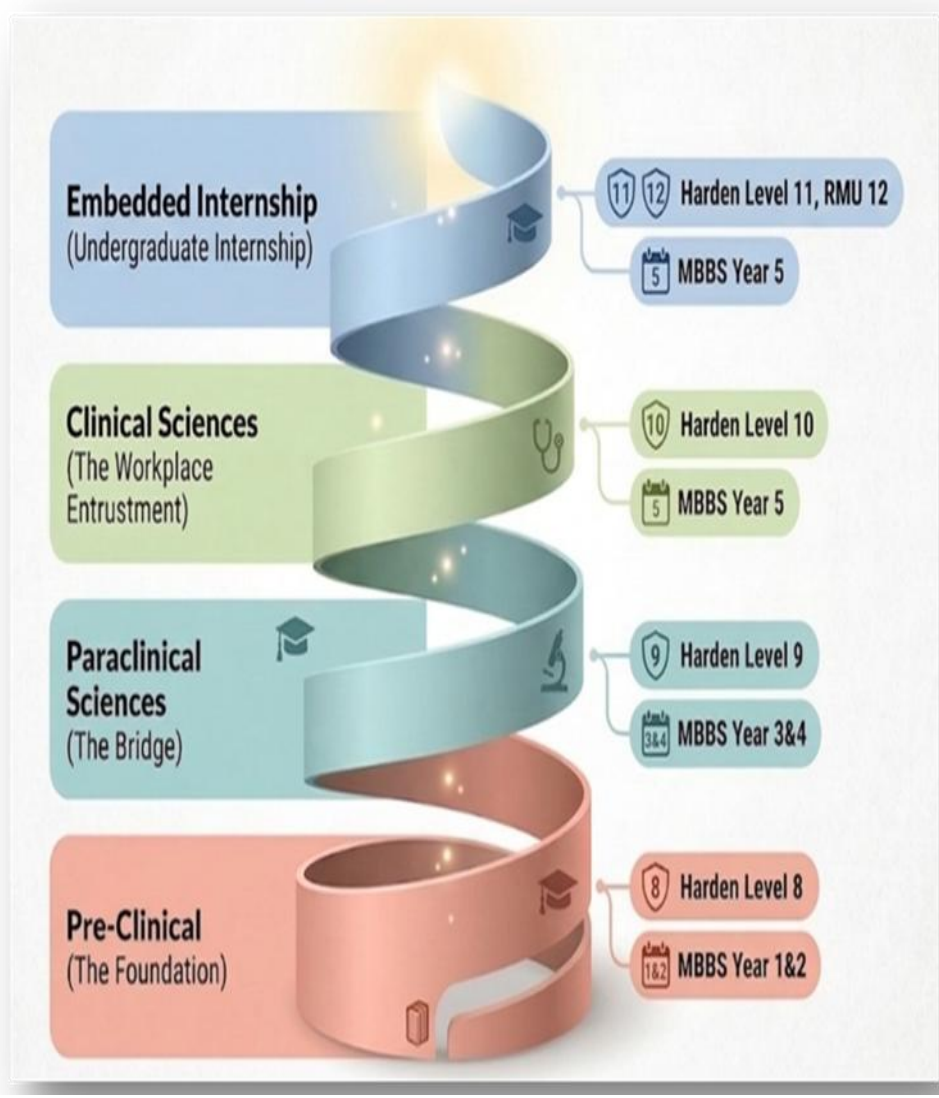
RMU – 12

Integrated Modular MBBS Curriculum 2026

Isolation to Beyond Boundaries



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PART A — INTRODUCTION & BACKGROUND

1. Introduction to The Embedded Internship Program

The final year of MBBS is the culminating phase of undergraduate medical education. At this stage, students are expected to consolidate their knowledge, refine their clinical skills, and demonstrate increasing maturity in patient care, communication, professionalism, and clinical reasoning. The focus of training in final year is not only on acquiring information, but on learning how to use that knowledge appropriately and safely in real clinical settings.

The Medicine & Allied Embedded Internship Program has been developed to strengthen this transition by making clinical learning more structured, supervised, and relevant to the actual demands of patient care. It is intended to provide final-year MBBS students with meaningful exposure to wards, outpatient departments, emergency settings, and allied specialty areas in a manner that promotes active participation and reflective learning.

The program is designed to help students understand how patients are assessed, how clinical problems are identified, how differential diagnoses are formed, how investigations are selected, and how principles of management are applied in day-to-day practice. It links learning directly to the clinical environment, converting every ward admission and patient encounter into a purposeful educational opportunity.

Why Clinical Learning Requires Active Participation

In Medicine & Allied, clinical learning requires more than attendance in teaching sessions or passive observation of patient encounters. Students must develop the ability to think like a clinician —— to approach undifferentiated complaints systematically, analyze symptoms and signs, identify red-flag features, prioritize clinical problems, and appreciate the importance of continuity of care. They must also understand the realities of teamwork, documentation, communication with patients and their attendants, referral pathways, and the ethical responsibilities that accompany all forms of clinical work.

These are not skills that can be learned in a classroom. They arise from repeated, supervised exposure to authentic clinical situations —— from sitting with a patient and taking a careful history, from presenting a case at the bedside in front of a consultant, from writing a coherent SOAP note, from watching a senior colleague explain a difficult diagnosis to a family, and from reflecting on what went well and what could be improved. The embedded internship model is designed specifically to provide this kind of learning.

1.1 The Embedded Internship Model

In this model, students are attached to clinical units and expected to participate in structured learning activities as members of the clinical team, under appropriate supervision. They are not merely observers —– they are expected to interact with assigned patients, review their notes, write progress notes, present cases on ward rounds, contribute to case-based discussions, and perform supervised procedural skills. All of these activities are documented in a standardized booklet that forms part of the Workplace-Based Assessment (WPBA).

The model integrates two parallel components throughout the 12-week placement: daily Small Group Interactive Sessions (SGIS) that provide a structured academic teaching scaffold, and clinical placement activities in the ward, OPD, and emergency settings. The two are designed to reinforce each other —– topics covered in SGIS in the morning are applied during ward activities in the afternoon.

1.2 Preparation for House Job and Professional Practice

The Medicine & Allied Embedded Internship Program also serves as the most direct preparation for the house job year. During this phase, students begin to develop familiarity with the pace, responsibilities, and discipline of clinical work. They learn how patient care decisions are discussed as a team, how hospital systems function in terms of documentation and referral, how follow-up is maintained, and how safe practice depends on careful assessment, clear documentation, and effective communication. At the same time, they are expected to recognize the boundaries of their current role and the absolute necessity of supervision, patient safety, confidentiality, and ethical conduct.

A student completing final year should not only possess factual knowledge, but should be able to interact appropriately with patients, present cases in an organized and confident manner, identify important clinical findings, participate meaningfully in supervised workplace activities, and conduct themselves as a professional in every encounter. The embedded internship model supports this development by linking learning directly with the clinical environment in a systematic, documented, and assessed way.

1.3 Purpose and Scope of This Study Guide

This study guide has been prepared to provide direction for the learning process. It serves as an academic and practical guide for students, faculty, and supervisors involved in the Medicine & Allied Embedded Internship Program. It clarifies the purpose of the program, the overall structure of learning, the expected standards of participation, and the broad outcomes students are expected to achieve by the end of the rotation. It also ensures that clinical exposure remains aligned with the educational goals of final-year MBBS training as defined by RMU and PMDC guidelines.Students are encouraged to read this guide carefully at the beginning of their placement and to refer to it regularly throughout. Faculty and supervisors should use it as a reference for structuring bedside teaching, WPBA activities, and assessment decisions. The guide is a living

document —— it is revised periodically based on post-examination evaluation, feedback from students and faculty, and evolving national curriculum standards.

2. Background: Rmu-12 Embedded Internship Program Differentiation From Previous Clerkship

2.1 What is RMU-12?

RMU-12 Embedded Internship Program refers to the Final Year MBBS 2026 batch of Rawalpindi Medical University, enrolled and progressing through a curriculum framework that reflects the university's ongoing commitment to competency-based medical education. The designation encompasses both the batch identity and the associated curricular reforms that distinguish this cohort's training from previous batches. The Medicine & Allied Embedded Internship Program 2026 is designed specifically for RMU-12 and reflects the most current iteration of final-year clinical training at RMU.

The introduction of RMU-12 as a distinct curricular model was driven by several converging factors: feedback from graduating batches about the gap between undergraduate training and the demands of the house job, evolving PMDC guidelines for undergraduate medical education (2024), international trends toward workplace-based learning and competency assessment, and the university's institutional commitment to aligning its curriculum with best practices in medical education.

2.2 Previous Clerkship — A Brief Overview

The Previous Clerkship was the preceding curricular model followed by the RMU students. While it provided structured clinical exposure through rotational clerkships, the model operated on more traditional lines. Students rotated through specialties in scheduled blocks with defined ward attachment periods, but without the degree of academic scaffolding, formal daily teaching integration, and structured documentation requirements that characterize RMU-12.

Under Previous Clerkship, the specialties comprising Module III included four one-week rotations covering Cardiology, Radiology, Dermatology, and Psychiatry. Assessment was primarily end-of-block and module-based. WPBA elements existed but were not as systematically integrated with LMS-based weekly assessments, Clinico-Connect (TCRF) sessions, or the three-component standardized documentation booklet that forms the core of the RMU-12 model. The terminology used was also different —— student placements were referred to as 'rotations', a term that has been formally replaced by 'placement' from March 2026.

2.3 Key Differentiating Features: Embedded Training Program vs Previous Clerkship Model

Feature	Previous Clerkship	RMU-12 Embedded Training Program
Program Designation	Clerkship / Rotation	Embedded Internship Program (formal designation from March 2026)
Module III Specialty Structure	Four 1-week rotations: Cardiology, Radiology, Dermatology, Psychiatry	One 2-week and two 1-week placements: Neurology, Cardiology, and Radiology respectively
Daily Academic Teaching	Conventional ward teaching; no standardized daily SGIS	SGIS daily 08:00–09:00; structured PPT-based sessions with defined learning objectives per week
Online Assessment Integration	Not systematically integrated	10 weekly LMS quizzes (35 MCQs each) + 2 Clinico-Connect quizzes + 1 end-of-block LMS assessment
Transdisciplinary Sessions	Not formally structured	Clinico-Connect (TCRF) — 2 sessions per 4-week block; multidisciplinary faculty; structured 4-phase format
Student Documentation Model	Ward notes; limited structured record-keeping	3-Component standardized booklet: Component A (History & Examination), Component B (Daily SOAP Notes), Component C (Daily Schedule & Sign-Off)
WPBA Formalization	Partial — case presentations and write-ups without standardized grids	Fully integrated: Case Write-Ups, Mini CEX, Case Presentations, Weekly Portfolio Summaries —– all graded and documented
Assessment Terminology	End-of-block examinations, ward assessments	CIA (200 marks) comprising WPBA + Ward Test + LMS + EBA; structured Pre-Annual gateway; 300-mark Annual examination
MCQ Quality Standard	Standard MCQs	USMLE-style best-of-five MCQs targeting Bloom's taxonomy C4–C6 (higher cognitive levels)

2.4The 2026 Duration Revision — From 12 to 11 and then 12 Weeks

The 2026 session initially planned Module III as comprising 2 weeks of Neurology, 1 week of Cardiology, and 1 week of Radiology within the embedded internship clerkship model, keeping total duration at 12 weeks. Subsequently, at the formal request of the Paediatrics Department —— citing reduced contact hours and the need for equitable specialty exposure across clinical departments —— Neurology was reduced by one week. This was further reverted keeping in mind schedule of the Pediatric placement of this lass in 4th year.

