/C3	MCQS
PMRH-M-002	Hypertension pre-eclampsia, eclampsia ,	• Recall etiology, pathophysiology • Explain risk factors for , clinical features and investigations to confirm diagnosis • Construct management plan including prevention and discuss complications of eclampsia for both fetus and mother	C1 C2 C3	MCQs
PMRH-M-003	Diabetes in pregnancy	• Recall etiology, pathophysiology of gestational diabetes mellitus • Explain risk factors, clinical features and investigations to confirm diagnosis • Construct management plan of each disorder and discuss complications of these conditions for both fetus and mother	C1 C2 C3	MCQS
PMRH-M-004	Anemia in pregnancy	• Recall etiology, pathophysiology and common types of anemia in pregnancy • Explain risk factors for anemia, clinical features and investigations to confirm diagnosis	C1 C2 C3	MCQS

		• Construct management plan including prevention and discuss complications of anemia for both fetus and mother		
PMRH-M-005	Liver disorders & thrombocytopenia in pregnancy	• Discuss etiologies and risk factors for common thrombotic disorders in pregnancy • Explain clinical features and investigations to confirm thrombotic disorders in pregnancy and post-partum period • Discuss appropriate anticoagulation therapy in pregnancy and breastfeeding	C1 C1 C2	MCQs
PMRH-M-006	Asthma in pregnancy	• Explain the effects of pregnancy on asthma • Explain risk factors, clinical features and investigations to confirm diagnosis Discuss treatment plan and appropriate medication to control asthma in pregnancy	C1 C2 C3	MCQS
	Thrombotic disorders in pregnancy	Explain etiologies and prevalence of thrombocytopenia in pregnancy	C2	MCQs
PMRH-M-007	Rheumatological illness and pregnancy	• Explain the effects Rheumatological illness during pregnancy • Explain risk factors, clinical features and investigations to confirm diagnosis Discuss treatment plan and appropriate medication to control these in pregnancy	C2 C3 C3	MCQs
PMRH-M-008	Overview of Rheumatological disorders	• Explain common Rheumatological disorders during pregnancy	C2 C3	MCQs

		• Explain risk factors, clinical features and investigations to confirm diagnosis Discuss treatment plan and appropriate medication to control these in pregnancy	C3	
PMRH-M-009	Osteoarthritis	• Define osteoarthritis & its types • Enlist predisposing factors • Enlist clinical features & diagnostic criteria Management strategy	C1 C2 C2 C3	MCQS
PMRH-M-010	Epilepsy in pregnancy	Explain how does epilepsy effects pregnancy	C1	MCQs
PMRH-M-011	Asthma in pregnancy	• Explain the effects of pregnancy on asthma • Explain risk factors, clinical features and investigations to confirm diagnosis Discuss treatment plan and appropriate medication to control asthma in pregnancy	C1 C2 C3	MCQS

Specific Learning objectives--- Community Medicine

Code	Topic	Contents Outlines Sub- Topics	Learning Objectives After the Session Students Will Be Able To:	Level of cognition	Teaching strategy	Assessment Tools
PMRH-CM-001	Reproductive Health and domiciliary services	• Preventive medicine in obstetrics-I • Maternal and child health care (MCH) • Maternity cycle • MCH problems • Delivering MCH services • Recent trends in MCH care	• Define and comprehend the rationale of different components of maternal and child health including o Reproductive health & its components o Safe motherhood & its components o Maternal mortality rate, causes & prevention • Infer the logic behind application of different preventive measures in various phases of life to improve the maternal health • Appreciate the relationship between the maternal health status and the outcome of pregnancy • Determine the factors that contribute to HIGH maternal mortality rate (MMR).	C2 C3 C3 C2	LGIS	MCQ, SEQ, Viva
PMRH-CM-002.	Preventive obstetrics(antenatal)	• Preventive medicine in obstetrics-II • Preventive services for mothers • Indicators in MCH care	• Understand the availability of preventive services for mother during antenatal period • Explain the concept of dimensions of continuum of care • Describe the in detail the services for mother during antenatal period • Describe the in detail the relevance of antenatal care to the health of mother and pregnancy outcome.	C1 C3 C2 C2	LGIS	MCQ, SEQ, Viva

PMRH-CM-003	Preventive obstetrics in Post-natal period	• Preventive medicine in obstetrics-III • Domiciliary care • Institutional care • Rooming in • Post-natal period and related complications	• Comprehend the concept of care required for the rapid restoration of the mother to optimum health • Enlist the preventive strategies required to prevent complications during intra natal & post-natal period. • Appreciate the importance of health education for mother/family regarding intra natal & postnatal complication • Understand the relevance of family planning services provided during postnatal period	C2 C2 C3 C2		MCQs, SEQs, Viva

Specific Learning objectives--- Pathology

Code	TOPIC	Contents Outlines (Major Topics & Sub-Topics)	Learning objectives Students should be able to	Learning Domain	Teaching strategy	Assessment Tool
PMRH-P-001	Early preg. complications Nonneoplastic placental pathology	Pathology of early pregnancy complications & Non neoplastic placental pathology	• Enlist etiology, pathogenesis, complications, investigations of nonneoplastic placental pathology	C2	SGD	MCQ, SEQ, VIVA
PMRH-P-002	GTD & Choriocarcinoma	Gestational trophoblastic diseases and choriocarcinoma	• Explain Pathological features, diagnosis and follow-up of Gestational Trophoblastic Disease. • Enlist difference between complete and partial mole	C2 C1	LGIS	MCQ, SEQ, VIVA

			• Describe incidence and pathological features of Choriocarcinoma	C2		
PMRH-P-003	Cervical carcinoma and screening through cervical smears		• Describe pap smear, CIN, cervical carcinoma with its histopathological features	P2,P3	Skill Lab	OSPE, VIVA
PMRH-P-004	Rh Incompatibility, Anemia & Diseases in Pregnancy		• Enlist etiology, pathogenesis, complications, investigations		CBL	MCQs
PMRH-P-005	Benign diseases of breast	• Congenital anomalies. • Inflammatory lesion of breast. • duct ectasia, fat necrosis and granulomatous mastitis	• Identify the congenital anomalies of breast • Classify and describe the in inflammatory lesions of breast • explain duct ectasia fat necro sis and granulomatous mastitis	C1 C2 C2	LGIS	MCQ SEQ VIVA
PMRH-P-006	Malignant neoplasm of breast	• Classification of epithelial and stromal malignant lesions • Invasive mammary carcinoma (NOS) • Familial Breast Cancer, with molecular	• Classify the neoplasms of breast • explain the histology, grading, staging, lab diagnosis of breast cancer	C2 C2	LGIS	MCQ SEQ VIVA

		Mechanisms of Carcinogenesis and Tumor Progression				
PMRH-P-007	Benign & malignant diseases of uterus		• Enlist benign and malignant diseases if uterus with their introduction describe the gross and histopathological features	P1,P2	Skill Lab	MCQ SEQ OSPE VIVA

Specific Learning objectives of Pharmacology

code	Topic	Learning Objectives	Learning Domains	Teaching strategy	Assessment Strategy
PMRH-PH-001	Oxytocic drugs Uterine Relaxants	• Describe actions of oxytocin • Describe uses and adverse effects of oxytocin • Elaborate clinical uses of prostaglandin • Enlist ergot alkaloids, their uses and adverse effects • Classify Tocolytics • Describe the pharmacodynamics of tocolytic agents • Discuss their uses & adverse effects	C2 C2 C3 C1 C1 C2 C1	LGIS	SEQ MCQ, VIVA
PMRH-PH-002	Gonadal hormones: I-Estrogens	• Enumerate Estrogen antagonists/SERMs	C1 C2 C2	LGIS	SEQ MCQ VIVA

		• Introduction of Newer SERMS (Bazedoxifene and Ospemifene) • Describe mechanism of action, uses & adverse effects of Estrogen antagonists/SERMs • Discuss the effects of enzyme inducers on metabolism of SERMs.	C2		
PMRH-PH-003	Gonadal hormones :II Progestin	• Differentiate between Natural and synthetic Progestins. • Describe mechanism of action, uses & adverse effects of Progestins.	C2 C2	LGIS	SEQ, MCQ, VIVA
PMRH-PH-004	Gonadal hormones' Anabolic	• Enumerate androgen preparations • Describe uses & adverse effects of androgen preparations • Discuss Pharmacokinetic and Pharmacodynamics of Anti-androgens	C1 C2 C2	LGIS	SEQ MCQ VIVA
PMRH-PH-005	Drug used Treatment of Infertility	• Enlist drugs used for treatment of Infertility • Discuss Aromatase inhibitors • Describe Gonadotropin analogues (FSH, hMG, hCG), and risk of OHSS (ovarian hyperstimulation syndrome). • Discuss the pharmacology of GnRH antagonists • Discuss adverse effects and interactions.	C1 C2 C2 C1 C2	LGIS	SEQ.VIVA .MCQ
PMRH-PH-006	PK Calculations II	• Calculations for maintenance dose • Calculations for plasma half-life & steady state concentration	P2	Skill Lab	OSPE

PMRH-PH-007	P drug & Prescription writing	• P drug & prescription writing for infertility • P drug & prescription writing for premature labour	P2	Skill Lab	OSPE

Specific Learning Objectives--- Anesthesia

Code	TOPIC	Contents Outlines (Major Topics & Sub-Topics)	Learning objectives Students should be able to	Learning Domain	Teaching strategy	Assessment Tool
PMRH-Ans-001	Regional Anesthesia (Spinal & Epidural)	Principles of regional anesthesia.	• Describe principles of regional anesthesia • . Explain anatomy of spinal cord and epidural space. Identify indications and contraindications of spinal anesthesia. • Recognize complications such as hypotension and post-Dural puncture headache. • Outline management of spinal anesthesia complications	C1 C2 C2 C2	LGIS	MCQ, SEQ, EMQ

SDL 1 Per Wk. Theme 1.

Subject	Content Outlines (Major Topics & Sub Topics)	Learning Objectives At the end of SDL students will be able to:	Learning Resource	Assessment tool
Gynae & obs.	Renal Disease in Pregnancy	• Explain the Effect of CKD on pregnancy outcome • enlist feto-maternal complications associated with dialysis • Discuss the feto-maternal outcome of Pregnancy in women with renal transplants.	Obstetrics by Ten Teachers (20th edition) Page 148	MCQs
	Heart Disease in Pregnancy	• Pre-pregnancy counseling of heart disease in pregnancy. • Elaborate antenatal management of heart disease in pregnancy. • Management of labour and delivery in patients with heart disease in pregnancy • Discuss the treatment of heart failure in pregnancy	Obstetrics by Ten Teachers (20th edition) Page 155	MCQs
Community medicine	Genetics	• Acquire knowledge about human genetics, genotype, phenotype • Classify genetic diseases • Describe Preventive and social measures of genetic diseases • Define euthenics • Explain importance of Genetic counselling	Page 764, K-Park	MCQs

	Reproductive health	Describe. • early neonatal care • Immediate neonatal care • Early neonatal examination • Neonatal screening	K Park Ed. 27th (532-535	MCQs
Pathology	Fibrocystic changes of Breast	• explain fibrocystic changes of breast • explain briefly types of changes , describe the morphology, how the fibrocystic changes are related to breast carcinomas	Robbins Basic Pathology 9th Edition Chapter 17 Female Genital System Pg 705-707	MCQ SEQ OSPE VIVA
	Epidemiology of breast CA	Epidemiology and Risk factors related to breast cancer	Robbins Basic Pathology 9th Edition Chapter 17 Female Genital System Pg 741	MCQ SEQ OSPE VIVA
Pharmacology	Novel endocrine therapies for hormone positive breast cancer	• Enumerate hormonal treatments of breast cancer • Discuss the mechanism of action of SERM and SERD in breast cancer Give new therapies acting via nuclear estrogen receptors in breast cancer	Lloyd MR, Wander SA, Hamilton E, Razavi P, Bardia A. Next-generation selective estrogen receptor degraders and other novel endocrine therapies for management of metastatic hormone receptor-positive breast cancer: current and emerging role. *Therapeutic Advances in Medical Oncology*. 2022;14. doi:10.1177/17588359221113694	MCQS
	Use and abuse of anabolic steroids	• Differentiate between androgens and • anabolic steroids • Discuss the clinical application of anabolic steroids Give the organ effects of anabolic effects Identify the health consequences of abuse of anabolic steroids	Gagliano-Jucá T, Basaria S. Abuse of anabolic steroids: A dangerous indulgence. Current Opinion in Endocrine and Metabolic Research. 2019 Dec 1;9:96-101.	MCQS

Transdisciplinary Clinical–Reasoning Forum (TCRF-1)

Theme 1

Theme: Maternal Health

Theme	Week	Topic	Clinical Case Scenario
Theme 1	Week 1,2,3	Antenatal Complication – Severe Pre-eclampsia	A pregnant woman presenting with headache, hypertension and edema in the third trimester

“Managing a Pregnant Woman with Severe Pre-eclampsia”

Clinical Scenario

A 26-year-old primigravida at 32 weeks of gestation presents to the emergency obstetric unit with severe headache, blurring of vision, and swelling of feet and face for the last 3 days.

She attended only one antenatal visit earlier in pregnancy. Her blood pressure today is 170/110 mmHg. Urine dipstick shows 3+ proteinuria. She reports decreased fetal movements since morning.

On examination, she has bilateral pedal edema, brisk deep tendon reflexes, and mild epigastric tenderness. Fundal height corresponds to 30 weeks and fetal heart rate is 150/min.

Investigations reveal:

- Hb: 10.2 g/dL
- Platelet count: 110,000/mm³
- Elevated liver enzymes
- Urinary protein: significant
- Ultrasound: **intrauterine growth restriction (IUGR)**

The obstetric team discusses **stabilization, antihypertensive therapy, magnesium sulfate prophylaxis, fetal monitoring, and possible early delivery**.

Student Task (Problem-Based Trigger)

Students are asked to:

1. Identify **risk factors and warning signs** of hypertensive disorders in pregnancy.
2. Interpret **clinical findings and laboratory results** suggesting severe pre-eclampsia.
3. Explain **maternal and fetal pathophysiology** of pre-eclampsia.
4. Formulate an **evidence-based management plan** including antihypertensive therapy and seizure prophylaxis.
5. Discuss **indications and timing of delivery**.
6. Identify **anesthetic considerations** for emergency cesarean section.
7. Suggest **antenatal screening and community-based prevention strategies**.

Students Integrate (Implicitly)

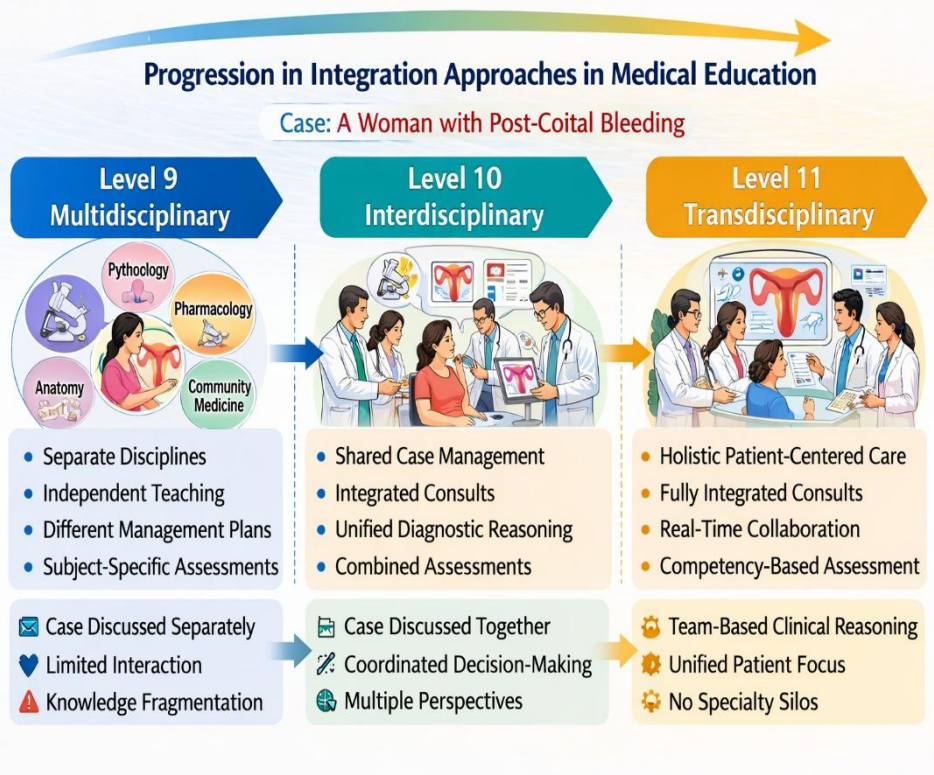
● **Maternal physiology & anatomy** (uteroplacental circulation, cardiovascular changes in pregnancy)
● **Pathophysiology** (abnormal placentation, endothelial dysfunction, vasospasm in pre-eclampsia)
● **Clinical interpretation** (blood pressure measurement, proteinuria assessment, laboratory findings)
● **Fetal assessment** (ultrasound findings, fetal growth restriction, fetal monitoring)

- **Pharmacologic principles** (antihypertensives, magnesium sulfate for seizure prophylaxis)
- **Anesthetic considerations** (perioperative management for cesarean delivery in hypertensive pregnancy)
- **Obstetric decision-making** (timing and mode of delivery in severe pre-eclampsia)
- **Ethics & communication** (counseling the patient and family regarding maternal and fetal risks)
- **Public health perspective** (importance of antenatal care, early detection of high-risk pregnancy, referral systems)

None are taught in isolation.

What Makes This Harden's Integration Level 11?

- No subject headings
- Knowledge embedded within clinical reasoning
- Patient problem is organizing principle
- Learning mirrors authentic emergency decision-making



Teaching Format

- Small group **case-based learning**
- Facilitated **clinical reasoning discussion**
- **Emergency obstetric management simulation**
- **Patient counseling role-play**
- Competency assessment based on:
  - Clinical reasoning
  - Therapeutic decision making
  - Communication skills
  - Referral and system-level thinking

Academic Justification Statement

This case represents **Harden Level 11 (Transdisciplinary Integration)** where maternal health learning is structured around a real clinical emergency rather than subject boundaries. Biomedical knowledge, pharmacologic therapy, anesthetic considerations, and public health principles is integrated seamlessly within professional clinical practice.

Subject Contribution in TCRF Session 1

Subject / Discipline	Nature of Contribution	Approx. Integration Weight (%)	Rationale
Obstetrics & gynecology	Diagnosis and management of pre-eclampsia, delivery planning	30%	Core clinical discipline
Medicine	Hypertension pathophysiology, systemic complications	15%	Medical management of maternal disease
Pathology	Placental pathology, endothelial dysfunction	12%	Explains disease mechanism
Pharmacology	Antihypertensives, magnesium sulfate therapy	12%	Rational drug therapy
Anesthesia	Anesthetic planning for cesarean delivery	10%	Perioperative maternal safety
Community Medicine	ANC coverage, risk screening, maternal mortality prevention	11%	Public health dimension
Ethics & Communication	Counseling regarding maternal and fetal risks	10%	Professional competence

Subject-Wise Specific Learning Objectives

Subject	Domain	Specific Learning Objectives (Students will be able to…)	Bloom's Level	Integration Role
Obstetrics & Gynecology	Clinical Reasoning	Diagnose severe pre-eclampsia based on clinical and laboratory findings	Analyze	Core discipline
		Identify indications for early delivery	Evaluate	
		Develop management plan for hypertensive disorders in pregnancy	Evaluate	
Medicine	Maternal Medicine	Explain systemic effects of severe hypertension in pregnancy	Understand	Medical context
		Identify complications such as HELLP syndrome and eclampsia	Analyze	
Pathology	Disease Mechanism	Describe placental abnormalities associated with pre-eclampsia	Understand	Mechanistic understanding
		Explain endothelial dysfunction and reduced placental perfusion	Understand	
Pharmacology	Therapeutics	Outline pharmacologic management including magnesium sulfate therapy	Apply	Treatment
		Discuss antihypertensive drug selection during pregnancy	Analyze	
Anesthesia	Perioperative Care	Identify anesthetic considerations in cesarean section for pre-eclampsia	Apply	Maternal safety
			Analyze	

Subject	Domain	Specific Learning Objectives (Students will be able to…)	Bloom's Level	Integration Role
		Recognize risks of general vs regional anesthesia		
Community Medicine	Public Health	Identify population-level determinants of maternal mortality Propose ANC strategies for early detection of high-risk pregnancies	Analyze	Prevention
			Create	
Ethics & Communication	Professional Skills	Counsel patient and family regarding risks and management options	Apply	Shared decision making

Wk. 4 ;Theme 2: Maternal Gynecological Problems

Theme / Subthemes	General Learning Outcomes (Aligned with Gynecology, Pathology & Pharmacology)	Rationale
Theme 2: Maternal & Gynecological Problems	By the end of this theme, the student should be able to: 1. Describe the epidemiology and risk factors of common benign and malignant gynecological disorders across the reproductive lifespan. *(Gynecology)* 2. Explain the etiopathogenesis and morphological basis of gynecological and breast diseases. *(Pathology)* 3. Correlate clinical manifestations with underlying pathological processes for accurate diagnosis. *(Gynecology/Pathology)* 4. Prescribe commonly used gynecological drugs rationally, including mechanism of action, indications,	Gynecological disorders represent a substantial proportion of outpatient visits and hospital admissions across the reproductive lifespan. Benign conditions such as fibroids, menstrual disorders, infections, and breast diseases significantly affect quality of life, while gynecological malignancies remain major causes of morbidity and mortality among women. For undergraduate medical students, this theme provides an essential platform for integrating clinical gynecology with

	contraindications, adverse effects, and monitoring. *(Pharmacology)*.	pathology and pharmacology. Understanding etiopathogenesis, morphological changes, hormonal influences, and molecular mechanisms enables students to correlate clinical findings with underlying disease processes, thereby strengthening diagnostic reasoning. At the 4th year level, students must develop competence in: • Clinical evaluation of gynecological complaints • Correlation of symptoms with pathological processes • Rational pharmacological prescribing • Screening and early detection strategies for malignancies • Ethical and culturally sensitive communication in women's health This theme equips future physicians with the knowledge and clinical reasoning skills necessary for safe initial management and appropriate referral of common and serious gynecological conditions
Subtheme 1: Benign & Malignant Diseases of Vulva, Vagina & Breast	By the end of this section, the student should be able to: 1. Describe common benign disorders (e.g., vulvovaginitis) and their clinical features. *(Gynecology)* 2. Explain pathogenesis and risk factors of malignancies affecting vulva, vagina, and breast. *(Pathology)* 3. Correlate clinical findings with histopathological patterns. *(Pathology)* 4. Discuss screening and early detection strategies. *(Gynecology)* 5. Outline pharmacological management including antimicrobials, hormonal therapy, and chemotherapeutic agents. *(Pharmacology)*	
Subtheme 2: Benign & Malignant Diseases of Ovary & Uterus (Including Menstrual Problems, Infertility)	By the end of this section, the student should be able to: 1. Describe common benign uterine and ovarian conditions (e.g., fibroids, cysts, endometriosis) *(Gynecology)* 2. Explain etiopathogenesis of endometrial and ovarian malignancies *(Pathology)* 3. Classify menstrual disorders and relate them to endocrine and structural abnormalities. *(Gynecology/Pathology)* 4. Outline diagnostic approaches including imaging and histopathological evaluation. *(Gynecology/Pathology)* 5. Discuss rational pharmacological management of menstrual disorders and gynecological malignancies. *(Pharmacology)*	

Specific Learning Objectives--- Gynaecology

Code	Topic	Learning objectives At the end of the lecture the student should be able to	Cognitive Levels	Teaching Strategy	Assessment Tool
PMRH-G-014	Menstrual Cycle	• Describe features of normal menstrual cycle. • Elaborate the ovarian and endometrial changes which occur during normal menstrual cycle. • Discuss the role of hypo axis in controlling the menstrual cycl**e.**	**C1** **C2** **C2**	LGIS	**MCQ, SAQ**
PMRH-G-015	Management of benign & malignant disease of vulva & vagina	• Name the common benign conditions of vulva and vagina. • Identify their etiological factors. • Describe their clinical presentation. • Enlist their diagnostic investigations. • Discuss the management options for each condition. • Name the malignant conditions of vulva and vagina. • Describe their clinical presentation. • Enlist their diagnostic investigations. • Discuss the management options for each condition.	C1 C1 C2 C1 C3 C1 C2 C1 C3	LGIS	**MCQ, SAQ**
P M RH	Management of premalignant	• Define premalignant diseases of cervix. • Discuss the role of HPV testing in cervical screening program. • Enlist the investigations for cervical screening of mass population.	C1 C2 C1 C1	LGIS	**MCQ SAQ**

