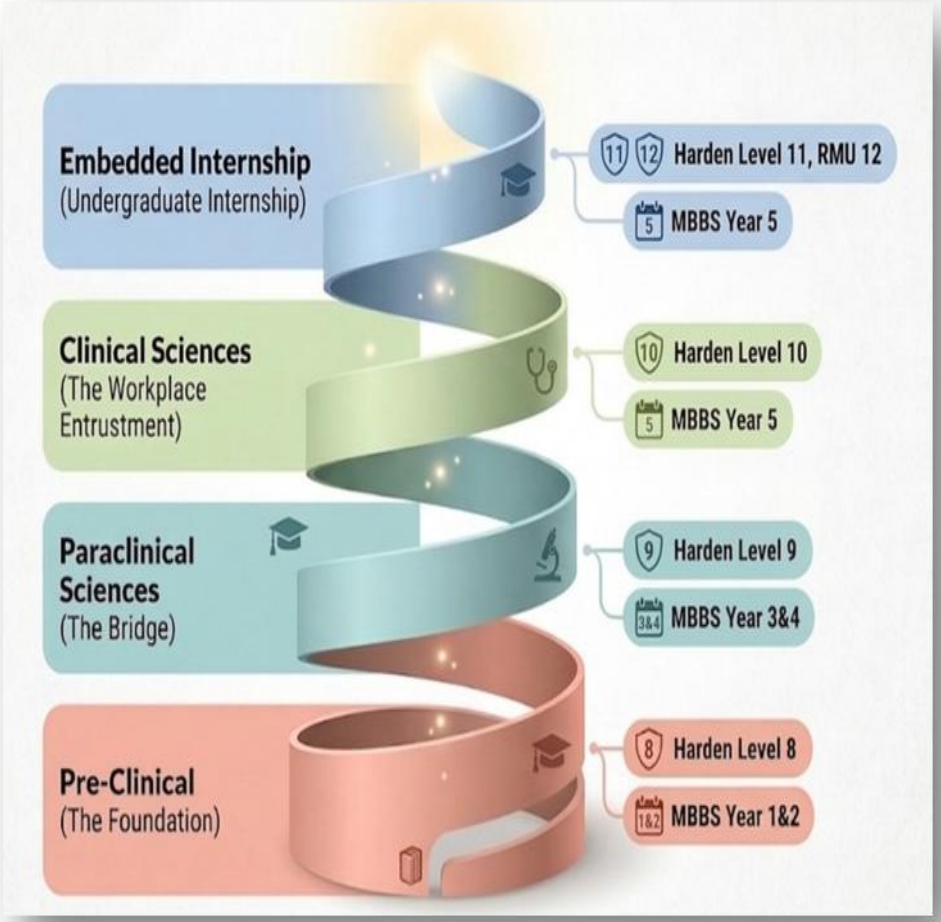
RMU – 12

Integrated Modular MBBS Curriculum 2026

Isolation to Beyond Boundaries



Rawalpindi Medical University

Department of Paediatrics

Integrated Modular Curriculum
Final year MBBS

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STUDY GUIDE FINAL YEAR GENERAL SURGERY TEAM

DURATION OF BLOCK: 12 WEEKS

DURATION OF MODULE: 4 WEEKS

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	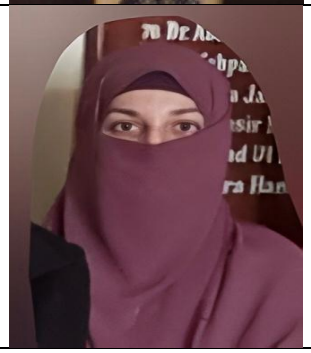	Dr. Sidra Mehmood Dar Focal person of Surgery Senior Registrar, SUII, HFH	Prepared Study guide

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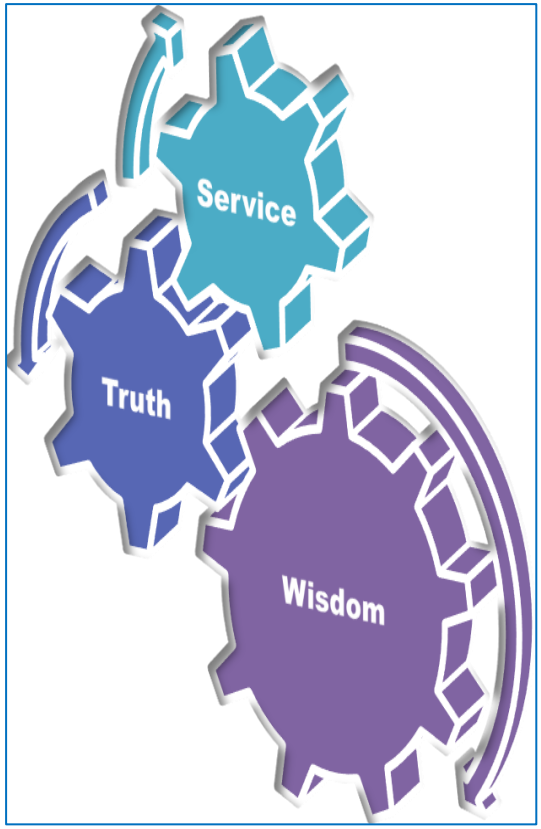
Curriculum Mission and Vision

RMU Motto



Mission Statement

To impart evidence-based research-oriented health professional education 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.

Figure 1- RMU 12 Integrated Modular Curriculum
Isolation to beyond boundaries Competency Framework

Figure 1

References

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

Ten Cate O. Nuts and bolts of entrustable professional activities. Journal of graduate medical education. 2013 Mar 1;5(1):157-8.

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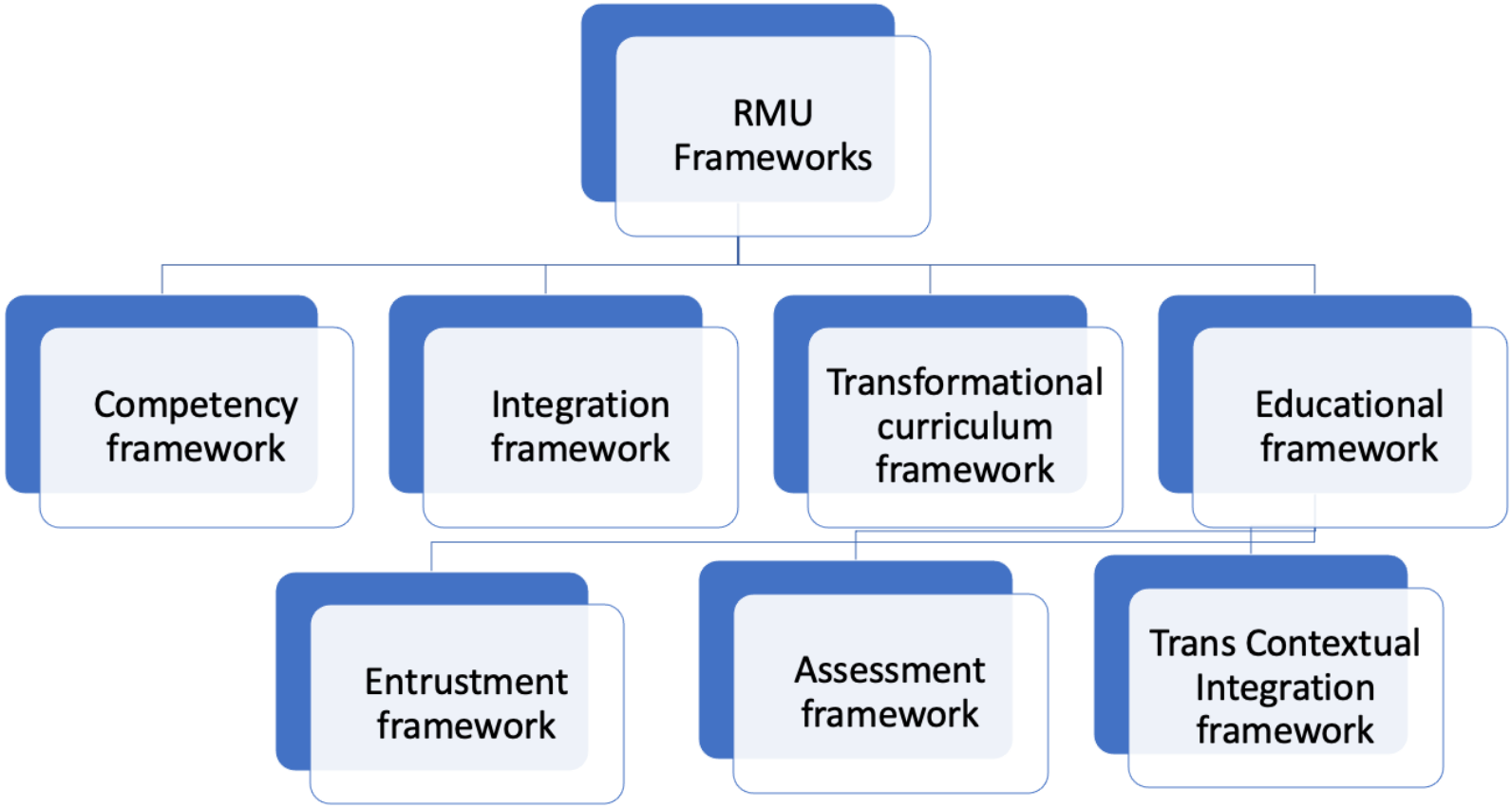
RMU Frameworks
Competency framework
Integration framework
Transformational curriculum framework
Educational framework
Entrustment framework
Assessment framework
Trans Contextual Integration framework

Figure 2 – Structured framework of RMU 12 Integrated Modular Curriculum 2026
Isolation to beyond boundaries

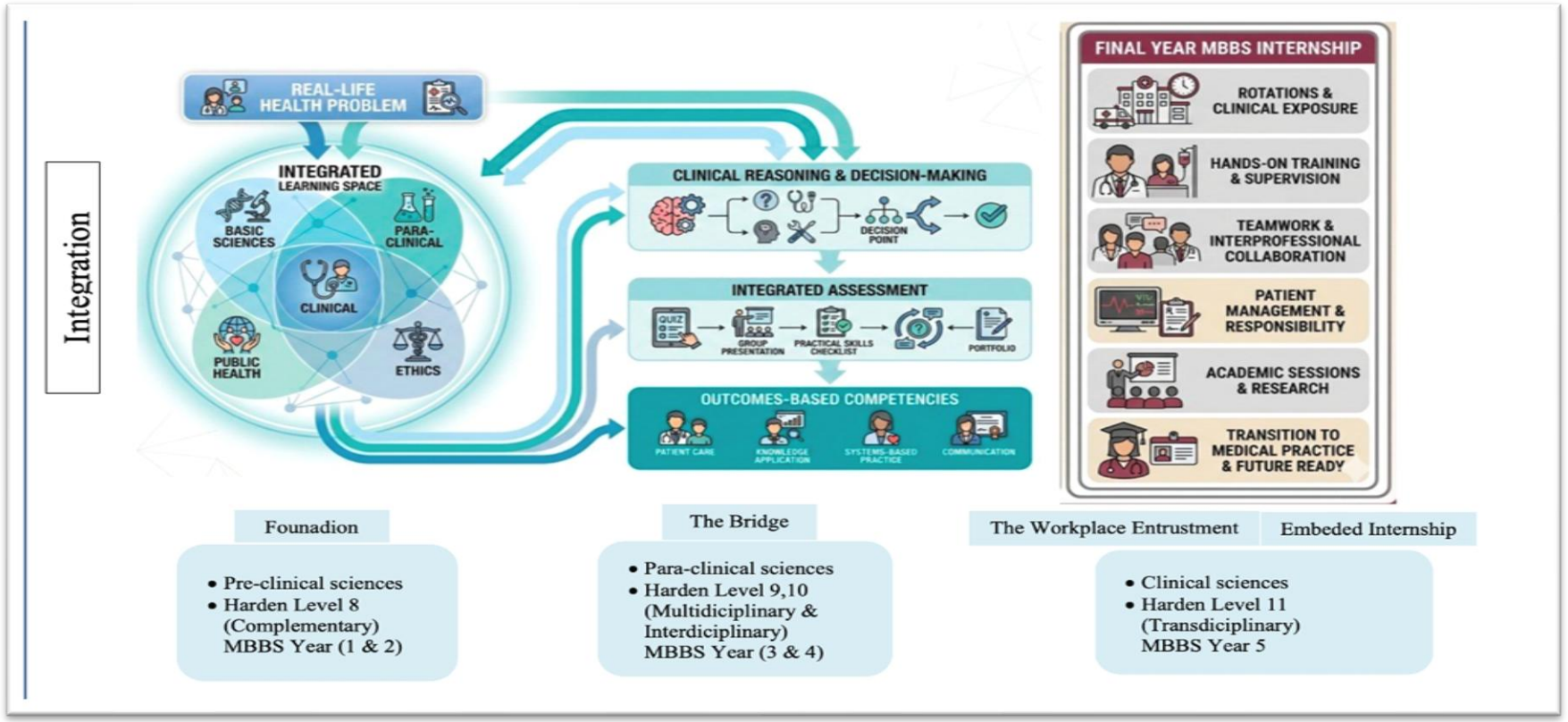

Figure 3 – Transformational Curriculum Framework of RMU 12 Integrated Modular Curriculum 2026
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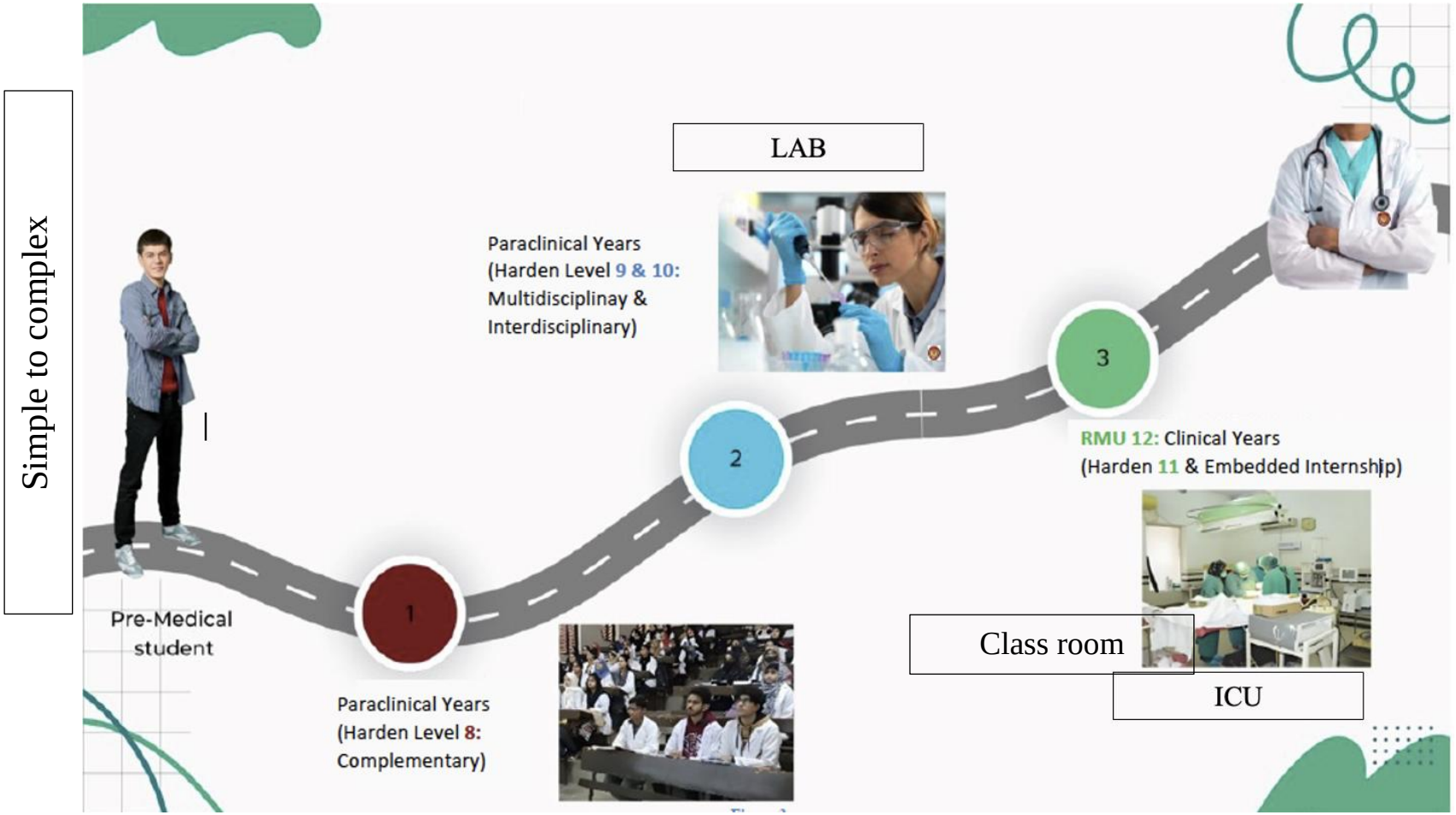

Figure 4 – Educational Framework of RMU 12 Integrated Modular Curriculum 2026
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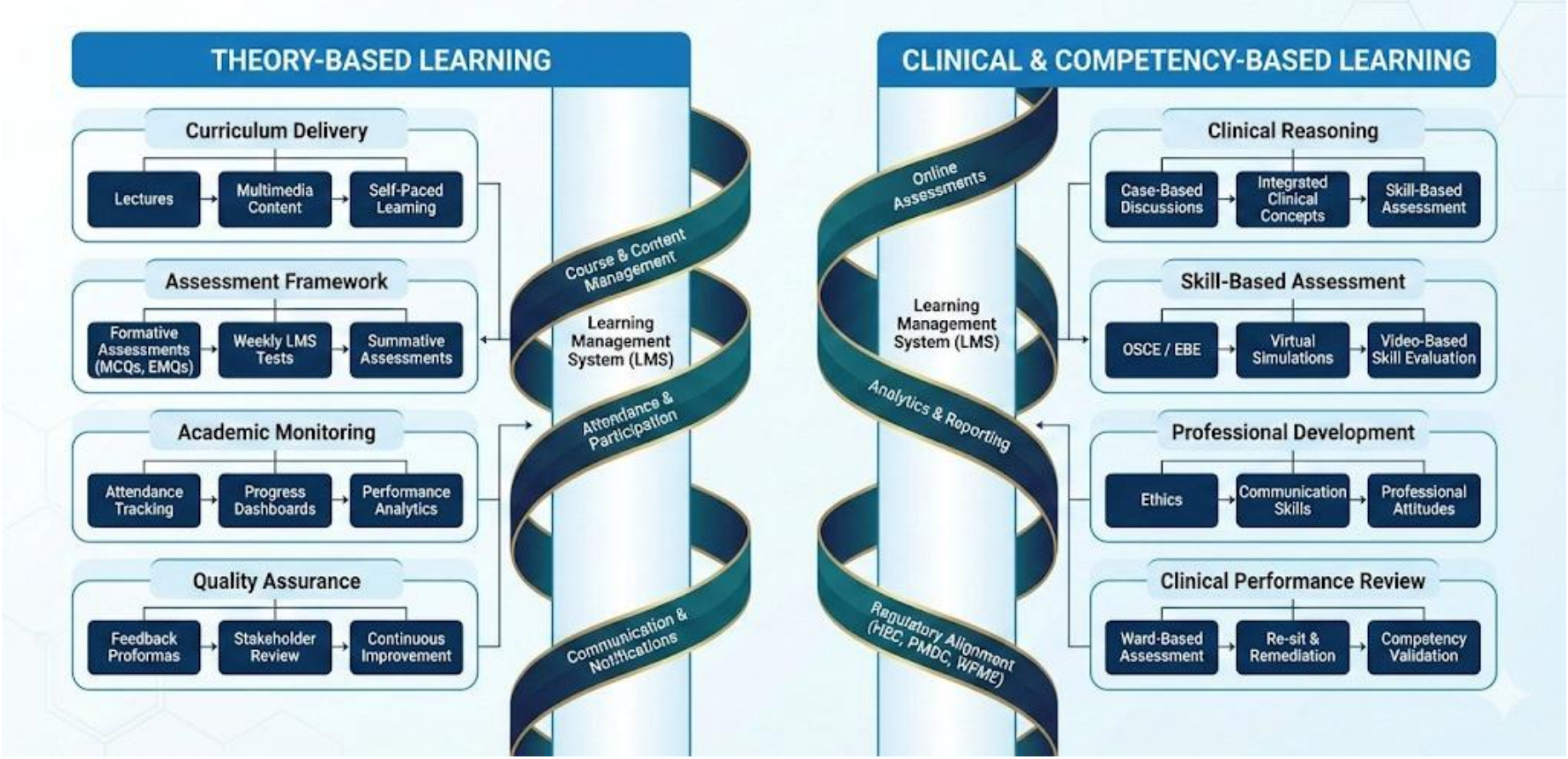


Figure 5 – Entrustment Framework of RMU 12 Integrated Modular Curriculum 2026 Isolation to beyond boundaries

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.