As a result, the final placement structure for 2026 became: 4 weeks in the 1st Medical Unit (HFH) + 4 weeks in the 2nd Medical Unit (BBH) + 2 week Neurology + 1 week Cardiology + 1 week Radiology = 12 weeks total. The term 'rotation' has also been formally replaced with 'placement' as of March 2026, and the internship clerkship has been officially designated the 'Embedded Internship Program.'

IMPORTANT — 2026 PLACEMENT STRUCTURE SUMMARY
Total placement duration: 12 weeks
Module I: 4 weeks — 1st Medical Unit, HFH (Holly Family Hospital)
Module II: 4 weeks — 2nd Medical Unit, BBH (Benazir Bhutto Hospital)
Module III-A: 2 week — Neurology Unit
Module III-B: 1 week — Cardiology Unit
Module III-C: 1 week — Radiology Department
Terminology change: 'Rotation' is replaced by 'Placement' from March 2026

Part B — Program Structure

3. Medicine & Allied Block — Overview

The Medicine & Allied Embedded Internship Program (Block XIV, 2026) is a structured 12-week clinical training program at Rawalpindi Medical University. It integrates two parallel components delivered concurrently across all weeks: Small Group Interactive Sessions (SGIS), which provide a structured academic teaching scaffold aligned with the week's specialty topic; and Clinical Placement, which provides hands-on patient exposure in the ward, OPD, and emergency settings. These two components are intentionally designed to reinforce each other —– the academic content of morning SGIS sessions is applied and consolidated during afternoon clinical activities.

The program is competency-based, meaning its aim is not simply to expose students to patients but to ensure progressive development of defined clinical competencies. By the end of the 12 weeks, students should be able to take a complete history, perform a systematic physical examination, generate a differential diagnosis, plan and interpret investigations, formulate a management plan, write accurate clinical documentation, and present cases confidently to senior clinicians.

Integrated Subject Coverage

The Medicine & Allied block integrates the following curricular domains, reflecting the multi-dimensional nature of modern medical education:

- Core subjects — Medicine and its clinical subspecialties
- Vertically integrated subjects — Anatomy, Physiology, Biochemistry, Pathology, Pharmacology, and Community Medicine (foundational science connections are made explicit in SGIS and Clinico-Connect sessions)
- Horizontally integrated subjects — Gynaecology & Obstetrics, Surgery, Paediatrics (cross-specialty correlations in clinical management and decision-making)
- Spirally integrated subjects — Research, Family Medicine, HEC General Cluster, ALPHA cluster (Artificial Intelligence, Leadership, Professionalism, Humanities & Arts)

Marks Summary

Component	Marks	Percentage
Continuous Internal Assessment (CIA)	**200**	40% of total
Final Annual Assessment	**300**	60% of total
GRAND TOTAL — Medicine Block	**500 Marks**	**Final Professional MBBS**

4. Placement Details — Modules I, Ii & Iii

The 12-week placement is organized across five distinct clinical settings. The first two modules provide broad internal medicine exposure in two different hospital sites, ensuring students encounter a wide variety of patients and clinical presentations. Module III provides focused specialty exposure across three disciplines with distinct learning objectives in each.

Module	Placement	Duration	Site	Clinical Focus & Key Learning Areas
I	**1st Medical Unit**	4 Weeks	MU-I / HFH	Core internal medicine with sub-rotations in Nephrology, Infectious Diseases, Gastroenterology/Hepatology, and Critical Care. Focus: history taking, clinical examination, investigation ordering and interpretation, documentation, and supervised patient management.
II	**2nd Medical Unit**	4 Weeks	MU-II / BBH	Continuation of broad internal medicine; consolidation of clinical skills with greater emphasis on emergency-based management, supervised patient care, and progressive independence in clinical reasoning. Case mix includes complex multi-system disease.

III-A	**Neurology**	2 Week	Neurology Unit	Stroke syndromes (ischaemic, ICB, SAH); epilepsy and status epilepticus; headache syndromes (migraine, tension, cluster); CNS infections (meningitis, encephalitis); multiple sclerosis; peripheral neuropathy; Guillain-Barré syndrome; NMJ disorders (myasthenia gravis, LES); myopathies; paraplegia.
III-B	**Cardiology**	1 Week	Cardiology Unit	Ischaemic heart disease (ACS, STEMI, NSTEMI, stable angina); heart failure (systolic and diastolic); valvular heart disease; hypertension including hypertensive emergencies; cardiac dysrhythmias; ECG interpretation; exposure to catheterization lab concepts; BLS and ACLS basics.
III-C	**Radiology**	1 Week	Radiology Dept.	Structured exposure to chest X-ray interpretation; CT brain (ischaemia, haemorrhage, SOL, SAH); CT chest/abdomen (ILD, bronchiectasis, mediastinal nodes, solid organ pathology); abdominal ultrasound; basic MRI concepts; radiation safety principles; radiology request and report reading.
TOTAL	**All Placements**	**12 Weeks**	**Multi-Site**	**Full Medicine & Allied Block Coverage**

5. Daily Working Schedule

The following schedule applies consistently across all placement weeks. It has been designed to balance formal didactic learning with supervised clinical work, with each component reinforcing the other. Attendance is marked subject to active and meaningful involvement in all scheduled activities —— physical presence alone without engagement does not qualify as attendance.

The schedule is structured so that mornings are academically focused (SGIS, patient review, ward rounds, and supervised teaching) while afternoons are clinically active (supervised patient management and procedural skill practice). Students are expected to manage their time effectively and to remain engaged throughout the full working day.

Time	Activity	Description, Expectations & Educational Purpose
08:00–09:00	**SGIS — Small Group Interactive Session**	Specialty-aligned didactic/interactive session (PPT-based). Each session covers defined learning objectives including etiopathogenesis, clinical features and classification, diagnostic approach, investigations, management principles, complications, and prevention where applicable. Students are expected to have prepared the day's topic in advance from the recommended reading list. Wednesdays are reserved for Clinico-Connect (TCRF) integrative sessions.
09:00–10:00	**Patient Review & Documentation**	Each student reviews their assigned patient(s) before the ward round. This includes checking overnight notes, new investigation results, nursing observations, and any change in clinical status. Students write their daily Component B SOAP progress note during or immediately after this period, under supervision of the House Officer or PGT. This is a critical learning activity —— students must form their own clinical assessment before the consultant's round.
10:00–12:00	**Consultant Ward Round**	Clinical round with Consultants, PGTs, and House Officers. Students participate as active members of the clinical team. They are expected to present their assigned patients in an organized manner (name, age, diagnosis, overnight progress, examination findings, investigation results, management plan), answer clinical questions posed during the round, and observe and note management decisions. Students should not merely follow —— they should anticipate, question, and reflect.

12:00–13:00	**SR / PGT Bedside Teaching**	Focused bedside teaching by Senior Registrar or PGT. Formats vary: direct clinical examination teaching, ECG interpretation sessions, imaging review (CXR, CT), video-based procedural skill teaching, or focused case discussion on a patient admitted that day. This session is intended to bridge the gap between SGIS theory and ward practice.
13:00–14:00	**CBD / PBL Session**	Consultant-led Case-Based Discussion (CBD) or Problem-Based Learning (PBL) session. A clinical case is presented and students work through diagnosis, investigation strategy, and management in a structured, facilitated discussion. This session develops higher-order reasoning —– analysis, synthesis, evaluation —– and mirrors the cognitive demands of the final professional examination.
14:00–15:00	**Prayer & Lunch Break**	Protected break. Students are expected to return promptly at 15:00 for afternoon clinical activities. Use of this break for unplanned early departure is not permitted.
15:00–18:00 Monday to Thursday	**Supervised Patient Management & Procedures**	Supervised bedside activity with House Officers and PGTs (Monday–Thursday). Students perform history taking on newly admitted patients, carry out clinical examinations, assist with and eventually perform supervised procedural skills (injections, IV access, nebulization, PEFR, ECG recording, NG tube, catheterization), and participate in patient management planning discussions. Friday afternoons may be used for self-directed revision and portfolio completion.
Once Weekly	**OPD Rotation**	Rotational group exposure to the outpatient department of the relevant specialty. Students observe and participate in outpatient consultations, focusing on efficient history taking, rapid clinical assessment, and the approach to common presentations in an ambulatory setting. OPD attendance is mandatory and contributes to the WPBA record.

6. SGIS TOPIC SCHEDULE — 12-WEEK OVERVIEW

The Small Group Interactive Sessions (SGIS) deliver a structured, specialty-aligned academic teaching programme. Sessions run daily 08:00–09:00 using SGIS/PPT as the primary mode. Every session is designed around standardized components: Day/Faculty/Specialty, Topic, Refined Learning Objectives (etiopathogenesis · clinical features · investigations · management · complications · prevention), Teaching Mode, Domain Emphasis, and Assessment link. Topics are organized by week with designated lead faculty.

Wk	Lead Faculty	Specialty	Core Topics & Learning Content
1	Prof Dr Muhammad Khurram	Pulmonology	Obstructive airway diseases — asthma (pathophysiology, GINA classification, acute severe asthma management) and COPD (spirometry interpretation, GOLD staging, exacerbations, long-term oxygen therapy). Community-acquired pneumonia (CAP) and hospital-acquired pneumonia (HAP) — microbiology, CURB-65, empirical antibiotic selection. Pulmonary tuberculosis (smear/culture/NAAT), extrapulmonary TB, drug-resistant TB (MDR-TB, XDR-TB). Bronchogenic carcinoma — cell types, staging, paraneoplastic syndromes, management overview. Diffuse parenchymal lung disease: IIP (UIP/IPF, NSIP), sarcoidosis. Respiratory failure Type I and Type II — ABG interpretation, NIV, ventilator principles.
2	Pathwell Consultant / Dr Lubna Meraj	Haematology	Anaemia — approach and classification (microcytic: IDA, thalassaemia; macrocytic: B12/folate deficiency; normocytic: haemolytic, aplastic, anaemia of chronic disease). Haematological malignancies — leukaemias (ALL, CML, AML, CLL), lymphomas (HL, NHL), multiple myeloma: clinical features, blood film interpretation, diagnostic approach. Bleeding disorders — ITP (pathophysiology, management), Haemophilia A & B (factor levels, treatment). Thrombotic disorders — DVT (clinical assessment, D-dimer, Doppler), pulmonary embolism (Wells score, CTPA, anticoagulation). Blood transfusion principles and hazards; haematopoietic stem cell transplant (HSCT) overview.