-G-014	& malignant disease of cervix	• Enumerate types of CIN and their management options. • Discuss the pathogenesis of cervical CA. • Elaborate the FIGO staging of cervical cancer. • Discuss the management options according to the stage of disease.	C2 C2		
	Management of benign & malignant disease of uterus.	• Enlist the common benign conditions of uterus according to their tissue of origin. • Discuss the clinical features of benign uterine conditions. • Describe the tests used to evaluate the uterine and endometrial pathology • Explain the available treatment options for uterine fibroids and the rationale for selection. • Classify malignant diseases of uterus. • Identify their etiology, risk and protective factors. • Discuss clinical presentation of malignant disease of uterus. • Describe the investigations needed for diagnosis and staging of uterine cancer. • Discuss figo staging of endometrial cancer. • Explain management, follow up and five-year survival rate of endometrial cancer.	C1 C2 C2 C3 C2 C1/ C2 C2 C2 C3 C2	LGIS	**MCQ SAQ**
PMRH-G-016	Management of benign and malignant ovarian tumors	• Enlist the types of malignant ovarian tumors. • Enumerate their risk factors. • Describe clinical features of the disease. • Explain the diagnostic criteria investigations and tumor markers of malignant ovarian tumor. • Discuss the figo staging of ovarian carcinoma. • Discuss management, follow up and 5-year survival	C1/C2 C2 C2 C3 C3	LGIS	MCQ SAQ

Specific Learning Objectives --- Pathology

Code	Topic	Contents Outlines (Major Topics & Sub- Topics)	Learning objectives. Students will be able to	Learning Domain	Teaching Strategy	Assessment Tool
PMRH-P-008	Malignant diseases of cervix.	• Cervical Intraepithelial Neoplasia • Cervical Carcinomas.	• Describe Etiology and morphology of Acute and Chronic Cervicitis (C2) Interpret morphological diagnosis of Cervical intraepithelial Neoplasia. • Classify Cervical Carcinomas • Describe Morphological features and prognosis of cervical cancer.	C3 C2 C2	LGIS	MCQs, SEQs, OSPE Viva
PMRH-P-009	Benign Diseases of Uterus	• Endometrial hyperplasia and epithelial neoplastic lesions	• Enlist causes of endometrial hyperplasia and carcinoma. • Evaluate morphological features of Endometrial Hyperplasia. • Describe classification, genetic pathogenesis and morphology of Malignant Tumors of the Endometrium	C1 C3 C2	LGIS	MCQs, SEQs, OSPE Viva

PMRH-P-010	Benign diseases of ovary	• Classification of ovarian Cystic neoplasm and • Polycystic ovarian syndrome	• Categorize nonneoplastic and functional ovarian cysts • Describe Pathogenesis of polycystic ovarian syndrome • Interpret morphological diagnosis of endometriotic cyst	C2 C2 C3	LGIS	MCQ SEQ VIVA
PMRH-P-011	Malignant diseases of Ovary.	• Ovarian tumors	• Classify ovarian tumors. • Describe pathogenesis morphological features and prognosis of surface epithelial ovarian tumors • Interpret morphological diagnosis of ovarian tumors • Differentiate between pathogenesis and histopathological features of various Germ cell and sex cord stromal ovarian tumor • Describe Prognosis and staging of ovarian tumors • Enumerate Diagnostic work up for ovarian tumors	C2 C2 C3 C3 C2 C2	LGIS	MCQ SEQ VIVA
PMRH-P-012	Pathologies of lower urinary tract	• Lower ureter,urethra,urinary bladder	Describe pathologies of lower urinary tract in males and females	C2	LGIS	MCQ,SEQ, VIVA

PMRH-P-013	Dysfunctional uterine bleeding	• Endometriosis • Endometrial polyps	• Describe causes and pathogenesis of Functional Endometrial Disorders (Dysfunctional Uterine Bleeding) and Inflammatory Disorders. • Interpret diagnosis via morphological features of endometriosis and Adenomyosis & Endometrial Polyps	C2 C3	SGD	MCQ,SEQ, VIVA
PMRH-P-014	Testicular atrophy, cryptorchidism		• Describe risk factors, histopathology, pathogenesis & investigations of testicular atrophy	C3	CBL	MCQ,SEQ, VIVA
PMRH-P-015	Lesions of Cervix	• Benign and Premalignant Lesions of Cervix	• Describe Etiology and morphology of Acute and Chronic Cervicitis • Categorize Endocervical Polyps and Metaplasia • Describe risk factors etiology pathogenesis of metaplasia leading to dysplasia.	C2 C2 C2	SGD	MCQ,SEQ, VIVA
PMRH-P-016	Pathology of vulva & vagina		• Categorize nonneoplastic lesion (Development anomalies, Infections and cysts) of vulva and vagina. • Enlist Premalignant lesions	C2 C2 C3		MCQ,SEQ, VIVA

			• Interpret diagnosis of Vulvar and Vaginal intra epithelial neoplasia and malignant lesion of vulva and vagina			
PMRH-P-017	Testicular tumors	• Germ cell types • Non germ cell types	• Describe the classification and pathology of testicular tumours, including germ cell and non-germ cell types. • Identify the clinical presentation and diagnostic methods used for testicular tumours, including tumour markers and imaging. • Explain the management and prognosis of testicular tumours, including surgery, chemotherapy, and radiotherapy.	C1 C1 C2	LGIS	MCQ, SAQ

Specific Learning Objectives--- Pharmacology

Code	Topic	Learning Objectives	Learning Domains	Teaching Strategy	Assessment Tool

PMRH-PH-001	Prolactin antagonist	• Enumerate Prolactin Antagonists • Describe Mechanism of Action, Uses as well as adverse effects of Prolactin Antagonists • Highlight comparative Pharmacology of Cabergoline and Bromocriptine	C1 C2 C2	LGIS	SEQ MCQ VIVA
	PK Calculations I	• Calculation for loading dose • Calculation for maintenance dose	P	Skill lab	OSPE
	PK Calculations II	• Calculations for maintenance dose • Calculations for plasma half-life & steady state concentration	P	Skill lab	OSPE

Self-Directed Learning SDL 1 per wk. Theme 2

Subject	**Content Outlines (Major Topics & Sub Topics)**	**Learning Objectives At the end of lecture students will be able to:**	**Learning Resource**	**Assessment tool**
Gynae & obs.	Respiratory Disease in Pregnancy (Asthma)	Explain the effects of pregnancy on asthma , explain risk factors, clinical features and	Obstetrics by Ten Teachers (20th edition) Page 158	MCQs

		investigations to confirm diagnosis C), Discuss treatment plan and appropriate medication to control asthma in pregnancy		
	Neurological Disease in Pregnancy Epilepsy	explain how does epilepsy effects pregnancy, enlist antiepileptic's drugs which are safe in pregnancy and breastfeeding, Devise management plan and discuss complications of epilepsy for both fetus and the mother	Obstetrics by Ten Teachers (20th edition) Page 160	MCQs
Community medicine	Ottawa charter on health promotion	Explain key areas of action for health promotion	K Park Ed. 27th (30,31)	MCQ
	Dynamics of human behavior (Human psychology	Describe dynamics of human behavior in terms of health behavior, illness behavior and treatment behavior Comprehend learning as Behavior change Describe 3 types of learning	K Park Ed. 27th (673, 674, 676, 678)	2-3MCQ
Pathology	prostatitis	Categorize different types of prostatitis Explain etiology clinically presentation of prostatitis, diagnosis of prostitis	Robbins Basic Pathology 9th Edition Chapter 17 Male Genital System Pg 663-664	MCQ SEQ OSPE VIVA
	Polycystic ovarian disease	Define PCOD, what is conical presentation of PCOD, Investigation of PCOD, Morphological changes of PCOD	Robbins Basic Pathology 9th Edition Chapter 17 Female Genital System Pg 695 - 696	MCQ SEQ OSPE VIVA
Pharmacology	Pharmacological management of dysmenorrhea	Recall the pathophysiology of dysmenorrhea Enlist short- and	Mittal R. Medical management of Dysmenorrhea. International	MCQS

		long-term management strategies of dysmenorrhea Discuss the salient pharmacological feature of different strategies	Journal of Advance Research, Ideas and Innovations in Technology. 2019;5(1). Harel Z. Dysmenorrhea in adolescents and young adults: an update on pharmacological treatments and management strategies. Expert opinion on pharmacotherapy. 2012 Oct 1;13(15):2157-70.	
	Hormonal therapy for prostate cancer (GnRH antagonist VS ADT)	Identify different agents used in prostate cancer Recognize the role of different hormone receptors in prostate cancer Describe the clinical merits and demerits of different treatment options	Rice MA, Malhotra SV, Stoyanova T. Second-generation antiandrogens: from discovery to standard of care in castration resistant prostate cancer. Frontiers in oncology. 2019 Aug 28;9:801.	MCQS

Transdisciplinary Clinical–Reasoning Forum (TCRF-2)

Theme 2

Theme	Week	Topic	Clinical Case Scenario
Theme 2: Maternal & Gynecological Problems	Week 4	Cervical Cancer	A woman presenting with post-coital bleeding and abnormal vaginal discharge

“Evaluating a Woman with Post-Coital Bleeding”

Clinical Scenario

A 38-year-old multiparous woman presents to the gynecology outpatient clinic with post-coital bleeding and foul-smelling vaginal discharge for the past 3 months. She also reports intermittent lower abdominal discomfort and recent unexplained weight loss.

She has never undergone cervical cancer screening. Her obstetric history reveals early marriage at 17 years and four vaginal deliveries. She reports that her husband has multiple sexual partners.

On pelvic examination, the cervix appears irregular, friable, and bleeds on touch. A Pap smear shows high-grade squamous intraepithelial lesion (HSIL).Colposcopy reveals an abnormal transformation zone, and biopsy confirms squamous cell carcinoma of the cervix.

The healthcare team discusses further staging, treatment options, and prevention strategies including HPV vaccination and screening programs.

Student Task (Problem-Based Trigger)

Students are asked to:

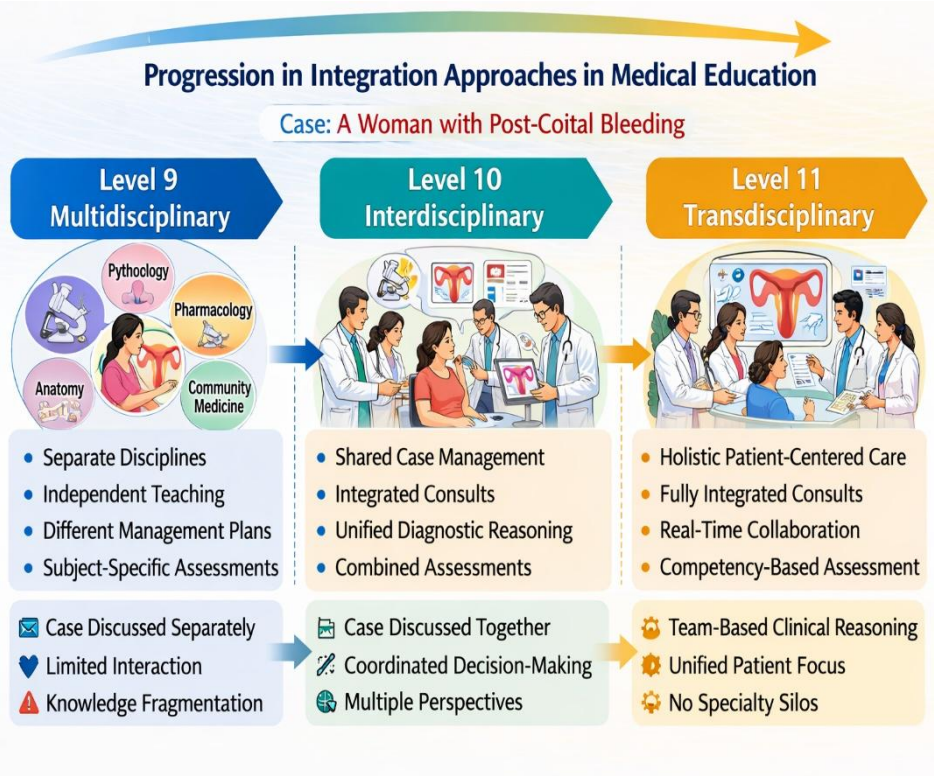
1. Identify risk factors for cervical intraepithelial neoplasia and cervical cancer.
2. Interpret clinical and pathological findings from Pap smear and biopsy.
3. Explain the role of HPV infection in carcinogenesis.
4. Describe screening strategies and early detection methods.
5. Discuss FIGO staging and treatment options.

6. Counsel the patient regarding HPV vaccination and preventive strategies.
7. Identify community-level interventions for cervical cancer prevention.

Students Integrate (Implicitly)

● Cervical anatomy (ectocervix, endocervix, squamocolumnar junction, transformation zone)
● Pathophysiology (HPV infection and progression from CIN to invasive carcinoma)
● Histopathology interpretation (Pap smear findings and CIN grading)
● Clinical decision-making (screening, staging, and treatment planning)
● Pharmacologic principles (HPV vaccination and chemotherapy)
● Cancer prevention strategies (screening programs and vaccination)
● Ethics & communication (counseling women regarding screening and reproductive health)
● Public health perspective (population screening and early detection programs)

None are taught in isolation.



What Makes This Harden's Integration Level 11?

No subject boundaries during discussion
• Learning organized around a real gynecological patient problem
• Biomedical science integrated within clinical reasoning
• Students combine gynecology, pathology, pharmacology, anatomy and public health knowledge simultaneously
• Emphasis on competence in screening, diagnosis, and prevention

Teaching Format

• Small group case-based discussion Interpretation of Pap smear and histopathology images
• Clinical decision-making discussion
• Patient counseling role-play on screening and vaccination
• Competency assessment focusing on:

- Diagnostic reasoning
- Preventive strategies
- Therapeutic planning
- Communication skills

Academic Justification Statement

This case represents Harden Level 11 (transdisciplinary integration) where cervical cancer learning is organized around an authentic clinical scenario rather than discipline-based teaching. Students integrate knowledge of cervical anatomy, HPV pathogenesis, screening strategies, pharmacological prevention, and oncological management within clinical decision-making.

Subject Contribution in Transdisciplinary Clinical–Reasoning Forum

Subject / Discipline	Nature of Contribution	Approx. Integration Weight (%)	Rationale
Obstetrics & Gynecology	Screening, staging, and management of cervical cancer	30%	Core clinical discipline
Pathology	HPV pathogenesis, CIN grading, histopathology	20%	Explains disease mechanism
Pharmacology	HPV vaccination, chemotherapy	15%	Prevention and treatment
Anatomy	Cervical anatomy and transformation zone	10%	Structural basis of disease
Community Medicine	Screening programs and prevention strategies	15%	Public health dimension
Ethics & Communication	Counseling for screening and vaccination	10%	Professional competence

Subject-Wise Specific Learning Objectives

Subject	Domain	Specific Learning Objectives (Students will be able to…)	Bloom's Level	Integration Role
Obstetrics & Gynecology	Clinical Reasoning	Define cervical intraepithelial neoplasia (CIN) and cervical cancer Identify risk factors for cervical cancer Describe screening methods including Pap smear and HPV testing Explain FIGO staging and treatment options	Understand Analyze Apply Evaluate	Core discipline
Anatomy	Structural Understanding	Identify parts of cervix including ectocervix and endocervix Describe squamocolumnar junction and transformation zone Correlate cervical anatomy with site of CIN development	Understand Understand Analyze	Supports reasoning

Subject	Domain	Specific Learning Objectives (Students will be able to…)	Bloom's Level	Integration Role
Pathology	Mechanistic Understanding	Explain role of HPV infection in cervical carcinogenesis Differentiate CIN grades based on histological findings Distinguish CIN from invasive carcinoma	Understand Analyze Analyze	Disease mechanism
Pharmacology	Therapeutics	Explain mechanism and role of HPV vaccination Identify drugs used in cervical cancer therapy Describe principles of chemotherapy in gynecological malignancies	Understand Apply Understand	Prevention Treatment
Community Medicine	Public Health	Describe population screening strategies for cervical cancer Propose community-level interventions for cervical cancer prevention	Analyze Create	Prevention
Ethics & Communication	Professional Skills	Counsel women regarding screening and HPV vaccination	Apply	Patient education

Week 5- Theme 3: Child Health

Theme / Subtheme	General Learning Outcomes (GLOs) (Aligned with Obstetrics , Pead's, community medicine & Pathology)	Rationale
Theme: Child Health	By the end of this week, the student should be able to: 1. Describe the epidemiology and determinants of neonatal, infant, and under-five morbidity and mortality at global and national levels. 2. Explain the continuum of care approach linking maternal, fetal, newborn, and child health services. 3. Identify major preventable causes of child morbidity and mortality and outline evidence-based interventions. 4. Discuss national child health programs and primary health care strategies for improving child survival.	Child health is intrinsically linked to maternal and reproductive health and remains a central component of public health strategies aimed at reducing under-five mortality. For 4th year MBBS students, child health teaching emphasizes the continuum of care beginning from intrauterine life through newborn and early childhood stages. It allows integration of pediatrics, obstetrics, preventive medicine, epidemiology, and primary health care concepts into comprehensive child survival strategies. This theme develops competencies in: • Recognition of neonatal and childhood danger signs • Preventive strategies including immunization and nutrition • Application of IMNCI guidelines in primary care settings. Growth monitoring and interpretation of growth charts
Subtheme 1: Intrauterine Care	By the end of this section, the student should be able to: 1. Explain the importance of maternal health in determining fetal and neonatal outcomes. 2. Describe preventive strategies during pregnancy that promote optimal intrauterine growth. 3. Discuss management principles of high-risk fetuses in collaboration with referral services.	
Subtheme 2: Newborn Care	By the end of this section, the student should be able to: 1. Describe essential newborn care practices. 2. Identify danger signs in neonates requiring urgent referral. 3. Explain prevention and management principles of common neonatal conditions (e.g., birth asphyxia, neonatal sepsis, low birth weight). 4. Counsel caregivers regarding breastfeeding and thermal protection.	

Subtheme 3: IMNCI (Integrated Management of Neonatal and Childhood Illness) & growth monitoring	By the end of this section, the student should be able to: 1. Explain the rationale and components of the IMNCI strategy. 2. Classify common childhood illnesses using IMNCI guidelines & referral. 3. Explain principles and importance of growth monitoring in early childhood. 4,Discuss preventive and corrective strategies for undernutrition and overnutrition.	Understanding child health from both clinical and community perspectives prepares students to address preventable causes of mortality, promote early detection of growth faltering, and support national child survival initiatives.

Specific Learning Objectives--- Gynaecology (LGIS)

Code	Topic	Learning objectives	Cog level	Teaching strategy	Assessment mode

PMRH -G-017	Intra-uterine Death	• Define intrauterine fetal death. • Enumerate the causes of IUFD. • Enlist the investigations to rule out causes of IUFD • Discuss the important points of counselling of parents in breaking the bad news. • Discuss the feto-maternal complications associated with IUFD. • Elaborate management of patient with IUFD.	C1 C1 C1 C2 C2 C3	LGIS	**MCQ, SAQ**
PMRH -G-018	IUGR & oligohydramnios	• Define fetal growth restriction. • Discuss the etiology • Explain the pathophysiology of IUGR. • Discuss the antenatal surveillance of the FGR fetus. • Outline the management plan regarding timing and mode of delivery. • Elaborate the prognosis of fetus in IUGR.	C1 C2 C2 C2 C3 C1	LGIS	MCQS SAQ

Specific Learning Objectives--- Community Medicine (LGIS)

Code	Topic	Subtopics	Learning Objectives At the End of Lecture Students Will Be Able To:	Learning Domain	Teaching strategy	Assessment Tool

PMRH-CM-004	Preventive medicine in pediatrics I	Preventive medicine in pediatrics-I • Mortality in infancy and childhood • Integrated Management of Childhood Illness (IMCI)	• Knowledge about concept of infant mortality • Determine the factors which predispose to high infant mortality • Appreciate the causes of infant mortality in different phases of child bearing and postnatal periods. • Classify according to Integrated Management of Childhood Illness • Classify degree of Pneumonia and ARI according to IMNCI	C1 C2 C3 C2 C2 C2	LGIS	MCQs SEQs
PMRH-CM-005	Preventive medicine in pediatrics growth & development II	• Preventive medicine in pediatrics-II Surveillance of growth & development • Preventive measures to control infant and child mortality	• Able to record Weight the baby and measure the height of children • Assess degree of dehydration • Prepare home-made ORS • interpret growth chart • Suggest preventive measures at different levels of prevention and in different scenarios • Understand the logic of measures taken to prevent infant and child mortality	C3 C3 C3 C3 C3 C2	LGIS	MCQs, SAQs
PMRH-CM-006	Growth assessment in children	Monitoring of child growth & development	• Describe determinants of child growth & development • Describe methods assessment of physical growth of child • Explain formation of growth chart.	C2 C3 C3	LGIS	SEQs and OSPE and Viva Voce
PMRH-CM-007	School health service	• Functions of school health services • Health related problems of school children	• Define School health services • Enlist objectives of School Health Services. • Explain duties of School Health Team. • Enlist various health related problems of School children.	C1 C1 C2 C2 C2	LGIS	MCQs, SEQs and OSPE

		• Implementation strategies of school health services	• Enumerate and explain various functions of School health services. • Demonstrate importance of implementation of various aspects of school health services.	C2 C2		
PMRH-CM-008	Handicapped	• Definition • Difference between handicapped, impairment, disability • Types of disability • Rehabilitation	• Define handicapped • Define impairment and disability • Differentiate between handicapped, impairment and disability with examples • Enlist types of disability and causes of disability • Define rehabilitation, enlist types of rehabilitation and objectives of rehabilitation • Integrated approach towards handicapped and prevention of disability • Appraise Social attitude towards handicapped	C1 C1 C2 C1 C2 C3 C3	LGIS	MCQs SAQ

Specific Learning Objectives--- Pediatrics

Code	Topic	Learning objectives At the end of the lecture the student should be able to	Learning Domain	Teaching strategy	Assessment tool
PMRH-Ped-001	Neonatal resuscitation	• Identify the babies who will need resuscitation at birth • Enlist steps of resuscitation as per algorithm • Identify different sizes of face masks, ambo bags, laryngoscope blades and their use by pictures.	C2 C3 C2	LGIS	MCQS
PMRH-Ped-002	Breast feeding	• Enumerate advantages of breast feeding • Describe the physiology • Know the importance of early initiation of breast feeding • Enlist five steps towards good breast feeding	C2 C3 C2 C2	LGIS	MCQS
PMRH-Ped-003	LBW / prematurity	• Define LBW babies • Enlist common causes of LBW babies • Enumerate important complications and problems of premature babies • Manage prematurity and its complications	C2 C3 C2 C2	LGIS	MCQS
PMRH-Ped-004	Neonatal seizures	• Define neonatal seizures • Describe the common etiological causes of neonatal seizures • Recognize the different clinical types of neonatal seizures • Outline the diagnostic approach to a neonate with seizures • Discuss the principles of management of neonatal seizures	C1 C1 C2 C3 C2	LGIS	MCQs

PMRH-Ped-005	Infant of diabetic mother	• Describe the pathophysiology of fetal hyperinsulinemia • Outline the immediate postnatal evaluation and monitoring of IDM • discuss the principles of prevention and management of complications in IDM	C2 C3 C2 C2 C2	LGIS	MCQS
PMRH-Ped-006	Jaundice in newborns	• Define neonatal jaundice • Identify the common causes of neonatal jaundice • Outline the clinical assessment and diagnostic evaluation • Discuss the principles of management and prevention of complications	C1 C1 C3 C3	LGIS	MCQs

Specific Learning Objectives--- Anesthesia

Code	Topic	Learning objectives At the end of the lecture the student should be able to	Learning Domain	Teaching strategy	Assessment tool
PMRH-Ans-002	General Anesthesia and Monitoring	• Define general anesthesia and its components. Explain stages of anesthesia. • Identify commonly used induction agents and inhalational anesthetics. • Interpret standard monitoring (ECG, SpO2 , NIBP, ETCO2). • Describe complications associated with general anesthesia	C1 C1 C3 C2	LGIS	MCQS.SEQ.EMQ

Self-Directed Learning (SDL) 1 Per Wk. Theme 3

Subject	Content Outlines (Major Topics & Sub Topics)	Learning Objectives At the end of SDL students will be able to:	Learning Resource	Assessment tool
Gynae & obs.	HIV in Pregnancy effect on fetus	Discuss guidelines of HIV in pregnancy. Discussion regarding the management of HIV in pregnancy.	Obstetrics by Ten Teachers(20th edition) Page 184	MCQs
Community medicine	Child Health in context of MCH Services	Describe determinants of child growth & development Describe methods assessment of physical growth of child .	K Park Ed. 27th (541,42,43,44, -47	MCQs
Pathology	Sexually transmitted diseases	Enlist various sexually transmitted diseases Understand their pathogenesis and laboratory diagnosis	Robbins Basic Pathology 9th Edition Chapter 17	MCQS
Pharmacology	Teratogenic Drugs	Identify and recall the major teratogenic drugs.	Katzung's Basic & Clinical Pharmacology, 16th Edition	MCQS

Week 6- Theme 4: Population Health

Theme / Subtheme	General Learning Outcomes (GLOs)	Rationale
Theme: Population Health	By the end of this week, the student should be able to: 1. Explain key concepts of population health and their relevance to reproductive and community health. 2. Describe demographic indicators used to assess population dynamics. 3. Analyze the relationship between population growth, socioeconomic development, and health outcomes. 4. Discuss national population policies and their public health implications. 5. Demonstrate ethical and culturally sensitive communication in population-related health services.	Population health provides the broader demographic and socioeconomic context within which maternal and child health outcomes are shaped. For undergraduate medical students, understanding population dynamics is essential for linking individual patient care to community-level health planning. This theme strengthens competencies in: • Application of demographic indicators in health analysis • Understanding family planning as a public health intervention • Counseling for informed contraceptive choice • Linking women empowerment, education, and fertility trends
Subtheme 1: Demography &population trends	By the end of this section, the student should be able to: 1. Define key demographic terms (e.g., fertility rate, mortality rate, dependency ratio, population pyramid). 2. Interpret demographic data and population pyramids. 3. Explain measures of fertility and their determinants. 4. Analyze implications of rapid population growth, urbanization, and migration on health systems 5. Propose evidence-based strategies to address population-related health challenges.	

