3rd Year MBBS

Study Guide

Integrated Modular Curriculum

Microbes and Anti-Microbials Module - IV
2023

Table of Contents

Microbes & Anti-Microbials Module Team

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Review by : Module Committee

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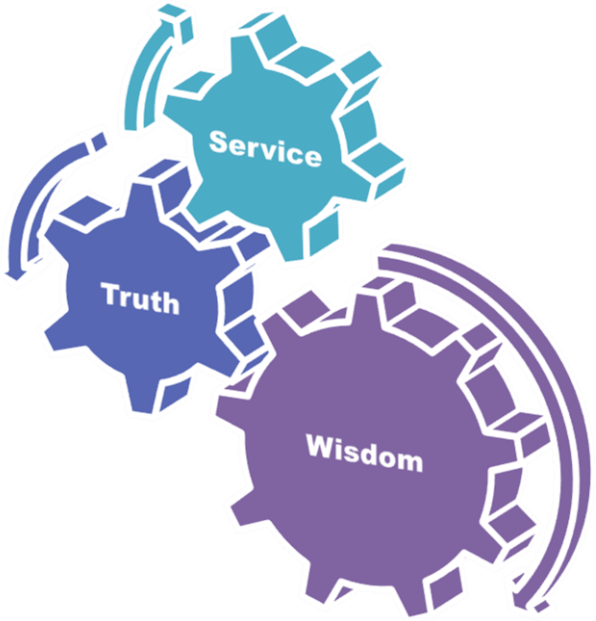
University Moto, Vision, Values & Goals

RMU Motto



Mission Statement

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

Vision and Values

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

Goals of the Undergraduate Integrated Modular Curriculum

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

- Provide thorough grounding in the basic theoretical concepts underpinning the practice of medicine.
- Develop and polish the skills required for providing medical services at all levels of the Health care delivery system.
- Help you attain and maintain the highest possible levels of ethical and professional conduct in your future life.
- Kindle a spirit of inquiry and acquisition of knowledge to help you attain personal and professional growth &excellence.

Module – IV

Microbes and Anti-Microbial Module

Introduction: This module provides integration of core concepts that underlie the basic science/pathology of Microbial diseases and their use in clinical medicine. This will eventually lead to develop critical thinking for integration and application of basic knowledge for clinical application.

Rationale: The Microbes and Anti-Microbial module is designed to impart basic knowledge about Pharmacology, Pathology, Forensic Medicine, Community Medicine, Pediatrics, family medicine, Gynecology, Psychiatry, Medicine& Surgery. This knowledge will serve as a base on which the student will construct further knowledge about the etiology, pathogenesis and prevention of diseases; the principles of their therapeutics and management.

Module Outcomes

Each student will be able to:

Knowledge

Acquire knowledge about the basic terminologies used in Pharmacology, Pathology & Forensic Medicine as well as the concepts of diseases in the community

Appreciate concepts & importance of

- Research
- Biomedical Ethics
- Family Medicine
- Use technology based medical education including Artificial Intelligence.

Skills

Interpret and analyze various practical of Pre-clinical Sciences

Attitude

Demonstrate a professional attitude, team building spirit and good communication skills

This module will run in 7 weeks duration. The content will be covered through introduction of topics. Instructional strategies are given in the time table and learning objectives are given in the study guides. Study guides will be uploaded on the university website. Good luck!

Section I –

Terms & Abbreviations

Contents

Tables & Figures

Table1.