3	Prof Dr Shahzad Manzoor	Poisoning & Toxicology	General approach to poisoning — decontamination, antidotes, supportive care principles. Organophosphate (OP) poisoning — cholinergic toxidrome, atropine/oximes dosing. Wheat pill (aluminium phosphide) poisoning — mechanisms, management challenges. Corrosive ingestion — assessment, endoscopy decisions, surgical indications. Carbon monoxide poisoning — carboxyhaemoglobin, high-flow O2, HBO indications. Pharmaceutical overdoses: CVS drugs (digoxin toxicity, beta-blocker/CCB overdose); antipsychotics (QT prolongation); antidepressants (TCA toxicity, serotonin syndrome); antidiabetic overdose (sulphonylurea, insulin). Snake bite — local vs systemic envenomation, ASV administration, complications.
4	Dr Saima Ambreen	Endocrinology	Diabetes mellitus — Type 1 and Type 2 pathophysiology, diagnosis, glycaemic targets, oral agents and insulin regimens, gestational DM (GDM). Diabetic emergencies — DKA (pathophysiology, fluid/insulin/potassium replacement protocol), HHS (hyperosmolar hyperglycaemic state), hypoglycaemia (causes, Whipple's triad, Glucagon protocol). Thyroid disorders — hypothyroidism, hyperthyroidism (Graves', toxic nodule), thyroid storm, myxoedema coma. Parathyroid disorders — primary hyperparathyroidism, hypoparathyroidism. Adrenal disorders — Cushing's syndrome (screening tests), Addison's disease (adrenal crisis management), Conn's syndrome (primary hyperaldosteronism), phaeochromocytoma (24-hour urinary catecholamines, surgical preparation). Pituitary disorders — acromegaly (GH/IGF-1), diabetes insipidus (central vs nephrogenic), SIADH.
5	Dr M Mujeeb Khan	Infectious Diseases	Respiratory viral infections — influenza (subtypes, antivirals, prevention), COVID-19 (clinical spectrum, severity classification, management). Viral haemorrhagic fevers — dengue (NS1/IgM/IgG, DHF/DSS, management principles), VHF overview. Bacterial infections — enteric fever (Widal, blood culture, antibiotic resistance), brucellosis (serology, doxycycline/rifampicin). Protozoal infections — malaria (thick/thin film, RDT, ACT protocols, severe malaria management), amoebiasis (intestinal and hepatic). Pyrexia of unknown origin (PUO) — systematic diagnostic approach, empirical management algorithms.

6	Dr Fateen (Neurology)	Neurology	Stroke —– ischaemic stroke (NIHSS, thrombolysis criteria, thrombectomy), intracerebral haemorrhage (CT brain interpretation, BP management), subarachnoid haemorrhage (Hunt & Hess, Fisher grade, aneurysm coiling). Headache — migraine (ICHD-3 criteria, triptans, prophylaxis), tension-type headache, cluster headache, secondary headache red flags. Epilepsy — focal vs generalized, AED selection, status epilepticus management, epilepsy in pregnancy. CNS infections — bacterial meningitis (LP interpretation, empirical antibiotics), viral encephalitis (HSV encephalitis, aciclovir). Multiple sclerosis — McDonald criteria, disease-modifying therapy overview. Neuropathy — diabetic, GBS (AIDP: CSF albumino-cytological dissociation, IVIG, plasmapheresis). NMJ: MG (Tensilon test, VGCC antibodies), Lambert-Eaton myasthenic syndrome. Myopathies.
7	Dr Tanveer Hussain	Gastroenterology & Hepatology	GIT diseases — GERD (Barrett's oesophagus, proton pump inhibitors, surgical options), acid-peptic disease (H. pylori eradication, NSAID-associated ulcers), achalasia (manometry, pneumatic dilatation). Hepatitis — viral hepatitis A/B/C/D/E

			(serology interpretation: HBsAg, HBeAg, anti-HBs, HCV RNA), autoimmune hepatitis (ANA, ASMA, IgG levels). Cirrhosis and its complications —– grading (Child-Pugh, MELD), ascites (SAAG, spontaneous bacterial peritonitis —– diagnostic criteria and antibiotic prophylaxis), hepatorenal syndrome (HRS Type 1 and 2), hepatic encephalopathy (grades, lactulose, rifaximin), portal hypertension and variceal bleeding (management algorithm), hepatocellular carcinoma (AFP, imaging). Acute fulminant hepatic failure. Acute pancreatitis (Ranson criteria, APACHE II, CT severity index). Liver disease in pregnancy.

8	Dr Mudassar AP (Nephrology)	Nephrology	Glomerulonephritis — nephritic vs nephrotic syndrome (clinical distinction, pathological subtypes: minimal change, FSGS, membranous, IgA nephropathy). Electrolytes and acid-base — hypo/hypernatraemia (causes and correction protocols), hypo/hyperkalaemia (ECG changes, management), calcium disorders, metabolic and respiratory acidosis/alkalosis (step-by-step ABG interpretation). Kidney disease in systemic conditions — lupus nephritis (WHO class), diabetic nephropathy (albuminuria stages), ANCA vasculitis. AKI — KDIGO staging, prerenal/intrinsic/postrenal differentiation, management and indications for dialysis. CKD — GFR staging, anaemia of CKD (EPO therapy), hyperphosphataemia, renal bone disease. Renal replacement therapy — haemodialysis access and principles, haemofiltration, peritoneal dialysis, renal transplant overview.
9	Dr Amna	Cardiology	Ischaemic heart disease — stable angina (Bruce protocol, angiography), ACS (STEMI vs NSTEMI vs UAP — Troponin, ECG criteria, reperfusion strategy, DAPT). Heart failure — HFrEF vs HFpEF (LVEF, NYHA class, GDMT: ACEI/ARB, beta-blocker, MRA, SGLT-2 inhibitors), acute pulmonary oedema management. Hypertension — JNC/ISH classification, hypertensive urgency vs emergency, management in pregnancy (pre-eclampsia, eclampsia). Valvular heart disease — mitral stenosis (area calculation, MVR criteria), mitral regurgitation, aortic stenosis, aortic regurgitation; rheumatic fever (Jones criteria, secondary prophylaxis); infective endocarditis (Duke criteria, blood culture, antibiotic selection). Cardiac arrhythmias — ECG interpretation, AF management (rate vs rhythm control, anticoagulation), ventricular arrhythmias (VT, VF — ACLS protocol), complete heart block. BLS and ACLS basics — chain of survival, CPR techniques, defibrillation.
10	Prof Dr Nasir Khan	Radiology	Clinical radiology general principles — modalities (X-ray, CT, MRI, ultrasound, nuclear medicine), radiological densities, radiation risks and protection, contrast agents. GIT/Haematology/Rheumatology radiology — plain films of the abdomen, bone density assessment, joint X-rays (RA, OA, gout). Respiratory radiology — systematic CXR interpretation (ABC approach: airway, bones, cardiac, diaphragm, effusion, fields), CT chest patterns (ILD: honeycombing vs GGO, bronchiectasis, mediastinal masses). Cardiovascular

			radiology — cardiac silhouette, pulmonary vascularity, signs of heart failure on CXR. Neuroradiology — CT brain: identifying ischaemic vs haemorrhagic stroke, subdural vs epidural haematoma (lenticular vs crescentic), SAH (star-shaped hyperdensity), SOL. MRI brain principles and indications.
11	Dr Shumaila Mumtaz	Rheumatology	Rheumatology —— osteoarthritis vs rheumatoid arthritis (clinical distinction, DAS28, DMARD therapy); septic arthritis (aspiration, Gram stain, antibiotic selection); gout and pseudogout (uric acid, joint aspiration, colchicine/allopurinol). Vasculitis —— large vessel (GCA, Takayasu), medium vessel (PAN), small vessel (ANCA-associated: GPA, MPA, EGPA). Autoimmune connective tissue diseases —— SLE (SLICC/ACR criteria, organ manifestations, hydroxychloroquine, lupus nephritis treatment), Sjögren's syndrome, systemic sclerosis (diffuse vs limited, anti-Scl-70, anti-centromere), polymyositis and dermatomyositis (CK, ANA, EMG), Wegener's granulomatosis. Bone disorders —— osteoporosis (DXA scan, T-score, bisphosphonates, fall prevention), rickets and osteomalacia (Vitamin D physiology, X-ray signs, treatment).
12	Dr Abrar Akbar	Critical Care	Introduction to Critical Care medicine, general care of a critically ill patient, sepsis, shock, ventilatory support, hemodynamic monitoring, respiratory failure, hospital acquired infections

7. Clinical Placement — Week-By-Week Topic Plan & Learning Framework

The Clinical Placement component operationalises the daily schedule through supervised patient review, SOAP note writing, consultant-led ward rounds, bedside procedural exposure, case-based discussion, and weekly OPD rotation. Students are attached to allocated patients under supervision of House Officers and PGTs. The placement runs concurrently with SGIS sessions across all 12 weeks, and the week-by-week clinical topic plan is intentionally aligned with the SGIS specialty sequence so that morning academic learning is immediately reinforced during afternoon bedside activities.

The following tables present the day-by-day clinical topic schedule for each module. Each topic represents the primary clinical presentation or disease focus for supervised patient interaction, case presentation, SOAP documentation, and CBD/PBL discussion on that day. Students are expected to come prepared having reviewed the relevant SGIS topic.

Module I — First Medical Unit (Weeks 1–4) | Medicine HFH

Wk	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	Pneumonia	Tuberculosis	Acute Dyspnoea & Cough (Asthma, Pneumothorax, PE, Pulmonary Oedema)	Chronic Dyspnoea & Cough (COPD, ILD)	Critical Patient in ER	Pleural Diseases & Pulmonary Neoplasia
2	Pulmonary Neoplasia	Upper GI Bleed	Lower GI Bleed	Dyspepsia / Dysphagia	Medical Emergency Management	Acute Diarrhoea
3	Chronic Diarrhoea	Acute Liver Disease	Chronic Liver Disease	Acute Renal Failure	Chronic Renal Failure	Glomerulonephritis
4	Renal Involvement in Systemic Diseases	Acid-Base & Electrolyte Disorders	Poisoning (Wheat Pill, Phosphine, OP)	Snake Bite & Corrosive Intake	Revision / Reinforcement	Ward Test

Module II — Second Medical Unit (Weeks 5–8) | Medicine BBH

Wk	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5	Diabetes Mellitus	DM Treatment	DM Complications	Thyroid Disorders	Adrenal & Other Endocrine Disorders	Family Medicine & Preventive Health Perspective
6	Calcium Metabolism & Bone Diseases	Arthritis (RA, OA, Septic, Gout)	Connective Tissue & Vasculitis Disorders	Multidisciplinary Management (Obstetrics & Gynaecology)	Anaemia — Approach to Patient	Hepatosplenomegaly
7	Haematological Malignancies (Lymphoma, Leukaemia)	Bleeding & Thrombotic Disorders	FUO (Fever of Unknown Origin)	Dengue & Malaria	COVID-19 & Enteric Fever	AIDS / HIV
8	Brucellosis & Tetanus	Sepsis / Multi-Organ Dysfunction	Respiratory Failure (ICU)	Shock (ICU)	Revision / Reinforcement	Ward Test

Module III — Specialty Placement (Weeks 9–12)

Each specialty placement follows a focused week-long clinical topic plan. Ward Tests are held on Saturdays at the conclusion of each specialty week. The schedule below reflects the 2026 revised structure: Cardiology (Week 9), Neurology (Week 10-11), Radiology (Week 12).