Figure 6 – Assessment framework of RMU 12 Integrated Modular Curriculum 2026 Isolation to beyond boundaries

Assessment

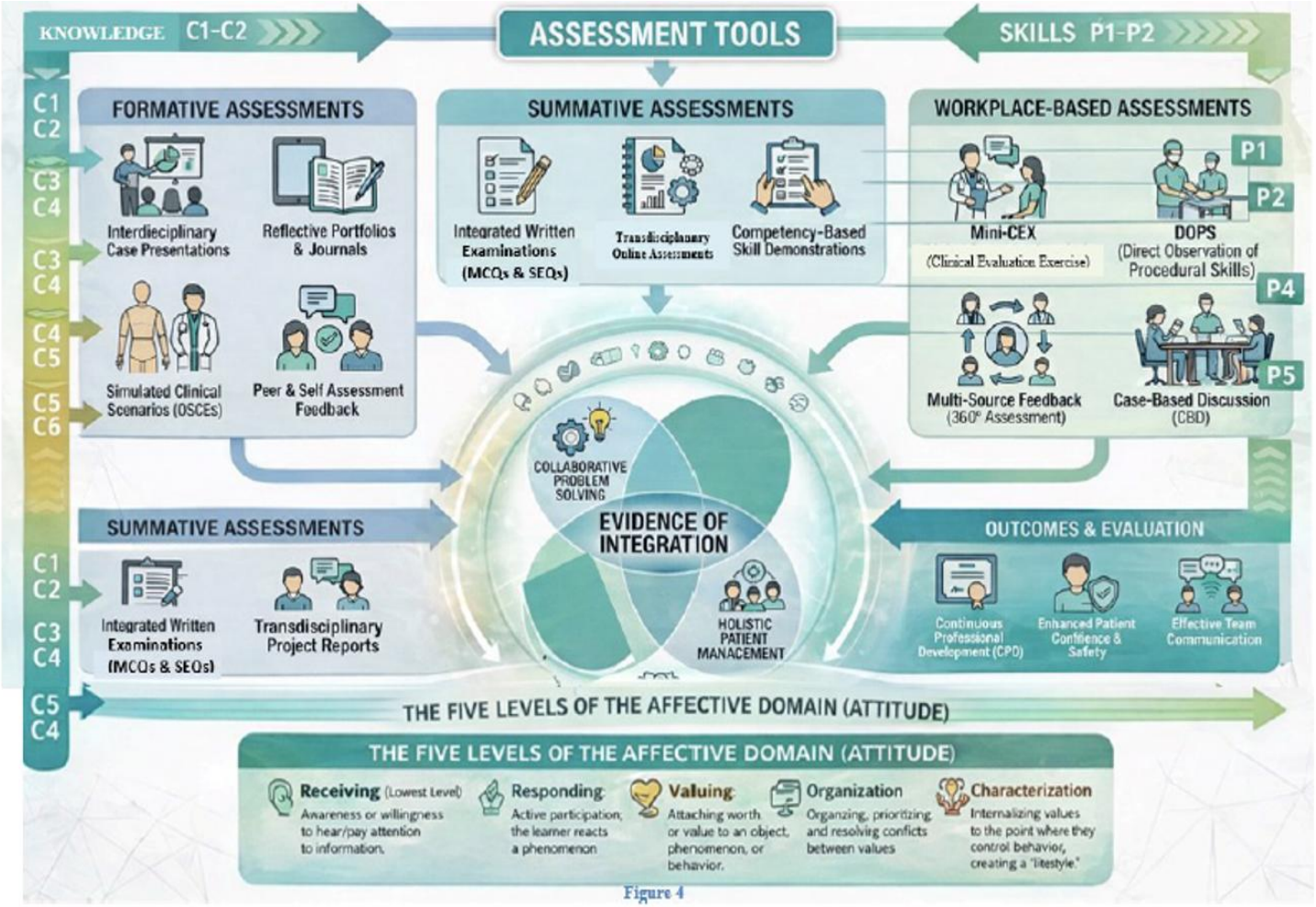
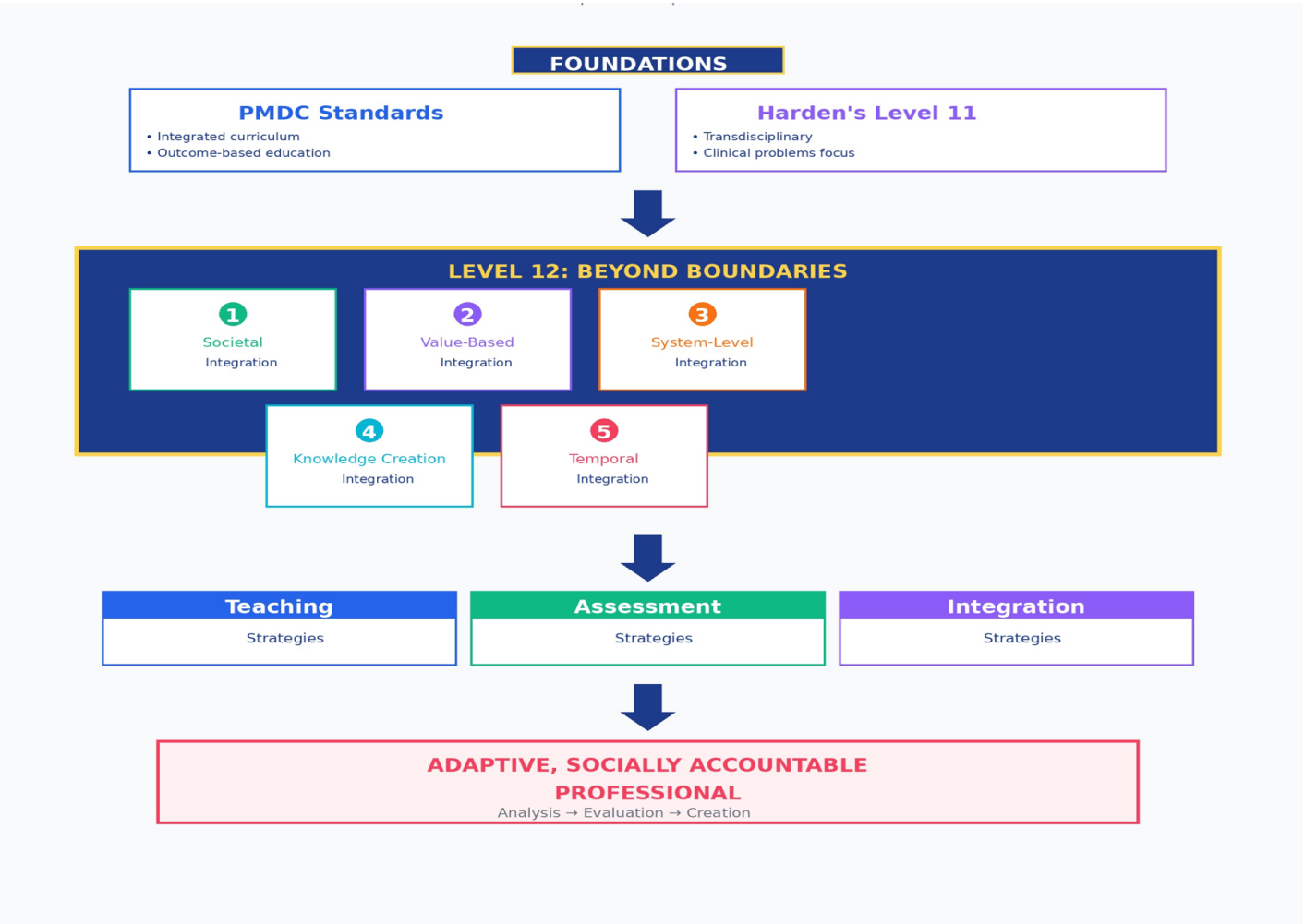


Figure 4

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.

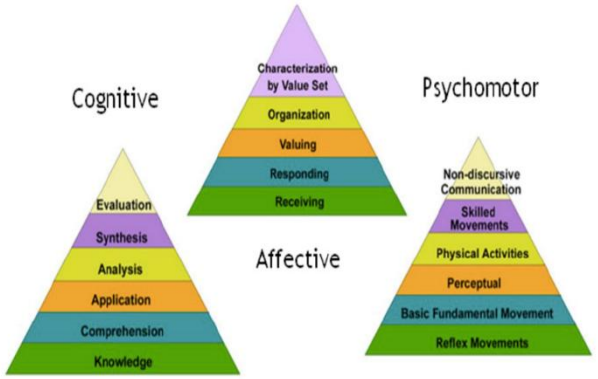


Figure 8 – Blooms Taxonomy

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 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

Entrustable 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 Entrustable 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 centered on performance in the workplace, using tools such as mini-CEX, DOPS, case-based discussions and multisource feedback.

Figure 9 – Miller's Pyramid of Clinical Competence

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. **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 12 Trans Contextual Integration Framework (TCIF)

Introduction

Modern medical education emphasizes integration as a cornerstone for producing competent, reflective, and patient-cantered 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 fulfills the criteria for Level 11 on Harden's Integration Ladder and even beyond boundaries corresponding to ***RMU 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

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 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

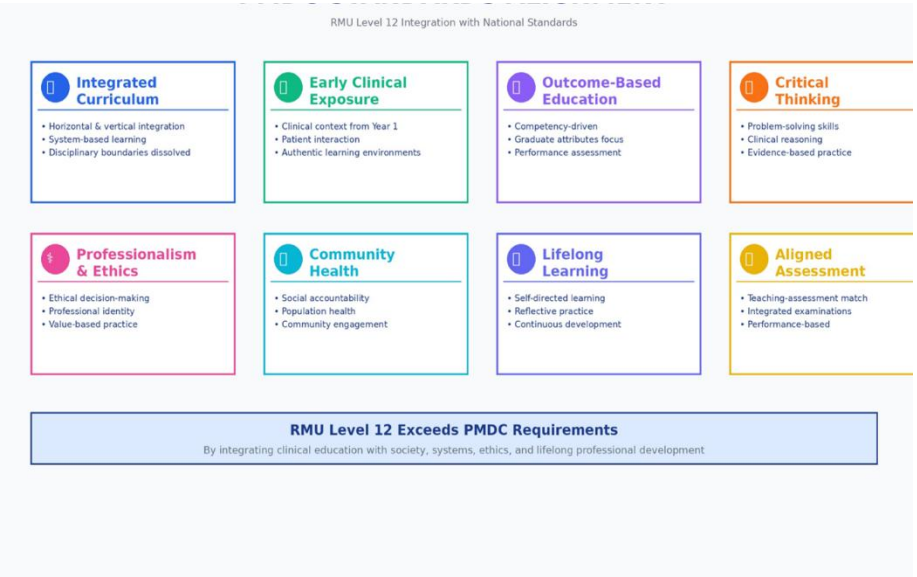
- Transcends Harden's Level 11 through integration with society, systems, ethics, and lifelong learning
- Fully aligned with PMDC undergraduate medical education standards
- Emphasizes higher-order thinking: Analysis, Evaluation, and Creation (Bloom's Taxonomy)
- Produces socially accountable, adaptive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



Harden's Integration Ladder RMU RMU 12 Isolation to Beyond Boundaries

Figure 11 –RMU 12 Isolation to Beyond Boundaries

2. RMU-12 —Beyond Boundaries

2.1 Conceptual Definition

RMU 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

Figure 12 – Five Pillars of RMU 12 Integration

2.3 Five Pillars of Level 12 Integration

A. Societal Integration: Patient-in-Society Problems

Level 11: Patient-centered clinical problems

RMU 12: Patient-in-society problems

RMU Implementation: (Methodology)

- 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 analyze 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 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 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.

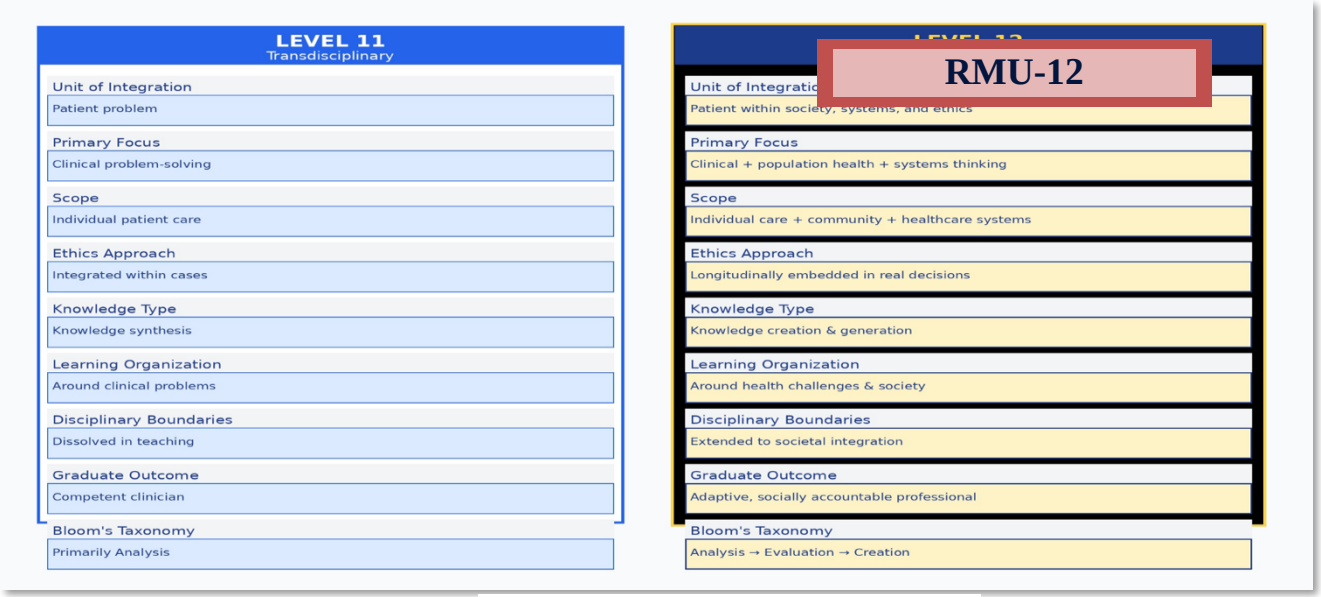


Figure 13 – Level 11 vs RMU 12

D. Knowledge Creation: Beyond Synthesis
Level 11: Knowledge synthesis

RMU 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 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.

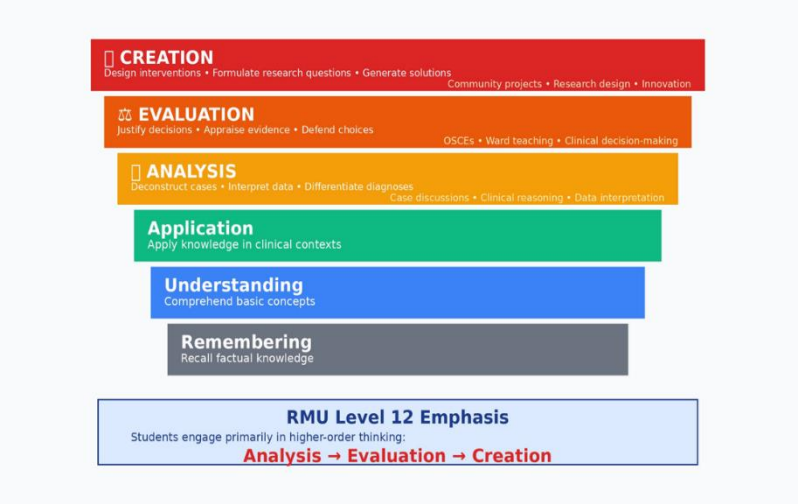


Figure 14 – Bloom's Taxonomy in RMU 12

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

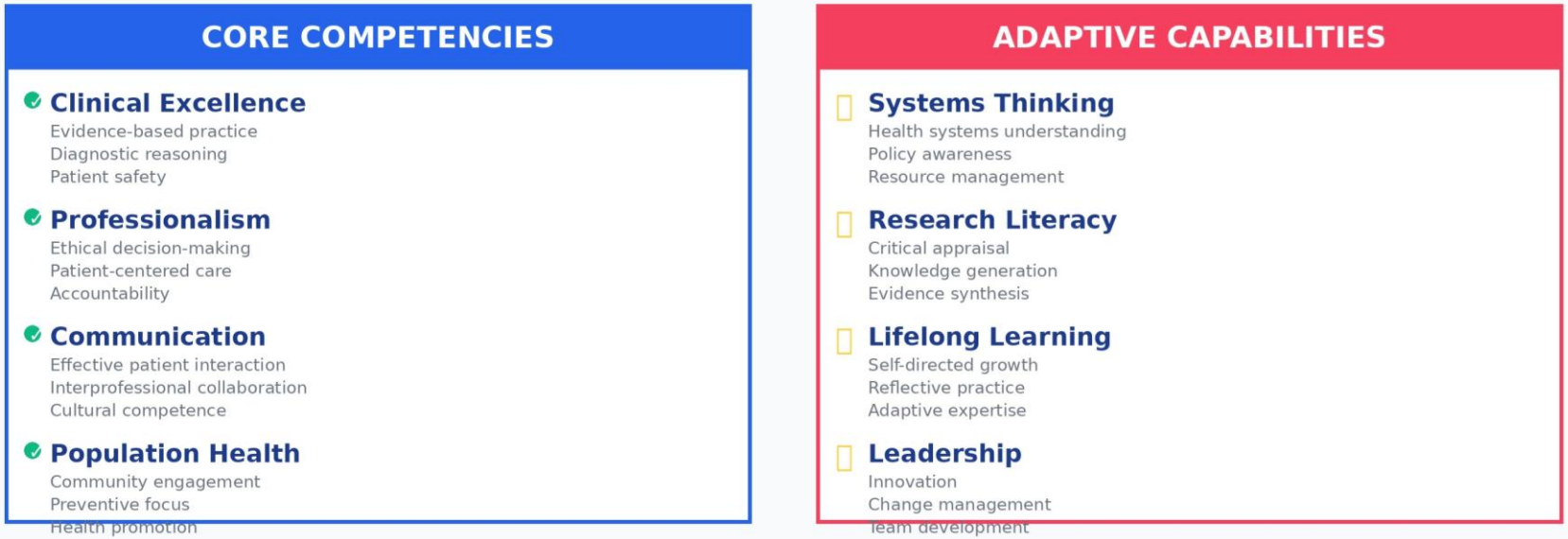


Figure 15 – Graduate Outcomes in RMU 12

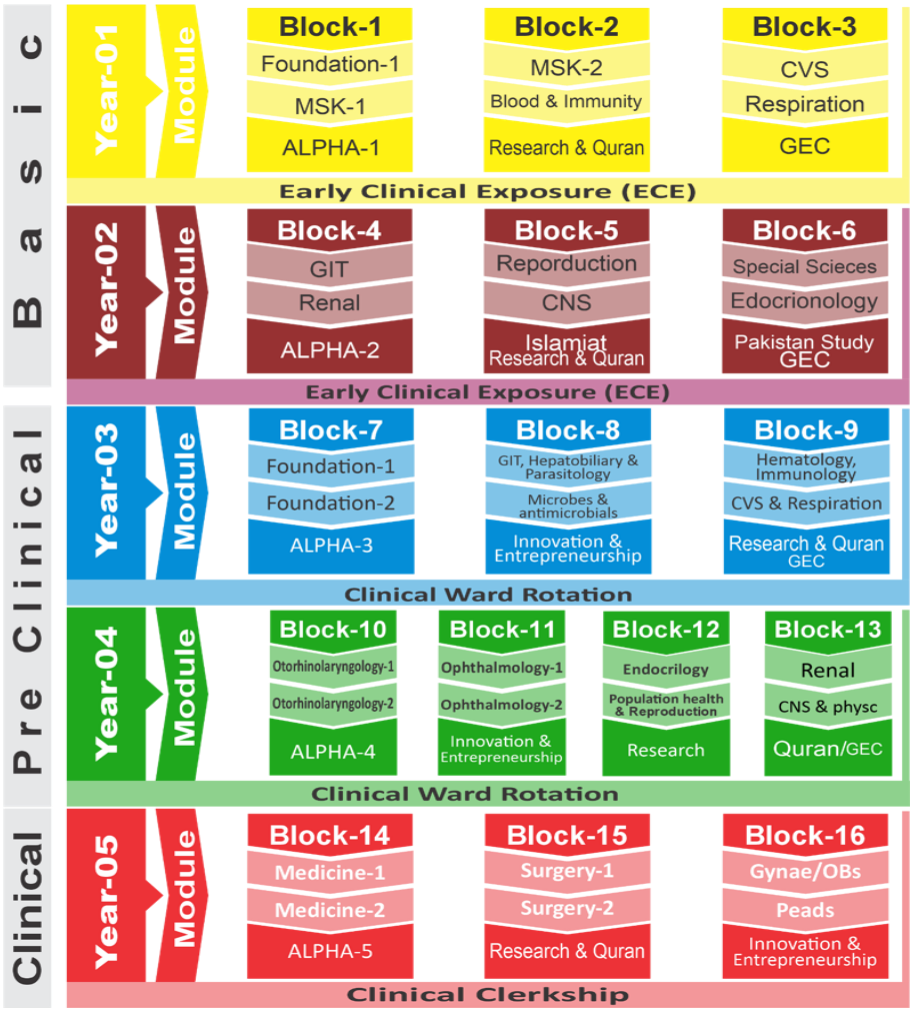


Figure 16 – Modules from basic to Clinical in RMU 12

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:

Students experience:

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

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 centered, problem based, integrated, community oriented and systematic. *

Teacher centered	□	Student centered	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

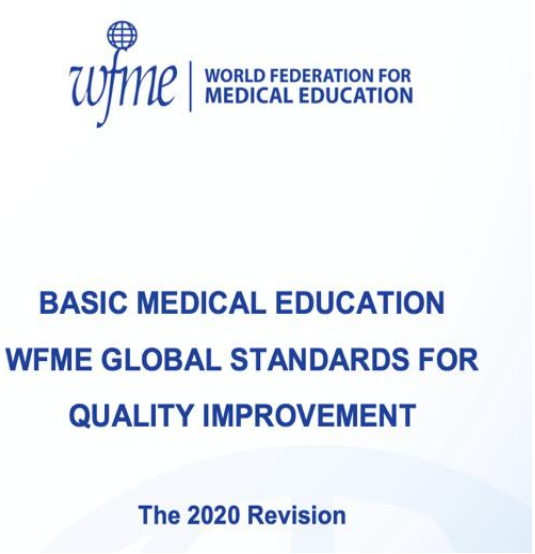
Reference Documents

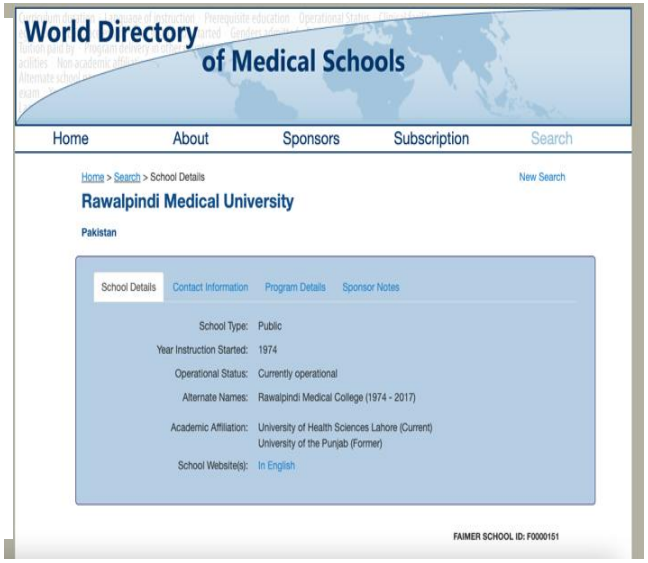
FAIMER™
A Division of Intealth

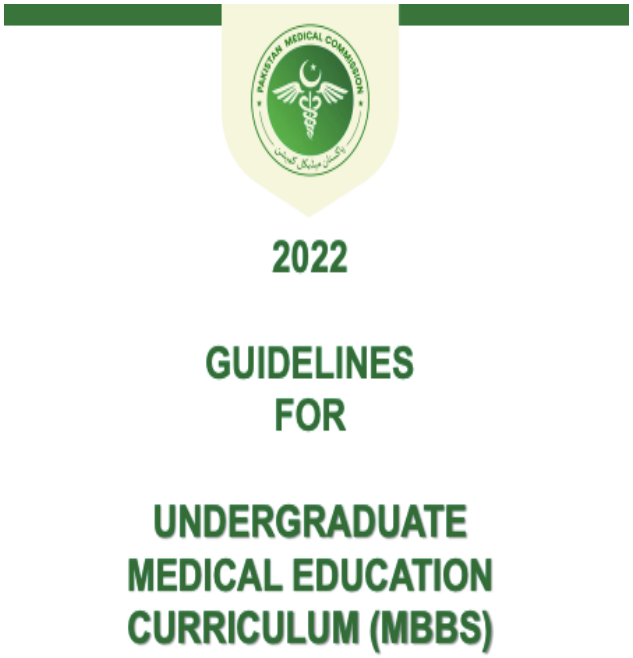
Foundation for Advancement of International Medical Education and Research

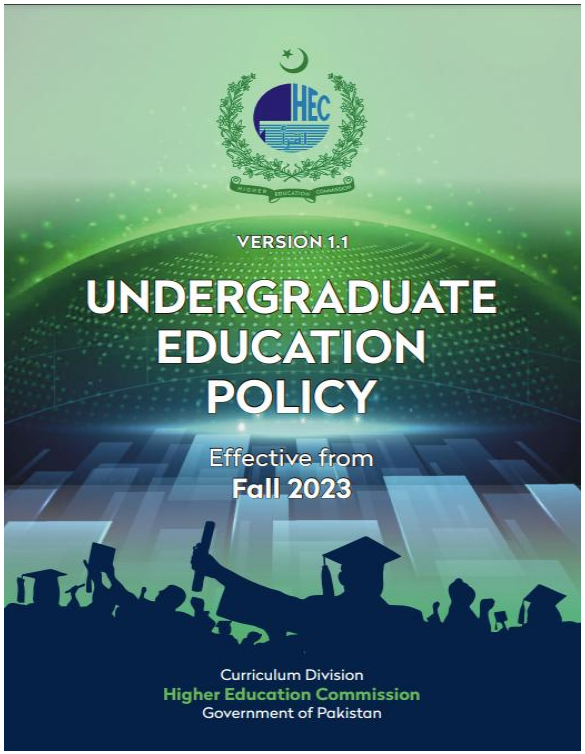
https://search.wdoms.org/?_gl=1*b2ddww*_ga*MTQyNTAwNzIxMi4xNzA2ODEwNjcx*_ga_R5BJZG5EYE*MTcwNjgzNjg3Ni4yLjAuMTcwNjgzNjg3Ni4wLjAuMA..