Domains of learning according to Blooms Taxonomy

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

Teaching and Learning Methodologies / Strategies

Large Group Interactive Session (LGIS)

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

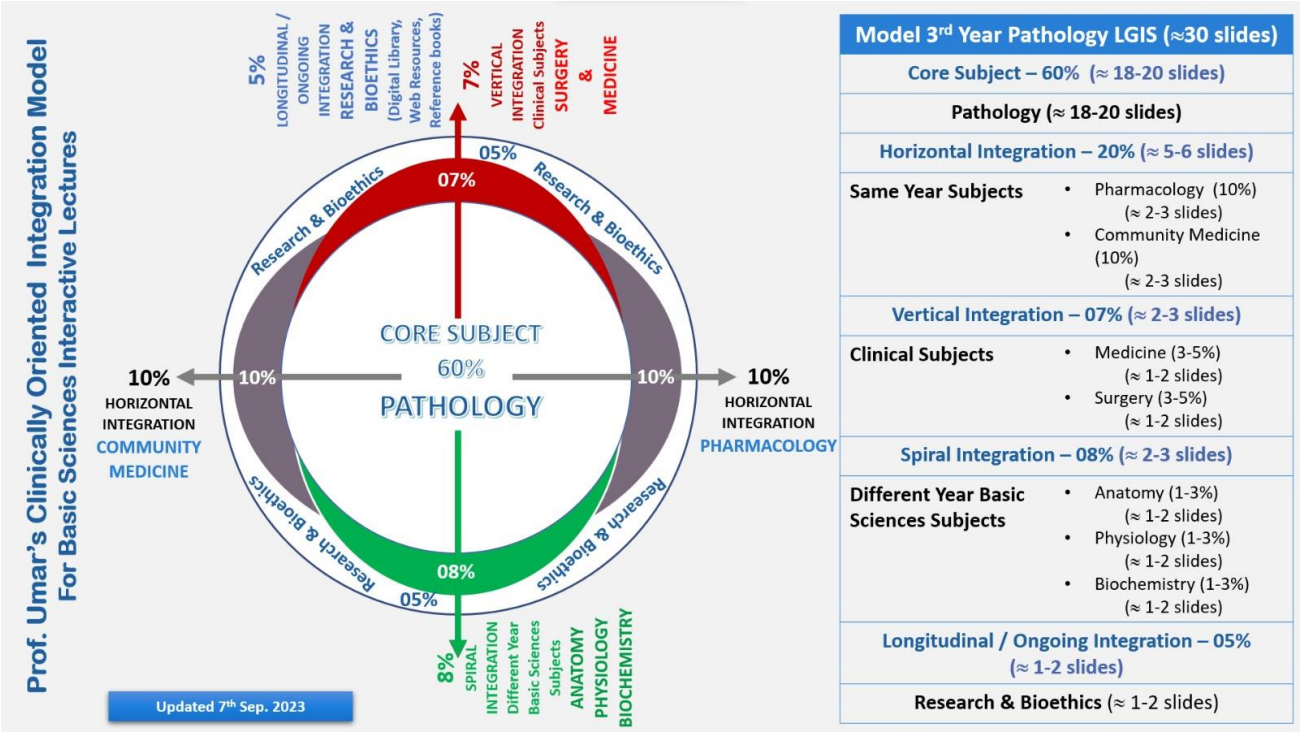


Figure 1. Prof Umar's Model of Integrated Lecture

Small Group Discussion (SGD)

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

Table 2

Standardization of teaching content in Small Group Discussions

S.No	Topics	Approximate %
1	Title Of SGD	
2	Learning Objectives from Study Guides	
3	Horizontal Integration	5%+5%=10%
4	Core Concepts of the topic	60%
5	Vertical Integration	20%
6	Related Advance Research points	3%
7	Related Ethical points	2%