Subtheme 2: Family Planning	By the end of this section, the student should be able to: 1. Explain the concept, objectives, and public health importance of family planning. 2. Describe different contraceptive methods, their mechanisms, indications, contraindications. 3. Counsel couples on informed choice and method selection using evidence-based criteria. 4. Identify barriers to family planning uptake and propose strategies to improve access and acceptance.	

Specific learning objectives--- community medicine

CODE.	Topic	Contents Outlines Sub- Topics	Learning Objectives After the Session Students Will Be Able To:	Level of cognition	Teaching Strategy	Assessment Tools
6. PMRH-CM-009	Demography and population trends- I	• Definition • Linkage of Demography with other disciplines • Application of Demography within the health system • Sources of population data • Measures of fertility & maternal mortality • Population explosion	• Define demography and population dynamics • Discuss linkage of demography with other disciplines • Apply demographic concepts in health system. • Discuss all major sources of population data with special emphasis on population Census • Calculate different rates related to mortality from given data • Calculate different rates related to fertility from given data • Describe Demographic, economic, social and interdisciplinary implications of population explosion	C1 C3 C3 C2 C3 C3 C2	LGIS	MCQs, SEQ, OSPE & VIVA VOCE

PMRH-CM-010	Demography and population trends II--(Demographic transition)	• Demographic transition • Demographic cycle • Malthusian theory • Population Momentum • Demographic dividend, bonus , trap • Growth Rate • Population doubling time	• Discuss theory of demographic transition • Describe and interpret stages of demographic cycle with examples and logical reasoning • Graphically illustrate the stages of demographic cycle • Explain limitations of this model • Discuss Malthusian theory of population growth • Explain population momentum • Interpret the effect of population momentum on growth of population • Appraise demographic dividend, bonus, trap • Calculate growth rate from given data. Calculate and interpret population doubling time	C2 C3 C3 C2 C2 C2 C3 C3 C3 C3		MCQS, SEQS, OSPE, VIVA VOCE
PMRH-CM-011	Demography III--Migration and urbanization, Population density	• Population dynamics • Migration and urbanization • Population density • Family size • Replacement level fertility • Life expectancy	• Discuss concept of demographic equation • Calculate population at a particular time from the given data • Calculate population in future from given data • Discuss push and pull factors associated with migration. • Describe various measures of migration. • Discuss implications of urbanization • Explain types of migration and associated measures • Define population density • Explain family size and factors associated with it	C1 C3 C3 C2 C1 C2 C2 C1 C2	LGIS	MCQs, SEQs and OSPE and Viva Voce

			• Appraise replacement level fertility • State what is meant by life expectancy and how it is calculated	C3 C3		
PMRH-CM-012	Health economics Framework	• Concept and definitions • Types • Framework of health economics • Supply and demand • Elasticity • Production possibility frontier • Different types of Costs • Structures of Economic Evaluation	• Define economics, health economics • Explain o Macroeconomics o Microeconomics o Positive economics o Normative Economics • Describe framework of health economics • Explain law of demand and law of supply • Describe elasticity • Appraise Production possibility frontier • Explain Different types of Costs • Interpret o Cost minimization analysis o Cost effectiveness analysis o Cost utility analysis o Cost Benefit analysis	C1 C2 C2 C2 C2 C2 C3 C3	LGIS	MCQ SAQ
PMRH-CM-013	Public health on global scale	• World health organization United nations international children's emergency fund (UNICEF)	• Describe history, constitution and objectives of WHO • State WHO regions • Explain organizational structure of WHO with functions of each • Describe history, mission and milestones of UNICEF • Enlist important NGOS of Pakistan	C1 C2 C2 C2 C1	LGIS	MCQ SAQ

PMRH-CM-014	Family planning- I	• Health aspects of family planning • Welfare concept • Small family norms • Eligible couples • Couple protection rate	• To identify the need and requirements for an informed decision-making process on contraceptive choice • To characterize the principles of reproductive rights and gender issues related to family planning • identify the scope of family planning • appreciate health aspects of family planning • understand the terms of small family norms and eligible couples & target couples • calculate the couple Protection rate of a given population	C2 C2 C1 C3 C2 C3	LGIS	MCQs, SEQs and OSPE
PMRH-CM-014	Family planning- II National population policy	• National population policy • Unmet need of family planning • Classification of Fertility regulating methods • Barrier methods • Natural contraceptive methods Terminal methods	• Explain national population policy • Understand the concept of unmet need of family planning • Classify fertility regulating method • Comprehend barrier method • Classify natural methods of fertility control • Explain sterilization and its complication	C2 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs and OSPE

PMRH-CM-015	Demographic transitions	• Population pyramids • Dependency ratio • Age-sex composition	• Explain population pyramid • Read and interpret a population pyramid • Identify and interpret population pyramids in different stages of growth • Identify and interpret different types of population pyramids with respect to shape • Explain any asymmetry in shape • Identify baby boom in population pyramid • State importance of population pyramids • Calculate and interpret dependency ratio • Explain age and sex composition of a population • Calculate sex ratio from a given data	C2 C3 C3 C3 C3 C3 C3 C1 C3 C2 C3	LGIS	MCQs, SEQs and OSPE and Viva Voce
PMRH-CM-016	Evaluation of Family Planning methods & breast feeding	• Intra uterine devices • Hormonal contraceptives • Evaluation of contraceptive methods • Breast feeding practices	• Characterize the following contraceptive methods based on mechanism of action, indicators of effectiveness, side effects, non-contraceptive benefits, eligibility criteria and interventions for certain problems during use: o Combined oral contraceptives o Progestin only pills o Injectable contraceptives o Hormonal implants o Tubal ligation and vasectomy o Intrauterine contraceptive devices • Discuss Emergency contraception & New contraceptive technology • Appraise correct method of Breast feeding	C3 C2 C3	SGD	MCQs, SAQ,SEQ, OSPE

Specific Learning objectives--- Pathology

code	Topic	Contents Outlines (Major Topics & Sub-Topics)	Learning objectives. Students will be able to	Learning Domain	Teaching strategy	Assessment tool
PMRH-P-017	BPH, prostatic cancer, testicular atrophy, seminoma	• BPH • prostatic cancer • testicular atrophy seminoma	• Describe Etiology and morphology of BPH, prostatic cancer, testicular atrophy, seminoma Enumerate investigations for investigations	C2 C2	LGIS	MCQ, SEQ.VIVA
PMRH-P-018	Endometritis Adenomyosis, Endometriosis,	• Risk factors • histopathology	Describe risk factors, histopathology, pathogenesis of endometritis, adenomyosis, endometriosis	C2,C3	SGD	MCQ, SEQ.VIVA

Specific Learning objectives--- Anesthesia

code	Topic	Contents Outlines (Major Topics & Sub-Topics)	Learning objectives. Students will be able to	Learning Domain	Teaching strategy	Assessment tool
PMRH-Ans-003	Perioperative Complications	Common intra-operative complications	• Identify common intra-operative complications (hypotension, hypoxia, arrhythmias). • Explain causes of perioperative anaphylaxis and aspiration. Interpret monitoring findings in perioperative emergencies. • Describe immediate management of anesthesia related crisis. • Emphasize patient safety and crisis resource management.	C1 C2 C2 C2	LGIS	MCQ, SEQ,EMQ
PMRH-Ans-004	Post-Operative Care and Pain Management	Post-operative care and recovery	• Define post-operative care and recovery room monitoring. • Identify early post-operative complications. Explain pain pathways and pain assessment scales. • Describe multimodal analgesia and opioid use. • Discuss prevention and management of post-operative nausea and vomiting.	C1 C2 C2 C2	LGIS	MCQ, SEQ..EMQ

SDL 1 Per Wk. Theme 4

Subject	Content Outlines (Major Topics & Sub Topics)	Learning Objectives At the end of lecture students will be able to:	Learning Resource	Assessment tool
Gynae & obs.	Covid-19 in Pregnancy and Immunization	Discuss guidelines of Covid 19 in pregnancy and dengue in pregnancy.	WHO guidelines of Covid-19 in pregnancy	MCQs
Community medicine	Population control	Explain element of national pop cont strategy Explain national pop control policy Population control action program	Practical Journal of Com-Med Annexure III. https://pwd.punjab.gov.pk/ https://www.pc.gov.pk/uploads/plans/Ch4-Population2.pdf	MCQs
Pathology	Diseases of prostrate, ovary, breast and uterus	Explain the neoplastic and non neoplastic etiologies of diseases of prostrate, ovary and uterus Have knowledge of their pathogenesis and laboratory diagnosis	Robbins Basic Pathology 9th Edition Chapter 17	MCQs
Pharmacology	SPRMs	Explain the mechanism and clinical use of selective progesterone receptor modulators (SPRMs).	Katzung's Basic & Clinical Pharmacology, 16th Edition	MCQs

Transdisciplinary Clinical–Reasoning Forum (TCRF-3)

Theme 4

Theme	Week	Topic	Clinical Case Scenario
Theme 4: Population Health	Week 6	Family Planning & Contraceptive Counseling	A young couple seeking advice on spacing pregnancies

“Counseling a Couple for Family Planning”

Clinical Scenario

A 28-year-old woman visits a primary health care clinic with her husband seeking advice on spacing their next pregnancy. She delivered her second child 6 months ago and is currently breastfeeding. She reports irregular menstrual cycles since delivery and is unsure about which contraceptive method would be safe while breastfeeding. She also expresses concerns about side effects of hormonal contraceptives.

Her medical history is unremarkable, and she has no chronic illnesses. Her husband works in a nearby city and visits home only occasionally. The couple wants effective contraception but also plans to have another child in the future.

Students must evaluate suitable contraceptive options, physiological considerations during lactation, pharmacologic mechanisms, counseling strategies, and public health implications of family planning.

Student Task (Problem-Based Trigger)

Students are asked to:

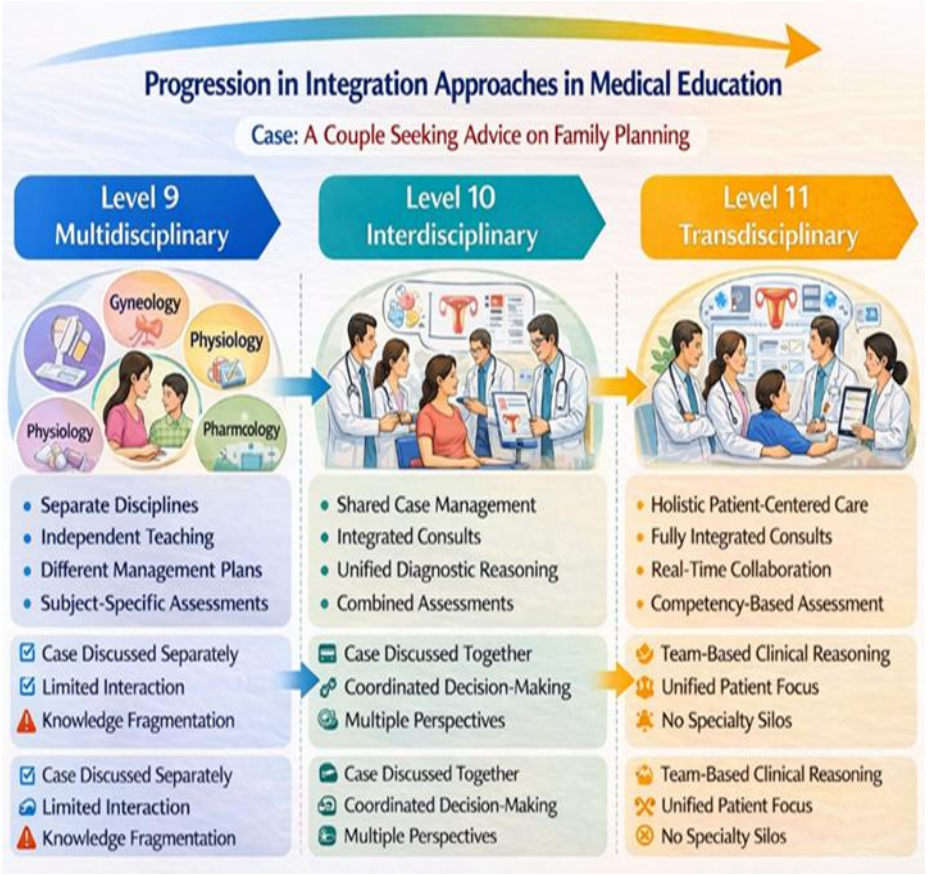
1. Identify factors influencing contraceptive choice in this couple.
2. Explain physiological changes during lactation affecting fertility.
3. Compare different contraceptive methods suitable during breastfeeding.

4. Interpret benefits and risks of hormonal and non-hormonal contraception.
5. Develop a patient-centered contraceptive counseling plan.
6. Discuss public health importance of birth spacing and family planning programs.
7. Address socio-cultural and ethical issues in contraceptive counseling.

Students Integrate (Implicitly)

• Reproductive physiology (ovulation, lactational amenorrhea, hormonal regulation of fertility)
• Clinical gynecology (contraceptive eligibility and method selection)
• Pharmacologic principles (mechanisms of hormonal contraceptives and IUCDs)
• Pathophysiological considerations (contraindications and side effects)
• Public health perspective (family planning programs and population control strategies)
• Primary care management (family physician counseling and follow-up)
• Ethics & communication (respectful and culturally sensitive counseling)
• Population health impact (birth spacing and maternal-child health outcomes)

None are taught separately.



What Makes This Harden's Integration Level 11?

• No subject-wise teaching boundaries
• Knowledge embedded within a real primary care scenario
• Learning organized around patient and population health needs
• Clinical, biological, pharmacological, and public health concepts integrated
• Focus on competence in contraceptive counseling and decision-making

Teaching Format

• Small group case-based discussion
• Contraceptive method comparison exercise
• Counseling role-play between students and simulated couple
• Decision-making activity using WHO contraceptive eligibility criteria
• Competency-based assessment focusing on:

- Clinical reasoning
- Rational contraceptive selection
- Counseling and communication
- Public health awareness

Academic Justification Statement

“This case reflects **Harden Level 11 (transdisciplinary integration)** where learning is organized around a real primary care problem rather than disciplinary silos. Biomedical knowledge, clinical gynecology, pharmacology, and population health principles are integrated within patient-centered contraceptive counseling and decision-making.”

Subject Contribution in TCRF Session – Family Planning

Subject / Discipline	Nature of Contribution	Approx. Integration Weight (%)	Rationale
Gynecology	Contraceptive methods, eligibility criteria, clinical counseling	25%	Core clinical discipline for reproductive health
Physiology	Hormonal regulation of ovulation, lactational amenorrhea	15%	Explains physiological basis of fertility and contraception
Pharmacology	Mechanism of action, indications, contraindications, and side effects of contraceptives	20%	Rational drug selection and safe prescribing
Community Medicine	National family planning program, population health impact	15%	Public health perspective and population control
Family Medicine	Primary care counseling, follow-up and continuity of care	15%	Patient-centered counseling and shared decision making
Pathology	Pathophysiological considerations and contraindications to contraceptive use	10%	Explains disease conditions affecting contraceptive choice

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Subject-Wise Specific Learning Objectives – Family Planning Session

Subject	Domain	Specific Learning Objectives (Students will be able to…)	Bloom's Level	Integration Role
Gynecology	Clinical Reasoning	Identify appropriate contraceptive methods for a breastfeeding woman Counsel couples regarding benefits and risks of different contraceptive methods Apply WHO eligibility criteria for contraceptive selection	Apply Apply Analyze	Core discipline
Physiology	Reproductive Physiology	Explain hormonal regulation of ovulation and menstrual cycle Describe mechanism of lactational amenorrhea as natural contraception Correlate hormonal changes with fertility during postpartum period	Understand Understand Analyze	Physiological basis
Pharmacology	Therapeutics	Describe mechanism of action of hormonal and non-hormonal contraceptives Identify indications, contraindications, and adverse effects of contraceptive drugs	Understand Analyze	Drug therapy
Community Medicine	Public Health	Select appropriate contraceptive drug based on patient profile Explain the role of family planning in population stabilization Identify barriers to family planning uptake in communities Propose strategies to improve contraceptive acceptance and access	Apply Understand Analyze Create	Population health
Family Medicine	Patient-Centered Care	Conduct patient-centered counseling for contraceptive choice Address socio-cultural concerns and myths related to contraception	Apply Analyze	Primary care perspective

Subject	Domain	Specific Learning Objectives (Students will be able to…)	Bloom's Level	Integration Role
Pathology	Clinical Correlation	Identify medical conditions that contraindicate specific contraceptive methods Correlate underlying disease states with contraceptive risks	Understand Analyze	Safety considerations

Integrated Undergraduate Research Curriculum Sessions (IUGRC)

S. No.	Sessions	Session Objectives	Teaching Strategy
1	Session 1	Research Viva	PAL
2	Session 2	Research Presentations	PAL

Human Resource of Department of Community Medicine

Sr.no.	Designation	Total number of teaching staff

1	Professor	01
2	Associate professor	03
3	Assistant professor	02
4	Demonstrators	04
5	PGTs	05

Detail of Contact Hours Community Medicine (Faculty &Students)
Ranking of the Content of Community Medicine

Category A*	**Category B****	**Category C*****		
LGIS	LGIS	SDGS	SDL	IUGRC SESSIONS (PAL)
Reproductive health MCH, domiciliary care, Preventive aspects of infant & childcare (5 lectures)	Health care of school children	Family planning IUCDs	Dynamics of human behavior (Human psychology/ Genetics	Session 1 Research viva
National population control policy, issues & challenges, Family planning, Hormonal contraception (2 lectures)	Public health on global scale, WHO, NGOs and agencies		Ottawa charter on health promotion, Population control	Session 2 Preparing students oral presentation

Sr. No.	Hours Calculation for Various Type of Teaching Strategies	Total Hours (Faculty) Hrs. x class x session	Total Hours (Students)	Faculty level
1	LGIS (16). 1hrs each session (half class sessions)	1x2 x 16= 32 hrs.	16	Assistant professors & above
2	SGD (1) approx. 2hrs each session. 1/4 class	1x4 x 2= 8 hrs.	1	Demonstrators (subject specialists), Senior PGTs
3	PAL (IUGRC) (2) approx. 2hrs per session. (16 small group sessions).	2x 16x2 =64hrs.	2	Demonstrators (subject specialists) supervised by senior faculties
4	SDL (6)	6 x 1 =6 hrs.	6	Demonstrators (subject specialists)
Total: 110 hrs.			25 hrs.	

Fertility trends Demography concepts, Demography Transition models Population pyramids,(4 lectures)	Handicapped		Reproductive health/breast feeding	
Health economics (1 lecture)	Growth monitoring		Child Health in context of MCH Services	

Category A*: Fundamental & Complex Concepts taken by Professors, Associate Professors and Assistant Professors
Category B**: Intermediate concepts. Exercises. By Professorial faculty and Senior Demonstrators/ subject specialists.
Category C***: Relatively lower complex concepts, exercises/ applications. By Assistant professors, Demonstrators & senior PGTs)

Details of Contact Hours Students & Faculty

Community Medicine Faculty Wise Lectures Allocation

Sr. no	Faculty nominated	No of lectures
1.	Prof. Dr. Rozina Shahadat Khan	07
2	(Assoc. Prof) Dr. Khola Noreen	03
3	(Assoc. Prof) Dr. Sana Bilal	03
5	(Asst. Prof) Dr Mehwish Riaz	03
6	(APMO) Dr. Imrana Saeed	03
7	(APMO) Dr Narjis Zaidi	03
8	(Sr Demonstrator) Dr Mehjabeen Qureshi	04
9	(Sr Demonstrator) Dr. Asif Maqsood Butt	04

Teaching Staff / Human Resource of Department of Pathology

Sr.no.	Designation	Total number of teaching staff
1	Professor	0
2	Associate professor	01
3	Assistant professor	03
4	Demonstrators	11

Detail of Contact hours (faculty) **& contact hours** (students)

Sr. no.	Hours Calculation for Various Type of Teaching Strategies	Total Hours (Faculty)	Total Hours (Students)	Faculty level
1	LGIS (9). 1hrs each session (half class sessions)	2 x 9= 18 hrs.	9	Professor, associate, and assistant professors
2	SGD (5) approx. 1hrs each session. 1/4th class	5 x 4= 20hrs.	5	Assistant professors Senior demonstrators
3	CBL (3) approx. 1hrs per session. (4 small group sessions. 1session per day)	3x 4 = 12hrs.	3	Demos (subject specialists) supervised by professional faculties
4	SDL (7)	1 x 7 = 7 hrs.	7	Demos (subject specialists)
Total: 57hrs			24hrs	

Categorization of Modular Content of Pathology Department

Category A*	Category B**	Category C***		
LGIS	LGIS	SGDS	SDL	CBL
Malignant diseases of cervix,	Benign Diseases of Uterus	Pathology of early pregnancy complications & Non neoplastic placental pathology	Pathogenesis & morphology of primary Glomerular diseases	Rh Incompatibility, Anemia & Diseases in Pregnancy

Malignant diseases of Uterus		GTD &, Choriocarcinoma	Pathogenesis & morphology of secondary Glomerular diseases	Pathology of vulva & vagina
Benign diseases of ovary		Dysfunctional uterine bleeding	Diabetic Nephropathy	Rh Incompatibility, Anemia & Diseases in Pregnancy
Malignant diseases of Ovary.		STD	Causes of Hematuria and related investigations	Testicular atrophy cryptorchidism
Malignant neoplasm of breast		Benign and Premalignant Lesions of Cervix		
Testicular tumors		BPH, prostatic cancer, testicular atrophy, seminoma		

Section – V Learning Management System (LMS)

Theme Based LMS Assessment
4th year MBBS 2026

Vision

To enhance competency-based learning and clinical reasoning skills among Fourth-year medical students by leveraging a robust Learning Management System (LMS) to implement weekly, clinically-oriented assessments in Medicine and Allied specialties.

Introduction:

A Learning Management System (LMS) is a software application or platform used to deliver, manage, and track educational content and training programs. It helps organizations, institutions, or businesses deliver learning experiences to learners in an organized, scalable, and accessible way.

1.Course Creation & Management:
•Allows instructors or administrators to create and organize courses, modules, lessons, and assessments.
•Supports multimedia content such as videos, quizzes, PDFs, and presentations.