Wk	Specialty	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	**Cardiology**	IHD (Angina, NSTEMI, STEMI)	Heart Failure	Valvular Heart Disease & IE	Hypertension	Dysrhythmias	Ward Test
10	**Neurology**	Ischaemic Stroke	Haemorrhagic Stroke	Comatose Patient	CNS Infections	Neuropathy / GBS / Paraparesis	Multiple Sclerosis
11	**Neurology**	Movement Disorders	Headache Syndromes	Epilepsy	Dementia & Degenerative Disorders	NMJ Disorders & Myopathies	Ward Test
12	**Radiology**	Normal & Abnormal CXR	CT Brain (Stroke, Bleeds, Meningitis)	CT Abdomen (Liver, Pancreas, Bowel)	CT Chest (Pneumonia, TB, Pneumothorax)	Ultrasound & Doppler Studies	Ward Test

Clinical Placement — Four Outcome Domains (Uniform Across All Weeks)

Each day of Clinical Placement is structured around four uniform outcome domains. These are applied consistently across all 12 weeks and all three modules, ensuring that every patient encounter has a defined educational purpose beyond passive observation.

Knowledge / Clinical Reasoning	Skills / Patient-Care Tasks	Professional Behaviour & Communication	Learning Context
Recall aetiology & pathophysiology of the day's topic Discuss clinical features and classify disease severity Suggest differential diagnosis and plan investigations Construct short- and long-term management plans Discuss complications and prognosis with rationale	Take history and perform clinical examination on assigned patient Interpret investigations (CBC, LFTs, RFTs, ABGs, ECG, CXR, CT) Practice prescription and management plan writing under supervision Observe and assist in procedures: IV access, O_2 therapy, pleural/ascitic tap, LP, NGT, Foley, ETT, dialysis catheter Assist HCW in patient management tasks and bedside care	Obtain informed consent for history, examination, and procedures Counsel and educate patient about diagnosis, treatment, and outcome Break bad news using the SPIKES model where applicable Demonstrate safe handover, teamwork, and escalation of care Counsel on prevention, lifestyle modification, and treatment adherence	Clinical placement: patient review, SOAP note writing Ward rounds with Consultants, PGTs, and House Officers Bedside teaching sessions (SR/PGT — 12:00–13:00) CBD / PBL sessions (Consultant-led — 13:00–14:00) Supervised patient management (Mon–Thu, 15:00–18:00) Weekly OPD rotation in relevant specialty

Procedural Skills Exposure — Module-by-Module Progression

Students are expected to observe and progressively assist in procedural skills across all three modules. The progression follows a deliberate educational arc: observe in Module I, assist in Module II, perform under indirect supervision in Module III. All procedural exposure occurs under direct supervision of qualified clinical staff and must be logged in Component C of the documentation booklet.

Module I — Medical Unit HFH (Observe / Begin Assisting)	Module II — Medical Unit BBH (Assist / Begin Performing)	Module III — Specialty Placements (Perform Under Supervision)
• CXR interpretation in pneumonia, TB, pleural diseases • ABG interpretation and sampling • Peak flow meter (PEFR) use and interpretation • Oxygen therapy setup (mask types, flow rates) • Needle chest aspiration; chest tube intubation • Sputum and blood culture collection • Nasogastric tube (NGT) insertion and feeding • Ascitic tap (observe / assist) • Double-lumen catheter insertion for dialysis • Renal biopsy (observe)	• Glucose monitoring and insulin injection technique • Intra-articular injections (observe / assist) • Injection administration & IV access • FNA and lymph node biopsy (observe) • Blood product transfusion • Foley catheter insertion • NG tube / IV access / ETT / airway management (poisoning) • Laryngeal airway placement • CVP line and vasopressor management (ICU) • Bedside clotting test (snake bite)	• ECG recording and interpretation (IHD, arrhythmias) — Cardiology • Echocardiography (observe) — Cardiology • BLS / ACLS algorithm practice — Cardiology • Lumbar puncture (observe / perform under supervision) — Neurology • ETT & airway management (comatose patients) — Neurology • Fundoscopy (observe) — Neurology • Nerve conduction studies / EMG (observe) — Neurology • CXR, CT brain, CT abdomen, CT chest interpretation — Radiology • Ultrasound and Doppler studies (observe) — Radiology

Clinical Placement Assessment Framework

Assessment during the clinical placement runs continuously alongside ward activities. The following table summarizes the assessment types, timing, content focus, and methods used across the 12-week placement.

Assessment Type	Timing	Content	Method
SGIS Written Assessment	End of each SGIS block	Topics from the SGIS schedule for that week	Written test referenced in each session's assessment section
Ward Tests	End of Weeks 4, 8, 9, 10, 12 (Saturdays)	Clinical cases, investigations, and management plans from that module	Clinical ward-based assessment integrating knowledge, skills, and professional behaviour
SOAP Notes & Documentation	Daily (09:00–10:00)	Allocated patient — Subjective, Objective, Assessment, Plan	Supervised by HO/PGT; reviewed during ward round; forms part of clinical portfolio for WPBA
CBD / PBL Sessions	Daily (13:00–14:00)	Consultant-selected cases relevant to the week's clinical theme	Case-based discussion led by Consultant — oral participation assessed
Continuous Supervision	Throughout placement	All patient care, procedural exposure, and professional conduct	HO/PGT/Consultant observation; feedback given during ward rounds and bedside teaching; documented in Component C

Key Design Principles of the Clinical Placement

Design Feature	Detail
Parallel Delivery	SGIS and Clinical Placement run concurrently. Morning SGIS (08:00–09:00) provides theoretical scaffolding for the afternoon bedside learning (15:00–18:00) on related topics —– creating immediate reinforcement of academic content through clinical application.
SGIS Nomenclature	Small Group Interactive Sessions (SGIS) replaces the previous LGIS terminology to emphasise interactive, discussion-based learning in small cohorts rather than large-group didactic delivery.
Wednesday Reserve	Wednesdays in the SGIS schedule are reserved for CPC/Clinico-Connect (TCRF) integrative sessions, enabling cross-specialty case integration and transdisciplinary clinical reasoning.
Family Medicine Integration	Saturday of Week 5 is specifically designated for 'Approach to Patient in Family Medicine and Preventive Health', ensuring students appreciate primary care perspectives and preventive strategies alongside acute hospital medicine.
Multidisciplinary Exposure	Thursday of Week 6 is explicitly designated for 'Multidisciplinary Management' involving obstetric and gynaecological patients, expanding the student's understanding of medical illness in pregnancy and cross-specialty decision-making.
Progressive Skill Building	Procedural skills progress deliberately across modules: Observe in Module I → Assist in Module II → Perform under supervision in Module III. This mirrors the EPA (Entrustable Professional Activity) framework of progressive autonomy.
Portfolio Evidence	SOAP notes, prescription writing, and procedural observation logs form the student's clinical portfolio. These are assessed continuously and reviewed at ward tests as evidence of ongoing engagement and competency development.
Uniform Documentation	All 12 weeks of the Clinical Placement use a standardized documentation format anchored by the three-component booklet (Components A, B, C), ensuring consistency of evidence collection across all sites and supervisors.

Part C — Internship Components

Components Of The Embedded Internship

The embedded internship is built around five core competency domains. These represent the full range of skills and dispositions that a final-year MBBS student should be developing through supervised clinical participation. Each domain has defined learning objectives, and students are expected to demonstrate progressive competency across all five by the end of the placement.

Diagnostic Reasoning

Diagnostic reasoning is the central intellectual process of clinical medicine —— the systematic collection, processing, and interpretation of patient information to arrive at a working diagnosis and management plan. It is a skill that improves only with repeated, reflective practice in real clinical settings.

- Constructing a coherent clinical narrative from patient history — onset, progression, severity, associated features, exacerbating and relieving factors
- Detecting and correctly interpreting clinical signs on physical examination — distinguishing normal from abnormal findings
- Generating an appropriate and ranked differential diagnosis based on symptom clusters and examination findings
- Planning a targeted, cost-effective investigation strategy rather than ordering investigations indiscriminately
- Interpreting investigation results in their clinical context — laboratory values, imaging findings, ECGs, pulmonary function tests, ABGs, serological results
- Creating accurate and concise case summaries — a skill tested in both ward rounds and formal examinations
- Presenting clinical findings clearly, confidently, and in a structured format to senior clinicians

Focused Clinical Encounters

Clinical encounters with patients are the primary medium of learning during the internship. Students must approach each encounter as a structured educational opportunity, not merely a social interaction. The quality of the clinical encounter determines the quality of the clinical impression formed.

- Approaching the patient with appropriate introduction, consent, and empathy across all clinical settings (ward, OPD, emergency, ICU, HDU)
- Taking a focused history — relevant to the presenting complaint but comprehensive enough to identify important comorbidities, medications, and social factors
- Performing a targeted, systematic clinical examination — with special attention to positive and negative findings relevant to the clinical question
- Choosing appropriate diagnostic and therapeutic options — understanding the indications, contraindications, and interpretation of common investigations
- Recognizing the acutely unwell patient — identifying clinical deterioration using early warning scores and initiating basic resuscitation under supervision
-

Data Analysis Including Medical Imaging

Modern medical practice depends on the accurate interpretation of clinical data. Students must develop fluency in reading and synthesizing multiple data streams simultaneously —— laboratory, physiological, imaging, and functional.

Laboratory Data

- Interpreting CBC — anaemia indices, WBC differential, thrombocytopenia, polycythaemia
- Renal function tests — creatinine, BUN, creatinine clearance, eGFR calculation, urinalysis interpretation
- Liver function tests — pattern recognition (hepatocellular vs cholestatic), coagulation profile
- Metabolic panels — glucose, HbA1c, electrolytes (Na, K, Ca, Mg, phosphate), thyroid function tests
- Culture and sensitivity results — interpreting sensitivity patterns, selecting appropriate antibiotics

Electrocardiography

- Recognizing normal sinus rhythm and systematic ECG interpretation (rate, rhythm, axis, intervals, morphology)
- Identifying ischaemic changes: ST elevation/depression, T wave inversion, Q waves
- Acute MI patterns: STEMI localisation by leads, posterior MI, right ventricular infarction
- Axis deviation, chamber enlargement (LVH, RVH, LAE, RAE), bundle branch blocks
- Tachyarrhythmias: sinus tachycardia, AF, atrial flutter, SVT, VT (monomorphic, polymorphic), VF
- Bradyarrhythmias: sinus bradycardia, AV blocks (1st, 2nd — Mobitz I and II, 3rd degree), junctional rhythm

Imaging

- Chest X-ray — systematic interpretation: position/rotation, soft tissue, bony thorax, trachea/mediastinum, cardiac silhouette (CTR), hilae, lung fields, costophrenic angles, diaphragm
- CT brain — ischaemic vs haemorrhagic stroke, subdural haematoma (crescentic), epidural haematoma (biconvex), SAH, SOL
- CT chest — ILD patterns (honeycombing, GGO, traction bronchiectasis), effusion, nodules, mediastinal nodes
- CT abdomen — hepatic lesions, splenomegaly, renal pathology, abdominal lymphadenopathy
- Ultrasound abdomen — hepatic texture, biliary dilatation, renal size and corticomedullary differentiation, free fluid (ascites)
- Basic EEG interpretation concepts — normal vs abnormal patterns, epileptiform discharges
- Pulmonary function tests — spirometry interpretation: obstructive vs restrictive vs mixed pattern, severity grading
- Arterial blood gas interpretation — pH, PaCO2, PaO2, HCO3, base excess — systematic 5-step approach
- Echocardiography — reading a report: LVEF, wall motion abnormalities, valvular gradients, effusion, RVSP

Patient Management Skills

Patient management is the culmination of diagnostic reasoning and data analysis. Students must be able to translate their understanding into a coherent, practical management plan —— and to communicate that plan clearly to patients, families, and the clinical team.