Table 3

Steps of taking Small Group Discussions

Step 1	**Sharing of Learning objectives by using students Study guides**	**First 5 minutes**
Step 2	Asking students pre-planned questions from previous teaching session to develop co-relation (these questions will be standardized)	5minutes
Step 3	Students divided into groups of three and allocation of learning objectives	5minutes
Step 4	ACTIVITY: Students will discuss the learning objectives among themselves	15 minutes
Step 5	Each group of students will present its learning objectives	20 min
Step 6	Discussion of learning content in the main group	30min
Step 7	Clarification of concept by the facilitator by asking structured questions from learning content	15 min
Step 8	Questions on core concepts	
Step 9	Questions on horizontal integration	
Step 10	Questions on vertical integration	
Step 11	Questions on related research article	
Step 12	Questions on related ethics content	
Step 13	Students Assessment on online MS teams (5 MCQs)	5 min
Step 14	Summarization of main points by the facilitator	5 min
Step 15	Students feedback on the SGD and entry into log book	5 min
Step 16	Ending remarks	

Self-Directed Learning (SDL)

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

Case Based Learning (CBL)

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

i. To provide students with a relevant opportunity to see theory in practice
ii. Require students to analyze data in order to reach a conclusion.
iii. Develop analytic, communicative and collaborative skills along with content knowledge.

Section II-

Learning Objectives, Teaching Strategies & Assessments

- Horizontally Integrated Clinical Sciences (Pharmacology, Pathology & Forensic Medicine)
- Large Group Interactive Session:
  - Pharmacology (LGIS)
  - Pathology (LGIS)
  - Forensic Medicine (LGIS)
- Small Group Discussions
  - Pharmacology (SGD)
  - Pathology (SGD)
  - Forensic Medicine (SGD)
- Self-Directed Topic, Learning Objectives & References
  - Pharmacology(SDL)
  - Pathology (SDL)
  - Forensic Medicine (SDL)
- Practical
- Vertical horizontal integration
  - Medicine & Allied
  - Surgery & Allied
  - Bioethics
  - Family Medicine

Learning Objectives

Week 1

Code No	Topic	Discipline	At the end of the lecture student should be able to	C/P/A	Teaching strategy	Assessment tools
L1	Revisit Lecture,	Biochemistry	Krebs cycle, pyruvic acid cycle, bacterial metabolism	C2	LGIS	MCQs
SDL	Introduction to Microbiology	Pathology	Classify he microorganisms i. e bacteria, viruses, parasites & fungi with various examples Explain clinical significance of microorganisms, Differentiate between virus and bacteria Enumerate the differences between eukaryotic and prokaryotic cells	C3 C2 C3 C2	SDL	MCQs, SEQs, OSPE, viva
L2	Structure of Bacterial cell wall	Pathology	Differentiate between structure of gram positive and gram negative bacterial cell wall Correlate structural components of bacteria with their pathogenicity Define plasmid, transposon, mesosome, glycocalyx. – C1	C3 C3 C1	LGIS	MCQs, SEQs, OSPE, Viva
L3	Medical Errors	Medical ethics	Understand Medical Errors • Explain the background of medical errors • Elaborate why medicine susceptible to error • Delineate the reasons of reluctance to report • Classify the medical errors	C2 C2 C2 C2 C2	LGIS	MCQs
L4	Intro to chemotherapy	Pharmacology	Classify anti-bacterial drugs based on mechanism of Action, anti-microbial spectrum & type of anti-microbial activity Explain bacteriostatic & bactericidal activity of antibacterial drugs with examples Describe Dose-dependent & time-dependent killing based on MIC C2 Explain post-antibiotic effect with examples C2 Describe briefly the steps and factors affecting selection of an antimicrobial for different types of therapy Enumerate the problems associated with anti-microbial use Briefly discuss anti-microbial resistance and its mechanism	C1 C2 C2 C2 C2 C1 C2	LGIS	C2 MCQs&SEQ
L5	Bacterial Metabolism and growth curve	Pathology	Define each phase of growth cycle Differentiate between aerobic and anaerobic growth Explain fermentation of sugars Discuss iron metabolism	C1 C3 C2 C2	LGIS	MCQs, SEQs,OSPE