2.User Management: Facilitates the creation of user profiles for learners, instructors, and administrators. Allows tracking of individual progress, achievements, and performance.

3.Assessment & Testing:
Includes features for creating and administering quizzes, assignments, and exams. Provides automated grading and feedback to learners.

4.Reporting & Analytics:

•Tracks learner performance, course completion rates, and engagement levels.
•Provides insights to instructors and administrators for informed decision-making.

5.Communication Tools:

•Integrates discussion boards, chat features, and email to facilitate communication between learners and instructors.
•Supports notifications and announcements.

6.Scalability & Flexibility:

•Can accommodate a growing number of learners or users.
•Supports a variety of learning styles, including synchronous (live) and asynchronous (self-paced) learning.

7.Mobile Access:

Many LMS platforms are mobile-friendly or offer mobile apps to support learning on the go.

An effective Learning Management System (LMS) assessment framework for undergraduate medical students should be structured to evaluate knowledge, skills, and attitudes systematically. It should also align with educational objectives, regulatory standards, and the specific needs of medical education. Below is a comprehensive framework:

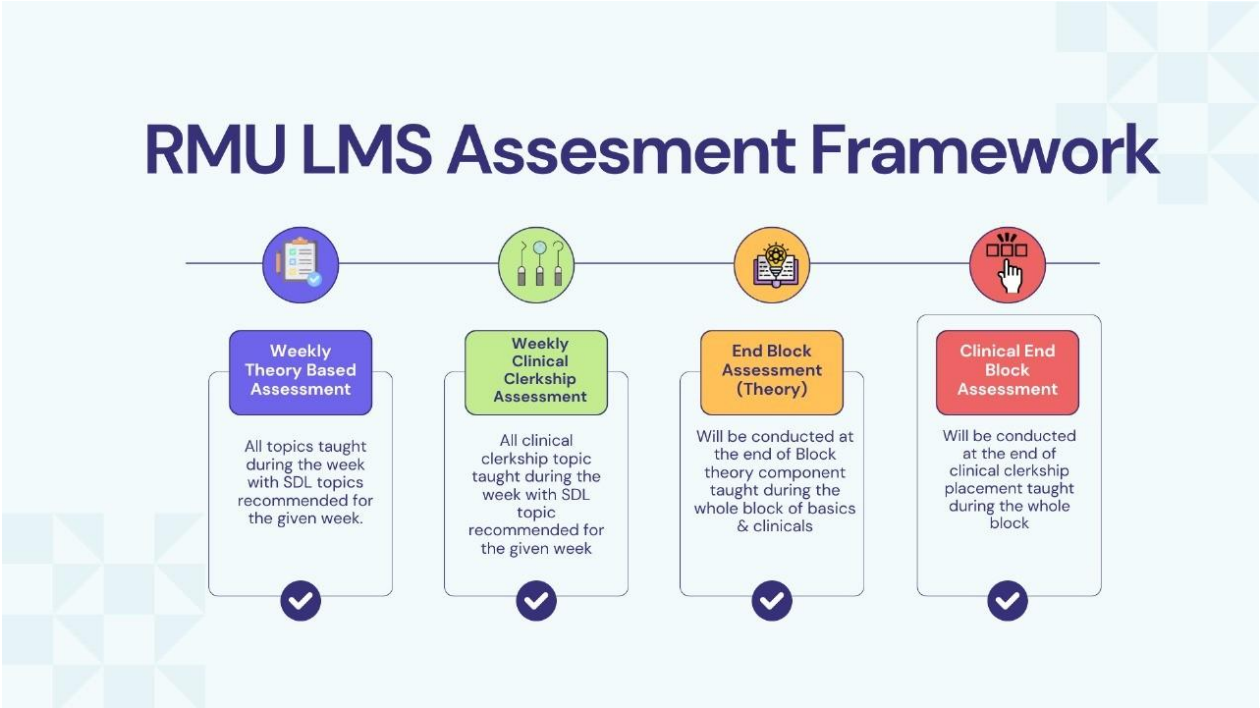


Figure 27: Framework for LMS Assessment for Undergraduate Medical Students

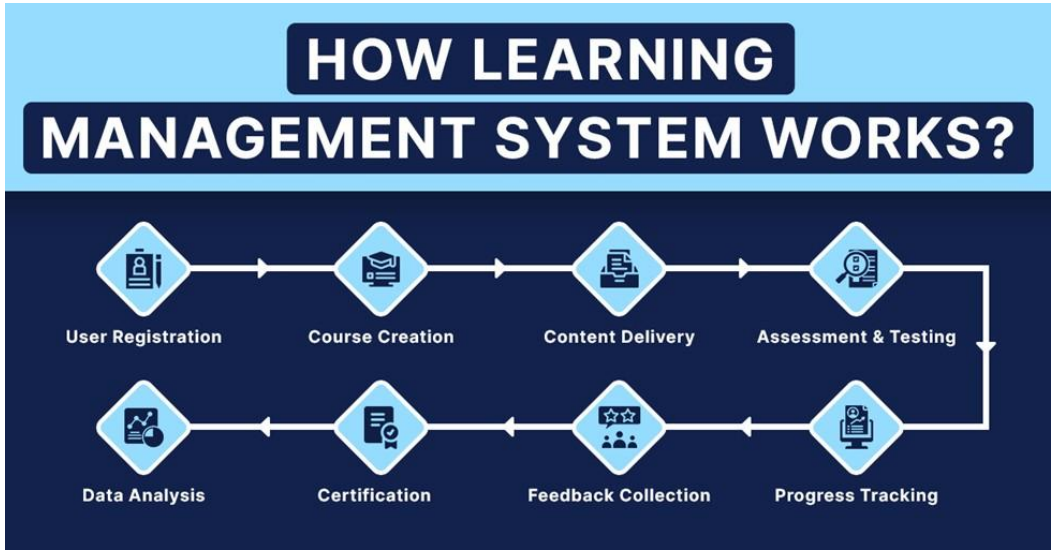


Figure 28: How learning management system works

Implementation of LMS

Table of Specification of weekly LMS of 3rd, 4th & Final Year MBBS

Table 1: Frequency 1.	During module (Weekly)	LMS Test	Every Tuesday evening	8:00 to 10:00 pm	Summative	100

Table 2: Distribution of Questions According to Level of Cognition:

Sr.#	Level of Cognition	%age Distribution of Questions	Type of Integration
1.	C1(Recall)	20%	Horizontal
2.	C2(Interpretation)	60%	Core Concept & Vertical
3.	C3(Problem Solving)	20%	Vertical(Purely Clinical Concepts)

Table 3: Implementation of Calgary Model of Categorization of Questions for LMS assessments:

Sr. No	Type of Assessment	Calgary Model		
		Must Know (A)	Should know (B)	Nice to know (C) (C)
1.	Summative	50%		50%
2.	Summative	100%		----------

Implementation of LMS:

To ensure the effective implementation of the Learning Management System (LMS), the following steps will be undertaken:

1.Infrastructure Setup:

The LMS will be hosted on a well-equipped platform capable of handling multiple users simultaneously, ensuring reliability and performance during peak usage times.

2.IT Department Support:

A dedicated IT department will be responsible for managing the system, providing technical support, and ensuring smooth operation.

3.User Credentials:

Unique IDs and passwords will be issued to each student by the IT department, granting secure access to the LMS. Students will be guided on how to use the platform effectively.

4.Exam Scheduling:

Dates and times for exams will be pre-set within the LMS, allowing students to prepare accordingly. The scheduling system will ensure timely availability of test materials and instructions.

5.Automated Notifications:

Automated messages will be sent to students to inform them of upcoming exams, deadlines, or important updates. These notifications will ensure students remain informed and prepared.

6.Test Notices:

Detailed test notices, including exam guidelines, formats, and schedules, will be shared with students through the LMS to ensure clarity and readiness.

This structured implementation plan will enable the LMS to function effectively, fostering a productive and organized learning environment for both students and faculty.

LEARNING MANAGEMENT SYSTEM RMU

- A campus management system is being utilized as a learning resource.
- Faculty members from all disciplines, both basic and clinical, have been actively involved and trained in using these systems to deliver lectures effectively.
- The faculty is responsible for uploading lectures, assignments, and weekly assessments.

- Each student has been provided with a unique login to access the lectures and resources on the LMS.
- Attendance for each academic activity—lectures, interactive sessions, quizzes, and assignments—is recorded separately.
- Faculty members are required to mark attendance immediately after each lecture

Objectives of a Learning Management System (LMS) for Undergraduate Medical Students

The primary objective of a Learning Management System (LMS) for undergraduate medical students is to enhance the quality of medical education by providing a comprehensive, interactive, and accessible digital platform that facilitates:

- **Efficient Delivery of Educational Content:**

To enable faculty to upload and organize lectures, assignments, assessments, and other learning resources systematically.

- **Student-Centered Learning:**

To promote self-paced, flexible learning by granting students 24/7 access to educational materials tailored to their curriculum.

- **Interactive and Engaging Learning:**

To foster active engagement through features like discussion forums, quizzes, and virtual interactive sessions.

- **Streamlined Academic Monitoring:**

To track student attendance, performance, and progress through automated attendance marking, assessments, and progress dashboards. ◆ **Standardization and Quality Assurance:**

To ensure uniformity in educational delivery across various disciplines and compliance with institutional and accreditation standards. ◆ **Feedback and Continuous Improvement:**

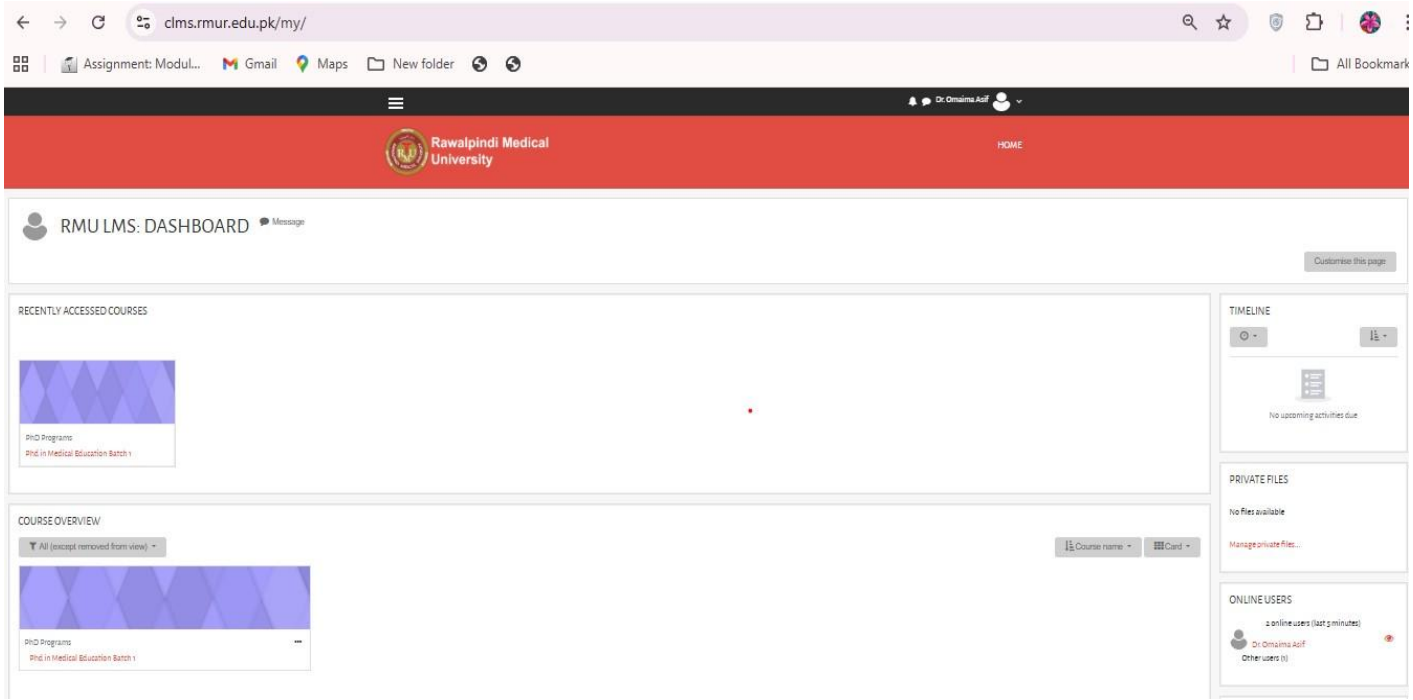
To integrate feedback mechanisms that involve students, faculty, and other stakeholders, driving continuous quality improvement.

- **Integration of Technology in Medical Education:**

To familiarize students with digital tools and resources essential for modern medical practice and research.

By achieving these objectives, the LMS supports the holistic development of medical students, ensuring they are well-prepared for clinical practice and lifelong learning.

RMU LMS Website



Weblink: https://clms.rmur.edu.pk/

1. Goals and Objectives of Assessment

- **Knowledge:** Evaluate understanding of basic and clinical sciences.
- **Skills:** Assess critical thinking, clinical reasoning, and procedural skills.
- **Attitudes:** Foster professionalism, ethical decision-making, and communication skills.
- **Feedback:** Provide timely, constructive feedback to support learning and growth.

- ## 2. Components of LMS-Based Assessment

a. Formative Assessments

- **Purpose:** Monitor ongoing learning and identify areas needing improvement. It includes
  - Online quizzes (MCQs, EMQs)
  - Short assignments or reflections
  - Case-based discussions

Its purpose is to encourage consistent engagement in academic activities. Student's attendance is actively monitored through LMS via

- Attendance tracking for lectures, discussions, and interactive sessions.
- Participation metrics (e.g., activity in discussion forums, live Q&A sessions).

b. Feedback Mechanisms: Its purpose is to enhance learning and improve course delivery. Feedback monitoring can be done by following mechanisms:

3. Assessment Tools and Formats

- **MCQs/EMQs:** Test foundational knowledge and application.
- **OSCE Simulations:** Evaluate clinical reasoning and procedural skills.
- **Interactive Tools:** Use polls, chat, and breakout rooms for real-time engagement.
- **Assignments:** Assess understanding through essays, case reports, or reflections.
- **Group Projects:** Foster teamwork and problem-solving skills.

4. Implementation Strategies

- **Faculty Training:** Equip faculty with skills to design and deliver online assessments.
- **Student Orientation:** Familiarize students with LMS tools and expectations.
- **Tech Infrastructure:** Ensure robust LMS functionality and technical support.
- **Accessibility:** Provide accommodations for students with disabilities or limited resources

5. Quality Assurance and Continuous Improvement

- **Evaluation Proformas:** Gather periodic feedback from students and faculty.
- **Data Analytics:** Use LMS analytics to track student performance and participation.
- **Audit Mechanisms:** Regularly review and update the assessment framework.
- **Stakeholder Input:** Incorporate suggestions from students, faculty, and external reviewers.

6. Compliance with Regulatory Standards

Launching of LMS in RMU is in alignment with regulatory bodies . Digital learning at RMU aims at

- Alignment assessments with accreditation and medical council guidelines (e.g., HEC, WFME).
- Ensure assessments address core competencies, including knowledge, skills, and professionalism.

This LMS assessment framework integrates diverse evaluation methods to ensure holistic learning and competency development in undergraduate medical students. It fosters an interactive, adaptive, and equitable learning environment, preparing students for the demands of modern medical practice.

Importance of LMS

A Central Pillar of Continuous Internal Assessment (CIA)

In today's rapidly evolving educational landscape, digital learning isn't just an add-on it's the new backbone of academic progress. Our Learning Management System (LMS) stands at the heart of this transformation, bringing structure, consistency, and accessibility to the way students learn and the way faculty deliver content.

By integrating LMS into the Continuous Internal Assessment (CIA) framework, our institution takes a major step forward in aligning with global best practices. LMS-based assessments now officially hold **10% weightage** in the overall evaluation, making regular participation not just beneficial but essential for every student.

Why LMS Matters

1. **Streamlined Access to Learning**

The LMS gives students a single, organized digital space where lectures, notes, assignments, quizzes, and announcements are available anytime, anywhere. No missed updates, no lost handouts everything stays just a click away.

2. **Consistent, Transparent Assessment**

With weekly formative and summative assessments conducted through LMS, students get a clear picture of their academic standing. The system ensures fairness, automated scoring where appropriate, and immediate feedback so learners can identify strengths and areas needing improvement.

3. **Builds Stronger Learning Habits**

Regular LMS assessments encourage students to stay engaged throughout the semester instead of relying on last-minute preparation. This continuous learning approach improves retention, confidence, and performance in final exams.

4. **Enhances Interaction and Engagement**

Through discussion forums, digital assignments, and interactive features, the LMS promotes active learning. Students participate more, collaborate more, and take greater responsibility for their progress.

5. **Professional Readiness**

Modern healthcare requires tech-savvy professionals who can adapt to digital tools. Using LMS throughout their training prepares students for the technologically advanced clinical and administrative environments they will soon enter.

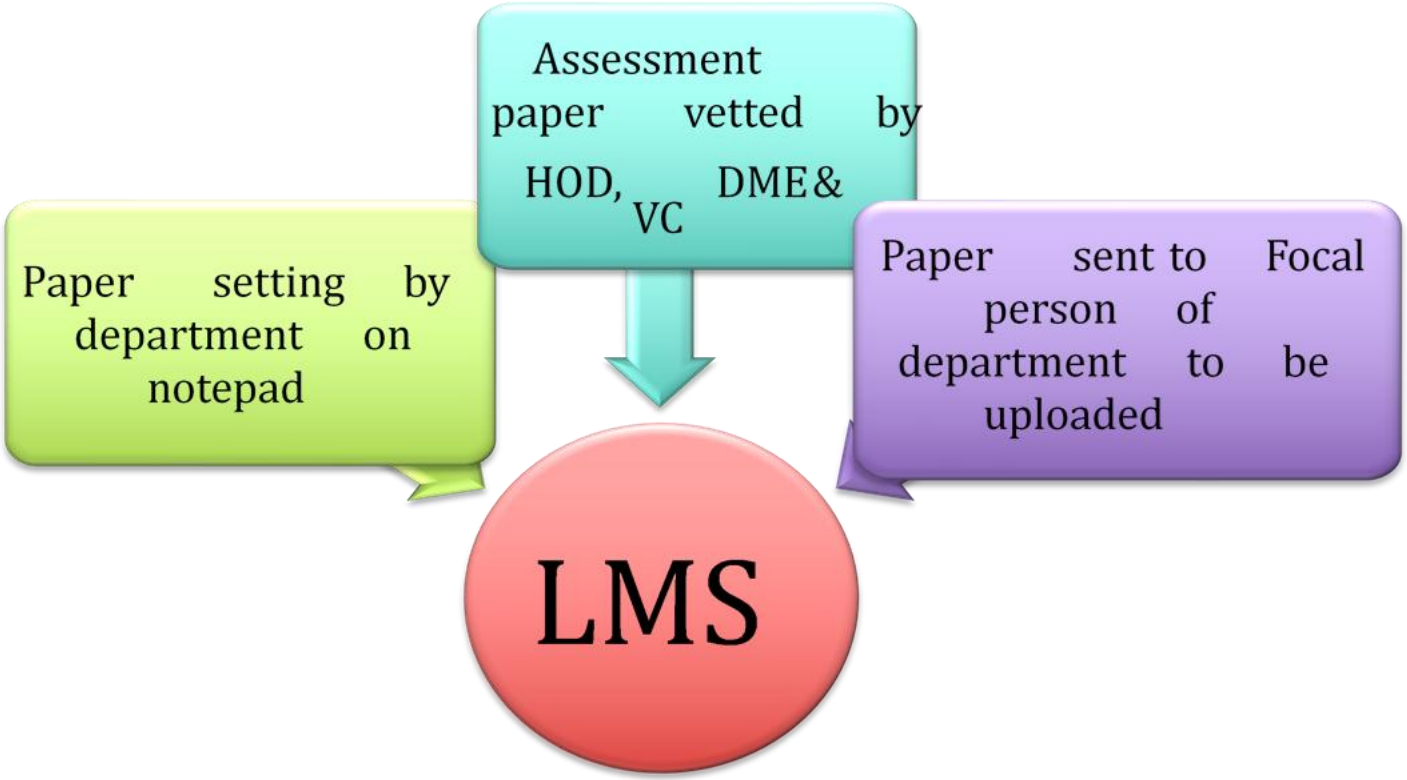
LMS as Part of CIA: What It Means for Students

With LMS contributing **10% to the CIA**, students are encouraged to take weekly assessments seriously. Consistent participation directly boosts overall grades while also strengthening core concepts. This system rewards discipline, regular study habits, and active involvement qualities that are essential in medical education.

A Collective Step Toward Better Learning The adoption of LMS-based CIA reflects our institution’s commitment to innovation and excellence. We’re not just keeping up with global standards; we’re moving ahead of the curve by ensuring that every student gets a modern, interactive, and meaningful learning experience.