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









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

Figure 19 – Core competencies of a health professional

Seven-star doctor

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

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

- Takes a focused historyPerform physical and psychological examination
- Formulates a provisional diagnosis Orders appropriate investigations
- 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.

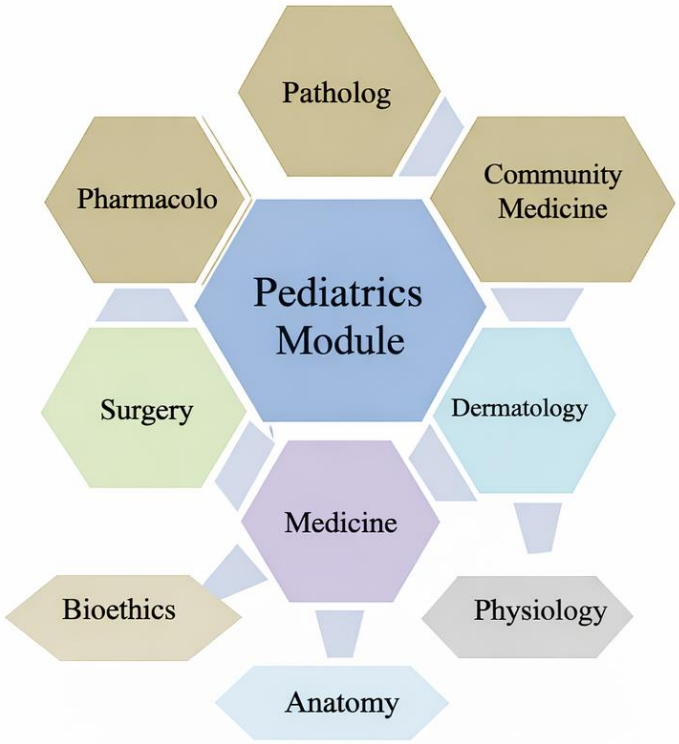
6. Scholar and Researcher

- Identifies a researchable problem and critically reviews the literature
- Phrases succinct research questions and formulates hypotheses
- Identifies the appropriate research design(s) in epidemiology and analytical tests in biostatistics to answer the research question.
- Collects, analyzes and evaluates data, and presents results.
- 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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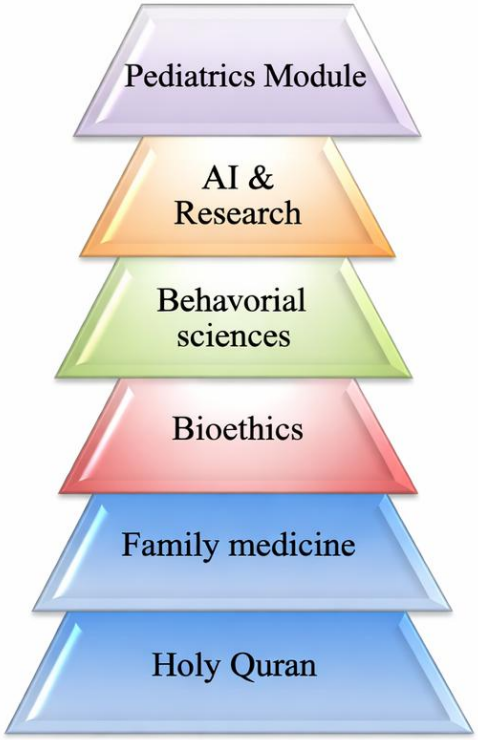
Pharmacolo
Community Medicine
Pediatrics Module
Surgery
Dermatology
Medicine
Bioethics
Physiology
Anatomy


Pediatrics Module
AI & Research
Behavorial sciences
Bioethics
Family medicine
Holy Quran

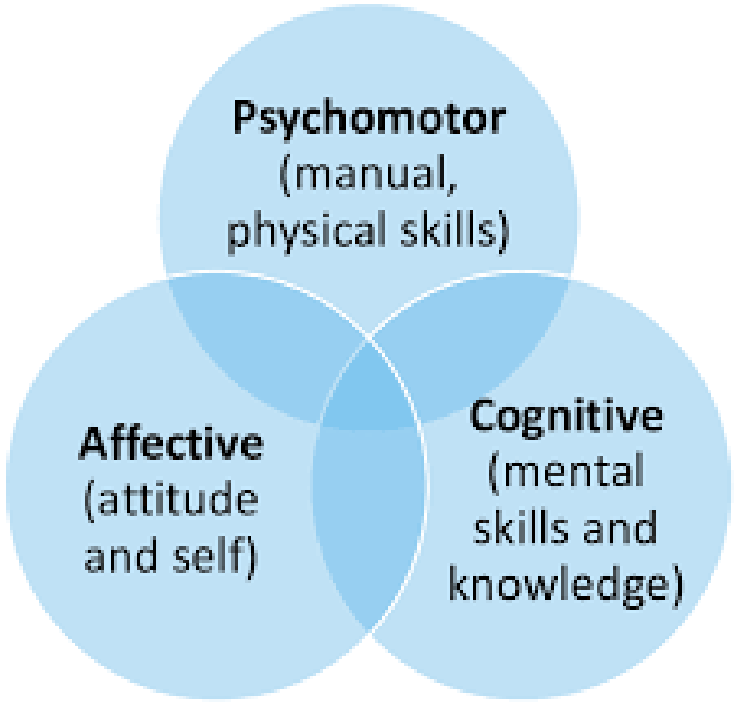
Study Guide: Terms & Abbreviations

Contents

Tables & Figures

Domains of learning according to Blooms Taxonomy

Sr. #	Abbreviation	Domains of learning
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


Psychomotor
(manual,
physical skills)
Affective
(attitude
and self)
Cognitive
(mental
skills and
knowledge)

Section – II Educational 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 explain the underlying phenomena through questions, pictures, videos of patients, interviews and exercises, etc. Students are actively involved in the learning process.

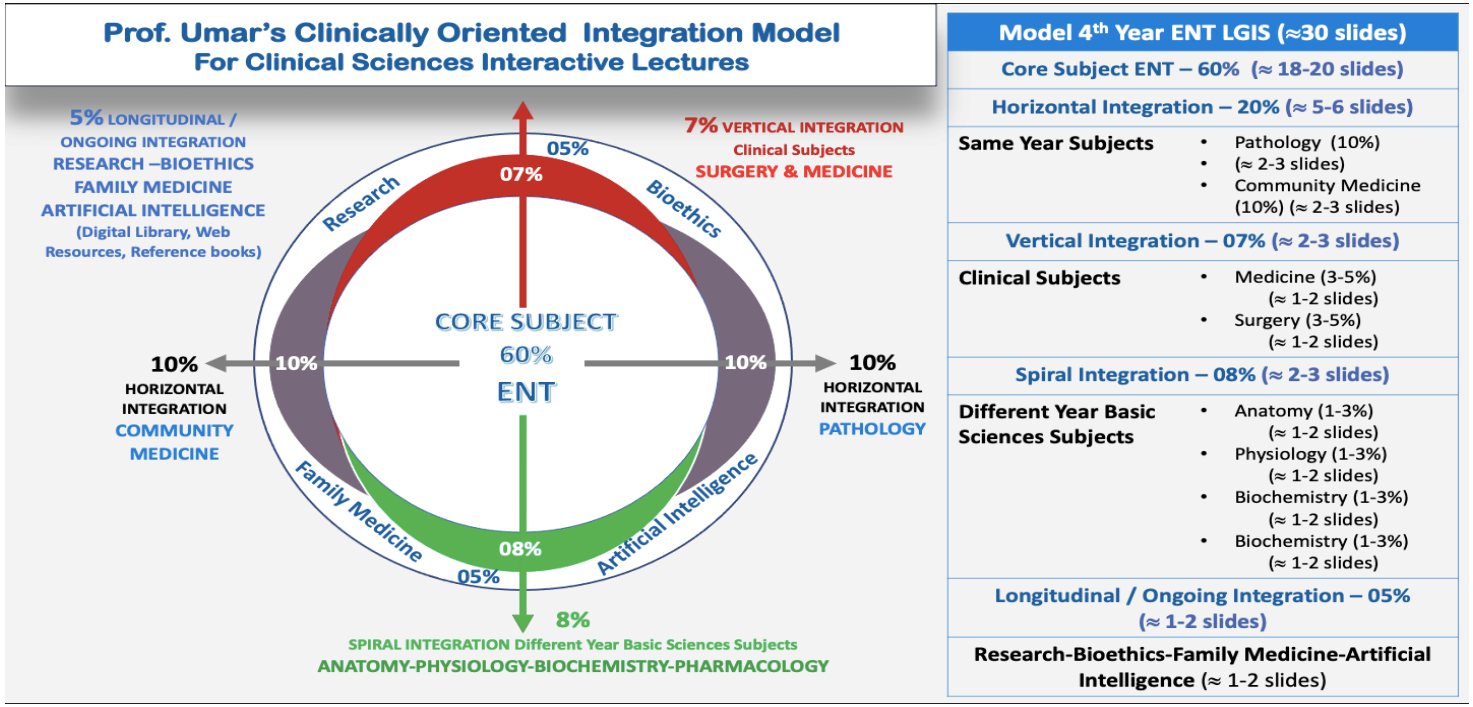


Figure 21 – Prof Umar Model of Integrated Lecture

1. 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.

Step 1	Sharing of Learning objectives by using students Study guides	First 5 minutes
Step 2	Asking students pre-planned questions from previous teaching session to develop co-relation (these questions will be standardized)	5minutes
Step 3	Students divided into groups of three and allocation of learning Objectives	5minutes
Step 4	ACTIVITY: Students will discuss the learning objectives among Themselves	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 structured questions from learning content	15 min
Step 8	Questions on core concepts	
Step 9	Questions on horizontal integration	
Step 10	Questions on vertical integration	
Step 11	Questions on related research article	
Step 12	Questions on related ethics content	
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 logbook	5 min
Step 16	Ending remarks	

Table 2 – Standardization of teaching content in small group discussion

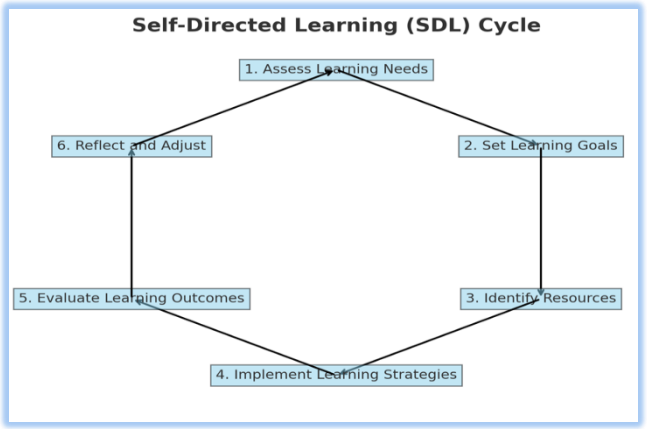
S.No	Topics	Approximate %
1	Title Of SGD	
2	Learning Objectives from Study Guides	
3	Horizontal Integration	5%+5% = 10%
4	Core Concepts of the Topic	70%
5	Vertical Integration	10%
6	Related Advance Research points	3%
7	Biomedical Ethical points	2%
8	Spiral integration	5%

Table 3. Steps of taking Small Group Discussions

2. Self-Directed Learning (SDL)

- Self- directed learning is a process where students take primary charge of planning, continuing and evaluating their learning experiences.
- Time home assignment
- Learning objectives will be defined
- Learning resources will be given to students = Text book (page no), web site
- Assessment: i. online on LMS (Mid module/ end of Module)

ii. OSPE station



3. Transdisciplinary Clinical Reasoning Forum (TCRF)

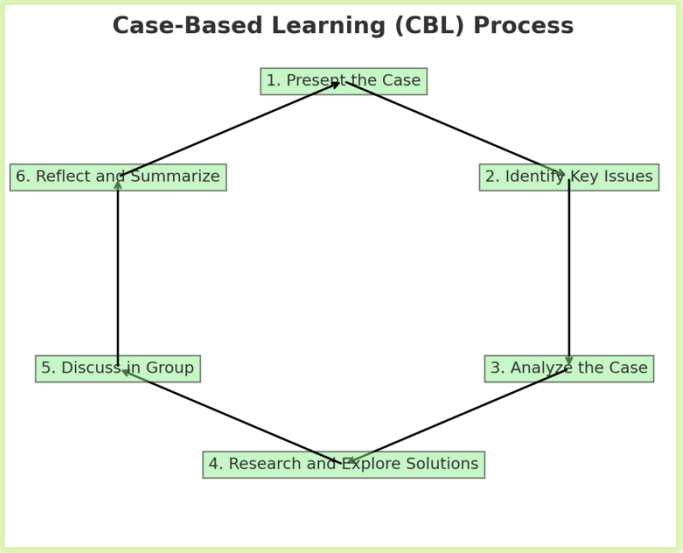
- It's a learner centered model which engages students in discussion of specific scenarios that resemble typically are real world examples.
- Case scenario will be given to the students
- Will engage students in discussion of specific scenarios that resemble or typically are real-world examples.
- Learning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

iv.



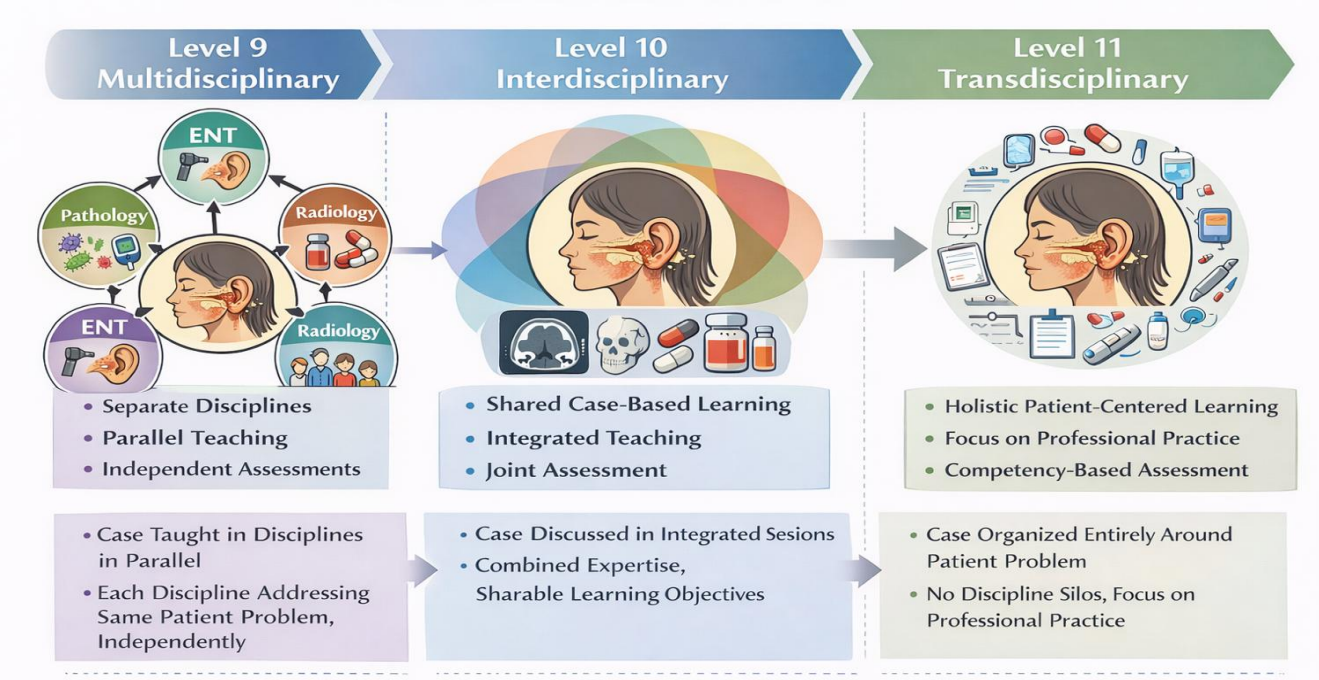
Section – III Themes, Learning Objectives, Teaching Strategies and Tools of Assessment

Section – III Themes, Learning Objectives, Teaching Strategies and Tools of Assessment

1. Breast & Endocrine Surgery

Week	Topic	General Surgery Lecture 1	General Surgery Lecture 2	General Surgery Lecture 3	General Surgery Lecture 4
1.	Head & Neck Surgery	Theme; Patient with a swelling in front of right ear displacing ear lobule	Theme; A neck mass at the sub mandibular triangle	Theme; Patient with neck swelling moving with deglutition	Theme; Patient with malignant neck swelling moving with deglutition
2.	Vascular & Thoracic Surgery	Theme; patient with intermittent claudication/ rest pain/ tissue loss	Theme; acute limb ischemia	Theme; patient with prominent tortuous veins of leg	Theme; malignant pleural effusion
3.	Upper GI Tract Surgery	Theme; patient with dysphagia due to Ca esophagus	Theme; patient with dysphagia due to motility disorders	Theme; epigastric pain suggestive of acid peptic disease	Theme; patient with epigastric pain, early satiety, weight loss and anemia suggestive of carcinoma stomach
4.	Lower GI Tract & Anorectal Surgery	Theme; patient with anemia and right iliac fossa mass	Theme; patients with perianal pathologies	Theme; patients presenting with mass coming out of rectum	Theme; patients with hematochezia and melena
5.	Hepato-pancreaticobiliary Surgery	Theme; pain right hypochondrium	Theme; patient with surgical jaundice	Theme; epigastric pain radiating to back	Theme; patient with jaundice and palpable gallbladder

6.	Emergency Surgery	Theme; abdominal trauma and DCS	Theme; thoracic trauma	Theme; patient on X-ray chest with free gas under diaphragm	Theme; patient having acute intestinal obstruction
7.	Hernia & Soft Tissue Surgery	Theme; soft tissue swelling in abdominal wall	Theme; ventral abdominal defects	Theme; patient with inguinoscrotal swellings	Theme; patient with soft tissue swelling of extremity
8.	Breast & Endocrine Surgery	Theme; patient with hard right breast mass	Theme; Patient with neck swelling and spontaneous fracture of bones	Theme; puffiness of face and buffalo hump	Theme; abdominal mass along with hypertension



What Makes This RMU-12

- No subject headings.
- Knowledge domains are embedded within clinical reasoning.
- The organizing principle is the patient problem, not disciplines.
- Learning mimics authentic clinical decision-making.

Students integrate:

- Anatomy (implicitly)
- Pathophysiology (implicitly)
- Pharmacotherapy (within management)
- Radiological Imaging interpretation (within reasoning)
- Internal Medicine (within management)
- 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 RMU-12, 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."

TIME TABLE (8 Weeks) Final Year MBBS Annual Calendar / RMU 12 Schedule 2026

TIME TABLE (4 Weeks) Holy family hospital Final Year MBBS Annual Calendar / RMU 12 Schedule 2026

Day	Date	BED SIDE CLERKING 8:00 AM – 9:00 AM	LGIS 9.00AM – 10AM	Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm	SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)	SHADOW INTERNSHIP / SDL 3:00 PM – 6:00 PM
Monday	30-03-2026 Introduction/ Orientation/ (08:00 to 08:30)	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; clinical Clerkship 8:15 to 9:00 am Case allotment ▪ History ▪ Examination ▪ Formulating the DDs ▪ Summary making ▪ Management plan	Theme; Patient with a swelling in front of right ear displacing ear lobule Facilitator: Prof. Usman Qureshi	Gowning/ Gloving in OT Examination of Parotid swelling in OPD	Approach to a patient with Breast Lump	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow. ▪ follow-up tasks, facilitation. ▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries
Tuesday	31-03-26		Theme; A neck mass at the sub mandibular triangle Facilitator: Prof. M. Waqas Raza	Gowning/ Gloving in OT Examination of Parotid swelling in OPD	Approach to a Patient with Neck Swelling	
Wednesday	01-04-26		CPC	Scrubbing/ surgical instruments handling in OT	Approach to a Patient with a Mass in the	

		▪ Documentation: Progress notes in SOAP format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK		Examination of Neck swelling in OPD	Neck Not Moving with Swallowing	▪ Portfolio summary ▪ Log-Book ▪ feedback forms ▪ patient-centred notes
Thursday	02-04-26		Theme; Patient with neck swelling moving with deglutition Facilitator: Dr. Atif Khan	Scrubbing/ surgical instruments handling in OT Examination of Neck swelling in OPD	Neck Mass with Hoarseness of Voice	
Friday	03-04-26		Morning meeting/ Case presentations	Bedside teaching during ward round	Approach to a Patient with Episodic Hypertension, Flushing, and Palpitation	
Saturday	04-04-26		Theme; Patient with malignant neck swelling moving with deglutition Facilitator: Dr. Asifa Dian	Bedside teaching during ward round	Approach to a Patient with Pathological Fractures, Renal Stones, and Abdominal Pain	

Note one case presentation, 1 Mini CEX, 1 complete case write-up, weekly portfolio summary required by the END of week

Day	Date	BED SIDE CLERKING 8:00 AM – 9:00 AM	LGIS 9.00AM – 10AM	Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm	SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)	SHADOW INTERNSHIP / SDL 3:00 PM – 6:00 PM
Monday	06-04-2026	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; Clinical Clerkship 8:15 to 9:00 am Case allotment ▪ History ▪ Examination ▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes in SOAP	Theme; patient with intermittent claudication/ rest pain/ tissue loss Facilitator: Prof. Usman Qureshi	Suturing in OT Examination of ischemic limb in OPD	Approach to Patient with Intermittent Claudication	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow. ▪ follow-up tasks, facilitation. ▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary ▪ Log-Book
Tuesday	07-04-2026		Theme; acute limb ischemia Facilitator: Prof. M. Waqas Raza	Suturing in OT Examination of ischemic limb in OPD	Approach to a patient with abnormally dilated veins	
Wednesday	08-04-2026		CPC	Surgical instruments & their uses in OT Examination of varicose veins in OPD	Approach to a patient with an ulcer on the gluteal cleft (perineal) area.	
Thursday	09-04-2026		Theme; patient with prominent tortuous veins of leg	Surgical instruments & their uses in OT Examination of varicose veins in OPD	Approach to a patient with dyspepsia/dysphagia.	

		format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	Facilitator: Dr. Atif Khan			▪ feedback forms ▪ patient-centred notes
Friday	10-04-2026		Morning meeting/ Case presentations	Bedside teaching during ward round	Approach to a patient with a swelling in front of the earlobe.	
Saturday	11-04-2026		Theme; malignant pleural effusion Facilitator: Dr. Asifa Dian	Bedside teaching during ward round	Approach to a patient with a reducible swelling in the umbilical region.	