L6	Disposal of Waste	Community Medicine	1 Define solid waste. Demonstrate sources of waste. Explain ways of collection of waste. Describe methods of disposal of waste Describe health hazards of improper disposal. Describe sanitation barrier. Elaborate methods of excreta disposal. Define septic tank and its working. Describe its maintenance. Explain ways for disposal of sewage Describe health hazards of improper sewage treatment. Enlist modern ways of sewage disposal	C1 C3 C2 C2 C2 C2 C3 C1 C2 C2 C2 C1	LGIS	MCQ/SEQ
L7	Introduction, basic symptoms analysis and investigations	Medicine	•Discuss clinical Assessment of patients with infectious disease. •Describe presenting problems in infectious disease in relation to different symptoms. •Discuss microbial investigations of infectious diseases.	C2,A3 C2 C2-C3	LGIS	SEQS, MCQs, OSPE
L8	Microbiology of Surgical infection	Surgery	-Enlist and common surgical pathogens -Define wound infection. C1 -Describe decisive period and role prophylactic antibiotic in this period. -Describe sources of wound infection and risk factors of wound infection.	C1 C1 C3 C2	LGIS	MCQs ,SEQs
L9	Bacterial Genetics	Pathology	Define different types of mutations,- C1 Describe bacterial components for genetic transformation C2 Discuss high frequency recombination,- C2 Define fertility plasmid and sex pilus Discuss transduction Explain transformation –	C1 C2 C1 C2 C2	LGIS	MCQs, SEQs,OSPE
L10	Pathogenesis of infectious agents in microbiology	Pathology	Define different terminologies,- C1 Explain modes of transmission and adherence and entry in host cell.– C2 Explain mechanism of action of important toxins,- C2 Differentiate between exotoxin and endotoxin,- C2 Explain Koch's postulates.- C2 Identify different lab test- C1 Describe principle of different lab.tests– C2 Interpret various lab tests for different diseases. -C3	C1 C2 C2 C2 C2 C1 C2 C3	LGIS	MCQs, SEQs,OSPE
L11	Penicillins l (Classification and Pharmacokinetics)	Pharmacology	Enumerate groups of Cell Wall Inhibitors C1 Classify Penicillin C1 Describe mechanism of action of Penicillin C2 Describe anti-bacterial spectrum of Penicillin C2	C1 C1 C2 C2		
L12	Fever of unknown origin	Medicine	•Define P.U.O. C1 •Enumerate causes/etiology of P.U.O. Describe investigations and management plan of P.U.O. C2-C3	C1 C2,A3 C2,C3	LGIS	SEQS, MCQs, OSPE
L13	Presentation of surgical infections	Surgery	-Describe surgical site infection and its types. -Describe management of SSI. -Briefly Describe management of local infections like thrombophlebitis, lymphangitis, abscess. -Describe management of systemic infections SIRS, septicemia in surgical patient. C3	C2 C3 C3 C3	LGIS	MCQs SEQ

			-Briefly describe requirement of Surgery in patients with HIV, COVID and precautions needed. C 3	C3		
L14	Penicillins ll (Pharmacodynamics with interactions)	Pharmacology	Enumerate uses & adverse effects of Penicillins C1 Describe mechanisms of resistance to Penicillins C2	C1 C2	LGIS	C2 MCQs & SEQ
L15	Laboratory diagnosis in microbiology	Pathology	Explain different types of sample processing techniques,- C2 Describe serological methods used for diagnosis of infectious diseases, - C2 Discuss nucleic acid based methods for infectious disease diagnosis - C2	C2 C2 C2		MCQs, SEQs, OSPE
L16	Vancomycin	Pharmacology	Describe mechanism of action and clinical uses of Vancomycin Enumerate adverse effects of vancomycin Explain in detail Red Man Syndrome and its management	C2 C2 C2	LGIS	C2 MCQs/SEQs
L17	Ethical Consideration of infectious diseases	Family Medicine			LGIS	MCQs, SEQs
SDL	Normal flora and classification of bacteria	Pathology	Classify gram positive and gram negative groups of bacteria – C3 Enumerate important flora of various biomes in human body - C1 Describe relationship between normal flora and host C2	C3 C1 C2	SDL	MCQs, SEQs,OSPE
P1	P- Drug prescription	Pharmacology	P drug & prescription writing for various types of superficial skin infections			C3 OSPE
P2	Autopsy Visit/Postmortem &Medicolegal work/Research	Forensic Medicine	-Enumerate the contents of Medico-legal/postmortem reports. -State the requirements of a mortuary. -Classify the pattern of injuries in MLC case. The student will be keen enough to highlight and express his/her obligations towards cases of Medicolegal injuries and deaths -Preparation of MLC/autopsy report. -Observe autopsy and Medico-legal case management at DHQ, Hospital	C2 C2 C1	Autopsy visit	,MCQS,VIVA
P3	Microscope	Pathology	-Identify different parts of Microscope.– -set up different focusing of microscope -Use microscope correctly in diagnosing morphology and identification of microorganism	C1 \C3 P4	Use Microscope without hesitance. A2,	MCQs, OSPE