LMS Assessment Paper Hierarchy of conducting LMS

Figure 29: LMS Assessment paper setting, vetting, uploading



Sample paper

Papers attached as Annexure

PATHOLOGY

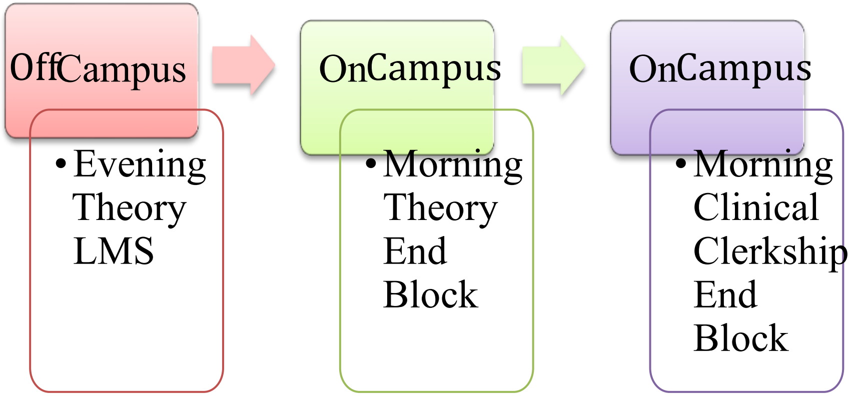
Q: A 7-year-old child develops fever and a vesicular rash that starts on the trunk and spreads to the face and limbs. What is the most likely causative agent?
A. Herpes Simplex Virus-1
B. Epstein-Barr Virus
C. Cytomegalovirus
D. Varicella-Zoster Virus
E. Parvovirus B19
ANSWER: D

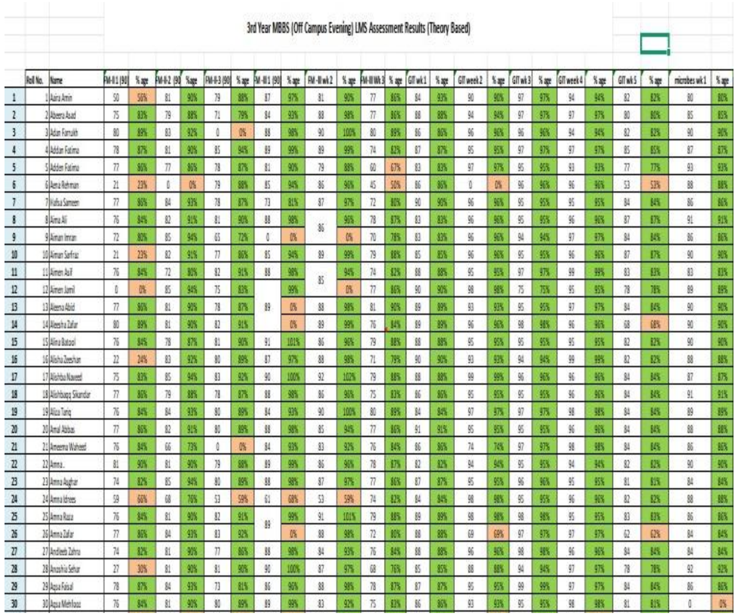
Q: In immunocompromised patients, CMV most commonly causes which of the following complications?
A. Hemorrhagic cystitis
B. Retinitis and colitis
C. Meningitis
D. Skin rash and arthralgia
E. Hepatic abscess
ANSWER: B

Q: What is the characteristic histologic finding in tissues infected by cytomegalovirus?
A. Multinucleated giant cells with Cowdry type A inclusions
B. Intracytoplasmic eosinophilic inclusions
C. Owl's eye intranuclear inclusions
D. Councilman bodies
E. Granulomas with caseation
ANSWER: C

Q: A 68-year-old man presents with a painful vesicular rash in a dermatomal distribution. What is the most likely diagnosis?
A. Primary varicella infection
B. Herpes labialis
C. Cytomegalovirus infection
D. Herpes zoster (shingles)
E. Kaposi's sarcoma
ANSWER: D

Assessment Results of LMS MBBS





3rd Year MBBS (Off Campus Evening) LMS Assessment Results (Theory Based)

	Roll No.	Name	FM-II 1 (90	% age	FM-II 2 (90	%age	FM-II 3 (90	% age	FM-III 1 (90	% age	FM-III wk 2	% age	FM-III Wk 3	% age	GIT wk 1	% age	GIT week 2	% age	GIT wk 3	% age	GIT week 4	% age	GIT wk 5	% age	microbes wk 1	% age
1	1	Aira Amin	50	56%	81	90%	79	88%	87	97%	81	90%	77	86%	84	93%	90	90%	97	97%	94	94%	82	82%	80	80%
2	2	Abeera Asad	75	83%	79	88%	71	79%	84	93%	88	98%	77	86%	88	88%	94	94%	97	97%	97	97%	80	80%	85	85%
3	3	Adan Farrukh	80	89%	83	92%	0	0%	88	98%	90	100%	80	89%	86	86%	96	96%	96	96%	94	94%	82	82%	90	90%
4	4	Addan Fatima	78	87%	81	90%	85	94%	89	99%	89	99%	74	82%	87	87%	95	95%	97	97%	97	97%	85	85%	87	87%
5	5	Adden Fatima	77	86%	77	86%	78	87%	81	90%	79	88%	60	67%	83	83%	97	97%	95	95%	93	93%	77	77%	93	93%
6	6	Aena Rehman	21	23%	0	0%	79	88%	85	94%	86	96%	45	50%	86	86%	0	0%	96	96%	96	96%	53	53%	88	88%
7	7	Hafsa Sameen	77	86%	84	93%	78	87%	73	81%	87	97%	72	80%	90	90%	96	96%	95	95%	95	95%	84	84%	86	86%
8	8	Aima Ali	76	84%	82	91%	81	90%	88	98%	86	96%	78	87%	83	83%	96	96%	95	95%	96	96%	87	87%	91	91%
9	9	Aiman Imran	72	80%	85	94%	65	72%	0	0%		0%	70	78%	83	83%	96	96%	94	94%	97	97%	84	84%	86	86%
10	10	Aiman Sarfraz	21	23%	82	91%	77	86%	85	94%	89	99%	79	88%	85	85%	96	96%	95	95%	96	96%	87	87%	90	90%
11	11	Aimen Asif	76	84%	72	80%	82	91%	88	98%	85	94%	74	82%	88	88%	95	95%	97	97%	99	99%	83	83%	83	83%
12	12	Aimen Jamil	0	0%	85	94%	75	83%	89	99%		0%	77	86%	90	90%	98	98%	75	75%	95	95%	78	78%	89	89%
13	13	Aleena Abid	77	86%	81	90%	78	87%		0%	88	98%	81	90%	89	89%	93	93%	95	95%	97	97%	84	84%	90	90%
14	14	Aleesha Zafar	80	89%	81	90%	82	91%		0%	89	99%	76	84%	89	89%	96	96%	98	98%	96	96%	68	68%	90	90%
15	15	Alina Batool	76	84%	78	87%	81	90%	91	101%	86	96%	79	88%	88	88%	95	95%	95	95%	95	95%	82	82%	90	90%
16	16	Alisha Zeeshan	22	24%	83	92%	80	89%	87	97%	88	98%	71	79%	90	90%	93	93%	94	94%	99	99%	82	82%	88	88%
17	17	Alishba Naveed	75	83%	85	94%	83	92%	90	100%	92	102%	79	88%	88	88%	99	99%	96	96%	96	96%	84	84%	87	87%
18	18	Alishbaqq Sikandar	77	86%	79	88%	78	87%	88	98%	86	96%	75	83%	86	86%	95	95%	95	95%	96	96%	84	84%	91	91%
19	19	Aliza Tariq	76	84%	84	93%	80	89%	84	93%	90	100%	80	89%	84	84%	97	97%	97	97%	98	98%	84	84%	89	89%
20	20	Amal Abbas	77	86%	82	91%	80	89%	88	98%	85	94%	77	86%	91	91%	95	95%	95	95%	96	96%	84	84%	88	88%
21	21	Ameema Waheed	76	84%	66	73%	0	0%	84	93%	83	92%	76	84%	86	86%	74	74%	97	97%	98	98%	84	84%	86	86%
22	22	Amna .	81	90%	81	90%	79	88%	89	99%	86	96%	78	87%	82	82%	94	94%	95	95%	94	94%	82	82%	90	90%
23	23	Amna Asghar	74	82%	85	94%	80	89%	88	98%	87	97%	77	86%	87	87%	95	95%	96	96%	95	95%	81	81%	84	84%
24	24	Amna Idrees	59	60%	68	76%	53	59%	61	68%	53	59%	74	82%	84	84%	98	98%	95	95%	96	96%	82	82%	88	88%
25	25	Amna Raza	76	84%	81	90%	82	91%	89	99%	91	101%	79	88%	89	89%	98	98%	98	98%	95	95%	83	83%	86	86%
26	26	Amna Zafar	77	86%	84	93%	83	92%		0%	88	98%	72	80%	88	88%	69	69%	97	97%	97	97%	62	62%	84	84%
27	27	Andleeb Zahra	74	82%	81	90%	77	86%	88	98%	84	93%	76	84%	88	88%	96	96%	98	98%	96	96%	84	84%	84	84%
28	28	Anoshia Sehar	27	30%	81	90%	81	90%	90	100%	87	97%	68	76%	85	85%	88	88%	94	94%	97	97%	78	78%	92	92%
29	29	Aqsa Faisal	78	87%	84	93%	73	81%	86	96%	88	98%	78	87%	87	87%	95	95%	99	99%	97	97%	84	84%	86	86%
30	30	Aqsa Mehfooz	76	84%	81	90%	80	89%	89	99%	83	92%	75	83%	86	86%	93	93%	95	95%	98	98%	81	81%	0	0%

Theory Based Off Campus Module wise weekly LMS results

Analysis of results:

Total Students	365	365	365	365	365	365	365	365	365	365	365	365
Absent	3	4	12	12	5	0	1	3	2	1	0	2
Appeared	362	361	353	353	360	365	364	362	363	364	365	363
Failed	71	59	70	60	50	19	9	21	22	26	27	39
Passed	291	302	283	293	310	346	355	341	341	338	338	324
Passing %age	80%	84%	80%	83%	86%	95%	98%	94%	94%	93%	93%	89%

Detailed analysis:

This data set represents the results of 365 students across 28 different theory-based assessments. The overall performance is good to very good, with a significant number of students consistently scoring high percentages. However, the data reveals patterns of inconsistent attendance/participation, with many students missing one or more assessments, and a few students showing signs of significant academic difficulty.

1. Overall Performance Overview

Total Students: 365

Total Assessments: 28

Assessment Format: Most assessments are out of 90 marks, with an adjacent column calculating the percentage `=Score/90` ().

General Observation: The majority of students are performing well. The distribution of scores is skewed towards the higher end, suggesting the cohort is generally diligent and/or the assessments are well within their grasp

2. Analysis of Performance by Subject/Module

The assessments are grouped into several modules. The average performance can be inferred by looking at the percentage columns.

Top Performing Modules:

1. CVS (Cardiovascular System): Consistently high scores. A large number of students scored above 90% in CVS-3 and CVS-4. This appears to be the strongest subject for the cohort.
2. Microbes (Microbiology): Very strong performance across all 6 weeks, with a high frequency of scores in the 90-100% range.
3. GIT (Gastrointestinal Tract): Generally high performance, especially in GIT weeks 2, 3, and 4.

Moderate Performing Modules:

a) FM-II & FM-III (Forensic Medicine): Shows a wider spread of scores. While many students scored highly, there are also several instances of very low scores and zeros, indicating variability in preparation or attendance for these specific tests.

b) Heam (Haematology): Performance is good, but slightly more varied than in CVS or Microbes.

3. Analysis of Individual Student Performance

Students can be broadly categorized into three groups:

Consistently High Achievers:

These students maintain a high percentage (typically >85%) across almost all assessments with very few, if any, zeros.

Examples: Addan **Fatima (Roll #4), Alishba Naveed (Roll #17), Amna Raza (Roll #25), Mohammad Ali Shayan (Roll #150).** They demonstrate remarkable consistency and mastery of the material.

The Inconsistent Performers (Largest Group):

These students have a mix of high scores but also have several low scores, zeros, or missing assignments. This is the most common pattern and suggests issues with:

Selective Preparation: Excelling in some subjects but not others.

Inconsistent Attendance: The numerous "0" scores are more likely due to absence than a score of zero, as they are often paired with high scores in other tests.

Example: **Aiman Imran (Roll #9) has several high scores but also zeros in FM-III 1 and CVS 1, pulling down their cumulative performance.**

Students Needing Academic Support:

These students have a high frequency of low scores (e.g., below 50%) and zeros across multiple modules.

Examples:

Ayesha Iqbal (Roll #45): Multiple zeros and low scores.

Abdullah Zeeshan (Roll #125): Multiple very low scores and zeros.

Fatima Saleem (Roll #85): Numerous zeros and missing data.

Maira Nasir (Roll #189): Has zeros in every single assessment, indicating a potential case of non-participation or withdrawal.

The dataset is filled with "0" scores. Given the context and the fact that these zeros are often adjacent to very high scores (e.g., 90/90), it is highly probable that a "0" represents an absence or a non-attempt rather than a score of zero. This is a major factor affecting the cumulative performance of many students.

Data Inconsistencies and Errors:

Formula Display: Many percentage cells display the formula itself (e.g., `=D6/90`) instead of the calculated value. This makes automated analysis difficult and suggests the file was not saved properly after calculation or was exported incorrectly.

Possible Grading Errors: Some scores seem anomalous.

Hina Fatima (Roll #107): Has extremely low scores in FM-II-3 (36), FM-III-1 (26), and FM-III wk 2 (21), which are stark outliers compared to her other high scores. This warrants verification.

Scores >90: While most tests are out of 90, a few scores (e.g., 115, 116) appear in later columns (e.g., CVS-3). This suggests either those specific tests had a different total mark (e.g., 120) or there is a data entry error.

Incomplete Records:

Many cells are entirely blank (e.g., in rows for Eman Safdar - Roll #66). It is unclear if this means the student was not enrolled for that test, the score is missing, or it was another absence.

Conclusion

The 3rd Year MBBS (Evening) cohort demonstrates a strong grasp of the curriculum, particularly in CVS, Microbes, and GIT. The main challenge is not a lack of capability but rather **inconsistency in assessment participation and performance**. Addressing the issues of absences and providing targeted support to a small group of struggling students could significantly improve the overall academic outcomes of the batch. The reliability of these insights is contingent upon first cleaning and verifying the underlying data.

Theory Based on Campus End of Block LMS results

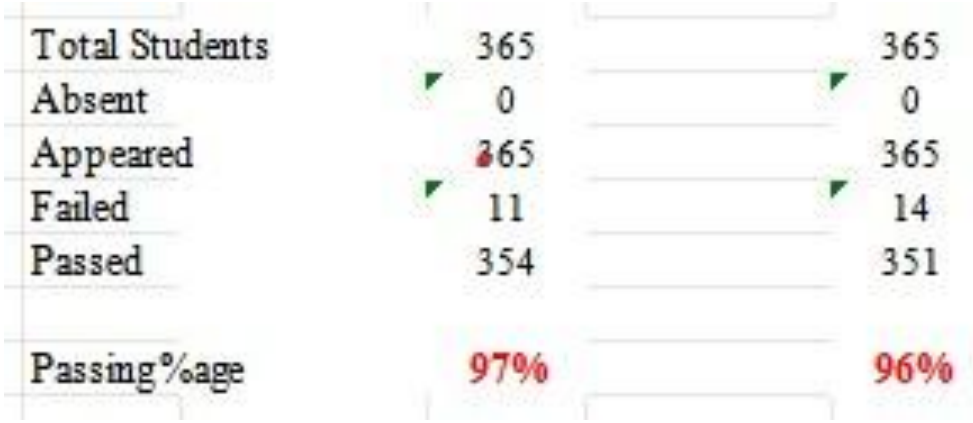
3rd Year LMS Assessment Results (On Campus Morning) Theory

Roll No.	Name	End Block VII	% age	End block VIII	% age
1	Aaira Amin	97	81%	92	92%
2	Abeera Asad	107	89%	95	95%
3	Adan Farrukh	107	89%	97	97%
4	Addan Fatima	106	88%	94	94%
5	Adden Fatima	102	85%	92	92%
6	Aena Rehman	107	89%	97	97%
7	Hafsa Sameen	105	88%	93	93%
8	Aima Ali	104	87%	97	97%
9	Aiman Imran	106	88%	96	96%
10	Aiman Sarfraz	103	86%	97	97%
11	Aimen Asif	99	83%	94	94%
12	Aimen Jamil	106	88%	95	95%
13	Aleena Abid	103	86%	95	95%
14	Aleesha Zafar	106	88%	92	92%
15	Alina Batool	104	87%	96	96%
16	Alisha Zeeshan	107	89%	92	92%
17	Alishba Naveed	104	87%	96	96%
18	Alishbaqq Sikandar	108	90%	92	92%
19	Aliza Tariq	106	88%	96	96%
20	Amal Abbas	108	90%	95	95%
21	Ameema Waheed	104	87%	92	92%
22	Amna .	103	86%	93	93%
23	Amna Asghar	103	86%	91	91%
24	Amna Idrees	102	85%	92	92%
25	Amna Raza	108	90%	95	95%
26	Amna Zafar	73	61%	65	65%

Complete result is attached as Annexure B

Analysis:

Detailed Analysis:



Total Students	365	365
Absent	0	0
Appeared	365	365
Failed	11	14
Passed	354	351
Passing%age	97%	96%

This spreadsheet contains the theoretical assessment results for a 3rd Year On-Campus Morning program, spanning two examination blocks (Block VII and Block VIII). The data tracks the performance of 366 students, showing a cohort that is generally high-achieving. However, a detailed analysis reveals critical patterns, including a significant number of students with zero scores (likely absentees), a small group at risk of failing, and a noticeable, though not universal, drop in performance from Block VII to Block VIII.

Data Summary

Total Students: 366

Block VII: 366 students listed.

Block VIII: 366 students listed.

2. Key Findings & Detailed Analysis

2.1. Overall Performance & Pass/Fail Rates

The summary statistics at the bottom of the sheet are designed to calculate pass/fail rates, but the formulas are partially incorrect, leading to misleading results.

Corrected Analysis (Manual Calculation based on full dataset):

Block VII:

Absent/Zero: 10 students (e.g., Roll #189, 232, 352, 3710R, etc.).

Appeared: 356 students.

Failed (<70%): 1 student (Roll #26, Amna Zafar, 61%).

Passed (≥70%): 355 students.

Passing Percentage: ~99.7% (355/356) - An exceptionally high pass rate.

Block VIII:

Absent/Zero: 9 students (e.g., Roll #189, 352, 3710R, etc.).

Appeared: 357 students.

Failed (<70%): 8 students (e.g., Roll #84: 58%, #292: 50%, #321: 59%, #329: 63%, #270: 75%, etc.).

Passed (≥70%): 349 students.

Passing Percentage: ~97.8% (349/357) - Still very high, but a noticeable drop from Block VII.

2.2. Comparative Analysis: Block VII vs. Block VIII

Performance Decline: There is a clear trend of declining scores for a portion of the cohort. While many students maintained or improved their scores, a significant number saw a decrease. For example, Roll #292 dropped from 90% to 50%, and Roll #84 dropped from 81% to 58%.

Increased Failure Rate: The number of failing students increased from 1 in Block VII to 8 in Block VIII.

Consistency at the Top: High-performing students (e.g., those scoring above 90%) generally remained high performers, indicating the material or exam difficulty might have increased in a way that disproportionately affected mid-to-lower performing students.

2.3. Identification of At-Risk Students

Students can be categorized based on their performance across both blocks:

Consistently High Performers: A large group of students scoring above 85% in both blocks (e.g., Roll #100, #128, #207, #341).

Significant Decliners: Students whose performance dropped substantially (e.g., by more than 15 percentage points).

Examples:

Roll #292: 90% → 50% (-40%)

Roll #84: 81% → 58% (-23%)

Consistently Low/At-Risk: Students who passed but scored in the 70-75% range in both blocks, or who failed one block. These students may need support to prevent future failure.

Absentees: A group of ~10 students who scored zero in one or both blocks. This requires administrative follow-up to distinguish between absence, withdrawal, and data entry issues.

3. Recommendations

Academic & Administrative Actions:

Intervene with At-Risk Students:

Priority 1: Contact the 8 students who failed Block VIII to offer remedial support.

Priority 2: Reach out to the "Significant Decliners" group to understand the reasons for their performance drop (e.g., personal issues, topic difficulty) and provide guidance.

Follow-up on Absentees: Determine the status of students with zero scores. Were they absent, have they withdrawn, or is this a data entry error?

Theory Based on Campus End of Clinical Block LMS results

3rd Year LMS Assessment Results (On Campus Morning) Clinical End Blocks

Roll No.	Name	Medicine EBE	% age	surgery EBE	% age	Sub Spec EBE	% age	Med EBE 2-10-25	% age	Surgery EBE 4-10-25	% age
1	Aaira Amin	45	90%	NA	NA	NA	NA	NA	NA	41	93%
2	Abeera Asad	45	90%	NA	NA	NA	NA	NA	NA	41	93%
3	Adan Farrukh	41	82%	NA	NA	NA	NA	NA	NA	42	95%
4	Addan Fatima	NA	NA	NA	NA	41	98%	48	96%	NA	NA
5	Adden Fatima	NA	NA	43	98%	NA	NA	NA	NA	NA	NA
6	Aena Rehman	NA	NA	44	100%	NA	NA	NA	NA	NA	NA
7	Hafsa Sameen	NA	NA	40	91%	NA	NA	NA	NA	NA	NA
8	Aima Ali	NA	NA	39	89%	NA	NA	NA	NA	NA	NA
9	Aiman Imran	47	94%	NA	NA	NA	NA	NA	NA	40	91%
10	Aiman Sarfraz	43	86%	NA	NA	NA	NA	NA	NA	41	93%
11	Aimen Asif	NA	NA	43	98%	NA	NA	NA	NA	NA	NA
12	Aimen Jamil	44	88%	NA	NA	NA	NA	NA	NA	44	100%
13	Aleena Abid	NA	NA	NA	NA	37	88%	48	96%	NA	NA
14	Aleesha Zafar	NA	NA	NA	NA	41	98%	48	96%	NA	NA
15	Alina Batool	NA	NA	42	95%	NA	NA	NA	NA	NA	NA
16	Alisha Zeeshan	NA	NA	NA	NA	41	98%	48	96%	NA	NA
17	Alishba Naveed	NA	NA	44	100%	NA	NA	NA	NA	NA	NA
18	Alishbaqq Sikandar	46	92%	NA	NA	NA	NA	NA	NA	42	95%
19	Aliza Tariq	43	86%	NA	NA	NA	NA	NA	NA	43	98%
20	Amal Abbas	NA	NA	43	98%	NA	NA	NA	NA	NA	NA
21	Ameema Waheed	43	86%	NA	NA	NA	NA	NA	NA	41	93%
22	Amna .	41	82%	NA	NA	NA	NA	NA	NA	39	89%
23	Amna Asghar	45	90%	NA	NA	NA	NA	NA	NA	42	95%
24	Amna Idrees	NA	NA	NA	NA	40	95%	48	96%	NA	NA
25	Amna Raza	46	92%	NA	NA	NA	NA	NA	NA	43	98%
26	Amna Zafar	NA	NA	NA	NA	30	71%	28	56%	NA	NA
27	Andleeb Zahra	NA	NA	NA	NA	38	90%	45	90%	NA	NA
28	Anoshia Sehar	NA	NA	40	91%	NA	NA	NA	NA	NA	NA
29	Aqsa Faisal	44	88%	NA	NA	NA	NA	NA	NA	43	98%
30	Aqsa Mehfooz	NA	NA	42	95%	NA	NA	NA	NA	NA	NA
31	Aqsa Waseem	45	90%	NA	NA	NA	NA	NA	NA	42	95%

Complete results attached as Annexure C

Detailed Analysis:

This spreadsheet details the clinical assessment results for the same 3rd-year cohort from the theory analysis. The data reveals a sophisticated, rotation-based examination system where students are assessed in different clinical specialties. The overall performance is strong, with a high concentration of scores above 85%. However, the analysis uncovers critical patterns, including a highly specific and

effective grading system, a small number of significant outliers requiring intervention, and a complete absence of aggregate statistics to monitor the program's health.

1. Data Structure & Examination System

Purpose: To record clinical exam scores for students rotating through different medical wards.

Examination Model: The data suggests a Objective Structured Clinical Examination (OSCE) or ward-based clinical exam (EBE) format, where students rotate through stations or postings.

Key Columns & Interpretation:

G. Medicine EBE / H. Surgery EBE / K. Sub Spec EBE: These appear to be the primary clinical rotations. The "Sub Spec" likely refers to sub-specialties like Gynecology, Pediatrics, Psychiatry, etc.

M. Med EBE 2-10-25 / P. Surgery EBE 4-10-25: These are re-sit or repeat examinations for the respective blocks. The naming convention (`2-10-25`, `4-10-25`) likely refers to specific dates, indicating these were offered later for students who failed or missed the first attempt.

Grading System:

The raw scores are out of 50 points (e.g., a score of 45 equals 90%).

The passing benchmark is 70% (a raw score of 35/50). This is consistent with the theory sheet and standard medical education practices.

2. Key Findings & Detailed Analysis

2.1. Overall Performance & Pass/Fail Rates

Unlike the theory sheet, this clinical sheet lacks any summary statistics. Therefore, all analyses are derived from a manual review of the 366-student cohort.

Overall Pass Rate: Extremely high. The vast majority of students who attempted an exam passed it. The number of failing scores (<35/50) is minimal.

Performance Distribution: The data is heavily skewed towards high performance. It is common to see scores of 40+/50 (80%+), with a significant cluster at 44/50 (88%) and 45/50 (90%). This suggests the exams are well-aligned with the taught curriculum or the grading is competency-based, expecting high performance.

2.2. Analysis of the "Re-sit" Columns (Critical Insight)

The presence of the "Med EBE 2-10-25" and "Surgery EBE 4-10-25" columns is the most revealing aspect of this dataset.

Purpose: These columns exclusively contain scores for students who failed or were absent for the primary exam.

Evidence:

Roll #26 (Amna Zafar): A consistent at-risk student. Scored 30/50 (60%) in Sub Spec, and a very low 28/50 (56%) in the primary Medicine EBE. She then re-attempted Medicine (Med EBE 2-10-25) and scored 48/50 (96%).

Roll #67 (Eman Fatima): Scored 39/50 (78%) in Medicine but failed the Surgery re-sit with 28/50 (64%).

Roll #232 (Roumman Ashraf): Failed Sub Spec with 27/50 (64%) but passed the other re-sits.

Conclusion: The system effectively identifies struggling students and gives them a second opportunity to demonstrate competence, which is a best practice in medical education. **2.3. Identification of At-Risk & Outstanding Students**

A. Consistently Outstanding Performers:

A large group of students scored highly (≥43/50 or 86%) across all their attempted clinical exams. Examples include Roll #6, #17, #35, #36, #111.

B. Students Requiring Immediate Intervention:

This is a critical category. These students have failing grades and may be in academic jeopardy.

Roll #303 (Muhammad Umar Khalid): Scored 1/50 (2%) in "Surgery EBE 4-10-25". This is a massive outlier and suggests absence, a data entry error, or a serious issue that needs urgent investigation.

Roll #194 (Manahil Amjad): Scored 15/50 (30%) in "Med EBE 2-10-25". A very low score on a re-sit exam is a significant concern.

Roll #26 (Amna Zafar): As noted, failed two primary clinical exams (Medicine and Sub Spec). While she passed the Medicine re-sit, her initial performance flags her as at-risk.

Roll #67 (Eman Fatima): Failed the Surgery re-sit (64%).