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

Day	Date	BED SIDE CLERKING 8:00 AM – 9:00 AM	LGIS 9.00AM – 10AM	Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm	SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)	SHADOW INTERNSHIP / SDL 2:00 PM – 6:00 PM
Monday	13-04-2026	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; clinical Clerkship	Theme; patient with dysphagia due to Ca esophagus Facilitator: Prof. Usman Qureshi	Laparoscopic instruments & devices in OT Examination of breast lump in OPD	Approach to a patient with a reducible groin swelling.	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU.

Tuesday	14-04-2026	8:15 to 9:00 am Case allotment ▪ History ▪ Examination ▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes in SOAP format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	Theme; patient with dysphagia due to motility disorders Facilitator: Prof. M. Waqas Raza	Laparoscopic instruments & devices in OT Examination of breast lump in OPD	Approach to a patient with Abdominal masses.	▪ Admissions workflow. ▪ follow-up tasks, facilitation. ▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary ▪ Log-Book ▪ feedback forms ▪ patient-centred notes
Wednesday	15-04-2026		CPC	Stapling devices & their uses in OT Examination of inguinoscrotal hernia in OPD	Approach to a patient with an upper abdominal mass and vomiting.	
Thursday	16-04-2026		Theme; epigastric pain suggestive of acid peptic disease Facilitator: Dr. Atif Khan	Stapling devices & their uses in OT Examination of inguinoscrotal hernia in OPD	Approach to a patient with upper abdominal mass and hematemesis.	
Friday	17-04-2026		Morning meeting/ Case presentations	Bedside teaching during ward round	Approach to a patient with a globular mass in the right hypochondrium and jaundice.	

Saturday	18-04-2026		Theme; patient with epigastric pain, early satiety, weight loss and anemia suggestive of carcinoma stomach Facilitator: Dr. Asifa Dian	TCRF Clinico-connect	Approach to a patient with upper abdominal pain radiating to the back.	

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

Day	**Date**	**BED SIDE CLERKING 8:00 AM – 9:00 AM**	**LGIS 9.00AM – 10AM**	**Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm**	**SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)**	**SHADOW INTERNSHIP / SDL 2:00 PM – 6:00 PM**
Monday	20-04-2026	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; clinical Clerkship 8:15 to 9:00 am Case allotment ▪ History ▪ Examination	Theme; patient with anemia and right iliac fossa mass Facilitator: Prof. Usman Qureshi	Revision of Gowning/ Gloving/Scrubbing/ surgical instruments handling in OT Mini-cex on neck swelling & limb examination in OPD	Approach to a patient with upper abdominal pain radiating to the right shoulder.	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow. ▪ Follow-up tasks, facilitation. ▪ documentation practice
Tuesday	21-04-2026		Theme; patients with perianal pathologies	Revision of Gowning/ Gloving/Scrubbing/ surgical instruments handling in OT	Approach to a patient with pain, vomiting, distension, and constipation.	

		▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes in SOAP format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	Facilitator: Prof. M. Waqas Raza	Mini-cex on neck swelling & limb examination in OPD		▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary ▪ Log-Book ▪ feedback forms ▪ patient-centred notes
Wednesday	22-04-2026		CPC	Revision of Laparoscopic instruments & devices, Stapling devices & their uses in OT Mini-cex on abdominal & inguinal hernias in OPD	General approach to a patient with constipation, distension, vomiting and pain.	
Thursday	23-04-2026		Theme; patients presenting with mass coming out of rectum Facilitator: Dr. Atif Khan	Revision of Laparoscopic instruments & devices, Stapling devices & their uses in OT Mini-cex on abdominal & inguinal hernias in OPD	Approach to a patient with pain in the right iliac fossa.	
Friday	24-04-2026		Theme; patients with haematochezia and melena Facilitator: Dr. Asifa Dian	Bedside teaching during ward round		
Saturday	25-04-2026		Assessment			

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

TIME TABLE (4 Weeks) Benazir Bhutto Hospital Final Year MBBS Annual Calendar / RMU 12 Schedule 2026

Day	Date	BED SIDE CLERKING 8:00 AM – 9:00 AM	LGIS 9.00AM – 10AM	Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm	SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)	SHADOW INTERNSHIP / SDL 3:00 PM – 6:00 PM
Monday	30-03-2026 Introduction/ Orientation/ (08:00 to 08:30)	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; clinical Clerkship 8:15 to 9:00 am Case allotment ▪ History ▪ Examination ▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes	Theme; pain right hypochondrium Facilitator: Prof. Anis Ahmed	Gowning/ Gloving in OT Examination of Parotid swelling in OPD	Approach to patient bleeding per rectum	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow. ▪ follow-up tasks, facilitation. ▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary
Tuesday	31-03-26		Theme; patient with surgical jaundice Facilitator: Prof. Faryal Azhar	Gowning/ Gloving in OT Examination of Parotid swelling in OPD	Approach to Patient with bleeding per rectum and altered bowel habits	
Wednesday	01-04-26		CPC	Scrubbing/ surgical instruments handling in OT Examination of Neck swelling in OPD	Approach to Patient with painful perianal purulent discharge	
Thursday	02-04-26		Theme; epigastric pain radiating to back	Scrubbing/ surgical instruments handling in OT	Approach to Patient with non-healing ulcer in lower leg	

		in SOAP format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	Facilitator: Dr. M. Iqbal	Examination of Neck swelling in OPD		▪ Log-Book ▪ feedback forms ▪ patient-centred notes
Friday	03-04-26		Morning meeting/ Case presentations	Bedside teaching during ward round	Approach to a patient with a non-healing ulcer on face	
Saturday	04-04-26		Theme; patient with jaundice and palpable gallbladder Facilitator: Dr. Sajid Rashid	Bedside teaching during ward round	Approach to a patient with trauma in right hypochondrium	

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

Day	**Date**	**BED SIDE CLERKING 8:00 AM – 9:00 AM**	**LGIS 9.00AM – 10AM**	**Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm**	**SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)**	**SHADOW INTERNSHIP / SDL 3:00 PM – 6:00 PM**
Monday	06-04-2026	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; Clinical Clerkship 8:15 to 9:00 am	Theme; abdominal trauma and DCS Facilitator: Prof. Anis Ahmed	Suturing in OT Examination of ischemic limb in OPD	Approach to Patient with trauma to left hypochondrium	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow.
Tuesday				Suturing in OT		

	07-04-2026	Case allotment ▪ History ▪ Examination ▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes in SOAP format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	Theme; thoracic trauma Facilitator: Prof. Faryal Azhar	Examination of ischemic limb in OPD	Approach to a patient with neck trauma	▪ follow-up tasks, facilitation. ▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary ▪ Log-Book ▪ feedback forms ▪ patient-centred notes
Wednesday	08-04-2026		CPC	Surgical instruments & their uses in OT Examination of varicose veins in OPD	Approach to a patient with chest trauma	
Thursday	09-04-2026		Theme; patient on X-ray chest with free gas under diaphragm Facilitator: Dr. M. Iqbal	Surgical instruments & their uses in OT Examination of varicose veins in OPD	Approach to a patient with peripheral vascular trauma	
Friday	10-04-2026		Morning meeting/ Case presentations	Bedside teaching during ward round	Approach to a patient with diabetic foot	
Saturday	11-04-2026		Theme; patient having acute intestinal obstruction Facilitator: Dr. Sajid Rashid	Bedside teaching during ward round	Approach to a patient with a gangrenous foot	

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

Day	Date	BED SIDE CLERKING 8:00 AM – 9:00 AM	LGIS 9.00AM – 10AM	Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm	SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)	SHADOW INTERNSHIP / SDL 2:00 PM – 6:00 PM
Monday	13-04-2026	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; clinical Clerkship 8:15 to 9:00 am Case allotment ▪ History ▪ Examination ▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes in SOAP format (On Work book) ▪ Patient education	Theme; soft tissue swelling in abdominal wall Facilitator: Prof. Anis Ahmed	Laparoscopic instruments & devices in OT Examination of breast lump in OPD	Approach to a patient with with shortness of breath and fever	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow. ▪ follow-up tasks, facilitation. ▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary ▪ Log-Book ▪ feedback forms
Tuesday	14-04-2026		Theme; ventral abdominal defects Facilitator: Prof. Faryal Azhar	Laparoscopic instruments & devices in OT Examination of breast lump in OPD	Approach to a patient with scrotal swelling	
Wednesday	15-04-2026		CPC	Stapling devices & their uses in OT Examination of inguinoscrotal hernia in OPD	Approach to a patient with haematological disorders	
Thursday	16-04-2026		Theme; patient with inguinoscrotal swellings Facilitator: Dr. M. Iqbal	Stapling devices & their uses in OT Examination of inguinoscrotal hernia in OPD	Approach to patient with a mass in abdomen and contact with pets	

Friday	17-04-2026	▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	Morning meeting/ Case presentations	Bedside teaching during ward round	Approach to patient with lymphedema Lower limb	▪ patient-centred notes
Saturday	18-04-2026		Theme; patient with soft tissue swelling of extremity Facilitator: Dr. Sajid Rashid	TCRF Clinico-connect	Approach to a patient with GERD and failure of medical treatment	

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

Day	Date	BED SIDE CLERKING 8:00 AM – 9:00 AM	LGIS 9.00AM – 10AM	Bedside teaching/ OPD or OT Skill Session 10:00 to 12:00pm	SGD/ CBD 12:00 to 02:00pm Friday (11:00 to12:00pm)	SHADOW INTERNSHIP / SDL 2:00 PM – 6:00 PM
Monday	20-04-2026	8 to 8:15am report to the clerkship coordinator for Assessment check and feedback; clinical Clerkship 8:15 to 9:00 am Case allotment ▪ History ▪ Examination	Theme; patient with hard right breast mass Facilitator: Prof. Anis Ahmed	Revision of Gowning/ Gloving/Scrubbing/ surgical instruments handling in OT Mini-cex on neck swelling & limb examination in OPD	Approach to patient with discharge from nipple	▪ Shadowing of HO/PGT in ER/ SICU/ PACU/ HDU. ▪ Admissions workflow. ▪ Follow-up tasks, facilitation.
Tuesday	21-04-2026		Theme; Patient with neck swelling and spontaneous	Revision of Gowning/ Gloving/Scrubbing/ surgical instruments handling in OT	Approach to patient with enterocutaneous fistula	

		▪ Formulating the DDs ▪ Summary making ▪ Management plan ▪ Documentation: Progress notes in SOAP format (On Work book) ▪ Patient education ▪ 1 Complete case write-up &1 Mini CEX dully signed by Senior registrar/ WK	fracture of bones Facilitator: Prof. Faryal Azhar	Mini-cex on neck swelling & limb examination in OPD		▪ documentation practice ▪ observe procedural skills ▪ Reflective enteries ▪ Portfolio summary ▪ Log-Book ▪ feedback forms ▪ patient-centred notes
Wednesday	22-04-2026		CPC	Revision of Laparoscopic instruments & devices, Stapling devices & their uses in OT Mini-cex on abdominal & inguinal hernias in OPD	Approach to patient with airway obstruction	
Thursday	23-04-2026		Theme; puffiness of face and buffalo hump Facilitator: Dr. M. Iqbal	Revision of Laparoscopic instruments & devices, Stapling devices & their uses in OT Mini-cex on abdominal & inguinal hernias in OPD	Approach to abdominal trauma and haematuria	
Friday	24-04-2026		Theme; abdominal mass along with hypertension Facilitator: Dr. Sajid Rashid	Bedside teaching during ward round		
Saturday	25-04-2026		Assessment			

Note one case presentation, 1 Mini CEX, 1Complete case write-up, weekly portfolio summary required by the END of week

TIME TABLE (8 Weeks) Final Year MBBS Annual Calendar / LGIS Schedule 2026

General Surgery Department HFH/BBH

Week	Topic	General Surgery Lecture 1	General Surgery Lecture 2	General Surgery Lecture 3	General Surgery Lecture 4
1.	Head & Neck Surgery	Theme; Patient with a swelling in front of right ear displacing ear lobule	Theme; A neck mass at the sub mandibular triangle	Theme; Patient with neck swelling moving with deglutition	Theme; Patient with malignant neck swelling moving with deglutition
2.	Vascular & Thoracic Surgery	Theme; patient with intermittent claudication/ rest pain/ tissue loss	Theme; acute limb ischemia	Theme; patient with prominent tortuous veins of leg	Theme; malignant pleural effusion
3.	Upper GI Tract Surgery	Theme; patient with dysphagia due to Ca esophagus	Theme; patient with dysphagia due to motility disorders	Theme; epigastric pain suggestive of acid peptic disease	Theme; patient with epigastric pain, early satiety, weight loss and anemia suggestive of carcinoma stomach
4.	Lower GI Tract & Anorectal Surgery	Theme; patient with anemia and right iliac fossa mass	Theme; patients with perianal pathologies	Theme; patients presenting with mass coming out of rectum	Theme; patients with hematochezia and melena
5.	Hepato-pancreaticobiliary Surgery	Theme; pain right hypochondrium	Theme; patient with surgical jaundice	Theme; epigastric pain radiating to back	Theme; patient with jaundice and palpable gallbladder
6.	Emergency Surgery	Theme; abdominal trauma and DCS	Theme; thoracic trauma	Theme; patient on X-ray chest with free gas under diaphragm	Theme; patient having acute intestinal obstruction
7.	Hernia & Soft Tissue Surgery	Theme; soft tissue swelling in abdominal wall	Theme; ventral abdominal defects	Theme; patient with inguinoscrotal swellings	Theme; patient with soft tissue swelling of extremity

8.	Breast & Endocrine Surgery	Theme; patient with hard right breast mass	Theme; Patient with neck swelling and spontaneous fracture of bones	Theme; puffiness of face and buffalo hump	Theme; abdominal mass along with hypertension

Table Of Specification (Themes/Topics/Learning Outcomes/Educational Strategies

Table Of Specification LGIS (Themes/Topics/Learning Outcomes/Educational Strategies)

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
WEEK 1							
Head & Neck Surgery	Patient with a swelling in front of right ear displacing ear lobule	○ Define common causes of parotid swellings ○ identify key history and examination findings ○ outline initial investigations and principles of management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs
Head & Neck Surgery	A neck mass at the submandibular triangle	○ Describe the differential diagnosis of submandibular triangle swellings ○ distinguish salivary, lymph node and congenital causes ○ Outline investigation and management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs
Head & Neck Surgery	Patient with neck swelling moving with deglutition	○ Explain the common benign causes of thyroid swelling ○ recognize clinical features of a neck mass that moves with swallowing ○ Outline investigations and treatment options.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Head & Neck Surgery	Patient with malignant neck swelling moving with deglutition	○ Identify red flag features of malignant thyroid swelling ○ describe staging work-up and biopsy ○ Outline operative and adjuvant management principles.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 2							
Vascular & Thoracic Surgery	Patient with intermittent claudication / rest pain / tissue loss	○ Define peripheral arterial disease and chronic limb ischemia ○ recognize symptoms of limb ischemia ○ Outline vascular assessment, investigations and management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Vascular & Thoracic Surgery	Acute limb ischemia	○ Recognize the six P's of acute limb ischemia ○ understand causes and urgency of treatment ○ Outline diagnostic steps, anticoagulation and revascularization options.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Vascular & Thoracic Surgery	Patient with prominent tortuous veins of leg	○ Define varicose veins ○ identify risk factors and clinical features ○ Describe complications, investigations and treatment options including compression and surgery.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Vascular & Thoracic Surgery	Malignant pleural effusion	○ Describe causes and presentation of malignant pleural effusion ○ outline diagnostic evaluation ○ Explain principles of drainage and palliative management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 3							
Upper GI Tract Surgery	Patient with dysphagia due to Ca esophagus	○ Define dysphagia and recognize alarm features ○ outline causes of oesophageal carcinoma ○ Describe investigations, staging and treatment principles.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Upper GI Tract Surgery	Patient with dysphagia due to motility disorders	○ Differentiate mechanical from motility dysphagia ○ identify common motility disorders ○ Outline investigations and medical/endoscopic management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Upper GI Tract Surgery	Epigastric pain suggestive of acid peptic disease	○ Explain the common causes of acid peptic disease ○ recognize clinical presentation and alarm symptoms ○ Outline investigations, medical treatment and prevention.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Upper GI Tract Surgery	Epigastric pain, early satiety, weight loss and anemia suggestive of carcinoma stomach	○ Identify warning features of gastric carcinoma ○ outline risk factors, diagnostic work-up and staging ○ Describe principles of curative and palliative management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 4							
Lower GI Tract & Anorectal Surgery	Patient with anemia and a right iliac fossa mass	○ Discuss the differential diagnosis of a right iliac fossa mass ○ recognize features suggestive of colonic or ileocecal pathology ○ Outline investigations and management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Lower GI Tract & Anorectal Surgery	Patients with perianal pathologies	○ Describe common anorectal disorders ○ distinguish abscess, fistula, fissure and haemorrhoids ○ Outline diagnosis, treatment and complications.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Lower GI Tract & Anorectal Surgery	Patients presenting with mass coming out of rectum	○ Identify rectal prolapse and prolapsed piles ○ differentiate between common causes of a rectal mass ○ Outline management options and surgical indications.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Lower GI Tract & Anorectal Surgery	Patients with hematochezia and melena	○ Define lower GI bleeding and melena ○ identify common surgical causes ○ Describe initial resuscitation, investigation and definitive management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 5							
Hepato-pancreaticobiliary Surgery	Pain right hypochondrium	○ Describe common causes of right hypochondrial pain ○ recognize clinical features of gallbladder and hepatobiliary disease ○ Outline investigations and management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Hepato-pancreaticobiliary Surgery	Patient with surgical jaundice	○ Define obstructive jaundice and its causes ○ distinguish intrahepatic and extrahepatic pathology ○ Outline evaluation and treatment options.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Hepato-pancreaticobiliary Surgery	Epigastric pain radiating to back	○ Recognize features of acute and chronic pancreatitis ○ list common causes ○ Outline diagnostic work-up, complications and management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Hepato-pancreaticobiliary Surgery	Patient with jaundice and palpable gallbladder	○ Explain the clinical significance of Courvoisier sign ○ identify likely causes of painless obstructive jaundice ○ Outline investigations and treatment .	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 6							
Emergency Surgery	Abdominal trauma and DCS	○ Outline the assessment of abdominal trauma ○ define damage control surgery ○ Describe initial resuscitation, indications and staged operative care.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Emergency Surgery	Thoracic trauma	○ Recognize common thoracic injuries ○ identify life-threatening chest trauma ○ Outline emergency management, imaging and definitive treatment.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Emergency Surgery	Patient on X-ray chest with free gas under diaphragm	○ Interpret pneumoperitoneum on imaging ○ discuss common perforation causes ○ Outline emergency evaluation and operative management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Emergency Surgery	Patient having acute intestinal obstruction	○ Define acute intestinal obstruction and its causes ○ recognize clinical features and signs of strangulation ○ Outline resuscitation, investigations and treatment.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 7							
Hernia & Soft Tissue Surgery	Soft tissue swelling in abdominal wall	○ Describe common abdominal wall swellings ○ differentiate hernia from other soft tissue lesions ○ Outline examination and initial management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Hernia & Soft Tissue Surgery	Ventral abdominal defects	○ Define ventral abdominal wall hernias and defects ○ classify types and causes ○ Outline surgical principles and complications.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Hernia & Soft Tissue Surgery	Patient with inguinoscrotal swellings	○ Recognize inguinal and scrotal swellings ○ differentiate direct, indirect and other causes ○ Outline investigation and treatment options.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Hernia & Soft Tissue Surgery	Patient with soft tissue swelling of extremity	○ Identify common soft tissue swellings of limbs ○ outline assessment of benign and malignant lesions ○ Describe investigations and management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
WEEK 8							
Breast & Endocrine Surgery	Patient with hard right breast mass	○ Recognize red flag features of breast carcinoma ○ describe clinical examination, triple assessment and staging ○ Outline treatment principles.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Breast & Endocrine Surgery	Patient with neck swelling and spontaneous fracture of bones	○ Identify features of hyperparathyroidism ○ relate neck swelling with bone disease ○ Outline laboratory diagnosis and surgical management.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Theme	Topic	Specific learning objectives (SLOs)	Teaching strategy	C1	C2	C3	Assessment tools
Breast & Endocrine Surgery	Puffiness of face and buffalo hump	○ Recognize Cushingoid features ○ outline causes of Cushing syndrome and endocrine evaluation ○ Describe principles of treatment.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs
Breast & Endocrine Surgery	Abdominal mass along with hypertension	○ Identify adrenal causes of hypertension such as pheochromocytoma ○ Outline key clinical clues, biochemical tests, imaging and operative planning.	LGIS / PPT	√	√	√	MCQs, SEQs, SAQs, EMQs

Table of specification (themes/topics/learning outcomes/educational strategies)

General surgery clinical clerkship (8 weeks)