Week 2						
Code No	**Topic**	**Discipline**	**At the end of the lecture student should be able to**	**C/P/A**	**Teaching Strategy**	**Assessment tool**
L18	Anti-Microbial drugs resistance	Pathology	-Describe the mechanism of action of nucleic acid inhibitors and cell membrane inhibitors, -Discuss in detail different mechanisms of antimicrobial resistance, - -Explain different methods of antimicrobial sensitivity testing, - Enumerate different bacterial vaccines -	C2 C2 C2 C1	LGIS	MCQs, SEQs,OSPE
L19	Medicolegal Autopsy	Forensic Medicine	Describe the preservation of viscera and other articles during an autopsy. Define negative and obscure autopsy and write its causes. Describe the procedure of exhumation and its Forensic Importance. Briefly explain Assessment of mutilated and decomposed bodies. Define Postmortem artifacts and its type w.r.t their medico-legal importance.	C2 C1 C2 C2 C2	LGIS	MCQs,SEQs,OSPE
L 20	Sterilization and disinfection	Pathology	-Define Chemical disinfectants, - -Categorize chemical disinfectants Explain physical methods of disinfection and sterilization -	C1 C2 C2	LGIS	MCQs, SEQs,OSPE
L21	Staphylococci l (transmission, pathogenesis, Signs, symptoms)	Pathology	-Explain Important properties, epidemiology - -Describe transmission, pathogenesis, Signs, symptoms, laboratory diagnosis and treatment of Staphylococcus aureus, Staphylococcus epidermidis and Staphylococcus saprophyticus -	C1 C2 C2	LGIS	MCQs, SEQs,OSPE
L22	Importance of sterilization and disinfection in microbiology	Pathology	-Explain their mechanism of action Differentiate between Sterilization and disinfection Differentiate among different methods of sterilization and disinfection	C2 C3 C3	LGIS	MCQs, SEQs,OSPE
L23	Critical Surgical infections and their treatment	Surgery	describe management of gas gangrene, necrotizing fasciitis.	C3	LGIS	MCQ,VIVA, OSPE
L24	Inorganic irritants Metallic Poisons (Arsenic)	Forensic Medicine	-Classify the types of Inorganic Irritants (Arsenic). Describe mechanism of action of in Inorganic irritants and clinical features of a poisoning with Arsenic Mention the fatal dose, management, medico-legal importance of each type of inorganic poisoning. Briefly explain the autopsy findings of a victim of inorganic metallic poisoning.	C1 C2 C2 C2	LGIS	MCQs, SEQs
L25	Cephalosporins	Pharmacology	-Classify Cephalosporins -Describe mechanism of action of Cephalosporins -Discuss anti-bacterial spectrum of different generations of Cephalosporins -Discuss uses and adverse effect of Cephalosporins based on their spectrum	C1 C2 C2 C2	LGIS	C2 MCQs&SEQ
SGD	Clostridia (All 4 types)	Pathology	-Enumerate different types of gram positive spore forming rods, - -Discuss different types of Clostridia in detail along with their laboratory diagnosis -	C1 C2	Demonstrate affective interpersonal and communicatio n skills A3	OSPE,MCQS