Roll #341 (Habiba Samar): Scored 34/50 (68%) in

the primary Medicine EBE, just below the pass

mark. C. Students with Significant Performance

Gaps:

Roll #162 (Javeria Irshad): Scored 35/50 (80%) in Surgery, which is a pass but is notably lower than the cohort's average, potentially indicating a weakness in that discipline.

2.4. Data Quality and Logistical Notes

"NA" Meaning: The footnote explains "NA* = Not Attempted as the student was not in that ward." This is crucial—it means "NA" is not a missing data point, but a valid status indicating the student was not scheduled for that rotation. This explains why most students have scores in only 2-3 columns.

Missing Roll #s: The sequence jumps from 139 to 141, and 350 to 352. This, combined with the "r" and "pending" codes, suggests a dynamic student list with additions, removals, or repeats, similar to the theory sheet.

No Summary Statistics: The lack of a summary table (Total, Appeared, Passed, Failed, %) is a major deficiency for administrative oversight.

3. Scientific & Educational Implications

Competency-Based Education (CBE): The high concentration of excellent scores suggests the program successfully brings most students to a high level of clinical competency.

The assessment appears to be measuring essential skills that have been effectively taught.

Effective Remediation System: The existence and utilization of re-sit exams demonstrate a structured approach to remediation. This allows students a safety net and the program to ensure minimum competencies are met before progression.

Reliability of Assessment: The fact that most students perform consistently well across different clinical domains (e.g., a student who does well in Medicine also does well in Surgery) suggests the assessments are measuring a underlying general clinical aptitude reliably.

Section – VII Assessment

9-Assessment Policies:

CONTENTS:

1. Assessment Plan
2. Types of Assessment
3. Modular Examinations
4. Block examinations

Assessment Plan

This policy is applicable to all the students of the MBBS program of RMU for all modes of teaching (on campus/online/any other) from the date of approval by the RMU Academic Council.

1. Guiding principles

- RMU has the responsibility to ensure to all the stakeholders that students have achieved the identified outcomes of the medical degree course.
- Assessment requires a variety of methods; no single method can completely ensure that the requisite competence level has been achieved. Hence each assessment instrument must be selected based on its utility index.

- Feedback, ensuring that the feedback loop is closed, should be provided to students following all assessments to ensure that students identify gaps in their learning and faculty can review future curricular and assessment content.
- The quality of the entire assessment including confidentiality of the assessment process must be ensured.
- The assessment process should be clear and transparent so that students know in advance the expectations (from students) and consequences of the assessment.
- Details of the conduct of examinations are available in the Examination policy document.

2. Purposes of assessment

- Feedback to students regarding their readiness and deficiencies.
- To ensure appropriate competence has been achieved.
- Feedback to faculty to evaluate the effectiveness of the teaching program.

3. Forms of assessments

Formative Assessment

Formative assessment refers to low-stakes evaluation methods that usually do not contribute to the student's final grade. These assessments are designed to monitor learning progress and provide feedback to improve understanding. Examples include summarizing key points of a lecture, short quizzes, or other activities used to assess comprehension of recently covered material.

Formative assessment, also known as assessment for learning, is conducted throughout modules and clinical clerkships using various strategies determined by module coordinators and clerkship directors. Continuous feedback is an essential component, and in some cases, performance in formative activities may contribute to continuous assessment records.

Summative Assessment

Summative assessment refers to **evaluation conducted at the end of a learning unit** to measure a student's achievement against predetermined standards. It represents **assessment of learning** and is typically carried out at the **end of modules, blocks, or clerkships**.

Summative assessment consists of two main components:

1. Written Assessment (50%)

- Multiple Choice Questions (MCQs) – 40% (USMLE-style format)
- Extended Matching Questions (EMQs) – 10%
- Short Answer Questions (SAQs) – 50%

2. Performance / Practical Assessment (50%)

- Objective Structured Practical Examination (OSPE) – conducted in Years I, II, and III
- Objective Structured Clinical Examination (OSCE) – conducted in Years IV and V
- Short clinical cases are included as part of the OSCE.

Assessment and their timings

- The module/ clerkship teams will be responsible for their assessment plan mentioning assessment strategies, timings, and other essentials (please refer to the individual plans).
- Students will be briefed about the pattern and scoring of the assessments before the examination.
- Professional examination will be taken by RMU.

5. Weekly LMS (learning management system) assessment of LGIS and SDL

- There will be weekly assessment of LGIS and SDL of whole week at end of week through LMS.

- The LMS result will be shared by module coordinator and DME through vice chancellor on weekly basis.

6. Eligibility to appear in End Block Assessment (EBA)

- This will be applicable to all the blocks of undergraduate program
- 80% attendance in each subject will be mandatory
- Student must pass in all LMS, mid module assessments to appear in EBA
- There will be no remedial classes for attendance compensation
- There will be no remedial of assessment after poor performance

7. Eligibility to appear in Pre-Annual Assessment (PAA)

- 80% attendance in each block is required to appear in PAA
- It is mandatory to appear in all EBA to appear in PAA
- Appraisal letter from head of departments will be needed to appear in pre-annual assessment.

8. Attendance policy

- 90% attendance in each block is required to appear in PAA
- There will be extra marks given as per rules.
- Attendance of the students will be shared by coordinator of module and DME through vice chancellor RMU on weekly basis.
- These marks will be counted in annual professional assessment.

9. Eligibility to appear in annual professional assessment

- Minimum 60% score in pre-annual assessment is required to appear in annual professional examination.
- Written and practical /OSPE/OSCE should be passed separately.

10. Passing criteria in annual professional examination

- 50% marks will be needed to pass annual professional examination.

11. Total break up of assessment score

- Annual professional exam weightage 60%
- Continuous internal assessment weightage 40%

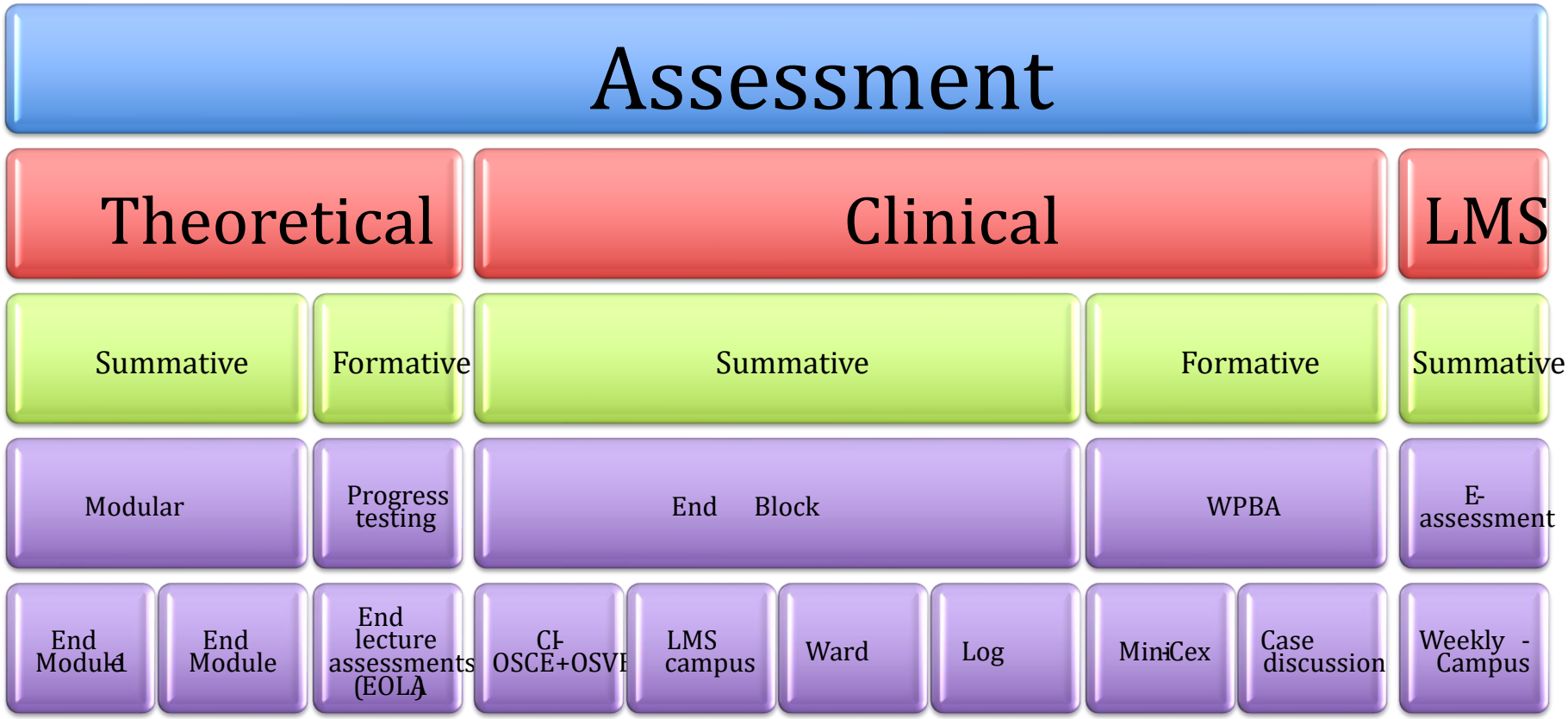

Assessment
Theoretical
Clinical
LMS
Summative
Formative
Summative
Formative
Summative
Modular
Progress testing
End Block
WPBA
E-assessment
End Module
End Module
End lecture assessments (EOLA)
CI-OSCE+OSVE
LMS campus
Ward
Log
Mini-Cex
Case discussion
Weekly - Campus

Table of Specifications

Department of Medical Education Rawalpindi Medical University/Allied Hospitals
Preamble

The Table of Specifications (TOS) is a detailed framework that describes how assessment items are distributed in terms of content among modules in our prestigious medical university's curriculum. The TOS was created with great care to ensure that educational objectives, instructional content, and evaluation criteria are all in line with one other. This allows us to guarantee the validity, integrity, and reliability of assessments while supporting our students' overall growth. This paper offers clarity and transparency by outlining the cognitive levels, domains, and weightings of assessment items. This helps faculty members create tests that appropriately measure students' understanding of critical competencies and knowledge areas. The TOS, which is based on pedagogical ideas and evidence-based practices, symbolizes our dedication to provide our graduates with the necessary skills, knowledge, and professionalism in medical education to achieve success in their chosen industries and contribute significantly to the medical community and society at large.

Components of TOS:

The following elements are usually included in a Table of Specifications (TOS):

Content Domains or Areas: The assessment's broad categories or content domains are described in this section. These domains have to match the course or module's curriculum and learning objectives.

Weightings or Percentages: Gives each topic area or cognitive level a certain amount of weight or proportional value. This makes it easier to guarantee that the evaluation accurately captures the importance that the curriculum places on certain subjects or abilities.

Assessment Items: Describes the many kinds of assessment items that will be used in the assessment, such as essays, multiple choice questions, short answer questions, and practical tests. The number of items assigned to each content area and cognitive level may also be stated in this section.

Blueprint: A graphic depiction of the TOS that outlines how assessment items are distributed throughout curriculum categories. It frequently takes the shape of a table or matrix.

Modules in 4th Year MBBS

Block	Module Name	Duration
(Block I)	Otorhinolaryngology I	3 weeks
	Otorhinolaryngology II	3 weeks
(Block II)	Ophthalmology I	3 weeks
	Ophthalmology II	3 weeks
(Block III)	Endocrinology I	3 weeks
	Population medicine& reproduction II	7 weeks
(Block IV)	Renal I	3 weeks
	CNS & Psychiatry II	6 weeks

Assessment strategies to assess module:

Formative: Formative assessment is a process used by teachers during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.

LMS (Learning Management System): Weekly LMS based assessment will be carried out in all the modules from the topics already provided in the study guide.(TOS sample annexure 1)

End Modular: End Modular Assessment will be carried out at the end of the module from the course taught till that day. (TOS Sample Annexure 2) **Summative**: summative assessment evaluates student learning at the end of a block/ professional year.

MCQs: Multiple-choice questions (MCQs) are a type of assessment item commonly used in educational settings to evaluate a person's knowledge or understanding of a topic. In a multiple-choice question, the respondent is presented with a question or statement, known as the stem, along with several options, one of which is the correct answer (the key), while the others are incorrect (distractors). The respondent selects the option they believe to be the correct answer.

SAQs: Short answer questions are a type of assessment item used to evaluate a person's understanding of a topic or concept. Unlike multiple-choice questions, which provide a list of options for respondents to choose from, short answer questions require respondents to generate their own answers without the aid of options provided by the question.

Assessment tools & strategies

Tools of assessments:

Theory assessment

a. MCQs

b. SAQs & SEQs

c. EMQs

d. AV-OSPE

Clinical Assessment

a. Objectively Structured Viva Examination (OSVE).

b. Ci-OSCE (Clinically Integrated-OSCE)

c. Ward test

d. Log book

LMS

1. Off campus
2. On-Campus

Proposed TOS of on campus Assessments during whole Academic Year 2026 (RMU)

Block Name & Order	Modules Names & Numbers	Theory			Scheme of Integration							Practical Assessment									
		25 MCQs (1 mark each)	5+1 SAQ +EMQ (5 marks each)	5 SEQs (9marks each)	Core Subject. 70%		Hori- & Verti- Integ. 20%		*Spiral Integ. 10%		Total marks Theory	OSVE				OSPE (05 marks each)			Total marks Practical	End Block LMS (MCQs Based)	Total Block marks
												Module I		Module 2		Observed	Unobserved	Video assisted			
I Otorhinolaryngology	ENT I & II	Total marks	Total marks	Total marks	MCQs (19)	SAQ/ SEQ +EMQ (7+1)	MCQs (4)	SAQ /SEQs (2)	MCQs (2)	SAQ (1)	100	Viva marks	**Book marks	Viva marks	Book marks	5 stations	5 stations	10 stations	150	30	270
		25	25+5	45	19	46	4	12	2	7		45	5	45	5	25 marks	25 marks	50 Marks			
II Ophthalmology	EYE I & II	25	25 +5	45	19	46	4	12	2	7	100	45	5	45	5	5 stations 25 marks	5 stations 25 marks	10 stations 50 marks	150	30	270
III Population medicine & Reproduction	Endocrino-logy	25	25 +5	45	19	46	4	12	2	7	100	-									
	Pop Med & Reproduction	25	25+5	45	19	46	4	12	2	7	100	Viva marks	Book marks	Viva marks	Book marks	10 stations	10 stations	20 stations	250	30	460
												45	5	45	5	50 marks	50 marks	100 marks			
	Renal	25	25+5	45	19	46	4	12	2	7	100									30	

IV CNS & Psychiatry	**CNS & Psychiatry**		25+5	45	19	46	4	12	2	7	100	Viva marks 45	Book marks 5	Viva marks 45	Book marks 5	10 OPSEs 50 marks	10 OPSEs 50 marks	20 OSPEs 100 marks	250		460

***Spiral Integration**

1. Biomedical Ethics & Professionalism
2. Family Medicine
3. Integrated Undergraduate Research Curriculum (IUGRC)

Artificial Intelligence **** "Log Book marks"** will be credited according to evidence of reading relevant subjects from the recommended books presented at the time of viva examination

In theory assessment SEQs and SAQs both tools may be used according to need and scope of assessment in the subject. **- Time** allocated to 1 MCQ: 1min and 1SEQ/SAQ: 10min.

Proposed Pre-Annual Assessment TOS 4th Year MBBS (batch 50)

Blocks	Subjects	MCQs 1mark each	SAQs 5 marks each	Core Subject	Horizontal & Vertical Integration	Spiral Integration	OSCE 5 marks each	VIVA 75 marks	
								Attendance	Core subject
Block 1 ***	ENT	45	10	70%	20%	10%	10	5	40
	Community Medicine	30	5	70%	20%	10%	05	5	25
Total Marks		**75**	**75**	**100%**			**75**	**75**	
Block II***	Eye	45	10	70%	20%	10%	10	5	40
	Community Medicine	30	5	70%	20%	10%	05	5	25
Total Marks		**75**	**75**	**100%**			**75**	**75**	
Block III ***	Pharmacology	25	4	70%	20%	10%	5	5	20
	Pathology	25	5	70%	20%	10%	5	5	20
	Community Medicine	15	4	70%	20%	10%	5	5	20
Total Marks		**75**	75	**100%**				75	
	Pharmacology	25	4	70%	20%	10%	5	5	20

Block IV*	Pathology	25	5	70%	20%	10%	5	5	20
	Community Medicine	15	4	70%	20%	10%	5	5	20
Total Marks		**75**	**75**	**100%**			**75**	**75**	

*****Total marks of each Block = 300 marks, Grand Total = 1200 marks**

Assessment Frequency & Time in population medicine & Reproductive Health Block

(80% pass criteria and 80% attendance for appearing in end block exam)

	Population Medicine & Reproductive health Block	Type of Assessments	Total Assessment Time			No. of Assessments	
Sr #	Types of Assessments		Assessment Time	Summative Assessment Time	Formative Assessment Time	Formative	Summative
1	**Weekly LMS based assessments** (Pathology 20, Community Medicine 20, Pharmacology 20, Surgery &allied 20, Medicine& allied 20) **Total 100 MCQs (100 marks)**	Summative	60 Minutes /WK =6hrs	20:30 hours	10 Minutes (pretest before each LGIS)	According to number of LGIS	07
2	**End Module Examinations**	Summative	Detailed below				
Breakup of EOM Assessment							
➢ **Community medicine** (5SEQs,5 SAQs, 1 EMQ & 25 MCQs) 100 marks		Summative	3 Hrs.				
➢ **Pathology (**5SEQs,5 SAQs, 1 EMQ and 25 MCQs) 100 marks		Summative	3 Hrs.				
➢ **Pharmacology** (5SEQs,5 SAQs, 1 EMQ and 25 MCQs) 100 marks		Summative	3 Hrs.				
➢ (video assisted OSPE) for each subject 10 stations (50 marks)		Summative	50 minutes				
➢ Ward test at the end of two weeks rotation in clinical subjects & End of Clerkship Community medicine.			1 hr. 40 min				
5.	**End Block** 1. Practical OSPE.20 stations=100 marks, Structured viva. 100 marks 2. LMS based MCQs (100 MCQs) 100 marks	Summative	3 hrs.				

Table of specifications (TOS) Weekly Assessment (LMS) For Reproduction Block

S. No	Discipline	Type of Assessment	Number of MCQs	Cognitive domains			Marks
				C1	C2	C3	
1.	Community medicine	Summative	20	4	5	11	20
2.	Pathology	Summative	20	4	5	11	20
3.	Pharmacology	Summative	20	3	5	12	20
4.	Medicine & Allied	Summative	20	4	6	10	20
5.	Gynae & Obstetrics	Summative	20	4	6	10	20
	Total		100	19	27	54	100

Mode & Schedule of Assessment
Community Medicine

S. No	Mode	Type	Schedule	Venue	Frequency
1.	End of wk. LMS based Test	Summative	Weekly	Off campus	01 x no. of weeks
2.	Theory (MCQ+SEQ+ SAQs + EMQ)	Summative	End of module	On campus	01
3.	AV OSPE	Summative	End of module	On campus	01
4.	Practical Ci OSPE	Summative	End of block	On campus	01
5.	Structured VIVA	Summative	End of block	On campus	01
6.	LMS MCQs test	Summative	End of block	On campus LMS	01
7.	End of clerkship Exam MCQs, OSCE	Summative	End of clerkship batch	On campus	01 x 2 wks.

Pharmacology

S. No	Mode	Type	Schedule	Venue	Frequency
1.	End of wk. LMS based Test	Summative	Weekly	Off campus	01 x no. of weeks
2.	Theory (MCQ+SEQ+ SAQs + EMQ)	Summative	End of module	On campus	01
3.	AV OSPE	Summative	End of module	On campus	01
4.	structured VIVA& practical OSPE	Summative	End of block	On campus	01
5.	LMS MCQs test	Summative	End of block	On campus	01
6.	End of Skill lab Exam, MCQs	summative	End of module	On campus	01

Pathology

S. No	Mode	Type	Schedule	Venue	Remarks
1.	End of wk. MCQ based Test	Summative	Weekly	LMS	01 x no. of weeks
2.	Theory (MCQ+SEQ+ SAQs + EMQ)	Summative	End of module	On campus	01
3.	AV OSPE	Summative	End of module	On campus	01
4.	Structured VIVA & practical OSPE	Summative	End of block	On campus	01
5.	LMS MCQs test	Summative	End of block	LMS	01
6.	End of Skill lab Exam, MCQs	Summative	End of module	On campus	01

Table of Specification for Assessment

		FOR EACH MODULE ASSESSMENT												FOR BLOCK ASSESSMENT									
Block Name	Modules Names	Subject	Theory									Video assisted OSPE 10 Stations (5 marks each)	Total marks Theory	Practical								Total Block marks	End of block LMS MCQs
						Scheme of Integration								OSVE				OSPE (05 marks each)		Total marks Practical			
			25 MCQs (1 mark each)	5+1 SAQ +EMQ (5 marks each)	5 SEQs (9marks each)	Core Subject. 70%		Hori- & Verti- Integ. 20%		Spiral Integ. 10%				Module I syllabus		Module 2 syllabus		Observed	Unobserved				
Population Medicine & reproduction	Endocrinology	Community medicine	25	25+5	45	Mcq 19	Seq 50	Mcq 4	Seqs 15	Mcq 2	Seq 10	50	150										
		Pharmacology	25	25+5	45	19	50	4	15	2	10	50	150										
		Pathology	25	25+5	45	19	50	4	15	2	10	50	150										
	Population Med & Reproduction	Community medicine	25	25+5	45	19	50	4	15	2	10	50	150	Viva marks 45	Book marks 5	Viva marks 45	Book marks 5	10 stations 50	10 stations 50	200	300	30
		Pharmacology	25	25+5	45	19	50	4	15	2	10	50	150	45	5	45	5	50	50	200	300	30
		Pathology	25	25+5	45	19	50	4	15	2	10	50	150	45	5	45	5	50	50	200	300	30

End of Module Exam						
Modules	**Subject**	**Theory**				**Total**
		MCQs (25) (1 mark each)	**SAQ+EMQ 5+1 (5 marks each)**	**5 SEQs 05 (9marks each)**	**AV OSPE 10 stations (5 marks each)**	
Population Medicine & Reproductive Health	Community medicine	25	25+5	45	50	150
	Pharmacology	25	25+5	45	50	150
	Pathology	25	25+5	45	50	150

End of Block Exam						
Subjects	**OSPE**		**Viva 90 marks**	**Book 10 marks**	**On Campus LMS**	**Total**
	Observed 10 stations (05 marks each)	**Unobserved 10 stations (05 marks each)**				
Community Medicine	50	50	90	10	100	300
Pharmacology	50	50	90	10	100	300
Pathology	50	50	90	10	100	300

11- Time Tables

Rawalpindi Medical University Rawalpindi

Tentative Time Table 4th year MBBS-Endocrinology Module 2026 (1st week)

THEME 1: Metabolic Homeostasis & Diabetes Care Continuum

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am		BREAK 10:00AM – 10:30 AM	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 13.07.26	**Quran Class**		**COMMUNITY MEDICINE (LGIS)**			**CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.**	
	Combine Class		Non-Communicable, (Diabetes & Obesity)				
	CPC Hall		**(odd) lec hall 1**	**(Even) lec hall 2**			
	Qari Abdul Wahid		Dr Mehwish	Dr. Mehjabeen			
Tuesday 14.07.26	**MEDICINE**		**PHARMACOLOGY (CBL)**				
	Diabetes Insipidus		Diabetes Mellitus				
	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Saima Ambreen	Dr Madiha Nazar	Dr Haseeba	Dr. Arsheen			
Wednesday 15.07.26	**PATHOLOGY (SGD)**		**SURGERY (LGIS)**				
	Pancreatic tumors		Surgical Intervention of Pancreatic tumors				
	(odd) lec hall 1,3	**(Even) lec hall 2,6**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Shabih Haider Dr Kiran Fatima	Dr Mahjabeen Dr Rubab Fatima	Dr Arif Khan	Dr. Asifa Dian			
Thursday 16.07.26	**PATHOLOGY (LGIS)**		**PHARMACOLOGY (LGIS)**				
	Diabates Mellitus		Anti-Diabetic drugs (Classification)				