Sr #	Topic	Specific Learning Objectives			C 1	C 2	C 3	P 1	P 2	A 1	A 2	MOT/MIT	MOA
		Cognition	Psychomotor	Attitude									
WEEK 1													
1	Approach To A Patient With Breast Lump	• Recall the surgical anatomy of the breast • Understand the pathophysiology of breast lumps • Describe clinical features • Suggest a differential diagnosis • Enumerate recent advances, such as sentinel lymph node biopsy • Review basic management points in	• Take history and • Perform breast examination with focus on etiology • Interpret ultrasound and mammogram and CXR concerning the focused disease. Use triple assessment practice writing treatment prescription • Observe/ • Assist FNAC, Trucut biopsy, Lumpectomy, Breast conserving surgery and MRM	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / Bedside Sessions (Grand Ward Rounds, Teaching Ward Rounds) / LABWORK / Operation theaters	See Assessment section

		patients with breast lumps											
2	Approach To A Patient With Neck Swelling	• Recall the surgical anatomy of the neck • Understand the pathophysiology of the disease • Describe clinical features • Classify the disease • Suggest a differential diagnosis	• Take history and • Perform Neck Examination with focus on etiology. Interpret CXR, X-ray neck, CT scan, MRI, and ultrasound neck. Doppler duplex scan in masses • Practice writing treatment prescription • Observe/ • Assist different biopsy techniques and surgical procedures like excision and repair	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment section
3	Approach To A Patient With A Mass In The Neck Not Moving With Swallowing	• Recall Surgical anatomy of neck. Pathophysiology of the disease	• Take history and perform Neck examination with focus on etiology • Interpret of CXR, ultrasound, doppler	• Take consent for history, clinical examinati			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching	See Assessment section

		• Describe clinical features. Classification of disease • Suggest differential diagnosis	duplex scan, CT scan, and MRI of neck • Practice treatment prescription • Observe/ • Assist different biopsy techniques and surgical procedures like excision and repair	on and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								Ward Rounds) / LABWORK	
4	NECK MASS WITH HOARSENESS OF VOICE	• Students will be able to recall. Etiopathogenesis Describe clinical features • Suggest differential diagnosis and • Investigations Short and Long term treatment plan including complications	• Take history and • Perform Chest examination with focus on etiology • Perform Interpretation of CXR in DIP, Spirometry, ABGs concerning the focused disease • Practice treatment prescription • Observe/	• Take consent for history, clinical examination and procedures • Counsel and educate patient about			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	

			• Assist Oxygen Therapy and Bronchoscopy	disease, its diagnosis, treatment and outcome									
5	Approach To A Patient With Periodic Hypertension	• Clinical features of pheochromocytoma Screening criteria for hypertension investigations for adrenal tumours Preoperative control of hypertension Management of adrenal tumours	• Lab investigations Interpret CT scan of the patient. To write down treatment for control of hypertension • Assist surgical operations	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section
6	Approach To A Patient With	• Recall surgical anatomy of	• Take history and	• Take consent			✓			✓	✓	SGD / BED SIDE	See Assessm

	Pathological Fractures, Renal Stones, And Abdominal Pain	parathyroid glands • Enumerate causes of hypercalcemia • Discuss clinical feature, severity scores, and classification • Enumerate • Investigations for hypercalcemia. Name the complications • Outline Management plan	• Perform neck examination keeping in mind the cause • Perform interpretation of CXR, CBC, ESR, CRP • Interpret subtraction scans • Observe/ • Interpret different scans	for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	ent Section
WEEK 2													
7	Approach To Patient With Intermittent Claudication	• Discuss epidemiology and etiopathogenesis. Surgical anatomy of blood vessels	• Take history and • Perform chest and relevant clinical examination keeping in mind the cause. Examine all the peripheral pulses	• Take consent for history, clinical examination and			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		Physics of blood flow • Describe clinical feature, classification & • Investigations Indications for performing bypass surgery Different types of grapfts. Outline Management plan • Outline recent advances d)Explain methods for conservative and surgical management	• Observe symptoms and signs of peripheral limb ischemia. Interpretation of Doppler and angiograms • Develop treatment prescription of conservative management of intermittent claudication • Observe/ • Assist handheld Doppler and duplex scan Assist HCW in management of patient	procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome									
8	Approach To A Patient With Abnormally Dilated Veins	• Anatomy of varicose veins know Etiology and clinical features of varicose veins	• Take history and • Perform abdominal examination keeping in mind the cause • Perform relevant examination for varicose veins to find	• Take consent for history, clinical examination and			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching	See assessment section

		classification of varicose veins • Investigations for varicose veins • Suggest Differential diagnosis, • Investigations, and severity assessment • Describe conservative management • Describe minimal intervention like sclerotherapy • Describe surgical procedures for varicose veins • Describe the recent advances for management of varicose	the level of incompetence and find perforators • Perform interpretation of abdominal imaging (ultrasound, plain x-ray abdomen), duplex scan • Practice writing emergency management plan Master performing clinical tests like tourniquet, shwartz, perthes	procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								Ward Rounds) / LABWORK	
9	Approach To A Patient With An	• Know Etiology and	• Students will be able to Take history and	• Take consent			✓			✓	✓	SGD / BED SIDE	See Assessm

	Ulcer On Gaiters Area	clinical features of leg ulcers • Suggest Differential diagnosis, • Investigations and severity assessment. Construct conservative and operative treatment plan according to etiology	• Perform abdominal & relevant clinical examination according to cause • Perform interpretation of abdominal imaging (ultrasound, plain x-ray abdomen) • Practice writing emergency management plan • Observe dressings and bandaging techniques for varicose veins) Assist HCW in management of patient	for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	ent Section
10	Approach To Patient With Dyspepsia / Dysphagia	• & investigations. Grade of dysphagia • Enumerate different techniques of nutritional evaluation	• Interpretation of abdominal imaging (ultrasound, plain x-ray abdomen, CT scan, Endoscopy) Practice prescription writing H. pylori eradication treatment	• Take consent for history, clinical examination and procedures			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		• Outline enteral and parenteral nutrition for a patients with dysphagia Construct Short- and long-term treatment plan according to etiology		• Counsel and educate patient about disease, its diagnosis, treatment and outcome									
11	Approach To A Patient With Swelling In Front Of Ear Lobule	• State Presenting complaint Anatomy of neck and parotid gland. Pathophysiology of parotid tumours. Classification of salivary tumours • Explain risk factors and diagnostic criteria	• Take quick history and • Perform relevant brief clinical examination under guidance of treating team. Examination of salivary glands and lymph nodes Evaluation of facial nerve • Perform Interpretation of imaging and lab tests • Observe and • Assist surgical operations	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis,			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Outline investigation • Describe Basic management of		treatment and outcome									
12	Approach To A Patient With A Reducible Swelling In The Umbilical Hernia	• Know Etiology and clinical features of swellings In umbilical region. Anatomy of anterior abdominal wall. Patho0hysiology of hernia • Enumerate the etiology / risk factors for hernia • Suggest Differential diagnosis, • Investigations and severity assessment Construct treatment plan	• Take history and • Perform abdominal clinical examination to • Differentiate different types of hernias according to etiology Evaluate the risk factors for hernia Interpretation of • Investigations • Practice prescription writing • Observe and assist IV hydration of a patient	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		according to etiology											
WEEK 3													
13	APPROACH TO A Patient With Reducible Groin Swelling	• Know Etiology and clinical features of swellings In umbilical region. Anatomy of anterior abdominal wall. Patho0hysiology of hernia • Enumerate the etiology / risk factors for hernia • Suggest Differential diagnosis, • Investigations and severity assessment Construct treatment plan according to etiology	• Take history and • Perform abdominal clinical examination to • Differentiate different types of hernias according to etiology Evaluate the risk factors for hernia Interpretation of • Investigations • Practice prescription writing • Observe and assist IV hydration of a patient	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		Assist HCW in management of patient											
14	Approach To Patient With Abdominal Masses	• Know anatomy and physiology of abdominal cavity. Pathophysiology of different abdominal masses. Classification of abdominal regions and cavities. Classification of abdominal masses • Appreciate clinical features of different abdominal masses and their presentation • Suggest Differential diagnosis,	• Take history and • Perform abdominal & relevant clinical examination according to cause. Palpate and evaluate liver, spleen, and kidneys • Perform Carnats test • Perform succussion splash. Palpate and • Appreciate para-aortic lymph nodes. Differentiate GI tumours from other tumours. Palpate gall bladder • Identify impacted stools • Identify intraabdominal cysts. Perform DRE • Assist proctoscopy and sigmoidoscopy • Appreciate retroperitoneal tumours	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Investigations, and severity assessment. Construct treatment plan according to etiology	• Perform interpretation of • Investigations like imaging and lab tests • Practice writing emergency management plan. Assist HCW in management of patient										
15	Approach To Patient With Upper Abdominal Mass And Vomiting	• A. Understands anatomy of upper abdomen. Physiology of stomach and hepatobiliary tree. Etiology and pathophysiology of masses in upper abdomen Outline • Investigations for upper abdominal mass. Correlate relationship	• Take history and • Perform abdominal & relevant clinical examination according to cause • Perform interpretation of • Investigations (S. Electrolytes, Upper GI endoscopy, ABGs, Dopplar/ duplex scan, LFTs,PT,INR, APTT,USG abdomen and CT scan) • Practice treatment prescription • Observe/	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		between mass and vomiting. • Outline management plan	• Assist endoscopy Assist HCW in management of patient	and outcome									
16	Approach To Patient With Upper Abdominal Mass And Haematemesis	• Recall anatomy of upper abdominal mass • Enumerate causes of mass in upper abdomen • Outline etiology of haematemesis in a patient with abdominal mass Construct differential diagnosis • Enumerate investigation • Outline management plan	• Take history and • Perform abdominal & relevant clinical examination • Perform interpretation of • Investigations (Ultrasound,CT scan,MRI, UpperGI endoscopy and endoscopic ultrasound, Contrast studies and imaging, RFTs, UrineRE, ABGs) • Observe procedures like biopsy • Practice prescription writing • Observe/ • Assist Double lumen catheter & dialysis Assist HCW in management of patient	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

17	Approach To Patient With Globular Mass In Right Hypochondrium And Jaundice	• Recall Etiology and clinical features of obstructive jaundice • Suggest Differential diagnosis, • Investigations and severity assessment • Recall anatomy of hepatobiliary tree. Knows the significance of obstructive jaundice and principles of emergency management Knows indications MRCP and ERCP Construct treatment plan according to etiology	• Take history and • Perform relevant clinical examination • Perform interpretation of • Investigations (MRCP AND ERCP) • Practice prescription writing • Observe/ • Assist ERCP Assist HCW in management of patient	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Discuss complications and indications of preoperative biliary stenting											
18	Approach To Patient With Upper Abdominal Pain Radiating To The Back	• Recall Etiology and pathophysiology • Suggest severity assessment Construct treatment plan according to etiology To make DD of epigastric pain radiating to the back on clinical assessment Relevant • Investigations in such patients (Amylase,	• Take history and • Perform relevant clinical examination • Perform interpretation of • Investigations (Amylase, lipase levels) Calculate CT severity index • Practice prescription writing • Observe/ • Assist ERCP Assist HWC in management of this patient	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

WEEK 4													
19	APPROACH TO A PATIENT WITH UPPER ABDOMINAL PAIN RADIATING TO THE RIGHT SHOULDER	• Recall Etiology and pathophysiology of hepatobiliary tree • Recall anatomy of the region Understands physiology of digestion and functions of gall bladder Understands pathology of biliary tree • Suggest Differential diagnosis, • Investigations to confirm diagnosis Construct treatment plan according to etiology and	• Take History and examination keeping in mind etiology, clinical features, and complications Interpretation of related basic and specific • Investigations Interprets LFTs and Ultrasound for gallstones • Practice prescription writing Assist HWC in management of patient with gallstone disease complicating systemic illness	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Discuss complications											
20	Approach To Patient With Pain, Vomiting, Distension, And Constipation	• The pathophysiology of dynamic and adynamic intestinal obstruction The cardinal features on history and examination The causes of small and large bowel obstruction Can relate the clinical features of intestinal obstruction on X-rays The indications of surgery and other treatment options in bowel obstruction	• History and examination keeping in mind etiology and complications Perform Interpretation of related basic and specific • Investigations including ABGs Write management algorithms • Observe and learn how to draw ABG samples • Perform basic treatment like IV line maintenance ,NG intubation, Foley's catheterization Assisting HWC in management of patient with Fluid electrolyte and acid-base imbalance • Observe/ • Assist surgery for intestinal obstruction	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

21	General Approach To Patient With Constipation, Distension, Vomiting, And Pain	• Recall anatomy and physiology of large gut • Enumerate causes of constipation Knows the causes of large gut obstruction including rectum and anal canal • Classify tumours of large gut • Recall Pathophysiology, Clinical features & • Investigations • Explain general and specific treatment chronic intestinal obstruction	• Take history and • Perform clinical examination keeping in mind the cause • Perform Interpretation of • Investigations Write emergency management plan Observing/Assisting/performing NG Tube, IV access, ETT/Laryngeal airway placement/maintenance /care, Foley's catheter, etc	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		Indications for surgery Staging of colonic tumours. TNM Role of neoadjuvant and adjuvant chemotherapy and radiotherapy											
22	Approach To Patient With Pain In The Right Iliac Fossa	• Recall anatomy and physiology of appendix Etiology and pathophysiology of appendicitis. Causes of pain in RIF • Explain clinical features, complications, and treatment plan for patient • Review Various types of scoring system	• Take history and • Perform clinical examination keeping in mind the cause • Can • Perform abdominal examination Elicit tenderness, Rebound tenderness, Rovsing's sign, Psoas test, Obturator test • Perform Interpretation of • Investigations • Develop treatment prescription Observing/Assisting appendicectomy	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		for appendicitis Knows the operative steps of appendicectomy • Enumerate complications of	• Observe/ • Assist HCW in patient management	and outcome									
23	Repetition / Reinforcement	• Revision	• Revision				✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessme nt section
24	Ward Test				✓		✓			✓			
WEEK 5													
25	APPROACH TO PATIENT BLEEDING PER RECTUM WITH ALTERED BOWEL HABIT	• Recall anatomy of rectum and anal canal. Knows pathophysiolog y of rectum and anal canal • Classify tumours of rectum Stage	• Take history and • Perform relevant clinical examination Perform DRE and Proctoscopy • Perform clinical staging • Interpret	• Take consent for history, clinical examinati on and procedure s			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessme nt section

		tumours of rectum and anal canal • Discuss clinical features, types of rectal tumours • Investigations to confirm diagnosis • Describe management plan, including lifestyle modifications and medications Knows the role of neoadjuvant therapy and benefit of down staging	• Investigations for confirmation of diagnosis and staging • Observe/ • Assist sigmoidoscopy / colonoscopy Prescribe gut preparation for colonoscopy • Practice treatment prescription • Observe and • Assist surgeries for rectal tumour) Assist HCW in patient management	• Counsel and educate patient about disease, its diagnosis, treatment and outcome									
26	Approach To Patient With Bleeding Per Rectum	• Recall anatomy of anal canal • Discuss clinical features, &	• On keeping in mind the complications of disease DRE Proctoscopy Perform Interpretation of investigations like	• Take consent for history, clinical examination and			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching	See assessment section

		• Investigations to confirm the diagnosis • Describe management plan, including life style modifications and medications, impact of complications on functional status of patient Knows conservative management • Describe operative steps of haemorrhoidectomy Knows recent advances in the management of haemorrhoids	sigmoidoscopy practice writing prescription • Observe sigmoidoscopy and colonoscopy Assist HCW in patient management	procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								Ward Rounds) / LABWORK	

27	APPROACH TO PATIENT WITH PAINFUL PERIANAL PURULENT DISCHARGE	• Recall epidemiology, pathophysiology of disease • Recall anatomy of anal canal and perianal area Pathophysiology of perianal discharge Classification of peri-anal abscess and fistula in ano Parks classification Knows Goodsall's rule • Discuss clinical features & • Investigations to confirm these diseases • Describe management plan including	• Take history and • Perform clinical examination keeping in mind the nature of disease DRE Proctoscopy • Perform Interpretation of • Investigations like fistulogram and MRI • Practice prescription writing Assist HCW in patient management/operation	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		complications, impact of disease on functional status of patient • Explain Pregnancy and Surgical related issues in disease Knows the steps of fistulectomy Knows the recent advances in management of fistula in ano											
28	APPROACH TO PATIENT WITH NON-HEALING ULCER IN LOWER LEG	• Recall anatomy of short and long saphenous veins. and name different perforaters pathophysiology of disease Knows the etiology of varicose veins Ceap	• Take history and • Perform clinical examination Trendenberg test Tourniquet test Shawartz test Perthes test Fegans test • Perform Interpretation of investigations Doppler duplex scan practice prescription writing Assist HCW in patient management	• Take consent for history, clinical examination and procedures • Counsel and educate patient			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		classification Differential diagnosis of ulcers Describe clinical features Appreciates the importance of incompetent valves Discuss clinical features • Investigations to confirm the diseases Understands the physic/s principles of duplex scan • Describe management plan including complications, impact of disease on functional status of patient and preventive measures	assist surgery for varicose veins	about disease, its diagnosis, treatment and outcome									

29	Approach To A Patient With A Non-Healing Ulcer On Face	• Recall etiology of ulcers on face. Staging of ulcers Knows the different types of edges • Review differential diagnosis • Explain pathophysiology • Suggest basic management points Understands different methods to cover the skin	• Take history and • Perform examination Examination of face and neck emphasis on lymph node examination • Perform Interpretation of investigation • Practice prescription writing • Observe/ • Assist biopsy Assist HCW in patient management/operation	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section
30	Approach To Patient With Trauma Right Hypochondrium	• Recall anatomy of viscera present in right hypochondrium • Suggest • Investigations Knows the	• A) Take history and • Perform primary survey ABCDE examination • Perform interpretation of related	• Take consent for history, clinical examination and			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		principles of FAST,CT,DPL • Discuss treatment (immediate, long term), complications, and obstetric related issues	• Investigations like CT brain, neck, chest, and abdomen • Practice prescription writing • Observe ultrasound FASTe) Assist HCW in operative management	procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome									
WEEK 6													
31	APPROACH TO PATIENT WITH TRAUMA TO LEFT HYPOCHONDRIUM	• Anatomy of left upper abdomen including Spleen, Diaphragm, Pancreas, Stomach, Ribs, and pleura Knows the mechanism of injury and its impact Blunt and penetrating	• Take history and • Perform examination regarding trauma patient • Perform Primary survey • Practice observation management plan • Observe exploratory laparotomy and specific management of individual viscera injury like Splenectomy, distal	• Take consent for history, clinical examination and procedures • Counsel and educate patient about			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		injuries Primary survey Resuscitation Discuss clinical features & • Investigations to confirm the diseases • Describe management plan specifically ruptured spleen, rupture diaphragm, stomach, pancreas and complications, impact of disease on functional status of patient Recent	pancreatectomy Assist HCW in management of patient	disease, its diagnosis, treatment and outcome									
32	Approach To A Patient With Neck Trauma	• Recall anatomy of neck with special reference to aeordigestive	• Take history and perform examination regarding comatose patient • Perform Interpretation of investigations	• Take consent for history, clinical examinati			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching	See assessme nt section

		and neurovascular structures Classification of neck trauma Appreciates different zones of neck Primary survey and care of cervical spine Resuscitation Principles of damage control surgery Indication and steps of tracheostomy Different investigation to evaluate a patient with neck trauma Discuss clinical features & Investigations to confirm the diseases	• Observe/ • Assist management of trauma patient in ER Observe tracheostomy operation • Observe • Assist neck trauma neck exploration operation	on and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								Ward Rounds) / LABWORK	

		• Describe management plan including complications, impact of disease on functional status of patient											
33	Approach To Patient With Chest Trauma	• Recall anatomy of chest wall, lungs, and heart along with great vessels Classification of chest trauma Primary survey Indication of chest intubation Classification of pneumothorax and their management Steps of chest intubation Importance of aseptic technique	• Take history and • Perform examination of chest trauma Primary survey Examination of chest to rule out pneumothorax and hemothorax • Perform Interpretation of • Investigations • Practice prescription writing • Observe and • Assist chest intubation	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		Indication of thoracotomy Definition of flail chest Importance of fractured ribs and their impact on respiratory physiology Pain management Importance of cardiac tamponade • Discuss clinical features & • Investigations to confirm the diseases • Describe management plan including complications, impact of disease on functional status of											

34	Approach To A Patient With Peripheral Vascular Trauma	• Recall anatomy and histology of peripheral blood vessels Pathophysiology of peripheral ischemia Warm ischemia time Hard and soft signs of peripheral vascular trauma Surgical techniques for vascular repair Natural and artificial grafts for vessels Damage control surgery in vascular trauma Etiology and pathophysiology of disease • Discuss clinical features &	• Take history and perform peripheral vascular examination • Perform • Interpretation of related investigations like doppler and angiogram • Practice prescription writing • Observe and perform angiography • Assist HCW in management of patient	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Investigations to confirm the diseases • Describe management plan including complications, impact of disease on functional status of patient											
35	Approach To A Patient With Diabetic Foot	• Recall anatomy of foot Pathophysiology of disorder leading to diabetic foot Risk factors Care of feet by diabetic patient Pathology of atherosclerosis Investigation Control of diabetes and hypertension Wagner classification of	• Take history and • Perform Rheumatological examination keeping in mind the nature of disease • Perform Interpretation of related • Investigations • Practice prescription writing Clinical examination for distal pulses and neurological examination for neuropathy • Observe and	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis,			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		diabetic foot Conservative management Minor amputations Major amputations Pathophysiology of disease • Discuss clinical features & • Investigations to confirm the diseases • Describe management plan including complications, impact of disease on functional status of patient Rehabilitation and prosthetic limbs	• Perform doppler studies	treatment and outcome									