- Formulating a structured management plan: acute phase management, investigations, drug therapy (with correct doses, routes, and monitoring), non-pharmacological measures, monitoring and follow-up
- Writing prescriptions under supervision — including correct drug name, dose, frequency, route, duration, and relevant monitoring parameters
- Recording accurate, legible, and timestamped medical notes in the patient file
- Discussing lifestyle modifications with patients — diet, exercise, smoking cessation, alcohol reduction, weight management
- Comparing therapeutic options — evidence-based selection, awareness of cost-effectiveness and local availability
- Seeking appropriate interdisciplinary consultations — knowing when and how to involve other specialties
- Counselling patients and their families on diagnosis, prognosis, treatment options, and follow-up — with sensitivity to health literacy, cultural context, and emotional state
- Explaining pathophysiological concepts to patients in language they can understand

Procedural Skills (EPA Level 2–3 Under Supervision)

The following procedural skills must be performed or directly observed under supervision during the Medicine placement. Students are required to log all procedural encounters in Component C of their documentation booklet. EPA Level 2 = able to perform with supervision; EPA Level 3 = able to perform with indirect supervision.

Procedure / Skill	Required Cases	EPA Level	Notes
Basic Life Support (BLS / CPR)	3 observed/performed	2–3	High priority — assessed in Pre-Annual and Final OSCE
IV, IM, SC, Intradermal Injections	5 each type	2–3	Must log each separately by route
IV Cannulation / Venepuncture	5	2	Practice on mannequin before patient
Assist Blood Transfusion	1	2	Cross-matching, compatibility check, monitoring
Acute Pulmonary Oedema Treatment	1	2	Oxygen, furosemide, nitrates, positioning
Oxygen Therapy Administration	Ongoing	2	Mask types, flow rates, SpO_2 targets
Peak Expiratory Flow Rate (PEFR)	1	2	Technique, interpretation, reference range
Nebulisation	5	2	Drug selection, technique, monitoring
ECG Recording	As available	2	Electrode placement, artefact recognition
Nasogastric Tube Insertion	1	2	Indication, confirmation of position
Urinary Catheterisation	1	2	Aseptic technique, indications, complications
Blood Glucose Monitoring	Ongoing	3	Point-of-care testing technique and interpretation

9. Clinico-Connect Sessions (Transdisciplinary Clinical Reasoning Forums — TCRF)

The Clinico-Connect Session —— formally designated the Transdisciplinary Clinical Reasoning Forum (TCRF) —— is the most intellectually ambitious component of the embedded internship. It is designed as an advanced, case-based educational encounter that deliberately dissolves the artificial boundaries between traditional academic disciplines, integrating foundational sciences, clinical specialties, ethics, and research literacy into a single, unified learning experience.

The underlying educational principle is that real patients do not present with single-discipline problems. A patient with acute liver failure involves hepatology, nephrology (hepatorenal syndrome), neurology (hepatic encephalopathy), microbiology (SBP), pharmacology (drug dosing in liver failure), ethics (transplant candidacy), and community medicine (prevention of viral hepatitis). The TCRF session creates a structured space in which students learn to think across these boundaries simultaneously.

Educational Objectives

- Integration of knowledge across disciplines – connecting foundational sciences (physiology, biochemistry, pathology, pharmacology) with clinical presentations and management decisions
- Development of clinical reasoning through transdisciplinary case analysis – moving beyond pattern recognition to genuine mechanistic understanding
- Promotion of collaborative learning and inter-professional teamwork – modeling the multidisciplinary team approach of modern hospital medicine
- Enhancement of the patient-centred approach – keeping the real patient at the centre of all academic discussion

Scope and Scheduling

- Applicable from 3rd Year MBBS through Final Year MBBS — the format and complexity increase progressively
- Medicine & Surgery placements: 2 sessions per 4-week block
- Specialty sub-placements (Neurology, Cardiology, Radiology): 1 session per sub-placement
- Sessions are held on Wednesdays, which are reserved in the weekly timetable for integrative academic activities

Session Structure — Four Phases

Phase	Description & Faculty Role
Phase 1: Clinical Trigger (Case Introduction)	A real patient, simulated patient, video of a patient encounter, or a detailed clinical scenario based on actual findings is presented to students. The trigger is chosen to span multiple disciplines and to contain sufficient complexity to generate rich discussion. Students are not told the diagnosis —— they must work through the presentation systematically.
Phase 2: Transdisciplinary Concept Mapping	Students and faculty identify the relevant foundational concepts underlying the clinical presentation —— physiological mechanisms, biochemical pathways, structural-functional relationships, pharmacological principles. Students are guided to link the clinical signs, symptoms, and investigation findings to these underlying concepts. A visual concept map may be created on a whiteboard or slide.
Phase 3: Integrated Discussion & Reasoning	Faculty from relevant disciplines facilitate a collaborative, multi-voice discussion. Each faculty member contributes from their own specialty perspective while remaining connected to the central case. Students are required to explain findings using scientific reasoning —— not just to recall facts, but to understand mechanisms. Guided questions are used to probe depth of understanding and to challenge assumptions.
Phase 4: Application & Reflection	Learners reflect on how the scientific concepts discussed directly dictate clinical management decisions. Key take-home messages for the clinical rotation are summarized. Students identify gaps in their knowledge and formulate self-directed learning questions. Opportunities for further reading and exploration are highlighted.

Session Format & Roles

PowerPoint Presentation Structure

- Each session is conducted using a structured, pre-compiled PowerPoint presentation
- 3 slides from the main placement specialty (Medicine, Neurology, Radiology, or Cardiology)
- 1 slide dedicated to Ethics and Research integration — connecting the case to an ethical dilemma, research evidence, or patient safety issue
- Slides are case-focused, concise, and aligned with the session's learning objectives

Session Lead — Department of Medicine & Allied Specialties

- Selects the clinical case; ensures curricular alignment and achievement of learning objectives
- Compiles slides from all contributing disciplines into a single presentation
- Coordinates with contributing faculty, manages logistics, venue, and AV resources
- Maintains attendance records; prepares session report with pictorial evidence for DME submission

Multidisciplinary Faculty Team (SR and above)

- Contribute specialty-specific PPT slides; participate in the integrated discussion
- Facilitate student engagement through guided questioning and case correlation

Students

- Prepare in advance by reading about the case topic from the recommended resources
- Actively participate in all phases; demonstrate clinical reasoning and teamwork
- Engage in reflection; complete any required post-session LMS quiz

DME Unit

- Monitors quality assurance and session standards through a pre-validated checklist
- Tracks attendance, LMS quiz completion, and session report submission

Assessment & Documentation

CLINICO-CONNECT ASSESSMENT SUMMARY
Assessment method: Attendance (mandatory) + LMS-based MCQ quiz after each session
Quiz format: 20 best-of-five MCQs (USMLE-style, Bloom's C4–C6)
Weightage: Contributes to LMS-Based Assessment component of CIA (20 marks total)
Documentation: Attendance records maintained by Session Coordinator → submitted to DME
Session report: Prepared after each TCRF session with pictorial evidence → forwarded to DME

Part D — Documentation & Logging

Patient Record Keeping — Overview

Accurate clinical documentation is one of the most important professional skills a doctor can possess. It protects patients by ensuring continuity of care, protects the clinician by providing a medico-legal record, and promotes learning by forcing the writer to organize and articulate their clinical thinking. In the embedded internship, documentation is both a learning tool and a formal assessment component.

All students are issued a standardized Patient Record Keeping Booklet (RMU-12 Embedded Internship Program). This booklet comprises three distinct components, each serving a specific purpose in the clinical and educational workflow. The three-component design mirrors the structure of real clinical documentation: an initial comprehensive patient assessment (like an admission note), ongoing daily progress notes, and a log of the student's own activities and learning.

Comp.	Purpose	Where Kept	Transferred To	Completed By
A	Full patient history, clinical examination, workup summary, management plan	Patient's clinical file during admission	Student portfolio on patient discharge	Day of patient allotment; updated as new information becomes available
B	Daily SOAP progress notes — one page per patient per day	Patient's clinical file during admission	Student portfolio on patient discharge	Each morning after ward round under HO/PGT supervision
C	Daily activity log, skills assessment record, and daily supervisor sign-off	Student's own daily log file	End-of-posting assessment record	Daily — signed by HO, PGT, and Consultant before leaving the unit

GENERAL DOCUMENTATION RULES — ALL COMPONENTS
1. Complete Component A on the day of patient allotment. Update history and examination as new information emerges — do not leave sections blank.
2. Complete one page of Component B each morning after the ward round, under supervision of the House Officer or PGT. Do not back-date entries.
3. Component C must be signed off daily by the House Officer, PGT, and Consultant — obtain signatures before leaving the clinical unit.
4. On patient discharge or outcome: detach Components A & B from the patient file, complete the Patient Summary section, and file in your personal portfolio.
5. All entries must be written in ink. Corrections must be made by crossing out with a single horizontal line, then initialling and dating —– never use correction fluid.
6. Component B SOAP notes record your own clinical reasoning — do not copy or duplicate consultant or HO notes.
7. Use your own stationery and paper for additional pages where required.

11. Component A — Patient History & Clinical Examination

Component A is the comprehensive patient record and represents the most thorough documentation activity in the internship. It follows the standard format of a formal clinical case write-up, covering all relevant aspects of the patient's history and physical examination. It is kept in the patient's file during the admission period and transferred to the student's portfolio upon discharge or outcome. The quality of Component A write-ups is directly assessed as part of the WPBA.

Ref	Section Title	Detailed Content & Guidance
A	Patient Biodata	Full name · Age and sex · Admission number (MR No.) · Date of admission · Mode of admission (ER / OPD / Transfer) · Ward and bed number · Occupation · Contact person / informant · Consultant in charge · Student name and roll number
B	Main Complaints	List all presenting complaints in order of severity or chronological sequence. Record duration of each complaint against it. Use the patient's own words where possible —— do not medicalize the complaint at this stage.
C	Premorbid State & Comorbidities	Record all known comorbid conditions with their duration and current treatment: HTN, DM, IHD, bronchial asthma, CKD, TB, hepatitis B or C, or other significant diagnoses. Note current medications for each condition.
D	History of Present Illness (HPI)	Detailed narrative of the current illness written chronologically. Must cover: mode of onset (sudden / gradual), duration, character and severity (visual analogue scale for pain), progression (improving / worsening / fluctuating), aggravating and relieving factors, associated symptoms, prior treatment received for this episode and its response.
E	Systemic Inquiry	Systematic review of all body systems: cardiovascular (chest pain, palpitations, dyspnoea, orthopnoea, PND, syncope), respiratory (cough, sputum, haemoptysis, wheeze), GIT (nausea, vomiting, dysphagia, abdominal pain, bowel habits, PR bleeding), urinary (frequency, dysuria, haematuria, nocturia), neurological (headache, visual changes, weakness, sensory symptoms, seizures), MSK (joint pain, swelling, morning stiffness), general (fever, weight loss, fatigue, night sweats).