L26	Staphylococci ll (important properties, Classification on the basis of Laboratory diagnosis	Pathology	-Enumerate different types of staphylococci - - Differentiate important properties and diseases of all staphylococci, -Classify staphylococci on the basis of Laboratory diagnosis	C1 C2 C2	LGIS	MCQs, SEQs,OSPE
L 27	Miscellaneous cell wall synthesis Inhibitors	Pharmacology	Describe mechanism of action of various cell wall synthesis inhibitors -Describe clinical uses and adverse effects of miscellaneous cell wall synthesis inhibitors	C2 C2	LGIS	C2 MCQs/SEQs
L28	Neonatal Tetanus	Peads	•Define Neonatal tetanus •Describe clinical features •Discuss Differential diagnosis •Discuss treatment and management plan •Discuss Role of immunoglobulins •Discuss about maternal and neonatal immunization for tetanus •Enlist preventive measures	C1 C1 C2 C2 C2 C2 C2	LGIS	MCQs, OSPE
L29	Prevention of surgical infection	Surgery	Understand importance of aseptic technique in surgery for prevention of surgical infection. -Understand role of pre –operative patient optimization and preparation in prevention of surgical infection. -Describe role of prophylactic antibiotics.	C2 C2 C3	LGIS	MCQs, SEQ,Viva
L30	Streptococci	Pathology	-Enumerate different types of streptococci according to their groups. -Explain important diseases and laboratory diagnosis of β-hemolytic streptococcus. -Explain important diseases and laboratory diagnosis of Streptococcus viridians -Discuss different properties and diseases caused by strep. *P*neumonia -Discuss diseases and laboratory diagnosis of enterococci and streptococcus pneumoniae	C1 C2 C2 C2 C2	LGIS	MCQs, SEQs,OSPE
L31	Gram Negative cocci Neisseria	Pathology	-Enumerate different types of gram negative cocci, - -Discuss different diseases and its complications -Explain laboratory diagnosis of Neisseria meningitidis and Neisseria gonorrhoeae-	C1 C2 C2	LGIS	MCQs, SEQs,OSPE
L32	Diphtheria, Pertusis,Chickenpox	Peads	•Define the disease •Describe clinical features •Discuss Differential diagnosis •Identify complications •Manage disease and its complications •Discuss about immunization against diphtheria/pertussis/chicken pox •Enlist preventive measures	C1 C1 C2 C2 C2 C2 C2	LGIS	MCQS
SGD/CBL	Penicillin (Clinical Pharmacology)	Pharmacology	-Use of different types of Penicillin in MRSA	C2,C3	CBL	MCQ/PBQ
P4	P drug & Prescription writing(Tonsillitis & Upper respiratory infections	Pharmacology	•P drug & prescription writing for tonsilitis •P drug & prescription writing for upper respiratory tract infections		Practical	C3 OSPE
P5	Inorganic irritants Metallic Poisons	Forensic Medicine and Toxicology	The student will be able to manage case of a (Mercury, Copper& Zinc) poisoning			

	(Mercury, Copper& Zinc)		.Identify specimen of Inorganic irritants Metallic Poisons (Mercury, Copper& Zinc) •Classify the types of Inorganic metallic Irritants (Mercury, Copper& Zinc) •Describe mechanism of action of in Inorganic irritants and clinical features of a poisoning with (Mercury, Copper& Zinc) •Mention the fatal dose, management, medico-legal importance of each type of inorganic poisoning. •Briefly explain the autopsy findings of a victim of inorganic metallic poisoning(Mercury, Copper& Zinc)	C1 C2 C2 C2	.CBL/SGD	OSPE
P6	Bacterial Morphology	Pathology	Identify the structure of bacteria on morphological basis -	Focus the slide on microscope P3 Identify structure of bacteria P3	Demonstrate positive attitude towards safe handling of laboratory specimens A3	OSPE