36	Approach To A Patient With A Gangrenous Foot	• Recall histology and histopathology of small and medium sized blood vessels • Recall etiology & pathophysiology of gangrene of the foot • Discuss Classification based on morphology and etiology • Explain clinical features & • Investigations to confirm the diseases • Describe management plan including complications, impact of disease on	• Take History and examination keeping in mind etiology and complications of gangrene of the foot. To elicit the hard and soft signs of vascular disease like Berger sign and capillary refill. Knowhow to palpate the peripheral pulses like DPS,PTA • Interpret various Investigations like X-ray foot and Doppler, ultrasonography Participate in wound dressing and debridement	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

		functional status of patient • Know the radiological basis of angiography • Enumerate the different levels of amputations											
WEEK 7													
37	APPROACH TO A PATIENT WITH SHORTNESS OF BREATH AND FEVER	-Recall the anatomy and physiology of the respiratory system -Explain the etiology and pathophysiology of shortness of breath and fever Enumerate causes of acute and chronic dyspnea associated with fever	-Take focused history and perform respiratory system examination -Assess respiratory distress and oxygen saturation -Perform interpretation of investigations including CBC, ABGs, Chest X-ray, sputum analysis, and CT chest -Practice prescription writing for oxygen therapy, antibiotics,	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		-Describe the clinical features and severity assessment of respiratory infections and related disorders -Discuss investigations required to confirm the diagnosis -Outline emergency and definitive management plans Recognize complications such as respiratory failure, sepsis, and shock -Correlate radiological and laboratory	bronchodilators, and supportive care -Observe and assist nebulization, oxygen delivery methods, and airway management procedures -Monitor vital signs and response to treatment -Assist healthcare workers in emergency and ward management of patients with respiratory distress and fever	and outcome									

		findings with clinical presentation											
38	Approach To A Patient With Scrotal Swelling	• Recall anatomy of inguinal canal and scrotum • Appreciate the embryological development of inguinal canal and scrotum and descent of testis in the scrotum • Enumerate the factors which may lead to hernia formation. Pathophysiology • Explain clinical features & • Investigations to confirm the diseases	• Take History and • Perform examination keeping in mind etiology and complications of this condition. Differentiates between direct and indirect hernia • Describe different types of hernias • Perform Interpretation of related basic and specific • Investigations • Enlist differential diagnosis • Observe FNA/LN biopsy. Assist HCW in management of patient with anemia	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Describe management plan Complications, impact of disease on functional status of patient											
39	Approach To A Patient With Haematological Disorders	• Explain clinical features & • Investigations to confirm the diseases • Describe management plan including complications and long term prognosis of various associated diseases	• Keeping in mind etiology and complications of this condition Perform Interpretation of related basic and specific • Investigations • Outline treatment strategy • Observe/ • Assist blood products transfusion. Assist HCW in management of patient with anemia	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

40	Approach To A Patient With A Mass In Abdomen And Contact With Pets	• Recall etiology & classification of different abdominal landmarks and divisions Classification of intra abdominal masses Appreciates the association of pets with abdominal mass Pathophysiology of different parasitic cysts • Describe Life cycle of echinococcus granulosus • Explain clinical features & • Investigations to confirm the diseases	• Take History and examination keeping in mind etiology clinical features and complications based on etiology • Perform Interpretation of related basic and specific • Investigations for echinococcus granulosus • Perform relevant examination • Observe and draw blood samples • Interpret ultrasound and CT scan for Hydatid disease Assist HCW in management of patient with FUO	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		• Describe management plan including complications											
41	Approach To Patient With Lymphoedema Lower Limb	• Surgical anatomy of lymphatic system of lower limbs diseases Pathophysiology of lymphoedema Describe classification of lymphoedema • Explain clinical features • Investigations to confirm the diseases like doplar duplex scan, lymphangiography, plethysmography • Describe conservative	• Keeping in mind etiology and complications of these conditions Perform measurements of limbs Palpate peripheral pulses • Perform Interpretation of related basic and specific • Investigations • Develop treatment prescription • Observe / • Assist blood products transfusion and • Perform fluid quota calculation. Assist HCW in management of patient of Dengue with focus on filling fluid quota monitoring sheet	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section

		and operative management plan including complications • Enumerate name of operations for lymphoedema											
42	Approach To A Patient With Gerd And Failure Of Medical Treatment	• Recall anatomy of oesophagus and diaphragm • Enlist precipitating factors for gerd • Explain clinical features & • Discuss • Investigations to confirm the diseases • Classify GERD • Describe conservative and operative	• Take History and • Perform examination keeping in mind etiology and complications of these conditions • Perform Interpretation of related basic and specific • Investigations (CXR, HRCT), uppergi endoscopy, Ba swallow, manometry, ph	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr and Ward Rounds, Teaching Ward Rounds) / LABWORK	See Assessment Section

WEEK 8													
43	Approach To Patient With Discharge From Nipple	• Recall anatomy of breast. Etiology & pathophysiology of both diseases • Enumerate etiological factors • Classify breast discharges • Explain clinical features & • Investigations to confirm the diseases • Describe management plan including complications and preventive measures	• Take History and • Perform examination keeping in mind etiology and complications of nipple discharge Examine the axillary lymph nodes Clinical staging of the disease • Perform Interpretation of related basic and specific • Investigations • Develop treatment prescription • Observe and • Perform Infection Control Practices	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section
44	Approach To Patient With	• Recall anatomy of small and large	• Take History and • Perform examination keeping in mind	• Take consent for			✓			✓	✓	SGD / BED SIDE SESSIONS(Gr	See assessment section

	Enterocutaneous Fistula	gut Embryology etiology & pathophysiology of disease • Discuss the impact of enterocutaneous fistula on mortality • Explain clinical features & • Investigations to confirm the disease Assess the nutritional status of the patient • Discuss the role of TPN in management • Discuss the principles of management of enterocutaneous fistula • Describe management	etiology and complications of disease • Perform Interpretation of related basic and specific • Investigations • Develop treatment prescription • Observe and • Perform Infection Control Practices in ICU settings Observing and Perform ICU procedures like arterial tap for ABGs,CVP, and ETT etc. and administration of TPN	history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								and Ward Rounds, Teaching Ward Rounds) / LABWORK	

		plan including complications and outcomes											
45	APPROACH TO PATIENT WITH AIRWAY OBSTRUCTION	• Recall definition etiology & pathophysiology of disease • Explain types, clinical features & • Investigations to confirm respiratory failure • Describe management plan including complications and outcomes	• Take History and • Perform examination keeping in mind etiology and complications of disease • Perform Interpretation of related basic and specific • Investigations • Develop treatment prescription • Observe and • Perform Infection Control Practices in ICU settings Observing and Perform ICU procedures like arterial tap for ABGs,CVP, and ETT etc	• Take consent for history, clinical examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds, Teaching Ward Rounds) / LABWORK	See assessment section
46	Approach To Abdominal Trauma And Haematuria	• &pathophysiology of disease Knows the classification of	• Complications of disease Perform Interpretation of related basic and specific • Investigations	• Take consent for history, clinical			✓			✓	✓	SGD / BED SIDE SESSIONS(Grand Ward Rounds,	See assessment section

		renal trauma and its grades Explain types, clinical features & • Investigations • Describe conservative and operative management plan including complications and outcomes	• Develop treatment prescription • Observe & • Assist damage control Control Practices in OT settings Observing and Perform ICU procedures like arterial tap for ABGs,CVP, and ETT etc	examination and procedures • Counsel and educate patient about disease, its diagnosis, treatment and outcome								Teaching Ward Rounds) / LABWORK	
47	REPETITION / REINFORCEMENT						✓			✓	✓		
48	WARD TEST												

General Surgery SDL Learning Objectives

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
1	Core Surgery	Surgical history, physical examination, and informed consent	• Describe the components of a complete surgical history and examination. • Explain preoperative assessment, fitness for surgery, and informed consent. • Recognize red flags requiring urgent surgical evaluation.	• C1 • C2 • C3	• Take a focused surgical history and perform a systematic examination. • Document findings clearly and identify urgency. • Explain the procedure and obtain informed consent under supervision.	• Show professionalism, confidentiality, and respect. • Communicate clearly with patients and relatives.	OPD, ward, emergency department	MCQs, viva voce, OSCE, case discussion
2	Breast & Endocrine	Breast lump and nipple discharge	• Define common benign and malignant	• C1 • C2 • C3	• Take focused history and perform breast examination. • Interpret ultrasound/mammogr	• Maintain privacy and dignity during examination.	Breast clinic, surgery OPD, ward, OT	MCQs, SEQs, viva voce, OSCE,

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			breast complaints. • Describe clinical features, red flags, and differential diagnosis. • Explain triple assessment and indications for imaging and biopsy.		am and basic pathology reports. • Assist in FNAC/core biopsy and counsel patients.	• Show empathy and sensitivity while discussing breast disease.		case discussion
3	Head & Neck Surgery	Neck swelling and thyroid swelling	• Classify common causes of neck swelling. • Explain evaluation of thyroid and non-thyroid neck masses. • Outline investigations,	• C1 • C2 • C3	• Perform focused neck examination and thyroid palpation. • Interpret ultrasound, CT, and FNAC reports. • Observe biopsy procedures and counsel patients.	• Communicate respectfully and reassure anxious patients. • Preserve patient comfort and dignity.	OPD, ward, radiology, OT	MCQs, SEQs, viva voce, case-based discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			indications for FNAC, and basic management.					
4	Head & Neck Surgery	Salivary gland swelling and cervical lymphadenopathy	• Describe the differential diagnosis of parotid and submandibular swellings. • Recognize benign and malignant features of salivary gland disease. • Explain the role of imaging, FNAC, and surgical treatment.	• C1 • C2 • C3	• Examine salivary glands and cervical lymph nodes. • Interpret ultrasound/CT findings and facial nerve examination. • Assist in diagnostic aspiration and surgery.	• Respect confidentiality and facial aesthetics concerns. • Offer supportive counseling about treatment and outcomes.	ENT/surgery OPD, ward, radiology, OT	MCQs, OSCE, case discussion
5	Vascular Surgery	Peripheral arterial disease	• Explain atherosclerosis	• C1 • C2 • C3	• Examine peripheral pulses and inspect for ischemic changes.	• Act promptly when limb	Vascular OPD, ward,	MCQs, SEQs, viva

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
		and intermittent claudication	and chronic limb ischemia. • Describe symptoms, signs, and classification of PAD. • Outline investigations and indications for revascularization.		• Interpret Doppler and angiography findings. • Assist with vascular assessment and management planning.	threat is suspected. • Promote smoking cessation and risk-factor control.	Doppler lab	voce, case-based discussion
6	Vascular Surgery	Varicose veins and venous ulcer	• Describe venous insufficiency and valve incompetence. • Classify varicose veins and venous ulcers. • Explain conservative,	• C1 • C2 • C3	• Perform Trendelenburg, cough impulse, and related tests. • Interpret Doppler duplex findings. • Demonstrate dressings, compression bandaging, and counseling.	• Encourage adherence to compression and lifestyle measures. • Show patience in chronic wound care.	Vascular clinic, ward, dressing room	MCQs, OSCE, case discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			interventional, and operative management.					
7	General Surgery	Hernia and groin swelling	• Describe anatomy of the groin and abdominal wall. • Classify inguinal, femoral, and other abdominal wall hernias. • Explain complications, investigations, and indications for surgery.	• C1 • C2 • C3	• Examine groin and abdominal wall swellings. • Differentiate reducible, irreducible, and obstructed hernias. • Observe hernia repair and counsel patients.	• Promote early presentation for symptomatic hernias. • Maintain professionalism during examination.	OPD, ward, OT	MCQs, SEQs, viva voce
8	Upper GI Surgery	Dysphagia and oesophageal carcinoma	• Classify causes of dysphagia by site and pathology.	• C1 • C2 • C3	• Take focused history for dysphagia. • Interpret barium swallow, endoscopy, and CT findings.	• Show empathy for weight loss and feeding difficulty.	OPD, endoscopy unit, ward	MCQs, SEQs, case-based

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			• Explain red flags and staging of oesophageal cancer. • Outline investigations and principles of treatment.		• Counsel on nutrition and perioperative care.	• Communicate clearly regarding prognosis.		discussion
9	Upper GI Surgery	GERD, peptic ulcer disease, and upper GI bleed	• Describe acid-peptic disease and reflux pathophysiology. • Recognize alarm symptoms and complications. • Explain medical and surgical management of PUD and GERD.	• C1 • C2 • C3	• Take a focused upper GI history. • Interpret endoscopy, CBC, and related investigations. • Prescribe acid suppression and H. pylori eradication.	• Promote adherence to therapy and diet modification. • Respect patient concerns about chronic symptoms.	OPD, ward, endoscopy unit	MCQs, SEQs, viva voce

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
10	Emergency Surgery	Acute abdomen and appendicitis	• Explain the causes and evaluation of acute abdominal pain. • Describe clinical features, scoring systems, and complications of appendicitis. • Outline indications for appendicectomy and postoperative care.	• C1 • C2 • C3	• Perform abdominal examination and elicitation of signs. • Interpret relevant labs and imaging. • Assist in emergency management and appendicectomy.	• Act promptly in surgical emergencies. • Work effectively within the emergency team.	Emergency department, ward, OT	MCQs, OSCE, viva voce, case discussion
11	Emergency Surgery	Intestinal obstruction	• Differentiate mechanical and paralytic obstruction.	• C1 • C2 • C3	• Take focused history and perform abdominal examination.	• Maintain urgency in resuscitation and monitoring.	Emergency department, ward, OT	MCQs, SEQs, viva voce

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			• Describe causes, clinical features, and X-ray signs. • Explain resuscitation, indications for surgery, and complications.		• Interpret abdominal X-rays and ABG-related data. • Insert NG tube and assist fluid resuscitation.	• Show teamwork during emergency care.		
12	Hepatobiliary Surgery	Gallstone disease and obstructive jaundice	• Describe biliary anatomy and pathophysiology of jaundice. • Explain causes of surgical jaundice and gallstone complications. • Outline investigations, ERCP/MRCP	• C1 • C2 • C3	• Examine for jaundice and abdominal tenderness. • Interpret LFTs, ultrasound, MRCP, and ERCP reports. • Observe ERCP and counsel on perioperative care.	• Communicate diagnostic uncertainty clearly. • Show empathy during prolonged jaundice workup.	OPD, ward, radiology, endoscopy unit	MCQs, SEQs, case-based discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			indications, and treatment.					
13	Hepatopancreatobiliary Surgery	Acute pancreatitis	• Explain causes, severity scoring, and complications of acute pancreatitis. • Describe diagnostic criteria and imaging strategy. • Outline conservative management and indications for intervention.	• C1 • C2 • C3	• Assess pain severity and systemic illness. • Interpret amylase/lipase, CT severity index, and ultrasound findings. • Assist in fluid resuscitation and supportive care.	• Monitor critically ill patients closely. • Escalate promptly when deterioration occurs.	Ward, emergency department, ICU	MCQs, SEQs, viva voce
14	Colorectal Surgery	Per rectal bleeding and colorectal cancer	• Describe causes of hematochezia and altered bowel habit.	• C1 • C2 • C3	• Perform DRE and proctoscopy. • Interpret colonoscopy, biopsy,	• Preserve dignity during anorectal examination.	OPD, endoscopy unit, ward, OT	MCQs, SEQs, OSCE, case

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			• Explain staging and workup of colorectal malignancy. • Outline neoadjuvant, operative, and adjuvant treatment principles.		and staging investigations. • Counsel regarding bowel preparation and surgery.	• Discuss cancer diagnosis sensitively.		discussion
15	Colorectal & Anorectal Surgery	Hemorrhoids, fissure, and fistula in ano	• Classify common anorectal diseases. • Explain symptoms, examination findings, and treatment options. • Describe operative	• C1 • C2 • C3	• Perform anorectal examination and proctoscopy. • Interpret simple investigations when required. • Observe and assist in anorectal procedures.	• Maintain privacy and non-judgmental communication. • Reassure patients about treatable symptoms.	OPD, ward, OT	MCQs, viva voce, case discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			principles and complications.					
16	Breast & Endocrine Surgery	Thyroid swelling and goitre	• Describe thyroid anatomy, physiology, and common disorders. • Classify benign and malignant thyroid swellings. • Explain indications for FNAC, thyroid function tests, and surgery.	• C1 • C2 • C3	• Examine thyroid swelling and cervical nodes. • Interpret TFTs, ultrasound, and FNAC reports. • Observe thyroidectomy and counsel patients.	• Be mindful of cosmetic concerns and voice-related anxieties. • Communicate follow-up needs clearly.	OPD, ward, radiology, OT	MCQs, SEQs, viva voce
17	Trauma Surgery	Abdominal trauma and damage control surgery	• Describe blunt and penetrating abdominal trauma.	• C1 • C2 • C3	• Perform primary survey and focused abdominal examination.	• Act rapidly and safely in trauma settings. • Work effectively	Emergency department, trauma bay, OT, ICU	MCQs, OSCE, case-based discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			• Explain shock assessment and damage control principles. • Outline indications for FAST, CT, DPL, and laparotomy.		• Interpret FAST/CT findings and trauma labs. • Assist in resuscitation and operative management.	with multidisciplinary trauma teams.		
18	General Surgery	Soft tissue swellings and surgical oncology basics	• Describe common benign and malignant soft tissue swellings. • Explain red flags for sarcoma and skin malignancy. • Outline biopsy principles and staging basics.	• C1 • C2 • C3	• Examine a soft tissue swelling systematically. • Interpret basic imaging and biopsy reports. • Assist in biopsy and minor procedures.	• Maintain respect for patient concerns about lumps. • Avoid reassurance without proper assessment.	OPD, ward, OT	MCQs, viva voce, case discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
19	General Surgery	Diabetic foot and gangrene	• Explain neuropathic, ischemic, and infected diabetic foot. • Describe wound grading, complications, and principles of limb salvage. • Outline indications for debridement, amputation, and vascular referral.	• C1 • C2 • C3	• Examine peripheral pulses and neuropathy signs. • Interpret Doppler and foot X-ray findings. • Assist dressing, debridement, and patient counseling.	• Promote foot care and early reporting of ulcers. • Show commitment to limb preservation.	OPD, diabetic foot clinic, ward, OT	MCQs, OSCE, case-based discussion
20	Perioperative Care	Fluids, electrolytes, nutrition, wound healing, and sepsis	• Describe perioperative fluid, electrolyte, and nutritional management. • Explain wound healing,	• C1 • C2 • C3	• Calculate fluid requirements and interpret electrolytes/ABGs. • Assist in wound care and sepsis bundle implementation.	• Be meticulous in aseptic technique. • Promote patient safety and timely escalation.	Ward, ICU, OT, dressing room	MCQs, SEQs, viva voce, case discussion

S. No.	Specialty	Topic	Specification Learning Objectives (SLO)	Cognition	Skill	Attitude	Setting	MOA
			infection prevention, and sepsis recognition.					

Transdisciplinary Case Based Learning (TCBL) – General Surgery

Rationale

General surgical diseases are among the most common causes of morbidity and mortality worldwide. Their diagnosis and management require integration of anatomy, pathology, physiology, radiology, medicine, anesthesia, oncology, nutrition, rehabilitation, and communication skills. Transdisciplinary Case Based Learning (TCBL) develops clinical reasoning and multidisciplinary care skills.

General Learning Objectives (GLOs)

- Apply clinical reasoning to common surgical presentations.
- Correlate basic sciences with surgical pathology and management.
- Perform focused history taking and physical examination.
- Interpret relevant laboratory and imaging investigations.
- Explain principles of operative and non-operative management.
- Recognize surgical emergencies and initiate timely referral.
- Communicate effectively with patients and healthcare teams.
- Demonstrate ethical and professional behavior.

Themes & Scenarios for TCBL – Surgery

S.No	Theme	Scenario	Rationale	Cognitive Domain	Psychomotor Domain	Affective Domain	Teaching Strategy	Assessment
1	Colorectal Cancer	Rectal bleeding, altered bowel habits, weight loss.	Common GI malignancy requiring multidisciplinary care.	Define CRC, staging, investigations, and management.	Perform abdominal and rectal examination.	Show empathy and professionalism in cancer counseling.	CBD, SDL, Imaging Review	MCQs, OSCE, Viva
2	Gastric Cancer	Epigastric pain, vomiting, weight loss.	Requires integrated surgical and oncological care.	Explain pathology, diagnosis, staging, treatment.	Perform abdominal examination and interpret endoscopy.	Demonstrate compassionate communication.	PBL, Pathology Correlation	MCQs, SEQs, OSCE
3	Trauma	Road traffic accident with shock.	Major surgical emergency requiring rapid response.	Explain ATLS principles and trauma management.	Perform ABC assessment and interpret FAST scan.	Work effectively under pressure.	Simulation, Emergency Teaching	OSCE, DOPS, Viva
4	Breast Cancer	Breast lump with nipple retraction.	Common female malignancy requiring holistic care.	Discuss triple assessment and staging.	Perform breast examination systematically.	Respect patient dignity and privacy.	Clinical Demonstration, CBD	OSCE, Viva
5	Acute Appendicitis	Right iliac fossa pain and fever.	Common surgical emergency.	Describe diagnosis and complications.	Perform abdominal examination.	Act promptly in emergencies.	Bedside Teaching	MCQs, Viva

6	Intestinal Obstruction	Distension, vomiting, constipation.	Requires urgent recognition and intervention.	Explain causes and radiological findings.	Interpret abdominal X-rays and insert NG tube.	Demonstrate teamwork and communication.	Case Discussion	OSCE, SEQs
7	Thyroid Swelling	Anterior neck swelling.	Integrates endocrine and surgical principles.	Discuss thyroid disorders and surgery indications.	Perform thyroid examination.	Maintain sensitivity regarding cosmetic concerns.	Clinical Case Discussion	MCQs, Viva
8	Gallstone Disease	RUQ pain after meals.	Common biliary disease.	Explain gallstone complications and management.	Interpret ultrasound and LFTs.	Promote dietary counseling.	Imaging Review	MCQs, OSCE
9	Diabetic Foot	Foot ulcer in diabetic patient.	Multidisciplinary vascular and wound care issue.	Recognize ischemia and infection.	Assess peripheral pulses and ulcers.	Encourage preventive counseling.	Ward Teaching	Mini-CEX, Viva
10	Hernia	Groin swelling with cough impulse.	Common surgical condition requiring anatomical understanding.	Classify hernias and complications.	Perform inguinal hernia examination.	Maintain patient dignity during examination.	Clinical Demonstration	OSCE, MCQs

Reference Books

1. *Bailey & Love's Short Practice of Surgery* – 28th edition.
2. *Schwartz's Principles of Surgery* – 12th edition.
3. *Sabiston Textbook of Surgery: The Biological Basis of Modern Surgical Practice* – 21st edition.
4. *Browse's Introduction to the Symptoms & Signs of Surgical Disease* – 5th edition.
5. *Hamilton Bailey's Demonstrations of Physical Signs in Clinical Surgery* – 20th edition.
6. *Clinical Surgery in General by R. M. Kirk* – 7th edition.
7. *Essential Surgery: Problems, Diagnosis & Management* by Sir Alfred Cuschieri – 5th edition.
8. *Oxford Handbook of Clinical Surgery* – 5th edition.
9. *Current Surgical Therapy* by Cameron & Cameron – 14th edition.
10. *Emergency Surgery* by John J. Shepherd – 13th edition.
11. *Atlas of Human Anatomy* by Frank H. Netter – 8th edition.
12. *Macleod's Clinical Examination* – 15th edition.
13. *Bedside Techniques: Methods of Clinical Examination* by Mujahid Hussain & Ahmad Bilal – latest edition.
14. *Textbook of Trauma and Acute Care Surgery* by Kenneth Mattox – latest edition.
15. *SRB's Manual of Surgery* – 7th edition

RMU MBBS GENERAL SURGERY CLERKSHIP HOURS

Subject/Year	Teaching hours
First Year MBBS	2
Second Year MBBS	4
Third Year MBBS	17
Fourth Year MBBS	10
Final years	236
Total Hours	269

Final Year MBBS General Surgery Clerkship Hours

Schedule	*Schedule duration (4 weeks)*	*Total Hours*
Morning meeting	0.5 hours x 35	11.5 hours
LGIS	1 x 23	23 hours
Bedside Clerkship	2.5 x 23	57.5 hours
Small Group Discussion	2 x 23	46 hours
Shadowing Internship	4 hours/6days a week	92 hours
Module Assessment day	6 hours	6 hours
		236 hours

SECTION Assessment

Assessment Policy

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 RMUAcademic 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 assessmentinstrument 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 andfaculty 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.