	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**								
	Dr Kiran Fatima	Dr Mehreen Fatima	Dr Zunera	Dr. uzma								
Friday 17.07.26	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**11:15AM – 12:00PM**					
	PAL / Skill lab		**PHARMACOLOGY (LGIS)**		**MEDICINE (LGIS)**		**PEDIATRICS (LGIS)**					
	Community Medicine / Pathology IUGRC Session / Chronic Pancreatitis, Pancreatic Carcinoma		Anti-Diabetic Drugs (Parenteral)		Diabetes and Hypoglycemia		Diabetes Mellitus & Its Complications					
	Batch A-H	**I-P**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**				
	All Faculty Members	Dr Mahjabeen	Dr Zunera	Dr. uzma	Dr Nida	Dr. Mujeeb	Dr Verda Imtiaz	Dr. Sonia Fazal				
Saturday SEMINAR DAY 18.07.26	**08:00AM – 09:45AM**		**09:45AM – 11:15AM**		**11:15AM – 11:45AM**		**11:45AM – 12:30PM**		**12:30PM – 01:15PM**	**01:15PM – 02:00PM**		
	PAL / Skill lab		**TCRF-1 Joint Session**		**TEA BREAK**		**MEDICINE(LGIS)**		**FAMILY MEDICINE (LGIS)**	**PATHOLOGY (CBL)**		
	Community Medicine / Pathology IUGRC Session / Chronic Pancreatitis, Pancreatic Carcinoma		**Uncontrolled diabetes with acute metabolic complications**				Diabetes Ketoacidosis		Care concepts of FM in NCDs (diabetes, Obesity)	Complications of Diabetes Mellitus		
	A-H	**I-P**	**CPC Hall**				**(odd) lec hall 4**	**(Even) lec hall 5**	CPC Hall (combine class)	**(odd) lec hall 3,4**	**(Even) lec hall 5 toxi lab**	
	All faculty members	Dr Mahjabeen	**Dr Mehjabeen Qureshi**				Dr Nida	Dr Mujeeb	Dr Sadia	Dr Syed Iqbal Dr Rubab	Dr Mehreen Fatima Dr Shabih Haider	

Rawalpindi Medical University Rawalpindi

Tentative Time Table 4th year MBBS-Endocrinology Module 2026 (2nd week)

THEME 2: Regulation of Thyroid & Parathyroid Hormones

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am		BREAK 10:00AM – 10:30 AM	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 20.07.26	PHARMACOLOGY		**PATHOLOGY**			**CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.**	
	Drugs that affect bone mineral & Homeostasis		**Parathyroid disorders**				
	(odd) lec hall 1	**(Even)lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Attiya	Dr. Zari	DR Fatima tuz Zahra, Dr Mahjabeen	Dr Mehreen Fatima, Dr Shabih Haider			
Tuesday 21.07.26	**PHARMACOLOGY (LGIS)**		**COMMUNITY MEDICINE**				
	Hypothyroidism		Non- Communicable, HTN, CHD				
	(odd) lec hall 1	**(Even)lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Attiya	Dr. Zari	Dr Sana Bilal	Dr Imrana Saeed			
Wednesday 22.07.26	**PATHOLOGY (SGD)**		**COMMUNITY MEDICINE**				
	Parathyroid Adenoma/ carcinoma		Non- Communicable, cancers				
	(odd) lec hall 1	**(even) lec hall 2**	**(Even) lec hall 1**	**(Even)lec hall 2**			
	DR Fatima tuz Zahra,	Dr Mahjabeen	Dr Imrana Saeed	Dr. Sana Bilal			
Thursday 23.07.26	**PATHOLOGY (LGIS)**		**SURGERY (LGIS)**				
	Hypothyroidism and Thyroid Tumors		Surgical intervention of parathyroid gland				
	(odd) lec hall 1	Lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Dr Fatima tuz Zahra	Dr Mehreen Fatima	Dr Gohar Rasheed	Dr. Huma Sabir			
	08:00AM – 09:45AM		**09:45AM – 10:30**		**10:30AM – 11:15AM**	**11:15AM – 12:00PM**	

Friday 24.07.26	**Skill lab**			**PATHOLOGY (LGIS)**		**PHARMACOLOGY (LGIS)**		**MEDICINE (LGIS)**										
	Pharmacology / Pathology P-Drugs & Prescription writing / Thyroiditis, Multinodular goiter -I			Hyperthyroidism		Anti-thyroid Drugs classification		Thyroid Disorders 1 hypothyroidism										
	Batch A-H	**Batch I-P**		**(odd) lec hall 4**	**(Even)lec hall 5**	**(odd) lec hall 4**	**(Even)lec hall 5**	**(odd) lec hall 4**		**(Even)lec hall 5**								
	Dr Zoefeshan Dr Zaheer Dr Uzma	Dr Syed Iqbal Haider		Dr. Kiran Fatima	Dr. Fatima Zahra	Dr Attiya	Dr. Zari	Dr Mojeeb		Dr Nida								
Saturday SEMINAR THYROID	**08:00AM – 09:45AM**			**09:45AM – 10:30**		**10:30AM – 11:15AM**		**BREAK**	**11:45AM – 12:30PM**			**12:30PM – 01:15PM**			**01:15PM – 02:00PM**			
	skill lab Pharmacology / Pathology			**PHARMACOLOGY (LGIS)**		**PEDIATRICS (LGIS**			**MEDICINE (LGIS)**			**GYNAE (LGIS)**			**SURGERY (LGIS)**			
25.07.26	P-Drugs & Prescription writing/ Thyroiditis, Multinodular goiter -II			Anti-thyroid Drugs (Mechanism of Action & Adverse Effects)		Hypothyroidism			Thyroid disorder 2 hyperthyroidism			Thyroid in Pregnancy			Surgical Intervention of Thyroid Gland			
	Batch I-P	**Batch A-H**		**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**		**(odd) lec hall 4**	**(Even) lec hall 5**		**(odd) lec hall 4**	**(Even) lec hall 5**		**(odd) lec hall 4**	**(Even) lec hall 5**		
	Dr Zoefeshan Dr Zaheer Dr Uzma	Dr. Syed Iqbal Haider		Dr Attiya	Dr. Zari Salahudin	Dr Hina Sattar	Dr Samra Javed		Dr Nida	Dr Mujeeb		Dr Amma ra	Dr. Saima Khan		Dr Gohar Rashee d	Dr. Huma Sabir		

Rawalpindi Medical University Rawalpindi

Tentative Time Table 4thyear MBBS-Endocrinology Module 2026 (3rdweek)

THEME 3: The HPA Axis in Health and Disease

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am		BREAK 10:00AM – 10:30 AM	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 27.07.26	**COMMUNITY MEDICINE (LGIS)**		**PHARMACOLOGY (CBL)**			**CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document** **Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.**	
	Health Programs (Vertical)		Corticosteroids				
	(odd) lec hall 1	**(Even) lec hall 2**	**lec hall 1 & 2**	**lec hall 6 & pharmacy lab**			
	Dr Khola Noreen	Dr Mehwish	Dr Zoefeshan Dr Zaheer Dr Purwa	Dr Saba Dr Memuna Dr Arsheen Dr Ayesha			
Tuesday 28.07.26	**PHARMACOLOGY (SGD)**		**MEDICINE (LGIS)**				
	Mineralocorticoid Antagonist		**Acromegaly**				
	lec hall 1,3	**lec hall 2,toxi lab**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Zoefeshan Dr Zaheer Dr Uzma Dr Ayesha	Dr Saba Dr Memuna Dr Arsheen	Dr Nida	Dr Madiha Nazar			
Wednesday 29.07.26	**PATHOLOGY (SGD)**		**SURGERY (LGIS)**				
	Disorders of Adrenal medulla & MEN Syndrome		Surgical intervention of Adrenal Gland				
	lec hall 1,3	**lec hall 2,6**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Shabih Haider Dr Syed Iqbal	Dr Rubab Dr Mehreen Fatima	Dr M. Iqbal	Dr Syed Rahat Hassan			
Thursday 30.07.26	**MEDICINE (LGIS)**		**PATHOLOGY (LGIS)**				
	Hyperaldosteronism		Adrenal Gland/Hyperadrenalism				
	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			

	Dr Nida	Dr Mujeeb	Dr Kiran Fatima	Dr. Fatimatu Zahra										
Friday 31.07.26	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**11:15AM – 12:00PM**							
	PAL/ skill lab		**MEDICINE (LGIS)**		**PATHOLOGY (LGIS)**		**PHARMACOLOGY(LGIS)**							
	Community medicine / Pharmacology		Cushing's Syndrome and Addison Disease		Hypoadrenalism and adrenal tumors		Corticosteroids (Classification)							
	IUGRC Session/P-Drug & Prescription writing													
	Batch A-H	**I-P**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**						
	All demonstrators	Dr Zoefeshan Dr Zaheer Dr Uzma	Dr Saima Ambreen	Dr Mujeeb	Dr. Kiran Fatima	Dr Ayesha	Dr Attiya	Dr Haseeba						
Saturday 01.08.26	**08:00AM – 09:45AM**		**09:45AM – 11:15AM**			**BREAK**	**11:45AM – 12:30PM**		**12:30PM – 01:15PM**		**01:15PM – 02:00PM**			
	PAL/skill lab COMMUNITY MEDICINE / PHARMACOLOGY		**TCRF-2 Joint Session**				**SURGERY (LGIS)**		**PATHOLOGY (CBL)**		**PHARMACOLOGY (SGD)**			
	IUGRC Session/P-Drug & Prescription writing		Cushing syndrome due to prolonged use of steroids				Neuroendocrine Disorders		Pineal Gland Pathologies		Glucocorticoids Antagonist			
	I-P	**Batch A-H**	**CPC Hall**				**(odd) lec hall 4**	**(Even) lec hall 5**	**(Even) lec hall 5.6**	**(odd) lec hall 3,4**	**lec hall 5 & 6**	**lec hall 3 & 4**		
	All demonstrators& senior faculty	Dr Saba Dr Memuna Dr Arsheen Dr Ayesha	Dr Mehjabeen Qureshi				Dr. Zafar Iqbal	Dr. Qasim Ali	DrMehreen Dr Mahjabeen	Dr Rubab Dr Syed Iqbal	Dr Saba Dr Memuna Dr Arsheen Dr Ayesha	Dr Zoefeshan Dr Zaheer Dr Uzma		

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Tentative Time Table 4th year MBBS-Endocrinology Module 202 (4rth week)

THEME 3: The HPA Axis in Health and Disease

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am		BREAK 10AM-10:30AM	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 03.08.26	COMMUNITY MEDICINE (LGIS)		PHARMACOLOGY (CBL)			CLINICAL CLERKSHIP of community medicine attached as annexure Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.	Res at the end of document
	Healthcare delivery system of Pakistan		Corticosteroids (Clinical Pharmacology)				
	lec hall 1	lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Prof. Dr. Rozina Shahadat Khan	Dr Khola Noreen	Dr Zoefeshan Dr Zaheer Dr Uzma Dr Ayesha	Dr Saba, Dr. Memuna Dr. Arsheen			
Tuesday 04.08.26	COMMUNITY MEDICINE (LGIS)		PHARMACOLOGY (LGIS)				
	Health systems		Corticosteroids (Mechanism of Action & Adverse effects)				
	lec hall 1	lec hall 2	lec hall 1	lec hall 2			
	Prof. Dr. Rozina Shahadat Khan	Dr Khola Noreen	Dr Attiya	Dr. Haseeba			
Wednesday 05.08.26	SDL/Prep Leave						
Thursday 06.08.26	Module Exam Community Medicine						
Friday 07.08.26	Module Exam Pathology						
Saturday 08.08.26	Module Exam Pharmacology						

Theme 1. Maternal health

Tentative Timetable 4th year MBBS-Population Medicine & Reproductive Health Block 2026 (1st week)

Date / Day	8:00 Am – 9:00 Am		09:00am – 10:00am		Break 10:00am – 10:30am	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 4.8.25	QURAN CLASS		MEDICINE (LGIS)			CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.	
	Combined class Lec hall 1		Hypertension in pregnancy				
	Qari Abdul Wahid		(odd) lec hall 1	Even lec hall 2			
			Dr Muhammad Arif	Dr Arsalan			
Tuesday 5.8.25	OBS (LGIS)		COMMUNITY MEDICINE (LGIS)				
	Basic terminology in Obstetrics, Basic and care		Preventive obs antenatal care				
	(odd) lec hall 1	(Even) lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Gynae Unit I Dr. Humaira Bilqis	Gynae Unit I Dr. Ammarh	Assoc Prof Dr. Khola	Prof. Dr. Rozina Shahadat Khan			
Wednesday 6.8.25.	OBS (LGIS)		COMMUNITY MEDICINE (LGIS)				
	Diagnosis of 1st stage of labor, its management andabnormalities		Preventive medicine in obstetric (natal care)				
	(odd) lec hall 1	(Even) lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Gynae Unit-II Dr Khansa	Gynae Unit-II Dr. sabeen	Assoc Prof Dr. Khola	Prof. Dr. Rozina Shahadat Khan			
Thursday 7.8.25.	PHARMACOLOGY (LGIS)		PHARMACOLOGY (LGIS)				
	Gonadal Hormones 1		Oxytocin & Uterine Relaxants				
	(odd) Lec hall 1	(odd) Lec hall 1	(odd) lec hall 1	(odd) lec hall 2			
			Dr. Haseeba	Dr. Zari Salahudin			
Friday 8.8.25	08:00AM – 09:45AM		09:45AM – 10:30		10:30AM – 11:15AM	11:15AM – 12:00PM	
	PAL(IUGRC Session) /skill lab Community Medicine / Pathology		OBS (LGIS)		PHARMACOLOGY (LGIS)	PATHOLOGY (SGD)	

	Research viva/ Cervical Carcinoma & Screening Through Cervical Smears		**3rd** stage of labor & its complications (retained placenta/ uterine inversion		Gonadal Hormone 2		Pathology of early pregnancy complication & non neoplastic placental pathologies							
	Batch A-H	**I-P**	**Lec hall 4 (Odd)**	**Lec hall 5 (even)**	**Lec hall 4 (Odd)**	**Lec hall 5 (even)**	**Lec hall 3 & 4**	**Lec hall 5 & 6**						
	Faculty of community medicine	**Dr. Rubab Fatima**	Dr Rubaba DHQ	Dr Ruqyya DHQ	Dr Aysha	Dr Zunaira	Dr Fatima Tuz Zahra Dr Kiran	Dr Iqbal, Dr Shabih						
Saturday 9.8.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**BREAK 11:15AM – 11:45AM**	**11:45AM – 12:30PM**		**12:30PM – 01:15PM**		**01:15PM – 02:00PM**		
	PAL(1UGRC Session) /skill lab Community Medicine / Pathology		**PHARMACOLOGY (LGIS)**		**MEDICINE (LGIS)**			**MEDICINE (LGIS)**		**Gynae (LGIS)**		**Anesthesia (LGIS)**		
	Research viva/ Cervical Carcinoma & Screening Through Cervical Smears		Gonadal Hormone 3		Liver disorders & thrombocytopenia in Pregnancy			Infections in pregnancy, RTI, GIT, Eye, ENT		Minor disorders in pregnancy		Regional Anesthesia (Spinal & Epidural		
	Batch A-H	**I-P**	**(odd) lec hall 1**	**(odd) lec hall 1**	**Lec hall 4 (Odd)**	**Lec hall 5 (even)**		**Lec hall 4 (Odd)**	**Lec hall 5 (even)**			**Lec hall 4 (Odd)**	**Lec hall 5 (even)**	
	Dr. Rubab Fatima	Faculty of community medicine	Dr. Arif	Dr. Arif	Dr. Arif	Dr Faran		Dr Muhammad Arif	Dr Nida Anjum	Dr Aqsa DHQ	Dr Shehla DHQ	Dr.Anum AP-BBH	Dr.Fahad.SR-BBH	

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Tentative Time Table 4th year MBBS- Population Medicine & Reproductive Health Block 2025 (2nd Week)

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am		BREAK 10:00AM – 10:30AM	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 11.8.25.	**OBS (SGD)**		**OBS (LGIS)**			CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.	
	. Prolonged Pregnancy / IOL		Early pregnancy complications (miscarriages & Ectopic pregnancy)				
	(Odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Humaira Bilqees	Dr Tahira	Dr. Shama DHQ	Dr. Tabinda DHQ			
Tuesday 12.8.25.	**OBS (LGIS)**		**MEDICINE (LGIS)**				
	Episiotomy/ instrumental delivery		Diabetes in pregnancy				
	(odd) lec hall 1	**(odd) lec hall 1**	**(odd) lec hall 1**	**Even lec hall 2**			
			Dr. Arif	Dr Arsalan			
Wednesday 13.8.25.	**OBS (LGIS)**		**PATHOLOGY (LGIS)**				
	Abdominal Delivery		Benign & premalignant conditions of cervix				
	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Hina gul BBH	Dr Humaira Masood BBH	Prof Dr Mobina	Dr. Fatima			
Thursday 14.8.25	**Holiday**						

	08:00AM – 09:45AM		09:45AM – 10:30		10:30AM – 11:15AM		11:15AM – 12:00PM		
Friday 15.8.25.	**Skill Lab Pharmacology Pathology**		**COMMUNITY MEDICINE (LGIS)**		**OBS (LGIS)**		**OBS (LGIS)**		
	Drugs used in pregnancy & lactation+ P drug & Prescription writing for infertility and preterm labour benign & malignant diseases of uterus		Preventive medicine in obstetrics (Postnatal care)-III		Puerperium & its complications		Postpartum Hemorrhage and its management.		
	Batch A-H	**I-P**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**	
	Dr Memona Dr Uzma	Dr. Rubab fatima	Dr. Khola Assoc Prof	Prof. DR. Rozina Shahadat Khan	Gynae Unit II Dr. Khansa Iqbal	Gynae Unit II Dr. Saira Ahmed	Gynae Unit I Dr. Tallat Farkhanda	Gynae Unit I Dr.Ammara	
	08:00AM – 09:45AM		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**BREAK 11:45AM – 12:30PM**	**12:30PM – 01:15PM**	**01:15PM – 02:00PM**

Saturday 16.8.25.	**SGD Community Medicine/ Skill Lab Pathology**		**TRANSDISCIPLINARY CLINICAL REASONING FORUM(TCRF1)**			**MEDICINE (LGIS)**		**PATHOLOGY (SGD)**		**OBS(L G I S)**	
	/ Drugs used in pregnancy & lactation+ P drug & Prescription writing for infertility and preterm labour / benign & malignant diseases of uterus		**Managing a Pregnant Woman with Severe Pre-eclampsia**			Anemia in pregnancy		Rhincompatibility,anemia, diseases in preg.		Oligohydramnios/polyhydramnios	
	A-H	**I-P**	**CPC hall joint session**			**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 3 & 4**	**(Even) lec hall 5 & 6**	**(odd) lec hall 4**	**(Even) lec hall 5**
	Dr. Rubab Fatima	Dr Memona Dr Uzma						Dr Iqbal Haider Dr Mahjabeen	Dr Rubab Fatima Dr Mehreen Fatima	Dr. Aqsa DHQ	Dr. Naila

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Tentative Time Table 4th year MBBS- Population Medicine & Reproductive Health Block 2025 (3rd Week)

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am			10:30am – 12:00pm	12:00pm - 02:00pm	
Monday 25.8.25.	**OBS (LGIS)**		**PATHOLOGY (LGIS)**		BREAK 10:00AM – 10:30AM	**CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document** **Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.**		
	Malpresentations		Benign diseases of uterus					
	(odd)lec hall 1	**(odd) lec hall 1**	**(odd) lec hall 1**	**(Even) lec hall 2**				
	Dr Aqsa DHQ	Dr Ismat Batool	Dr. Fatima Tuz Zahra	Dr. Kiran				
Tuesday 26.8.25.	**PHARMACOLOGY (LGIS)**		**OBS (LGIS)**					
	Drugs used in treatment of infertility		Hypertension in pregnancy					
	(odd)lec hall 1	**(even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**				
	Dr. Memona	Dr. saba	Dr. Shama DHQ	Dr. Ruqaiyah DHQ				
Wednesday 27.8.25.	**OBS (SGD)**		**MEDICINE (LGIS)**					
	Partogram, CTG		Rheumatological disorders in pregnancy					
	lec hall 1	**lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**				
	Gynae unit II Dr Farah	Gynae unit II Dr Khansa	Dr. Arif	Dr Arsalan				
Thursday 28.8.25.	**PATHOLOGY (LGIS)**		**OBS (LGIS)**					
	Benign diseases of Breast		Preterm labour /P PROM					
	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**				
	Dr. Fatima Tuz Zahra	Dr. Kiran	Dr.Humaira Bilqees	Gynae Unit -I Dr Saima Anwar				
Friday 29.8.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**11:15AM – 12:00PM**	
	Skill lab Pharmacology/ Pathology		**PATHOLOGY (LGIS)**		**MEDICINE (LGIS)**		**OBS (LGIS)**	
	PK Calculation I/ Tumors of Breast		Malignant neoplasm of breast		Asthma in pregnancy		Antepartum hemorrhage APH	
	Batch A-H	**I-P**	(odd) lec hall 4	lec hall 1	**lec hall 1**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**
	Dr Ayisha Dr Zaheer	Dr. Mehreen Fatims	Dr Mahreen Fatima	Dr. Saima Bibi	Dr. Saima Bibi	Dr Faran	Dr Sima Bibi	Dr.Saima Anwar
Saturday 30.8.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**	BREAK	**11:45AM – 12:30PM**	**12:30PM – 01:15PM**	**01:15PM – 02:00PM**
	Skill lab Pathology / pharmacology		**RADIOLOGY (LGIS)**		**OBS (SGD)**		**PATHOLOGY(LGIS)**	**MEDICINE (LGIS)**	**OBS (LGIS)**

	Benign Tumors of Breast /PK Calculation I		Imaging in obstetrics & anomaly scan		COVID, Dengue and HIV in pregnancy			GTD & Choriocarcinoma		Epilepsy in Pregnancy		Medical disorders in pregnancy	
	A-H	**Batch I-P**	**(odd) lec hall 4**	**(odd) lec hall 4**	**(odd)lec hall 4**	**(even) lec hall 5**		**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(Odd) hall 4**	**(Even) lec hall 5**
	Dr. Syeda Aisha	Dr Ayisha Dr Zaheer	Gynae unit II Dr Humera Noreen	Gynae unit II Dr Humera Noreen	Dr Sara Liaqat	Dr Muneeba		Dr Fatima Tuz Zuhra	Dr. Mahreen Fatima	Dr. Arif	Dr Faran	Dr Aysha Zulifquar	Dr Maryam Zaheer

Theme 2 Maternal Gynecological Problems

Tentative Time Table 4th year MBBS- Population Medicine & Reproductive Health Block 2025 (4th WEEK)

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am			10:30am – 12:00pm	12:00pm - 02:00pm
Monday 18.8.25.	PATHOLOGY (LGIS)		OBS (SGD)		BREAK 10:00AM – 10:30AM	CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.	
	Benign Diseases of ovary		Management of Benign and malignant ovarian tumors				
	(odd) lec hall 1	(Even) lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Dr Fatima Tuz Zahra	Dr Kiran Fatima	Dr Rubaba (DHQ)	Dr Ruqaiyah			
Tuesday 19.8.25.	PHARMACOLOGY (LGIS)		PATHOLOGY (CBL)				
	Prolactin Antagonists		Pathology of Vulva & Vagina				
	(odd) lec hall 1	(odd) lec hall 4	(odd) lec hall 4	(Even) lec hall 2			
	Dr Attiya	Dr Mahreen Fatima	Dr. Rubab Dr. Mahjabeen	Dr. Iqbal Haider Dr. Mehreen Fatima			
Wednesday 20.8.25.	PATHOLOGY (LGIS)		OBS (LGIS)				
	Malignant diseases of cervix		Management premalignant& malignant disease of cervix				
	Professor Dr Mobina	(odd)lec hall 1	(odd)lec hall 1	(Even) lec hall 2			
	Malignant diseases of cervix	Dr Aqsa DHQ	Gynae-unit 1 Dr. Amara	Gynae-unit 1Dr. Saima Bibi			
Thursday 21.8.25.	OBS (LGIS)		PATHOLOGY (LGIS)				
	Perineal infections		Diseases of lower urinary tract				
	(odd) lec hall 1	(Even) lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Dr Aqsa DHQ	**Dr Shahla DHQ**	Professor Dr Mobina	Dr Fatima Tuz Zuhra			