F	Past Medical / Surgical / Drug History	Previous significant illnesses with dates, hospitalizations, surgical operations (type, date, outcome), known drug allergies (specify reaction), current and recent medications (include OTC, herbal, and traditional remedies), vaccinations relevant to the presentation.
G	Personal History	Smoking (pack years calculation), alcohol use (units per week), recreational/illicit drug use, dietary habits (regular meals, special diet), sleep pattern, exercise habits, marital status, occupation and occupational hazards.
H	Family History	Heritable conditions in first-degree relatives (parents, siblings, children): IHD, DM, hypertension, malignancy, TB, psychiatric illness, or conditions relevant to the current presentation.
I	Socio-economic & Environmental	Type and quality of housing, number of household members, access to clean water and sanitation, socioeconomic status, ability to afford prescribed medications, occupational exposures (dust, chemicals, TB contacts), food security, support network.
J	Menstrual / Obstetric History	Complete where relevant. For female patients: menarche, cycle regularity, LMP, duration and flow, dysmenorrhoea, intermenstrual/postcoital bleeding. Obstetric history: gravida, para, abortions, complications. Current or recent pregnancy. Relevant gynaecological history.
K	General Physical Examination	Pulse (rate, rhythm, character, volume, radio-femoral delay) · BP (both arms if indicated) · Respiratory rate · Temperature (°C) · SpO_2 (room air or specify O_2 delivery) · Random blood glucose · Weight / BMI. General appearance: build, nutrition, cooperativeness. Peripheral signs: pallor (palmar creases, conjunctiva), jaundice (sclera, skin), central and peripheral cyanosis, digital clubbing (grade), pitting oedema (grade/distribution), lymphadenopathy (site, size, consistency, tenderness).
L	Cardiovascular System (CVS)	Inspection: praecordial bulge, visible pulsations, scars. Palpation: apex beat (site, character), heaves and thrills. Percussion: cardiac dullness. Auscultation: heart sounds (S1, S2, additional sounds ——

		S3/S4, clicks), murmurs (site, radiation, timing, character, grade), pericardial rub. Peripheral vascular: JVP (height, waveform), peripheral pulses, bruits.
M	Central Nervous System (CNS)	Higher functions: GCS (or AVPU), orientation, speech, memory. Cranial nerves I–XII systematic assessment. Motor system: tone, power (MRC grade 0–5), reflexes (deep tendon and plantar), coordination (finger-nose, heel-shin, Romberg). Sensory system: light touch, pin-prick, vibration, proprioception. Meningeal signs (neck stiffness, Kernig's, Brudzinski's) where indicated.
N	GIT & Abdomen	Inspection: shape (scaphoid/distended), visible peristalsis, dilated veins (caput medusae vs IVC obstruction), scars, skin lesions. Palpation: tenderness (site, guarding, rigidity, rebound), hepatomegaly (span, surface, edge, tenderness), splenomegaly (Hackett grade), kidneys (bimanually palpable), masses. Percussion: ascites (shifting dullness, fluid thrill), liver and spleen dullness. Auscultation: bowel sounds (absent, normal, hyperactive).
O	Respiratory System	Inspection: respiratory rate and rhythm, use of accessory muscles, intercostal/subcostal recession, tracheal position, chest wall shape (barrel chest, kyphoscoliosis), symmetry of movement. Palpation: trachea centrality, chest expansion (upper and lower zones), vocal fremitus. Percussion: resonance vs dullness vs hyperresonance. Auscultation: breath sounds (vesicular vs bronchial), added sounds (crackles —– fine/coarse, wheeze —– inspiratory/expiratory, pleural rub), vocal resonance and whispering pectoriloquy.
P	Other Systems	Musculoskeletal: joint examination where indicated (swelling, tenderness, range of motion, deformity). Dermatology: skin rashes, lesions, colour changes relevant to the presentation. ENT: oropharynx, tonsils, neck. Eyes: pupils (size, reactivity), fundi if indicated. Record positive and relevant negative findings.
P	Summary of History &	A concise 3–5 sentence paragraph summarizing: patient demographics, chief complaint, key positive findings from history, key positive and relevant negative findings on examination, and initial clinical

	Examination	impression.
Q	Provisional Diagnosis / Problem List	List the differential diagnoses in order of probability with brief justification for each. Separately list active comorbid problems that require concurrent management.
R	Abnormal Investigations	Tabulate each abnormal investigation result: Investigation / Result / Clinical Relevance & Comment. Up to 6 entries. Include date of result. Explain the clinical significance of each abnormal result in relation to the working diagnosis.
S	Management Plan	List all current management decisions: drug therapy (name, dose, route, frequency, duration), IV fluids (type, rate, monitoring), oxygen therapy (delivery device, target SpO_2), non-pharmacological measures (positioning, diet, physiotherapy, wound care), monitoring plan (vitals frequency, urine output, glucose checks), important precautions.
T	Further Plan of Workup	Planned investigations not yet performed or pending results. Specialty consultations requested or planned. Follow-up arrangements. Anticipated discharge criteria and discharge planning. Any pending procedures.

Component A concludes with a three-way sign-off box: Student Signature (with date and time), House Officer / PGT signature (with date and time), and Consultant / Supervisor signature (with date and time). All three signatures are mandatory for a component to be considered complete.

12. Component B — Daily Progress Notes (Soap Format)

Component B is completed on a fresh sheet for each patient, for each day of the admission. It is placed in the patient's clinical file alongside the formal ward notes and is transferred to the student's portfolio upon patient discharge. The SOAP format is the internationally recognized standard for clinical progress notes —– students must become fluent in it.

The SOAP note records the student's own clinical reasoning —– not a copy of what the consultant or House Officer has written. The purpose is to develop the habit of independent clinical thinking: reviewing the patient each morning, forming a clinical impression, and making a management suggestion —– even if that suggestion is then refined by the supervising clinician. This process of formulating and then comparing one's own assessment with the senior clinician's is one of the most powerful learning mechanisms in clinical medicine.

SOAP NOTE FORMAT — COMPONENT B
S —– SUBJECTIVE: Symptoms overnight or since last review. Include: pain (site, character, severity), dyspnoea, cough and sputum, fever (measured temperatures), nausea/vomiting, bowel/urinary changes, intake and output balance, and any concerns expressed by the patient.
O — OBJECTIVE: Current vital signs (pulse, BP, RR, temperature, SpO_2 with O_2 support details). Relevant examination findings from morning review — any change from previous. Fluid balance (IV fluids running, urine output). New or changed bedside monitoring data.
A —– ASSESSMENT: Working diagnosis, current problem list, interval progress since last note ('improving', 'stable', 'deteriorating'), explanation of why. If a new problem has developed, explain the clinical reasoning for the new differential.
P — PLAN: Drug changes (additions, modifications, discontinuations). O_2/fluid orders. New investigations requested. Procedures planned. Consultations sought. Discharge or escalation decisions. Specific monitoring instructions.

Additional Elements of Component B

- Relevant / Abnormal Investigations Today: a small table (Investigation | Result/Finding | Action Taken) for recording any results received that day and what clinical action was taken
- Clinical Review Checklist: four mandatory checks —— (1) Consultations sought (Dept/date/advice); (2) ECG reviewed (rate, rhythm, axis, ischaemia); (3) X-ray or imaging reviewed (type and findings); (4) Drug chart checked (medications reconciled, new orders confirmed)
- Daily Sign-Off: History/Exam Updated (Y/N) | Daily Sheet Completed (Y/N) | Supervisor Sign-Off (Y/N) with initials and remarks

Instruction: Complete after morning round. Mark abnormal investigations and management decisions clearly. If additional space is required, attach supplementary pages with clear identification (patient name, MR number, date, day number).

13. Component C — Daily Schedule Documentation & Sign-Off Sheet

Component C is the student's own daily logbook —– kept separately from the patient file. It provides a contemporaneous record of each student's attendance, activity engagement, skills performed or observed, and professional conduct. It is signed off at the end of each clinical day and forms an important part of the end-of-posting assessment record. It is also the primary evidence base for the WPBA scoring that contributes to the Clerkship Assessment marks within the CIA.

Attendance in the embedded internship is not simply about physical presence. It is defined as active, engaged, and meaningful participation in all scheduled activities. A student who is present but disengaged, distracted, or not contributing to clinical activities may not be considered as having fulfilled the attendance requirement for that session. Component C records provide the documentary evidence for this judgment.

Daily Activity Log

Time	Scheduled Activity	Completion	Supervisor Initials	Remarks / Key Learning Points
08:00–09:00	Didactic Lecture / Small Group Discussion (SGIS)	□ Yes ☐ No		
09:00–10:00	Patient Review / Progress Note Writing	□ Yes ☐ No		
10:00–12:00	Ward Round / OPD Clinic	□ Yes ☐ No		
12:00–13:00	SR / PGT Bedside Teaching Session	□ Yes ☐ No		
13:00–14:00	Case-Based Discussion (CBD) / PBL	□ Yes ☐ No		
15:00–18:00	Indoor / ER Patient Management & Procedures	□ Yes ☐ No		

Knowledge, Skills & Professionalism Assessment Grid

Domain	Observed Status	Supervised By	Supervisor Initials
History Taking	□ Not Observed / Done ☐ Observed by Supervisor ☐ Independently Performed		
Physical Examination	□ Not Observed / Done ☐ Observed by Supervisor ☐ Independently Performed		
Case Presentation	□ Not Observed / Done ☐ Observed by Supervisor ☐ Independently Performed		
Management Discussion	□ Not Observed / Done ☐ Observed by Supervisor ☐ Independently Performed		
Documentation Quality	□ Unsatisfactory ☐ Satisfactory ☐ Good ☐ Excellent		
Professional Conduct	□ Unsatisfactory ☐ Satisfactory ☐ Good ☐ Excellent		

Component C concludes with a Patient Summary table completed at discharge, documenting Patient Name/MR No. | Diagnosis | Outcome/Remark for each patient seen that day. This is signed by the Student, House Officer/PGT, and Consultant.

Part E — Assessment

Assessment Framework — Overview

Assessment in the Final Year MBBS Medicine & Allied Embedded Internship Program is structured, multi-component, and designed to evaluate students comprehensively across all domains of clinical competence —– knowledge, clinical skills, reasoning, communication, and professionalism. The total assessment scheme for the Medicine block is 500 marks, structured across three sequential stages. Assessment serves not only a summative purpose (determining whether a student passes) but also a formative purpose (providing feedback that guides ongoing learning).

The importance of assessment cannot be overstated. For students, regular assessment provides feedback and guidance, promotes active learning, increases accountability and professionalism, and prepares for future practice by simulating real-life clinical scenarios. For the healthcare system, rigorous assessment ensures competent graduates, maintains high standards of medical practice, identifies areas for curricular improvement, and ultimately promotes patient safety.

Assessment Stage	Marks	Description
Stage 1: Continuous Internal Assessment (CIA)	**200 (40%)**	Spans the entire 12-week placement. Comprises three sub-components: Clerkship Assessment (WPBA + Ward Tests), LMS-Based Assessment, and End Block Assessment. Formative and summative.
Stage 2: Pre-Annual Assessment (Send-Up)	Prerequisite — to appear in FTA	Gateway examination conducted after CIA and before the Final Annual. Theory papers + OSCE. Must be passed to gain eligibility for the Final Annual Examination. Does not contribute marks to the 500-mark scheme.
Stage 3: Final Annual Assessment	**300 (60%)**	End-of-year comprehensive examination. Two theory papers + full clinical OSCE. Passing criteria apply to each component. Supplementary examination available for students who fail.
GRAND TOTAL	**500 Marks**	**Final Professional MBBS in Medicine**

Continuous Internal Assessment (Cia) — 200 Marks

The CIA is the backbone of the assessment framework. It captures a student's consistent effort, engagement, and progressive development across the entire placement. Unlike a single end-of-year examination, the CIA reflects performance over time and across multiple domains —— making it a far more comprehensive and valid measure of clinical competency.