Table of Specification of Assessment
Final year MBBS

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.

Final Year Mbbs Surgery & Allied Embedded Internship Program

RMU-12 2026	500 Marks Total CIA 200 + Annual 300

Section 1: Overview & Program Structure

The Final Year MBBS Surgery and Allied Embedded Internship Program at Rawalpindi Medical University (RMU) is a 12-week structured clinical placement that bridges undergraduate education and professional medical practice. Students rotate through three modules, each four weeks in duration, gaining hands-on clinical experience across Surgery and its allied specialties.

Program Structure at a Glance

Module	Duration	Content / Rotation
Module I	4 Weeks	1st Surgical Unit — Clinical Clerkship
Module II	4 Weeks	2nd Surgical Unit — Clinical Clerkship
Module III	4 Weeks	Orthopedic Surgery(1 wk), Pediatric Surgery (1wk), Plastic Surgery(1 wk), Surgical ICU (1 wk)
TOTAL PROGRAM DURATION		**12 Weeks**

Total Assessment: 500 Marks

Component	Marks	Percentage
Continuous Internal Assessment (CIA)	200	40%
Annual / Final Assessment	300	60%
GRAND TOTAL	500	100%

Section 2: Continuous Internal Assessment (CIA) — 200 Marks

The CIA spans the entire 12-week block and comprises three sub-components: Clerkship/Module Assessment, LMS-Based Assessment, and End Block Assessment (EBA). Together these form 40% of the total 500-mark scheme.

CIA Marks Distribution

CIA Component	Marks	% of CIA
Clerkship Assessment (Module WA + Embedded Internship WPBA)	100	50%
End Block Assessment (EBA)	80	40%
LMS-Based Assessment	20	10%
TOTAL CIA	200	100%

Clerkship Assessment — 100 Marks

Each module is assessed through two sub-components: Embedded Internship (Workplace-Based Assessment, 60%) and Ward Test (40%). Marks are allocated proportionally to the duration of each rotation.

Sub-Component	Surgical Unit I	Surgical Unit II	Orthopedic Surgery	Pediatric Surgery	Plastic Surgery	Surgical ICU	Total
Total Module Marks	30	30	10	10	10	10	100
Embedded Internship WPBA (60%)	18	18	6	6	6	6	60
Ward Test (40%)	12	12	4	4	4	4	40

Workplace-Based Assessment (WPBA) Activities

Activity	4-Week Rotation	1-Week Rotation
Case Presentations / Morning Reports	4 (8 marks)	1 (3 marks)
Mini CEX (Clinical Evaluation Exercise)	5 (5 marks)	1 (1 mark)
Complete Case Write-Ups	5 (2.5 marks)	1 (1 mark)
Weekly Portfolio Summaries	4 (2.5 marks)	1 (1 mark)

LMS-Based Assessment — 20 Marks

An online, structured assessment system administered through the university Learning Management System (LMS). All questions follow USMLE-style best-of-five MCQ format, targeting higher cognitive levels (Bloom's taxonomy C4–C6).

Assessment Type	Frequency	MCQs Each	Total MCQs
Weekly LMS Quiz	10 quizzes	35	350
Clinico-Connect LMS Quiz	2 quizzes	20	40
End-of-Block LMS Assessment	1	60	60
TOTAL	13 assessments	—	450

Time allocation: 45 seconds per MCQ in LMS settings. Topics are aligned with the Final Year MBBS Surgery & Allied block curriculum. MCQs may incorporate X-rays, CT scans, lab reports and clinical photographs.

End Block Assessment (EBA) — 80 Marks

Conducted at the end of the 12-week block. It mirrors the Final Professional Examination format and includes both theory and clinical components. EBA covers Surgery core subjects as well as specialties (Orthopedic surgery, Pediatric surgery, Plastic surgery, Surgical ICU & Anesthesia).

Component	MCQs	SEQs	SAQs	EMQs
Questions per Paper	60	3	3	1
Marks per Paper	60	15	15	10
Time	2 Hours per paper (4 Hours total)			
Total Theory Marks (2 papers)	200 marks			

Topic Distribution — Paper I Theory

Topic	MCQs	SEQ	SAQ	EMQ
Head & Neck Surgery	10	1	—	1
Vascular Surgery	10	1	1	
Thoracic Surgery	6			
Upper GIT Surgery	10	1	1	
Lower GIT Surgery	10		1	
Orthopedic Surgery	7	--	--	--
Pediatric Surgery	7	--	--	--

Topic Distribution — Paper II Theory

Topic	MCQs	SEQ	SAQ	EMQ
Hepato-pancreaticobiliary Surgery	10	1	1	1
Emergency Surgery	10	1	1	
Hernia & Soft Tissue Surgery	10			
Breast Surgery	10	1	1	
Endocrine Surgery	6			
Plastic Surgery	7	--	--	--
Surgical ICU	7	--	--	--

EBA Clinical:

- 4 Short Cases (CI-OSCE), 1 Long Case, 1 Surgical skills, 1 Ethics/Counselling, 20 Av-OSCE stations = 230 marks (clinical) for EBA Surgery.
- For EBA Specialties, 4 Short Cases, 3 Counselling, 2 Surgical skills, 20 Av-OSCE stations = 210 marks.

Section 3: Module Assessment (Per-Module)

Each of the three modules is assessed at its conclusion through identical formats: a Theory Examination and a Clinical OSCE. The same structure applies to Modules I, II, and III (Orthopedic surgery, Pediatric surgery, Plastic surgery, Surgical ICU & Anesthesia).

Theory Assessment — Each Module

Component	MCQs	SEQs	SAQs	EMQs
No. of Questions	20	3	3	1
Marks	20	15 (5 each)	15 (5 each)	10
Total Marks	60 marks | 60 minutes			

Topic Distribution — Module I Theory

Topic	MCQs	SEQ	SAQ	EMQ
Head & Neck Surgery	5	1	—	1
Vascular Surgery	3	1	1	
Thoracic Surgery	2			
Upper GIT Surgery	5	1	1	
Lower GIT Surgery	5		1	

Topic Distribution — Module II Theory

Topic	MCQs	SEQ	SAQ	EMQ
Hepato-pancreaticobiliary Surgery	5	1	1	1
Emergency Surgery	3	1	1	
Hernia & Soft Tissue Surgery	5			
Breast Surgery	5	1	1	
Endocrine Surgery	2			

Topic Distribution- Module III (orthopedics, Pediatric surgery, Plastics, Surgical ICU)

The same theory format (60 marks, 60 min) applies. Topics and question distribution are drawn from the respective specialty based on the rotation: Orthopedic surgery (15 MCQs + 1 SAQ + 1 SEQ), Pediatric surgery (15 MCQs + 1 EMQ + 1 SEQ), Plastic surgery (15 MCQs + 1 SAQ), Surgical ICU (15 MCQs + 1 SAQ+1 SEQ) in the combined EBA for specialties.

Clinical OSCE — Each Module

OSCE Type	Short Cases	Surgical Skills	Ethics/ Counselling	Av-OSCE	Total
Stations	4	1	1	10	16
Marks	60 (15 each)	10	10	50 (5 each)	130
Duration	60 min (15 each)	10 min	10 min	30 min	1 hr. 50 mins

Ci-OSCE = Clinically Integrated Observed Structured Clinical Examination. Av-OSCE = Audio-Visual OSCE (video/picture/scenario with 5 one-liner questions per station).

Section 4: Pre-Annual Assessment (Send-Up Examination)

The Pre-Annual Assessment (formerly 'Send-Up Examination') is a mandatory prerequisite to the Final Annual Examination. It evaluates the student's readiness and competence across all Surgery and Allied topics covered during the block. It does not carry direct marks toward the final 500-mark scheme but serves as a gateway.

Theory — Pre-Annual (2 Papers, 150 Marks Total)

Component	MCQs	SEQs	SAQs	EMQs
Questions per Paper	45	2	2	1
Marks per Paper	45	10	10	10
Marks per Paper Total	75 marks | 2 hours			
TOTAL (Both Papers)	150 marks | 4 hours			

Topic Distribution — Pre-Annual Paper I

Topic	MCQs	SEQ	SAQ	EMQ
Basic principles of surgery	7	—	---	1
General Pediatric surgery	7	—	—	
Perioperative care	7	1	—	
Trauma	7	1	—	
Orthopedic surgery	5	—	1	
Skin & Plastic surgery	5	—	—	
Head & Neck surgery	7	—	1	

Topic Distribution — Pre-Annual Paper II

Topic	MCQs	SEQ	SAQ	EMQ
Breast & Endocrine surgery	7	—	1	1
Upper GIT surgery	7	1	—	
Hepatopancreaticobiliary surgery	7		—	
Lower GIT surgery & Pelvis & perineum	10	—	1	
Vascular surgery	5	1	—	
Thoracic surgery	4		—	
Genitourinary surgery	5	—	—	

Topic Distribution — Pre-Annual Paper II

Station Type	Stations	Marks
Short Cases (1 MNG, 1 Hernia, 1 vascular, 1 breast lump)	4 Stations	80 (20 each)
Surgical skill/ Counselling	1 Station	20
TOTAL	5 Stations	100 marks | 35 min

Section 5: Final Annual Assessment — 300 Marks

Preamble:

The Table of Specifications (TOS) is a detailed framework that describes how assessment items are distributed in terms of content in examination. The purpose of the TOS is 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 describes structured mode of assessment by outlining the cognitive levels, domains, and weightings of assessment items.

Statutes:

1. Schedule: The Final Professional MBBS shall be held at the end of fifth year.
2. Subjects: Every candidate shall be required to study the following subjects in General Surgery block

a. Core subjects-General Surgery
b. Vertically integrated Subjects- ENT, Eye, Integrated Pathology, Pharmacology & Community Medicine
c. Horizontally Integrated Subjects- Medicine, paediatric medicine, Gynae & OBS
d. Spirally Integrated subjects- Research, family medicine, HEC General Cluster, ALPHA (Artificial Intelligence, Leadership, Professionalism, Humanities and Arts)
e. General Cluster ALPHA (Artificial Intelligence, Leadership, Professionalism, Humanities and Arts)

Assessment will comprise of two Domains, “theory (Cognitive)” and “practical (Psychomotor)”.

Domains

- Cognitive domain: Theory/Written assessment
- Psychomotor domain: Practical/ Performance assessment

Instructional strategies for assessment: Separate Instructional strategies will be used for cognitive and psychomotor domain, which includes the following

A) Cognitive Domain (Theory/written)

1. MCQs:

It will be single Best type of Multiple-Choice Questions (MCQs) with one stem & with five options. Integration ratio in multiple choice questions will be 70% core subject knowledge, 10% will be horizontally integrated subjects, 10% Vertical & 10% spiral Integration. Each MCQ will carry One Mark and Time allowed per MCQ will be 45 seconds.

2. Short answer Questions (SAQs):

Short answer questions serve as an effective tool for assessing students' comprehension, critical thinking, and formulate them in their own words. Each SAQ will carry 5 Marks and time allowed per SAQ will be 5 minutes.

2. Short essay Questions (SEQs):

Short essay questions serve as an effective tool for assessing students' comprehension, critical thinking, and formulate them in their own words. Each SEQ will carry 5 Marks and time allowed per SEQ will be 5 minutes.

B) Clinical (Psychomotor) Component:

There will be two components of clinical exam:

1. Objective structured clinical examination (OSCE)

This component includes 10 stations of audiovisual AVOSCE, one station for surgical skills and one for counselling.

2. Long and short cases

This component consists of one long case and four short cases.

Examination Eligibility:

Eligibility to appear in professional will be as per RMU Assessment Policy approved by the Academic Council and Syndicate.

Passing Criteria:

A student will be declared successful in a Final assessment if they score more than 50% separately in theory assessment, OSCE and short/long cases.

Supplementary Examination Criteria:

The student who is unsuccessful in a final professional Surgery assessment will have to appear in the supplementary examination

The Final Professional MBBS Examination in Surgery carries 300 marks (60% of the total 500). It consists of two theory papers and a comprehensive clinical OSCE. Students must meet passing criteria in each component.

Theory — Final Annual (2 Papers, 150 Marks Total)

Component	MCQs	SEQs	SAQs	EMQs
Questions per Paper	45	2	2	1
Marks per Paper	45	10	10	10
Total (Both Papers)	150 marks | 4 hours			

Topic Distribution — Annual Paper I

Topic	MCQs	SEQ	SAQ	EMQ
Basic principles of surgery	7	—	---	1
General Pediatric surgery	7	1	—	
Perioperative care	7	—	—	
Trauma	7	—	—	
Orthopedic surgery	5	1	1	
Skin & Plastic surgery	5	—	—	
Head & Neck surgery	7	—	1	

Topic Distribution — Annual Paper II

Topic	MCQs	SEQ	SAQ	EMQ
Breast & Endocrine surgery	7	—	1	1
Upper GIT surgery	7	1	—	
Hepatopancreaticobiliary surgery	7		—	
Lower GIT surgery & Pelvis & perineum	10	—	1	
Vascular surgery	5	1	—	
Thoracic surgery	4		—	
Genitourinary surgery	5	—	—	

Clinical OSCE — Final Annual

Station Type	Stations	Marks Each	Total Marks	Duration
Short Cases (CI-OSCE)	4	10	40	60 min total
Long Case	1	40	40	30 min
Surgical skill	1	10	10	10 min
Ethics/Counselling	1	10	10	10 min
Av-OSCE (10 stations)	10	5	50	1 hour
TOTAL CLINICAL	17	—	150	2 hrs. 50 mins

Table Of Specification For Clinical Component

No.	Component	Station	Marks		Passing criteria
1	Long case	Long Case – History Taking	10	40	Total marks=150 Passing marks=105 (70%)
		Long Case – Examination	10		
		Long Case – Viva Voce	20		
2	Short cases	Short Case–thyroid	10	40	
		Short Case – hernia	10		
		Short Case– vascular	10		
		Short Case– breast	10		
3	OSCE	Surgical skills	10	70	
		Ethics/Counselling	10		
		Av-OSCE (Instrument/ Lab Data/ Procedure)	3		
		Av-OSCE (X-Ray, MRI or CT Scan)	3		
		Av-OSCE (Picture/ Clinical Scenario)	4		
Total Marks			150		

Passing Criteria

PASSING REQUIREMENTS — FINAL ANNUAL EXAMINATION
Overall: Score more than 50% in the total Final Assessment
Theory: Minimum 70% marks in the theory paper (combined Papers I & II)
Av-OSCE: Minimum 70% marks in the Audio-Visual OSCE component
Combined CI-OSCE + Long Case: Minimum 70% marks in this combined clinical component
Note: Students failing the Final Assessment appear in the Supplementary Examination

Clinical Exam Cycle (Long and short cases) Final Professional Exam

1 Long Case- History taking	2 Long Case- Examination	3 Long Case- Viva
7 Short Case- breast	Long and short cases Final Year MBBS	4 Short Case- thyroid
6 Short Case- vascular	10 minutes/station 70 minutes' minimum cycle,can be increased with Rest Stations Total Marks 80	5 Short Case- hernia

Final Professional Exam table Of Specification Of Clinicals

Station	Topic	Topic Description	Learning Objectives	Marks %
1	Long Case (Marks = 40) History Taking	GENERAL SURGERY Acute appendicitis, intestinal obstruction, perforation peritonitis, obstructed hernia, cholelithiasis, carcinoma stomach, colorectal carcinoma, thyroid swelling, breast lump, varicose veins, peripheral vascular disease, diabetic foot, trauma, obstructive jaundice, benign prostatic enlargement, acute urinary retention.	Able to introduce himself/herself politely and establish rapport with patient. Able to take demographic details and relevant history systematically. Able to identify and document chief complaints accurately. Able to extract relevant positive and negative history. Able to take history regarding past illness, surgical history, drug history, personal history, family history, and socioeconomic factors. Takes informed consent appropriately. Able to formulate provisional and differential diagnoses.	10
2	Examination	Abdomen, Breast, Thyroid, Vascular system, Hernia, Trauma examination, Genitourinary examination	Introduces self and takes informed consent. Uses proper examination techniques with adequate exposure and patient comfort. Performs systematic clinical examination correctly. Able to elicit and identify clinical signs accurately. Maintains professionalism and aseptic precautions during examination.	10

3	Discussion / Viva Voce	Abdomen, Breast, Thyroid, Trauma, Hernia, Vascular Surgery.	Presents case systematically and confidently. Interprets clinical findings logically. Formulates differential diagnosis appropriately. Enumerates and justifies relevant investigations. Outlines appropriate management and treatment plan. Discusses indications for surgery and possible complications.	20
4	Short Cases and Viva (4 stations ×10 = 40)	Short Cases: • Thyroid swelling • Hernia • Breast lump • Vascular examination (varicose veins/PVD)	Performs focused clinical examination professionally. Applies correct clinical methods systematically. Able to identify important clinical signs. Interprets findings logically. Justifies diagnosis and differential diagnosis. Formulates appropriate management plan.	10 each (4×10) = 40
5	Surgical Skills OSCE	Suturing techniques, knot tying, dressing, catheterization, NG tube insertion, chest tube setup, IV cannulation, hand scrubbing and gowning.	Demonstrates surgical skills according to standard surgical principles. Maintains aseptic technique and patient safety. Performs procedures systematically and confidently. Identifies indications, contraindications, and complications of procedures.	10

6	Counselling Station	Counselling regarding informed consent, stoma care, breast surgery, thyroid surgery, postoperative care, diabetic foot care, smoking cessation, malignancy counselling.	Communicates effectively and empathetically with patient/attendants. Explains diagnosis, procedure, risks, benefits, and complications clearly. Demonstrates ethical and professional behaviour. Addresses patient concerns appropriately.	10
7	AV-OSCE 1: Instruments	Surgical instruments: artery forceps, needle holder, retractors, scalpels, chest tube, Foley catheter, laparoscopic instruments, vascular clamps, drains.	Able to identify instruments correctly. Describes indications, uses, contraindications, and complications.	5
8	AV-OSCE 2: X-rays / Imaging	X-ray abdomen erect, intestinal obstruction, perforation, pneumoperitoneum, fractures, thyroid scan, mammography, Doppler studies, and CT abdomen.	Identifies radiological findings correctly. Gives diagnosis and differential diagnosis. Describes complications and basic management.	5
9	AV-OSCE 3: Clinical Photographs	Breast carcinoma, thyroid swelling, melanoma, gangrene, diabetic foot, varicose veins, piles, fistula-in-ano, hydrocele.	Identifies condition from picture/scenario. Discuss diagnosis, complications, and treatment briefly	5
10	AV-OSCE 4: Trauma Scenarios	Polytrauma, head injury, chest trauma, abdominal trauma, burns, fractures.	Identifies emergency condition promptly. Applies ATLS principles appropriately. Discuss immediate management steps	5
11	AV-OSCE 5: Pathology Specimens	Colon cancer specimen, breast carcinoma specimen, thyroidectomy specimen, gall bladder with stones, appendix specimen.	Identifies specimen correctly. Explain pathology and clinical significance.	5
12	AV-OSCE 6: ECG / Monitoring	Electrolyte imbalance ECGs, shock monitoring, arrhythmias in surgical patients.	Interprets basic ECG findings and clinical relevance.	5

13	AV-OSCE 7: Laboratory Reports	CBC, LFTs, RFTs, coagulation profile, ABGs, tumor markers.	Interprets laboratory reports and correlates clinically.	5
14	AV-OSCE 8: Wound Management	Surgical site infection, pressure sores, burns, traumatic wounds.	Identifies wound type and outlines management principles.	5
15	AV-OSCE 9: Surgical Anatomy	Inguinal canal, triangle of Calot, breast anatomy, thyroid anatomy, vascular anatomy.	Identifies anatomical structures and surgical relevance.	5
16	AV-OSCE 10: Emergency Procedures	Tracheostomy setup, chest tube insertion setup, FAST scan images, airway adjuncts.	Identifies emergency procedure equipment and discusses indications and complications.	5

Section 6: Quick Reference Summary

Complete Assessment Flowchart — At a Glance

Stage	What Is Assessed	Marks / Weight	When
Module I Assessment	Theory (60 marks) + OSCE (130 marks)	Contributes to CIA	End of Week 4
Module II Assessment	Theory (60 marks) + OSCE (130 marks)	Contributes to CIA	End of Week 8
Module III Assessment	Orthopedic surgery, Pediatric surgery, Plastic surgery, Surgical ICU & Anesthesia Theory & OSCE	Contributes to CIA	End of Week 12
LMS Weekly Quizzes	10 × 35 MCQs online (USMLE-style)	20 marks (CIA)	Weekly
End Block Assessment (EBA)	Full theory + clinical OSCE	80 marks (CIA)	End of Block
WPBA / Ward Tests	Case presentations, Mini CEX, Write-ups, Portfolios	100 marks (CIA)	Throughout Block
CIA TOTAL	Clerkship + EBA + LMS	200 marks (40%)	Ongoing
Pre-Annual Assessment	Theory (150 marks) + OSCE (100 marks)	Prerequisite (no marks)	Before Annual
ANNUAL ASSESSMENT	Theory Papers I & II + Clinical OSCE	300 marks (60%)	Annual Exam

GRAND TOTAL	500 Marks	100%

Key Definitions

MCQ: Multiple Choice Question — single best answer from five options

SEQ: Short Essay Question — 5 marks each, 7.5 min per question

SAQ: Short Answer Question — 5 marks each, brief direct response

EMQ: Extended Matching Question — scenario-based, 5 parts

CI-OSCE: Clinically Integrated Observed Structured Clinical Examination

Av-OSCE / Av-OSPE: Audio-Visual OSCE — video/picture/clinical scenario with 5 one-liner questions per station

WPBA: Workplace-Based Assessment — ongoing clinical activities in ward

Mini CEX: Mini Clinical Evaluation Exercise — direct observation of clinical skill

EBA: End Block Assessment — comprehensive exam at close of 12-week block

LMS: Learning Management System — online platform for weekly quizzes

Research Publication Bonus

Students with a Surgery & Allied-related publication in a non-predatory journal during Final Year MBBS may receive up to 7.5 bonus marks within the CIA component. Research submissions must include full citation, DOI/article link, journal proof, publication year, and author-order evidence. The total CIA marks cannot exceed 200.