Friday 22.8.25.	08:00AM – 09:45AM	09:45AM – 10:30	10:30AM – 11:15AM	11:15AM – 12:00PM
	SGD Community Medicine/ Skill Lab Pathology	OBS (LGIS)	GYNAE (LGIS)	PATHOLOGY (SGD)
	Research presentations/ Benign	Induced / septic abortions	Menstrual cycle	Dysfunctional Uterine Bleeding

	and Malignant Disease of Uterus											
	Batch A-H	**(odd) lec hall 4**	**(odd) lec hall 4**	**(odd) lec hall 5**	**(odd) lec hall 4**	**(odd) lec hall 5**	**(odd) lec hall 3 & 4**	**(Even) lec hall 5 & 6/Pharma lab**				
	Faculty of community medicine	Dr Nighat Naheed BBH	Dr Hina Gul BBH	Dr Asma Khan BBH	BBH Dr Sadia BIBI	BBH Dr Humera Masood	Dr. Fatima tuz Zahra, Dr. Kiran Fatima	Dr. Sarah Rafi, Dr. Shabih Haider				
Saturday 23.8.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30AM**		**10:30AM – 11:15AM**		**BREAK 11:15AM – 11:45AM**	**11:45AM – 12:30PM**		**12:30PM – 01:15PM**		**01:15PM – 02:00PM**
	PAL Community Medicine/ Skill Lab Pathology		**TRANSDISCIPLINARY CLINICAL–REASONING FORUM (TCRF-2)**					**PATHOLOGY (LGIS)**		**GYNAE(LGIS)**		**PATHOLOGY(CBL)**
	Research presentations/ Benign and Malignant Disease of Uterus		**Evaluating a Woman with Post-Coital Bleeding"**					Malignant Diseases of ovary		Management of benign & malignant Disease of vulva& vagina		Testicular Atrophy, Cryptorchidism
	A-H	**(odd) lec hall 4**	**CPC Hall joint session**					**lec hall 4,**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(odd) lec hall 5**	**lec hall 3 & 4**	**Lec hall 5&6**
	Dr. Rubab Fatima	Dr Mahreen Fatima						Dr Fatima Tuz Zahra	Dr Kiran Fatima	Gynae Unit II Dr Humera Noreen	Gynae Unit II Dr Farah	Dr. Faiza Zafar Dr. Mah Jabeen	Dr. Syed Iqbal Haider Dr. Rubab Fatima

Theme 3 Child Health

Tentative Timetable 4th year MBBS- Population Medicine & Reproductive Health Block 2025 (5th Week)

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am			10:30am – 12:00pm	12:00pm - 02:00pm
Monday 1.9.25.	PEADIATRICS (LGIS)		COMMUNITY MEDICINE (LGIS)		BREAK 10:00AM – 10:30AM	CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.	
	Neonatal resuscitation		Growth Monitoring (growth chart)				
	lec hall 1	lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Dr Bushra Iqbal	Dr Sana Mubashar	Dr. Asif	Dr Mehjabeen			
Tuesday 2.9.25.	OBS (LGIS)		PEDIATRICS (LGIS)				
	Intra-uterine fetal death		Breast Feeding				
	(odd) lec hall 1	(Even) lec hall 2	(odd) lec hall 1	(Even) lec hall 2			
	Dr Sima Bibi	Dr.Saima Anwar	Dr Maryam Amjad	Dr Javeria Zia			
Wednesday 3.9.25.	PEDIATRICS (LGIS)		COMMUNITY MEDICINE (LGIS)				
	Neonatal seizures		Preventive aspects of neonatal care (PreventivePediatrics)-I				
	(odd) lec hall 1	(odd) lec hall 1	(odd) lec hall 1	(Even) lec hall 2			
	Dr Huma Asghar	Dr. Sana Assoc Prof	Dr. Sana Assoc Prof	Dr Arsalan			
Thursday 4.9.25.	MEDICINE (LGIS		COMMUNITY MEDICINE (LGIS)				
	Rheumatological illness		Preventive pediatrics II.diarrhoea				
	(odd) lec hall 1	(odd) lec hall 1	(odd) lec hall 1	(Even) lec hall 2			
	Dr. faran	Dr. Shumaila	Assos Prof Dr Sana Bilal	Dr Imrana APWMO			

Friday 5.9.25.	08:00AM – 09:45AM		09:45AM – 10:30		10:30AM – 11:15AM		11:15AM – 12:00PM	
	Skill lab Pharmacology/ Pathology		PEDIATRICS (LGIS)		PEADIATRICS (LGIS))		GYNAE (LGIS)	
	PK Calculation-II/ malignant Tumors of breast		Low birth weight & Prematurity		Neonatal Jaundice		Management of GTD	
	Batch A-H	I-P	(Odd) lec hall 4	(even) lec hall 5	(odd) lec hall 4	Even lec hall 5	(odd) lec hall 4	(Even) lec hall 5

	Dr Saba Dr Arsheen	Dr. Iqbal Haider	Dr Sumbal Ghazi	Dr Kaneez Fatima	Dr Sara Liaqat	Dr Muneeba	Gynae Unit-II Dr. Maliha Sadaf	Gynae Unit-II Dr. sabeen		
Saturday 6.9.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		BREAK	**11:45AM – 12:30PM**	**12:30PM – 01:15PM**	**01:15PM – 02:00PM**
	Skill lab Pharmacology/ Pathology		**PEDIATRICS (LGIS)**		**COMMUNITY MEDICINE (LGIS)**			**PATHOLOGY (SGD)**	**Anesthesia (LGIS)**	**COMMUNITY MEDICINE (LGIS)**
	PK Calculation-II/ malignant Tumors of breast		Infant of diabetic mother		School health			Testicular tumors	General Anesthesia And Monitering	Handicap
	Batch A-H	**Batch I-P**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**		**(odd) lec hall 3 & 4**	**(Even) lec hall 5 & 6/Pharma lab**	**(odd) &(Even)lec hall 3,4**	(odd) lec hall 4 (Even) lec hall 5
	Dr.Iqbal Haider	Dr Saba Dr Arsheen	Dr Anam asif,	Dr Muhammad Asim	Dr. Asif Butt Sr Demo	Dr. Mehjabeen Sr Demo		Dr. Fatima tuz Zahra, Dr. Kiran Fatima	Dr. Sarah Rafi, Dr. Shabih Haider	Dr Anum(BBH) Dr AyeshaBBH	Dr. Asif Butt Sr. Demo Dr. Mehjabeen Sr Demo

Theme 4 Population Health

Tentative Time Table 4th year MBBS- Population Medicine & Reproductive Health Block 2025 (6th Week)

DATE / DAY	8:00 AM – 9:00 AM		09:00am – 10:00am		BREAK 10:00AM – 10:30AM	10:30am – 12:00pm	12:00pm - 02:00pm
Monday 8.9.25.	**COMMUNITY MEDICINE (LGIS**		**PATHOLOGY (SGD)**			**CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document** **Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.**	
	Family planning & Population control approach & practices (FP-I)		BPH, prostatic cancer, testicular atrophy, seminoma				
	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) Lec hall 1 & 3**	**(Even) Lec hall 2/Pharma lab**			
	Dr Mehwish AP	Dr Narjis APWMO	Dr. Fatima tuz Zahra Dr. Rabbiya Khalid	Dr. Kiran Fatima Dr. Mehreen Fatima			
Tuesday 9.9.25.	**COMMUNITY MEDICINE (LGIS)**		**COMMUNITY MEDICINE (LGIS)**				
	NGOS & Agencies		Demography (Introduction , measures of mortality and fertility)				
	(odd) lec hall 1	**(Even) lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Mehjabeen	Dr. Asif	Dr Afifa Kalsoom (AP)	Prof. Dr. Rozina Shahadat Khan			
Wednesday 10.9.25	**PHARMACOLOGY (CBL)**		**COMMUNITY MEDICINE (LGIS)**				
	PCOs and SARMs		Demography (demographic momentum, transition & dividend)				
	(odd) lec hall 1 & 3	**(Even) lec hall 2 & pharma lab**	**(odd) lec hall 1**	**(Even) lec hall 2**			
	Dr Memuna Dr uzma	Dr Zaheer Dr Arsheen	Dr Affifa Kalsoom (AP)	Prof. Dr. Rozina Shahadat Khan			
Thursday 11.9.25.	**COMMUNITY MEDICINE (LGIS)**		**COMMUNITY MEDICINE (LGIS)**				
	Health economics framework and structure & evaluation		Demography (Migration & Urbanization)				

	(odd) lec hall 1	**Even lec hall 2**	**(odd) lec hall 1**	**(Even) lec hall 2**								
	Assoc prof Dr Sana Bilal	Dr Imrana Saeed APWMO	Dr Affifa Kalsoom (AP)	Prof Dr Rozina Shahadat Khan								
Friday 12.9.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**11:15AM – 12:00PM**					
	Skill lab Pharmacology/ Pathology		**COMMUNITY MEDICINE (LGIS)**		**COMMUNITY MEDICINE (LGIS)**		**PHARMACOLOGY (CBL)**					
	Evaluation of contraceptive methods Preventive aspects of breast feeding / Testicular Tumors		Family planning & national Population policy (FP-II)		Discussion on (population pyramids) & other transitions graphics		Hormonal contraceptives					
	Batch A-H	**I-P**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 4**	**(Even) lec hall 5**	**(odd) lec hall 3 & 4**	**(Even) lec hall 5 & pharma lab**				
	Dr. Maria, Dr. Mahreen PGT Dr Mehjabeen sr demo	Dr.Shabih Haider	Dr Mehwish AP	Dr Narjis APWMO	Dr Affifa Kalsoom	Prof Dr Rozina Shahadat Khan	Dr Zaheer Dr Aysha	Dr Uzma Dr Arsheen				
Saturday 13.9.25.	**08:00AM – 09:45AM**		**09:45AM – 10:30**		**10:30AM – 11:15AM**		**11:45AM – 12:30PM**		**12:30PM – 01:15PM**		**01:15PM – 02:00PM**	
	Skill lab Pathology/Pharmacology		**TRANSDISCIPLINARY CLINICAL–REASONING FORUM (TCRF-3)**				**ANESTHESIA(LGIS)**		**ANESTHESIA(LGIS)**		**PATHOLOGY(SGD)**	
	Testicular Tumors		**Counseling a Couple for Family Planning**				Perioperative Complications		Post-Operative Care and Pain Management		Endometritis, Adenomyosis, Endometriosis	
	A-H	**Batch I-P**	**CPC Hall joint session**				**(odd) lec hall 4**	**(even) lec hall 5**	**(odd) lec hall 4**	**(even) lec hall 5**	**(odd) lec hall 4 & 3**	**(even) lec hall 5 &6**
	Dr.Shabih Haider	Dr. Maria, Dr. Mahreen PGT Dr Mehjabeen sr demo					Dr. Asma SR HFH	Dr NarILSR HFH	Dr. Iqra SR HFH	Dr Aiman SR HFH	Dr. Syeda Ayesha Dr. Kiran Fatima	Dr. Sarah Rafi Dr. Shabih Haider

BREAK

Theme 4 Population health

Tentative Time Table 4th year MBBS- Population Medicine & Reproductive Health Block 2025 (7th Week)

DATE / DAY					
Monday 13-04-26	**Pharmacology** End Module-exam Theory MCQ+EMQ+SEQ+SAQ 08.30 am to 11.30 am AV OSPE – 11.30 am to 01 pm				
Tuesday 14-04-26	**Community Medicine Theory and AV-OSPE**				
Wednesday 15-04-26	**Pathology Theory and AV-OSPE**				
Thursday 16-04-26	**Practical OSPE& OSVE**				
Friday 17-04-26					
Saturday 18-04-26					

Date Sheet Block Exam

Sr#	subjects	Dates/days	Venues
1	Pathology	20.9.25. Saturday	Lec Hall 1,2,3,SGTR,CPC Hall
2	Community medicine	22.9.25 Monday	Lec Hall 1,2,3,SGTR,CPC Hall
3	Pharmacology	23.9.25 Tuesday	Lec Hall 1,2,3,SGTR,CPC Hall
4	Practical Ci-OSPE/OSVE horizontally integrated subjects	24.9.25-26.9.25 Wednesday-Friday	Respective departments
5	On campus LMS	27.9.25 Saturday	Lec Hall 1,2,3,SGTR,CPC Hall
6	Obstetrics	29.9.25 Monday	Lec Hall 1,2,3,SGTR,CPC Hall

Schedule of IUGRC session, 2025

Sr#	Batch	Batch Incharge	Senior faculty	Venues
1	A	Dr. Mahreen	Dr. Khola	Museum
2	B	Dr. Bushra	Dr. Sana	SGTR
3	C	Dr. Maria	Dr. Affifa	Lec hall 3
4	D (1st batch)	Dr. Narjis	Dr. Mehwish	Female demo room
5	E	Dr. Asif	Dr. Asif	Male demo room
6	F	Dr. Saba	Dr. Farha	SGTR
7	G	Dr. Imrana	Dr. Sana	Museum
8	H	Dr. Mehrish	Dr. Mehwish	Lec hall 3
9	I	Dr. Mehjabeen	Dr. Sana	Female demo room
10	J	Dr. Mehreen	Dr. Mehwish	Museum
11	K	Dr. Maria	Dr. Khaula	Museum
12	L	Dr. Asif	Dr. Asif	Lec hall 3
13	M	Dr. Zaira/Abdul Qudoos	Dr. Abdul Qudoos	Lec hall 3
14	N	Dr. Bushra	Dr. Farha	SGTR
15	O	Dr. Saba	Dr. Rizwana	SGTR
16	P	Dr. Mehrish	Dr. Affifa	Male demo room

Community Oriented Clerkship Module (annexure I)

Theme (Aim):

The primary purpose of this module is to educate students in those areas of the subject of CM&PH which are learnt better by onsite presence of the students at certain sites, processes, agencies which have public health relevance and in general community setting. Moreover some, areas of the subject which demands close interactive teachings in small group like HHS data analysis & report writing skills, contraceptive use skills, vaccination skills, etc are also covered during this rotation. All opportunities available within and outside the institution within affordable logistics, time, are focused for this purpose. A short time of this batch rotation is dedicated for health education communication practices as Health awareness work and other social work.

Learning Outcomes (LOs):

At the end of this learning module students are expected to achieve following Public health Competencies as will be able to:

1. Appreciate working of First level Care Facility (Public Sector)
2. Perform Community Immunization / EPI vaccinations.
3. Develop Hospital waste management plans.
4. Develop Community based health awareness message.
5. Communicate for Health awareness in community settings.
6. Commemorate International public health days.
7. Undertake Preventive healthcare inquiries and NCDs Risk Factors Surveillance
8. Counsel for the contraceptive devices to the community

Module Outline:

- A batch comprising 20-22 students is posted in the department of CM & PH for a period of 2weeks **(Monday to Thursday-04 hrs. /day & for 32hrs in total**). This schedule is run over the whole academic year, till all students of 4th year MBBS class passes through this rotation.
- Batch formation and schedules of rotation for whole class as notified by the DME / Student's section will be followed accordingly.

- At commencement of the academic year overall batch learning module coordinator, nomination of batch in-charges, senior faculty in charges and calendar schedule of batch rotation for all batches over the whole academic year will be notified by the Department of CM & PH.

Domains of learning: learning will occur in all the three domains C, A & P

SOPs Of Learning & Assessments:

- Active participation will be graded by the batch in charge **(under a check list)** during the activity / session and grades/marks will be entered in the practical manual as out of 05 (Max marks 05) by the batch in charge. O5 Max Marks are reserved for CHC (HMDTD and Health awareness work.
- Assessment will be done by **OSPE / MCQs Exam** / **Viva voce** at the end of each module and credit will be objectively recorded for the purpose of internal assessment. (Max mark 10)
- General assessment of the subject learning will be through MCQs, SEQs & OSPE on the relevant subjects in the relevant end of modules, block exams and Send up Exams.
- **Students are required to report / write the relevant work in Practical Journal, House Hold Survey Report Book and log all the clerkship activities in the Logbook on daily basis.**

Day	Activity I 10.30 –11.00	Activity II 11.00-11.30am	Activity III 11.30-01.00pm	Activity IV 01.00 – 2.00pm	Sites of teaching-learning	Assessment	Session outcome (level of learning)
1st	1. Instructing / Demonstration on Practical Manual based Assignments	1. Visit to CHC, 2. SGIS on Health days commemoration work, 3. Display material, PPT.	1. SGIS on HM-DTD practicum. 2. Topic finalization, 3. CHC-Message draft outlines finalization.	1. PPT based Demo on how to conduct & report HHS. 2. Guidelines on PHI work to be done during Clinical rotations/ward duties	1. Demonstration on lec. Hall 3 2. CHC Dept. CM NTB, RMU.	1. 1-2 OSPE in end of clerkship exam (credit will part of IA)	1. Construct a health message. (C6) 2. Prepare Health days commemoration stuff, 3. Display material, PPT, (P)

2nd	1. Follow up session on. HM-DTD work 2. Health days commemoration work	1. SGIS/ Briefing/ PPT based guidelines on field visit of the day (EPI services center HFH)	1. FV to the EPI center HFH	1. Health awareness work (HAW)	1. Demo Room, EPI Center, HFH, OPD, 2. Hospital shelters sites for health awareness work (HAW)	1. OSPE in end of clerkship exam (credit will part of IA) 2. Grade of performance in EPI visit reporting. 3. Credit of HAW	1. Explain cold chain component at EPI center 2. Vaccinate (EPI) vaccines to the clients. 3. Comprehend EPI system
3rd	1. Follow up session on 2. HM- DTD work & HHS	1. SGIS/ Briefing/ PPT based guidelines on FV to MCH & FP Services Center HFH	1. FV to the MCH services & FP center HFH	1. Health awareness work (HAW)	1. FP Center HFH OPD, 2. Hospital shelters sites for HAW	1. OSPE in end of clerkship exam (credit will part of IA) 2. Grade of performance in EPI visit reporting. 3. Credit of HAW	1. Identify CP devices available at MHC FP center 2. Counsel clients for use of a contraception method 3. Place CP devices to client (P)
4th	1. Follow up session on HM-DTD work	1. Briefing/ guidelines on FV Hospital waste disposal system in hospitals	1. FV to the hospital waste disposal system & relevant sites/ Incinerator	1. Health awareness work (HAW)	1. FP center HFH OPD, 2. Hospital shelters sites for HAW	1. End of module OSPE 2. Grade of performance in visits to sites	1. Explain hospital waste disposal system 2. Develop a hospital waste management plan

5th	1. SGIS/ PPT based briefing on Hospital Management & Administration	1. Visit to Hospital management & administration (HFH) office	1. Health awareness work (HAW)	1. HHF	1. End of module OSPE 2. Grade of performance in visits to sites	3. Explain various domains of hospital management (C2)
6th	1. SGIS/ PPT based briefing on visit to First level of health care facility (FLFC) BHU/ RHC	1. Field visit to RHC Khayaban- e-Sir Syed (RHC) or BHU	1. Demo room/ lec hall 3 NTB/ CPC hall 2. RHC/ BHU	1. Health awareness work (HAW at site visited)	1. End of module OSPE 2. Report credit in PJ	1. Explain working of FLCF 2. Appreciate PHC elements at FLCF (C2)
7th	10:30 to 12:00pm 1. Health days commemoration (walk/ seminar/ presentation/ CHC-message dissemination work	12:00 to 2:00pm 1. Completion & assessment of relevant Practical Journal work, Logbook etc. 2. Feedback discussion on PHI	1. Communication skills 2. Comprehend frequency Preventable RFs of NCDs in the real population (RF surveillance) 3. Undertake a preventive Healthcare Inquiry			

CLINICAL TRAINING ROTATIONS 4TH YEAR MBBS

Class Batch 49 (Session 2021-2022) Rawalpindi Medical University, Rawalpindi

Starting w.e.f. 24-02-2025 ending 07-12-2025.

In Continuation of this letter No. T-9/1101/RMU, RWP Dated: 22-02-2025

Date	Nephrology-HFH- / Dermatology-BBH	Urology BBH	Ortho-+ Trauma BBH	C.MED	E.N.T. H.F.H.	E.N.T B.B.H	E.N.T D.H.Q	PATHO	EYE H.F.H	EYE B.B.H	EYE DHQ	PEADS H.F.H	PEADS B.B.H.	Psychiatry BBH	Family Medicine-HFH / Psychiatry-BBH	NEUROSURGERY
24-02-25 To 09-03-25	A1 A2	B	C 1 C 2	D	E	F	G	H	I	J	K	L	M	N	O 1 O 2	P
10-03-25 to 23-03-25	B1 B2	C	D1 D2	E	F	G	H	I	J	K	L	N		O	P 1 P 2	A
24-03-25 To 20-04-25 Spring Vacation	C1 C2	D	E1 E2	F	G	H	I	J	K	L	M		O	P	A 1 A 2	B
21-04-25 To 11-05-25 Sports week	D1 D2	E	F1 F2	G	H	I	J	K	L	M	N	P		A	B 1 B 2	C
12-05-25 To 25-05-25	E1 E2	F	G1 G2	H	I	J	K	L	M	N	O		A	B	C 1 C 2	D

26-05-25 To 20-07-25 Summer vacation	F1 F2	G	H1 H2	I	J	K	L	M	N	O	P	B		C	D 1 D 2	E
21-07-25 To 03-08-25	G1 G2	H	I1 I2	J	K	L	M	N	O	P	A		C	D	E 1 E 2	F
04-08-25 To 17-08-25	H1 H2	I	J1 J2	K	L	M	N	O	P	A	B	D		E	F 1 F2	G
18-08-25 To 31-08-25	I1 I2	J	K1 K2	L	M	N	O	P	A	B	C		E	F	G 1 G 2	H
01-09-25 To 14-09-25	J1 J2	K	L1 L2	M	N	O	P	A	B	C	D	F		G	H 1 H 2	I
15-09-25 To 28-09-25	K1 K2	L	M1 M2	N	O	P	A	B	C	D	E		G	H	I 1 I 2	J
29-09-25 To 12-10-25	L1 L2	M	N1 N2	O	P	A	B	C	D	E	F	H		I	G 1 G 2	K
13-10-25 To 26-10-25	M1 M2	N	O1 O2	P	A	B	C	D	E	F	G		I	J	K 1 K 2	L
27-10-25 To 09-11-25	N1 N2	O	P1 P2	A	B	C	D	E	F	G	H	J		K	L 1 L 2	M

10-11-25 To 23-11-25	O1 O2	P	A1 A2	B	C	D	E	F	G	H	I		K	L	M 1 M 2	N
24-11-25 TO 07-12-25	P1 P2	A	B1 B2	C	D	E	F	G	H	I	J	L		M	N 1 N 2	O

Vice Chancellor
Rawalpindi Medical University
Rawalpindi
No.T-9/_____/RMU, RWP. Dated_____2025.
Copy to all concerned Departments. You are also informing to send revised lecture schedule.

12- RESEARCH

Cultivating the culture of Research has always been envisioned as one of the main pillars of Rawalpindi Medical University, as a means to develop healthcare professionals capable of contributing to the development of their country and the world. For the purpose thereof, right from the inception of Rawalpindi Medical University, efforts were concentrated to establish a comprehensive framework for research in Rawalpindi Medical University, as a matter of prime importance. With team efforts of specialists in the field of research, framework was made during the first year of the RMU, for the development and promotion of Research activities in RMU, called the Research Model of RMU, giving clear scheme and plan for establishment of required components for not only promoting, facilitating and monitoring the research activities but also to promote entrepreneurship through research for future development of RMU itself.

13- Biomedical Ethics

Ethical choices, both minor and major, confront us every day in the provision of health care for persons with diverse values living in a pluralistic and multicultural society. This curriculum will be taught under GEC. Four commonly accepted principles of health care ethics, excerpted from Beauchamp and Childress (2008), include the:

1. Principle of respect for autonomy,
2. Principle of no maleficence,
3. Principle of beneficence, and

4. Principle of justice.

14- Family Medicine

Family Medicine is the primary care medical specialty concerned with provision of comprehensive health care to the individual and the family regardless of sex, age or type of problem. It is the specialty of breadth that integrates the biological, clinical and behavioral sciences. Family physicians can themselves provide care for the majority of conditions encountered in the ambulatory setting and integrate all necessary health care services.

15- Artificial Intelligence

Artificial intelligence in medicine is the use of machine learning models to search medical data and uncover insights to help improve health outcomes and patient experiences. Artificial intelligence (AI) is quickly becoming an integral part of modern healthcare. AI algorithms and other applications powered by AI are being used to support medical professionals in clinical settings and in ongoing research. Currently, the most common roles for AI in medical settings are clinical decision support and imaging analysis.