CIA Component	Marks	% of CIA
Clerkship Assessment (Module WA + Embedded Internship WPBA)	**100**	50%
End Block Assessment (EBA)	**80** (55 Medicine & 35 Specialities)	40%
LMS-Based Assessment	**20**	10%
TOTAL CIA	**200**	**100%**

Clerkship Assessment — 100 Marks (WPBA + Ward Test)

Each module/placement is assessed through two sub-components. The Embedded Internship Workplace-Based Assessment (WPBA) contributes 60% of the module mark and reflects the student's ongoing clinical activities in the ward. The Ward Test contributes the remaining 40% and is a formal written or clinical assessment conducted at the end of each module. Marks are allocated proportionally to the duration of each placement.

Sub-Component	MU-I	MU-II	Neurology	Cardiology	Radiology	TOTAL
Total Module Marks	**30**	**30**	**20**	**10**	**10**	**100**
Embedded Internship WPBA (60%)	18	18	12	6	6	**60**
Ward Test (40%)	12	12	8	4	4	**40**

WPBA Activities and Mark Allocation (per placement type):

WPBA Activity	4-Week Placement (MU-I or MU-II)	1-Week Placement (Neurology*/Cardiology/Radiology)
Case Presentations / Morning Reports	4 presentations (8 marks — 2 marks each)	1 presentation (3 marks)
Mini CEX (Clinical Evaluation Exercise)	5 CEX (5 marks — 1 mark each)	1 CEX (1 mark)
Complete Case Write-Ups	5 write-ups (2.5 marks — 0.5 marks each)	1 write-up (1 mark)
Weekly Portfolio Summaries	4 summaries (2.5 marks total)	1 summary (1 mark)

Neurology Placement components will be adjusted according to 2 weeks duration

IMPORTANT NOTES ON WPBA MARKS
Case Write-Ups: 0.5 marks per complete write-up. Zero marks for incomplete write-ups or fewer than 5 write-ups in a 4-week placement.
Case Presentations: 2 marks per satisfactory presentation. Zero for unsatisfactory presentations or fewer than 2 presentations.
Mini CEX: 1 mark per satisfactory CEX. Zero for unsatisfactory performance.
Research Publication Bonus: Students with a Medicine & Allied-related publication in a non-predatory journal during Final Year MBBS may receive up to 7.5 additional marks within CIA. Total CIA marks cannot exceed 200. No compensation for missed clerkship periods.

LMS-Based Assessment — 20 Marks

The Learning Management System (LMS) assessment is a structured online academic monitoring tool delivered through the university's digital platform. It represents a significant innovation in RMU-12 compared to previous practice —– providing weekly, continuous feedback on student academic engagement and higher-order reasoning throughout the clinical placement.

The vision of the LMS assessment is to enhance competency-based learning, clinical reasoning, and continuous academic engagement among Final Year MBBS students. By linking online MCQ-based quizzes to the clinical topics covered in SGIS sessions that week, the LMS creates a virtuous cycle: attend the session, apply the knowledge in the ward, and then consolidate and test that knowledge online.

SOPs 2026 — Key Standards

- Each weekly LMS quiz comprises 35 MCQs (an important change from previous years)
- All MCQs are designed in accordance with USMLE-style single-best-answer format
- MCQs assess higher cognitive levels — C4 (Analysis), C5 (Synthesis), C6 (Evaluation) per Bloom's taxonomy, with emphasis on clinical reasoning, interpretation, and patient-care decision-making
- Time allocation: 45 seconds per MCQ
- MCQs prepared by faculty are submitted to DME, then to the Vice Chancellor for approval before uploading
- Clinico-Connect sessions include similar MCQ-based assessments at the same academic standard
-

Assessment Structure

Assessment Type	Frequency	MCQs Each	Total MCQs
Weekly LMS Quiz	10 quizzes (weekly)	**35**	**350**
Clinico-Connect LMS Quiz	5 quizzes	**20**	**100**
End-of-Block LMS Assessment	1	**60**	**60**
TOTAL	**13 assessments**	**—**	**550 MCQs assessed**

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).

The Learning Management System (LMS) component constitutes 10% of the CIA (20 out of 200 marks). LMS-based assessments are conducted through the university's digital learning platform and typically include online quizzes, case-based scenarios, and module completion checks aligned with the clinical rotation schedule. It encompasses in campus assessment (50% marks) & off campus assessment (50% marks)100% marks will be given for off campus LMS to students with research publication accepted in Student Journal or higher while the rest will have 50%

Feedback and Learning Support

Students receive detailed feedback after each LMS quiz including overall score, question-wise review where applicable, and identification of strong and weak areas. Faculty use results to identify common academic gaps and domains requiring further bedside reinforcement. The DME tracks assessment data to evaluate curricular quality and student learning trends. Students are encouraged to provide feedback on relevance, difficulty, timing, and technical issues.

Module Assessment (Per Placement)

Each module/placement is formally assessed at its conclusion through an end-of-module examination comprising theory and clinical OSCE components. The same assessment format applies across all modules. Module assessments contribute to the Clerkship Assessment component of the CIA and are the main driver of the Ward Test marks.

Theory — Each Module (60 marks / 60 minutes)

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

Clinical OSCE — Each Module (130 marks / 1 hr 50 min)

OSCE Component	Short Cases	Counselling	Ethics	Av-OSCE	TOTAL
Stations	**4**	**1**	**1**	**10**	**16**
Marks	60 (15 each)	10	10	50 (5 each)	**130**
Duration	60 min total	10 min	10 min	30 min	**1 hr 50 min**

Ci-OSCE = Clinically Integrated Observed Structured Clinical Examination (direct clinical skills assessment). Av-OSCE = Audio-Visual OSCE (video/picture/scenario with 5 one-liner questions per station, 5 marks each). The Av-OSCE stations cover ECG interpretation, imaging, data interpretation, ethical scenarios, clinical sign/scenario interpretation, pharmacology, and instrument identification.

End Block Assessment (EBA) — 80 Marks

The End Block Assessment (EBA) is a comprehensive formal examination conducted at the conclusion of the 12-week Medicine and Allied block. Carrying 80 marks, it constitutes 40% of the Continuous Internal Assessment (CIA) and is therefore the single most heavily weighted component within the CIA. The EBA is structured to mirror the Final Professional Examination format, giving students a realistic rehearsal under examination conditions while still within the internship period. It covers the full breadth of Medicine and Allied disciplines across two distinct components: EBA Medicine (covering all core medical topics) and EBA Specialties (covering Neurology, Cardiology, and Radiology).

The EBA serves three important purposes. First, it validates the learning that has occurred across the three modules by testing both theoretical knowledge and clinical skills in a structured, high-stakes format. Second, it provides faculty with an objective measure of student progress at the end of the block, which supplements the ongoing WPBA data. Third, it familiarizes students with the full-length examination format they will encounter in the Final Annual Assessment, reducing examination anxiety and promoting targeted revision. A total of approximately 7 hours is allocated for the combined EBA theory and clinical examinations.

EBA will be conducted at the end of the 12-week block. Two EBE assessments will be conducted; Medicine (55 marks) and Specialties (35 marks). Medicine EBA mirrors the Final Professional Assessment format and includes both theory and clinical components. Specialties EBA covers Neurology, Cardiology, and Radiology).

17B.1 EBA — Medicine (Core Subjects): Theory

The EBA Medicine theory component comprises two papers, each 100 marks and 2 hours in duration, giving a combined theory total of 200 marks over 4 hours. Each paper follows an identical format: 60 MCQs (60 marks), 3 SEQs (15 marks), 3 SAQs (15 marks), and 1 EMQ (10 marks) = 100 marks per paper.

Component	MCQs	SEQs	SAQs	EMQs
Questions per Paper	60	3 each	3 each	1 each
Marks per Paper	60	15 (5 each)	15 (5 each)	10
TOTAL per Paper	**100 marks | 2 hours | Combined: 200 marks in 4 hours**			

EBA Medicine Theory — Paper I Topic Distribution

Topic	MCQs (60)	EMQ	SAQ	SEQ
Respiratory Medicine	10	1	1	——
Cardiovascular Diseases	10	——	——	1
Gastroenterology and Hepatobiliary Diseases	10	——	1	——
Neurology	10	——	——	1
Emergency Medicine and Poisoning	10	——	1	——
Haematology	6	——	——	1
Rheumatology	4	——	——	——

EBA Medicine Theory — Paper II Topic Distribution

Topic	MCQs (60)	EMQ	SAQ	SEQ
Infectious Diseases	10	1	1	——
Endocrinology including Diabetes Mellitus	10	——	——	1
Psychiatry and Behavioural Sciences	10	——	1	——
Nephrology	10	——	——	1
Acid Base, Water and Electrolytes Disorders	10	——	1	——
Dermatology	6	——	——	1
Critical Care	4	——	——	——

EBA — Medicine (Core Subjects): Clinical OSCE

The EBA Medicine clinical examination is the most comprehensive OSCE within the CIA. It comprises 27 stations and runs for 2 hours and 50 minutes. It includes a Long Case (50 marks), which is unique to the EBA among CIA assessments and tests the student's ability to conduct a full, unsupervised patient assessment and present findings to examiners.

OSCE Component	Stations	Marks	Total Marks	Duration
Short Cases (Ci-OSCE)	4	15 each	60	15 min each (60 min total)
Long Case	1	50	50	30 minutes
Life Support Station	1	10	10	10 minutes
Ethics Station	1	10	10	10 minutes
Av-OSCE (Audio-Visual) — 20 stations	20	5 each	100	1 hour
TOTAL CLINICAL	**27**	**—**	**230**	**2 Hours 50 Minutes**

The EBA Av-OSCE for Medicine covers 20 stations (video/picture/clinical scenario with 5 one-liner questions, 5 marks each = 100 marks). Stations include: ECG interpretation (ACS, dysrhythmias) • CXR – cardiac and pulmonary • CT Brain (ischaemia, haemorrhage, SAH, SOL) • CT Chest/Abdomen • Haematology data/slide • Spirometry/ABGs/Echo/USG • Ethics scenario • CVS/CNS/GIT/Respiratory/Rheumatology clinical signs • Diabetes Mellitus/Endocrinology • Dermatology • Family Medicine • Instruments • Medications.

EBA — Specialties (Neurology, Cardiology, Radiology): Theory

The EBA Specialties theory uses the identical format as EBA Medicine (2 papers × 100 marks = 200 marks, 4 hours). Topic distribution for the specialty paper is as follows: Neurology 30 MCQs + 1 EMQ + 1 SEQ; Cardiovascular Diseases 15 MCQs + 1 SAQ + 1 SEQ; Radiology 15 MCQs + 1 SAQ.

EBA — Specialties: Clinical OSCE

The EBA Specialties clinical OSCE comprises 29 stations over 2 hours 30 minutes. It is structured differently from the core Medicine OSCE —– featuring 3 Counselling stations and 2 Ethics stations rather than a single station of each, with 20 Av-OSCE stations split equally between Dermatology (10) and Radiology (10).