Section – V Learning Management System (LMS)

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:

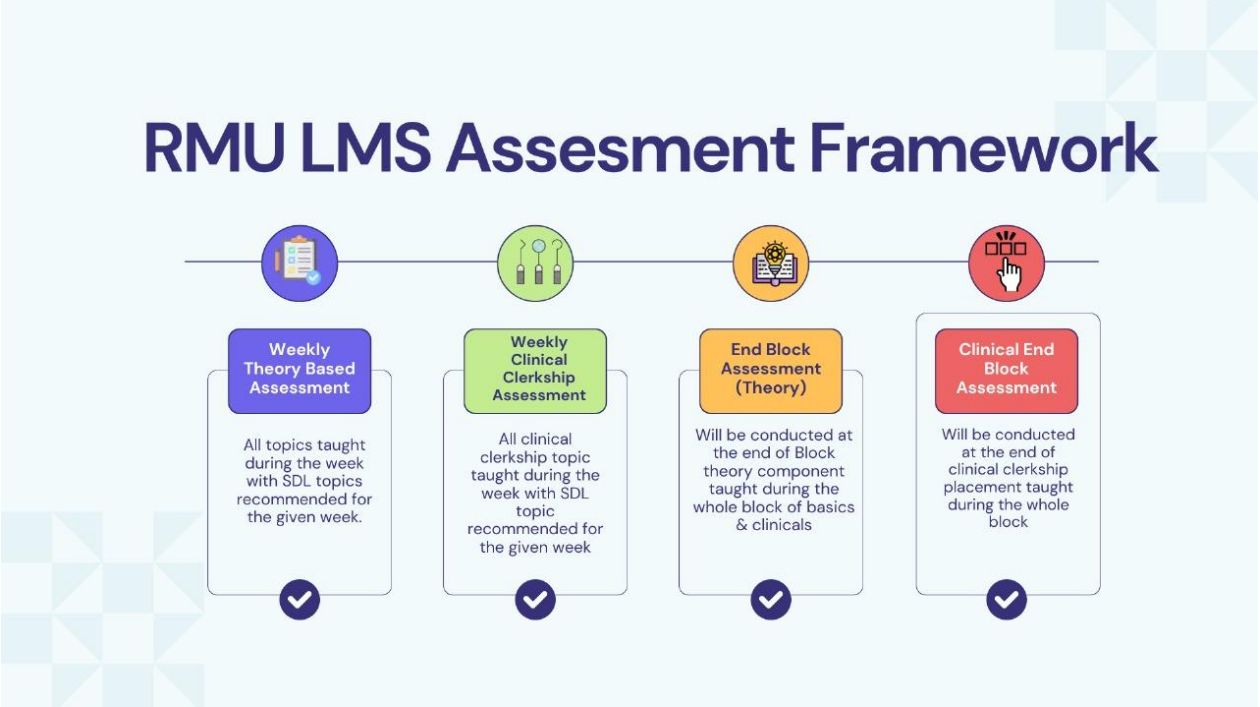


Figure 27: Framework for LMS Assessment for Undergraduate Medical Students

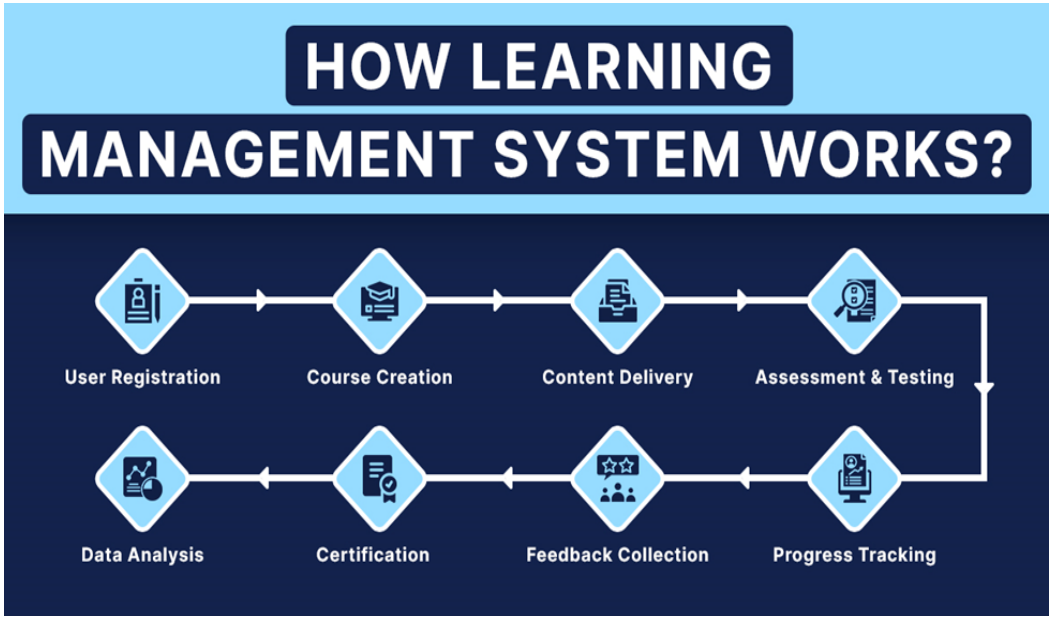


Figure 28: How learning management system works

Implementation of LMS

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

Table 1: Frequency of Assessments & Distribution of MCQs in LMS For 4th year:

Sr. #.	Nomenclature of Exam			Time	Type of Assessment	No of MCQs
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

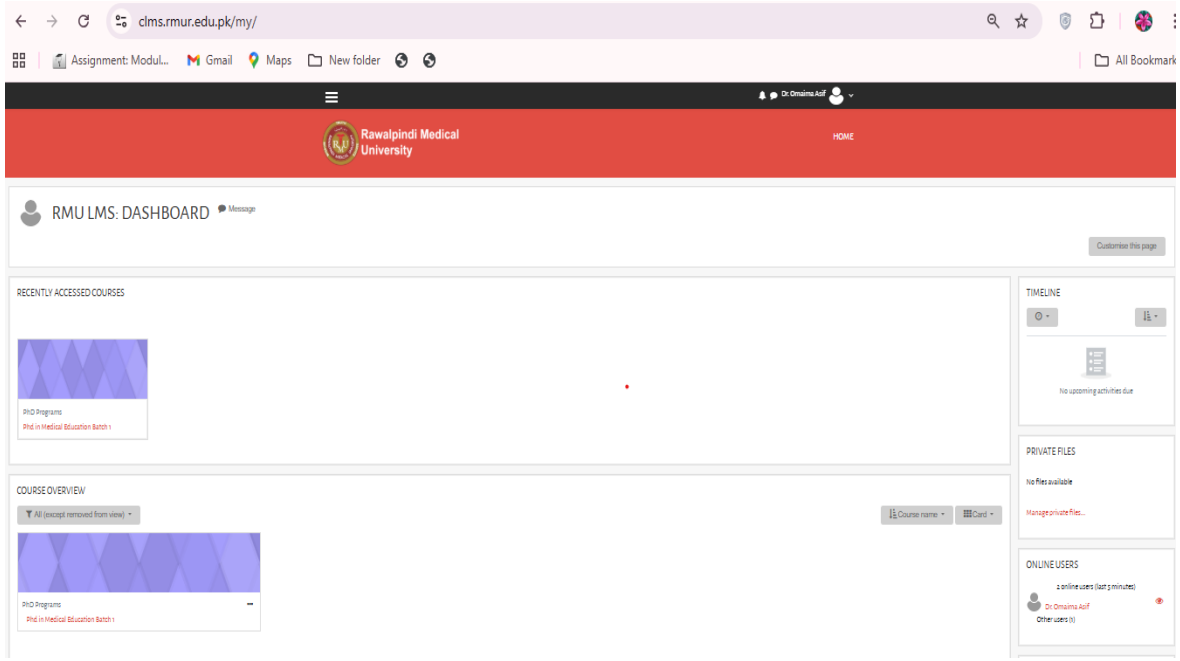
Objectives of a Learning Management System (LMS) for Undergraduate Medical Students

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
    - Interactive polls during live sessions

- **Schedule :** Weekly or module-specific

b. Practical/Skill-Based Assessments

- **Purpose:** Assess clinical skills, diagnostic reasoning, and procedural competence. Practical/skill based assessments can be taught through
    - Virtual simulations (e.g., diagnostic procedures, patient management)
    - Video submissions demonstrating skills (e.g., history-taking, physical examination)
    - Peer assessment of clinical skills via uploaded videos

c. Attendance and Participation.

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).

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

- Embedded feedback forms after each session or activity.
- Peer and faculty reviews of assignments and projects.
- Self-assessment tools for reflection on progress.

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.

1. 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.

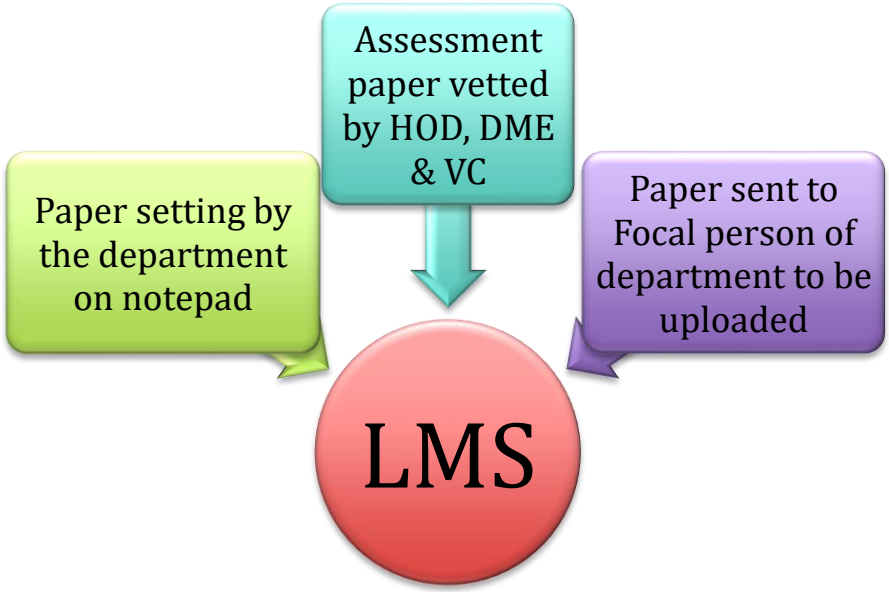
LMS as Part of CIA: What It Means for Students

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 Papers



Hierarchy of conducting LMS

Figure 29: LMS Assessment paper setting, vetting, uploading

Sample paper

Papers attached as Annexure

PATHOLOGY

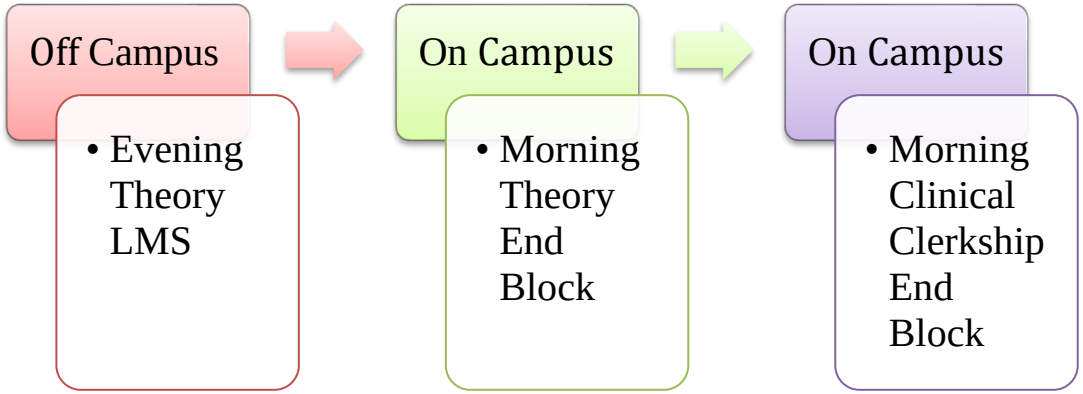
Q: A 7-year-old child develops fever and a vesicular rash that starts on the trunk and spreads to the face and limbs. What is the most likely causative agent?
A. Herpes Simplex Virus-1
B. Epstein-Barr Virus
C. Cytomegalovirus
D. Varicella-Zoster Virus
E. Parvovirus B19
ANSWER: D

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



Theory Based Off Campus Module wise weekly LMS results

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	Aaira 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%		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%	89	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	66%	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%

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.

4. Critical Observations and Potential Issues

Significant Non-Participation ("0" Scores):
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:

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

Detailed Analysis:

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%)
Roll #321: 89% → 59% (-30%)
Roll #270: 88% → 75% (-13%)
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.

Program Evaluation and Feedback

Quality Assurance & Quality Enhancement

- **Student Feedback Performa**
- **Student Report**
- **Faculty Report**
- **SWOT Analysis**
- **Quality Enhancement Cell (QEC) Report**

Figure 31 – RMU Quality Assurance Cycle

Feedback & Evaluation

Rawalpindi Medical University is dedicated to advancing equality, diversity, and inclusion across all its activities, processes, and cultural practices, in line with its Public Sector EqualityDuties. This commitment encompasses promoting equality and diversity for everyone, regardless of any protected characteristic, working pattern, family circumstance, socio-economicbackground, political belief, or any other irrelevant distinction. Where pertinent to the policy, decision-making panels will ensure a reasonable gender balance (with at least one man and one woman) and will actively consider the representation of other protected groups.

Principles

Feedback from students is essential to inform the development of the University'sprogrammes and to help shape all aspects of their current and future learning and broader experience. The University actively seeks and encourages students to share their views. Our approach aims to create openness, responsiveness and a sense of partnership.

How feedback is received

- **Informal Feedback**
  Informal feedback is received by day-to-day dialogue between students and staff,
- **Formal Feedback**
  Feedback is received from students in more formal settings. These include:
- **Central survey campaign**
  The University regularly invites students to participate in anonymous surveys (Appendix 1).
  The central surveys take place after every module, after every Block and at the end of the academic year. This schedule enables the University to work in conjunction with thestudents and help to improve the teaching, learning and assessment methodologies.

Focus Group Discussion

One To One Feedback from Students

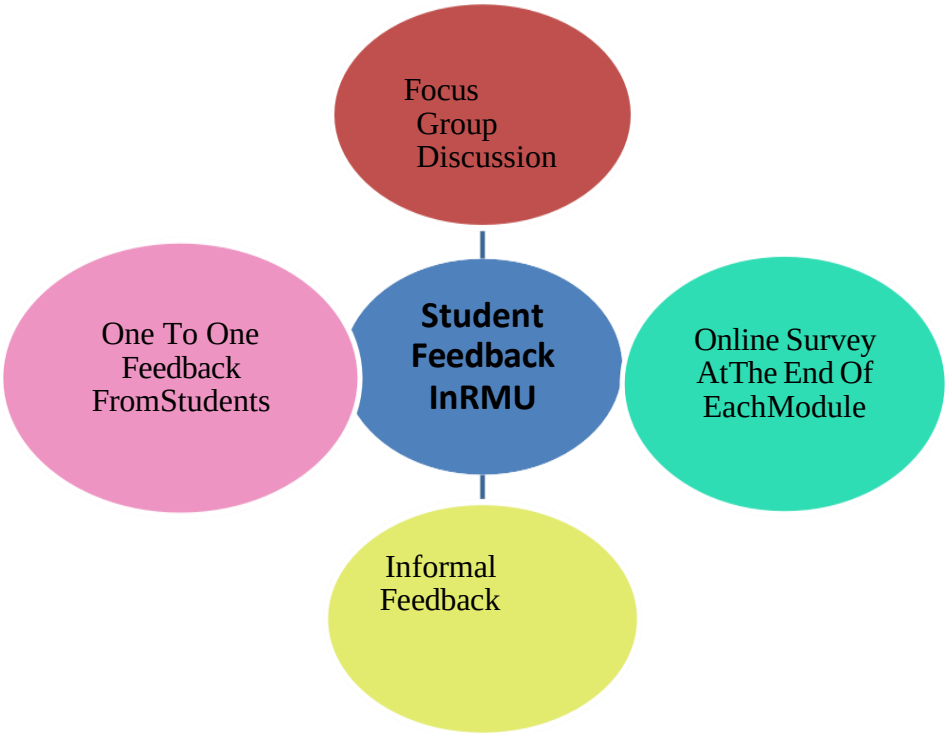


Figure 32 – RMU Feedback framework

Appendix -I Student Feedback Proforma for 2024

(to be conducted after every module completion)

Module Content & Organization

Questionnaire	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
The module objectives were informed.					
At the beginning of module study guide was available.					
The module workload was manageable.					
The pace of the module was manageable.					
The module was well organized.					
Module started and ended on time.					
End of block feedback was taken					

Learning Environment and Teaching Methods

Questionnaire	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Lectures were delivered appropriately.					
Labs were conducted appropriately.					
Small group discussions were conducted appropriately					
Teaching sessions were as per schedule.					
CBLs were conducted appropriately					
Faculty was cooperative.					
Learning resources were communicated clearly					
SGDs were standardized between different batches					

Quality of Delivery

Questionnaire	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
The module stimulated my interest.					
Ideas were presented clearly.					

Learning Resources

Questionnaire	StronglyAgree	Agree	Uncertain	Disagree	StronglyDisagree
Learning Material was provided /recommended.					
Learning Resources were available in thelibrary.					
Digital / Web Based resources wereavailable.					
Power points of lectures were available					

Student Contribution

Questionnaire	StronglyAgree	Agree	Uncertain	Disagree	StronglyDisagree
I participated actively in the module.					
I believe I have made progress in thismodule.					

Assessments

Questionnaire	StronglyAgree	Agree	Uncertain	Disagree	StronglyDisagree
Class tests were conducted regularly.					
Class tests were helpful					
Test difficulty was appropriate.					
Written Assessment was as per Table of Specifications.					
OSPE Exam was as per Table ofSpecification					
Table of Specification was shared					

LMS and its working

Questionnaire	StronglyAgree	Agree	Uncertain	Disagree	StronglyDisagree
Easy Access to LMS					
Module Content was Available					

SWOT Analysis of Curriculum

SOWT Analysis of Implementation of IMC

- **Strength**
  - We are leading all public sector medical colleges in implementation of integrated modular curriculum
  - We are fulfilling the requirement of World Federation for Medical Education
  - Our future doctor will be able to correlate and integrate basic and clinical knowledge in a better way with the competencies of 7 Star Doctor-acting as leader, manager, decision make, and communicator and care provider, decision maker, researcher and lifelong learner.
- **Opportunities**
  - We have completed the phase –I of implementation for 1st ,2nd and 3rd year and we are now able to implement it in 4th and final year
  - We can further refine our integrated curriculum of 1st and 2nd year MBBS in coming years and can better tackle its flaws.
  - Proper committees for feedback and evaluation are developed with collaboration from QEC& DME.
- **Weaknesses**
  - A change in system is always difficult to be accepted by stakeholders
  - Inflexible as compared to Conventional System.
  - The content of different subjects is sometimes jumbled up in various modules according to the requirement of that specific module which is difficult to be absorbed by the students.

- **Threats**
    - The Modular System can totally collapse back to Conventional System if not vigilantly and expertly handled.

Figure 33 : Centres for Disease Control and Prevention. Framework for program evaluation in public health. MMWR 1999;48 (No. RR-11)

Quality Enhancement Cell (QEC) Report

Quality Enhancement Cell- RMU since its inception has been active in promoting its core function of bringing standardization to university's academic programs in line with the guidelines enunciated by the Higher Education Commission. In this regard, first thing on which QEC team focused was QEC guidelines. Team achieved that milestone in record time. Approved QEC guidelines of RMU were implemented in 2018. Quality Enhancement Cells serve as focal points for quality assurance in the institutions in order to improve and uphold the quality of higher education. Capacity building of academia in quality assurance is one of the key functions of Quality Assurance Agency (QAA), HEC and subsequently of QEC. Thus, QAA and QECs of the Universities work hand in hand to move in this direction of capacity building arrangements that include awareness campaigns, development of quality assurance policy instruments, training to learn the processes and procedures of quality assurance in higher education institutions and development of Manual to equip the practitioners of quality assurance.In recent years it has become an obligation that institutions of higher education demonstrate the effectiveness of their academic programs in providing high quality education that positively impacts students. Furthermore, most accrediting bodies and others concerned with quality assurance are requesting that institutions assess students learning outcomes as a means of improving academic programs. This has led the accrediting bodies to develop methods for assessing the quality of academic programs. So, whole conventional system was needed to be revamped. Rawalpindi Medical University has the honor of being the first public sector Medical University of Punjab which has introduced the modern modular system of medical education for the MBBS course. It was a big challenge for Department of Medical Education (DME) and Quality Enhancement Cell to maintain the quality and standards of all the teaching and training practices. Quality enhancement cell, RMU appreciate the untiring efforts of DME in this regard. DME team has worked day and night for the implementation of the integrated modular curriculum.

Following are the compliments and recommendations by the Quality Enhancement Cell, RMU:

Commendations:

1. Proper, well managed integrated modular curriculum is in place under the vibrant and energetic leadership of Vice Chancellor, Prof. Muhammad Umar and Department of Medical Education. This thing has also been acknowledged by different visits by accreditation bodies like Higher Education Commission (HEC) and Pakistan Medical & Dental Commission.
2. Proper curriculum committee is in place with appropriate representation of the students as members.
3. All stakeholders are on board and are on one page regarding implementation of the integrated modular curriculum.
4. Regular meetings have been done by the curriculum committee.
5. Feedback has been taken regularly with appropriate gap interval in between.

6. Proper record keeping has been done by the Department of Medical Education both in soft and hard form.
7. As far as the assessment is concerned, newly established Examination Department is doing commendable and admirable job.
8. Final results are indicating that both students and faculty has adapted well to integrated modular system and they are satisfied with the system.
9. Campus management system is working efficiently.
10. Standardized format of all teaching strategies has improved the quality of the deliverance of the subject matter.

Recommendations:

1. Communication and coordination among the departments can be made better. This will help in normalizing the pressure on the Department of Medical Education.
2. Department of Medical Education should be equipped with more human resource.
3. Faculty members should be provided with more opportunities for updating themselves with modern teaching methodologies. They should be encouraged to have certification or masters in medical education.
4. Departments and DME should ensure equal distribution of responsibilities among faculty members.
5. Steps should be taken in account for improving the ladder of the curriculum according to the Harden's ladder of curriculum.
6. Faculty should be encoouraged to participate actively in the Faculty Development Program of the university which is already working on a very good pace.
7. Subjects specialists are advised to have more frequent meetings with the aim of improving the quality of the content delivered to the students.
8. Student centered teaching should be encouraged more.
9. Any motivational lecture should be included in the time table for every class as it is very important for the students for personal growth and development.

The weightage of all clinical lectures should be increased in first and second year MBBS, as the attendance is on the lower side in clinical lectures of the above said years.