OSCE Component	Stations	Marks	Total Marks	Duration
Short Cases (Ci-OSCE)	4	15 each	60	10 min each (40 min total)
Counselling (3 stations)	3	10 each	30	30 min each
Ethics (2 stations)	2	10 each	20	20 min each
Av-OSCE (20 stations: 10 Dermatology + 10 Radiology)	20	5 each	100	1 hour
TOTAL CLINICAL	**29**	**—**	**210**	**2 Hours 30 Minutes**

Pre-Annual Assessment (Send-Up Examination)

The Pre-Annual Assessment, formerly called the Send-Up Examination, is a mandatory prerequisite for eligibility to sit the Final Annual Examination. It is a comprehensive, high-stakes assessment that evaluates the student's readiness to appear in the final professional examination. It does not contribute directly to the 500-mark scheme, but failure to pass it results in ineligibility for the Final Annual Assessment.

The significance of the Pre-Annual lies in its three functions: (1) preparation —— it provides valuable examination practice under realistic conditions, allowing students to identify areas requiring further focus; (2) confirmation of readiness —— successful performance demonstrates that the student has acquired the core knowledge and clinical competence expected at this stage; and (3) confidence building —— students who perform well gain motivation and focus in the run-up to the final examinations.

Theory — Pre-Annual (150 marks / 4 hours, 2 papers)

Component	MCQs	SEQs	SAQs	EMQs
Questions per Paper	**50**	**2**	**2**	**1**
Marks per Paper	50	10	10	5
TOTAL (Both Papers)	**150 marks | 4 hours**			

Clinical OSCE — Pre-Annual (100 marks / 35 minutes)

Station	No. of Stations	Marks
Short Cases: 2 CNS · 1 Respiratory · 1 CVS	4 Stations	80 marks (20 each, 7 min each)
Life Support Station (BLS / ACLS)	1 Station	20 marks (7 min)
TOTAL	**5 Stations**	**100 marks | 35 minutes**

Final Annual Assessment — 300 Marks

The Final Professional MBBS Examination in Medicine is the culminating formal assessment of the student's entire final year. Carrying 300 marks (60% of the total 500-mark scheme), it is a comprehensive examination that tests accumulated knowledge, clinical skills, clinical reasoning, and problem-solving abilities across the full breadth of Medicine and its allied disciplines. The examination comprises two theory papers and a comprehensive clinical OSCE.

Theory — Final Annual (150 marks / 4 hours, 2 papers)

Paper I covers: Respiratory Medicine, Cardiovascular Diseases, Gastroenterology & Hepatobiliary Diseases, Neurology, Emergency Medicine & Poisoning, Haematology, Rheumatology. Paper II covers: Infectious Diseases, Endocrinology including Diabetes Mellitus, Psychiatry & Behavioural Sciences, Nephrology, Acid-Base/Water/Electrolyte Disorders, Dermatology, Critical Care. MCQ integration ratio: 70% core subject, 10% horizontal, 10% vertical, 10% spiral integration.

Component	MCQs	SEQs	SAQs	EMQs
Questions per Paper	**50**	**2**	**2**	**1**
Marks per Paper	50	10	10	5
TOTAL (Both Papers)	**150 marks | 4 hours**			

Clinical OSCE — Final Annual (150 marks

Station Type	Stations	Marks Each	Total Marks	Duration & Notes
Short Cases (CI-OSCE)	**4**	**10**	**40**	15 min each (60 min total). Bedside clinical examination and focused assessment of an assigned patient.
Long Case	**1**	**40**	**40**	30 minutes. Full clinical assessment of a patient including history, examination, and management discussion with examiner.
Life Support Station	**1**	**10**	**10**	10 minutes. BLS/ACLS scenario-based assessment.
Ethics Station	**1**	**10**	**10**	10 minutes. Scenario focusing on autonomy, confidentiality, beneficence, non-maleficence, informed consent.
Av-OSCE (Audio-Visual)	**10**	**5 × 10 = 50**	**50**	1 hour. Each station: video/picture/scenario with 5 one-liner questions. Covers ECG, imaging (CXR, CT, MRI), data interpretation, clinical signs, pharmacology, instruments.
TOTAL CLINICAL	**17**	**—**	**150**	**2 hours 50 minutes**

PASSING CRITERIA — FINAL ANNUAL EXAMINATION
OVERALL: Student must score more than 50% (>250/500) in the total Final Professional Assessment to be declared successful.
THEORY: Minimum 50% marks in the theory paper component (Papers I and II combined).
Av-OSCE: Minimum 50% marks in the Audio-Visual OSCE component — separately and independently.
COMBINED CI-OSCE + LONG CASE: Minimum 70% marks in this combined clinical component — separately and independently.
SUPPLEMENTARY: Students unsuccessful in the Final Assessment appear in the Supplementary Examination.
NOTE: Meeting the overall 50% threshold does NOT automatically confer a pass — all component minima must also be satisfied.

Part F — Resources & References

Recommended Teaching Materials & Resources

The following resources have been selected to support learning during the Medicine & Allied Embedded Internship. They are organized by category and relevance. Resources marked as ESSENTIAL should be accessed at the beginning of the placement. Others provide depth and are recommended for students aiming for excellence or preparing for competitive postgraduate examinations.

Core Clinical Medicine — Essential References

Kumar and Clark's Clinical Medicine, 11th Edition, 2024

ESSENTIAL — The primary reference for the RMU Medicine block. Comprehensive, clinically focused, regularly updated. Cover to cover is not expected — topic-by-topic reading aligned with the SGIS schedule is recommended.

Davidson's Principles and Practice of Medicine, 24th Edition, 2023

ESSENTIAL —– Complementary to Kumar & Clark. Excellent for pathophysiology and clinical correlations. Davidson's 100 Clinical Cases (2nd edition, 2012) is the clinical reasoning companion.

MacLeod's Clinical Examination, Churchill Livingstone, 15th Edition, 2023

ESSENTIAL for clinical skills — standard reference for history taking and physical examination technique. Must be read before each new placement.

Clinical Examination — Talley & O'Connor, Elsevier, 9th Edition, 2020

ESSENTIAL for clinical skills — detailed, practical approach to clinical examination with clinical pearls.

Kaplan USMLE Step-2 CK Lecture Notes

ESSENTIAL for examination preparation — particularly useful for understanding the USMLE-style MCQ format used in LMS and module assessments. Excellent for clinical reasoning.

Clinical Skills & Procedures

NEJM Clinical Skills Videos (free online)
Available at www.nejm.org/medical-articles/clinical-skills. Excellent video demonstrations of clinical examination and procedural skills — highly recommended for pre-placement preparation.

ABC of Practical Procedures — Nutbeam & Daniels, Blackwell/BMJ Books, 2010
Concise procedural guide covering common ward procedures with step-by-step illustrations.

RAPID ACLS — Barbara Aehlert, Elsevier, 2nd Edition, 2012
Compact, high-yield ACLS reference for life support assessment and training.

Mechanisms of Clinical Signs — Dennis, Bowen & Cho, 3rd Edition, 2020
Explains the physiological basis of clinical signs — invaluable for Clinico-Connect sessions and clinical reasoning.

Clinical Reasoning & Diagnosis

Oxford Handbook of Clinical Diagnosis, 10th Edition, 2017
Pocket-sized, symptom-based reference. Useful during ward rounds for rapid differential diagnosis construction.

The Patient History: An Evidence-Based Approach — Henderson, Tierney & Smetana, 2nd Edition, 2012
Evidence-based guidance on history taking and symptom interpretation. Excellent for understanding the diagnostic value of specific clinical features.

The Rational Clinical Examination — JAMA Evidence, 2009
Landmark series on the evidence base for physical examination findings. Cited frequently in clinical teaching.

Cecil's Essentials of Medicine — Andreoli & Carpenter, 10th Edition, 2021 Concise, readable alternative to larger textbooks. Well-organized by organ system. **Current Medical Diagnosis & Treatment (CMDT), 61st Edition, 2024**
Excellent annual reference for management guidelines. Kept up to date — useful for checking current treatment protocols.

Oxford American Handbook of Clinical Medicine, 10th Edition, 2017
Practical pocket handbook for ward use.

Research, Statistics & Professionalism

Medical Statistics Made Easy — Harris & Taylor, 2nd Edition, 2008
Accessible introduction to biostatistics for MBBS students. Covers study designs, hypothesis testing, confidence intervals, and NNT/NNH.
How to Read a Paper — Trisha Greenhalgh, BMJ Books, 6th Edition, 2019
Standard reference for critical appraisal. Essential for the Research component of the ALPHA cluster.

Digital & Institutional Resources

- RMU / HEC Digital Library — accessible through the university intranet and library portal. Provides access to full-text journals, e-books, and databases.
- UpToDate — available at RMU Library computers. The most comprehensive point-of-care clinical decision support tool. Particularly useful for management protocols.
- USMLE and MRCP resources —— students preparing for postgraduate licensing examinations should supplement their reading with USMLE Step 2 CK (UWORLD) or MRCP Part 1/2 question banks.

Students are strongly encouraged to maintain a personal reading log aligned with the weekly SGIS topic schedule. Reading assigned topics the evening before the SGIS session ensures maximum benefit from the interactive session format.

Acknowledgements & Revision History

This study guide has been compiled by the Department of Medicine & Allied, Rawalpindi Medical University, drawing on the following source materials, institutional documents, and published references:

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Revision History

Date	Revision Details
31/12/22	OSCE station details added. Comparison with UHS assessment. Page numbers added.
01/01/23	UHS/RMU comparison improved. References added.
21/01/23	OSCE and clinical component details improved.
10/02/23	TOS updated — 5% MCQs may come from any topic.
08/03/23	Study Guide revised and updated.
19/06/23	Assessment updated post-examination. 50% pass in Long and Short Cases made mandatory. SAQs in EBE increased from 5 to 10.
25/09/23	Modifications in Sections IV and V.
11/01/24	Attendance filter added for WBA marks.
31/01/24	WPBA table updated according to ward attendance.
12/02/24	Document revised. Pass marks increased to 60%. Pre-Annual Assessment added. Introduction to assessments added.
26/02/24	MCQ assessment % modified. EMQs added.
10/03/24	Assessment blueprint added.
01/04/24	Corrections in number of components.
04/04/24	OSCE station numbers increased for WA, EBA, and Final Professional. EMQ and SEQ added.
15/04/24	Formatting modifications per VC verbal directions.
09/06/24	LMS-based assessment details added. Formatting modifications.
15/08/24	Minor corrections.
24/08/24	Assessment section modifications from same-day meeting.
05/02/25	Major revision. Module III revised to 2 weeks Neurology + 1 week Cardiology + 1 week Radiology.
Session 2025	Rotations reverted to individual specialties (Cardiology, Dermatology, Psychiatry, Radiology) to address gap in exposure for students promoted from 4th year.
February 2026	Module III revised to 2 wks Neurology + 1 wk Cardiology + 1 wk Radiology within embedded internship model.
March 2026	'Rotation' formally replaced with 'Placement'. Duration revised from 12 to 11 weeks. Neurology reduced from 2 to 1 week. This was further reverted as well keeping in mind current Final Years 4th year Pediatric placement. Embedded Internship Program induction keeping in mind RMU-12

PART G — ANNEXURSS

- **Student and Faculty Guide Document**
- **Concise Program Description**
- **Patient Record Keeping**