Week 3						
Code No	**Topic**	**Discipline**	**Knowledge**	**Skill**	**Attitude**	**MOA**
L33	Listeria, Corynebacterium Diphtheria, Bacillus	Pathology	-Explain pathogenesis and laboratory diagnosis of Corynebacterium diphtheriae, - Describe Listeriosis and its laboratory diagnosis.– Discuss in detail types of anthrax, - Explain laboratory diagnosis of Bacillus cereus.	C2 C2 C2 C2	LGIS	MCQs, SEQs,OSPE
L34	Introduction to Enterobacteriaceae and E. coli, Klebsiella l	Pathology	-Describe Important properties of Enterobacteriaceae and E. coli, Klebsiella., -Describe transmission, pathogenesis, signs and symptoms, laboratory diagnosis of Enterobacteriaceae	C2 C2	LGIS	MCQs, SEQs,OSPE
L35	Introduction to Enterobacteriaceae and E. coli, Klebsiella ll	Pathology	-Describe different strains of E. coli, - -Discuss interpretation of TSI, - -Explain laboratory diagnosis and treatment of E. coli infection -	C1 C2 C2	LGIS	MCQs, SEQs,OSPE
L36	Shigella, Vibrio *Cholerae*	Pathology	-Describe Important properties, epidemiology. of Vibrio cholerae and Shigella -Describe transmission, pathogenesis, signs and symptoms, laboratory diagnosis and treatment of Shigella and Vibrio Cholerae. -Enumerate different types of vibrio.– -Discuss pathogenesis of cholera and shigellosis. -Identify diagnostic tests available for vibrio cholera and its treatment	C2 C2 C1 C2 C3	LGIS	MCQs, SEQs,OSPE
L37	Tetracyclines	Pharmacology	-Enumerate groups of Protein synthesis inhibitors -Classify tetracyclines -Describe the mechanism of action of Tetracyclines -Describe the anti-bacterial spectrum of Tetracyclines -Enumerate uses and adverse effects of Tetracyclines	C1 C2 C2 C1	LGIS	C2 MCQs/SEQs
L38	Salmonella Pathogenicity and properties	Pathology	-Discuss Important properties & epidemiology. - Explain transmission, pathogenesis, signs and symptoms -Identify laboratory diagnosis and treatment of Salmonella	C2 C2 C2	LGIS	MCQs, SEQs,OSPE
Seminar L39	Salmonella classification and lab diagnosis	Pathology	Discuss classification of salmonella, -Explain important properties and pathogenesis of Salmonella - C2 -Discuss chronological order of diagnostic tests for typhoid fever - C2.	C2 C2 C2	LGIS	MCQs, SEQs,OSPE
L40	Enteric Fever/	Medicine	Describe pathophysiology of Typhoid fever. Recognize signs and symptoms of Typhoid fever. Discuss investigations, management and prevention of Typhoid Fever.	C2 C2 C3	LGIS	MCQs, SEQs, OSPE
L41	Enteric Fever/ Acute Diarrhoea	Peads	•Define Enteric fever •Discuss etiology •Describe epidemiology and pathogenesis •Discuss incubation period and its clinical features according to the age •Plan pertinent investigations, interpret and take appropriate action •Enumerate differential diagnosis •Enlist steps of management •Identify complications and know treatment accordingly •Discuss Preventive measures	C1 C2 C2 C2 C3 C2 C2 C2	LGIS	MCQs, SEQs

L42	Quinolones/ Fluoroquinolones	Pharmacology	Classify fluoroquinolones Describe mechanism of action of Fluoroquinolones Discuss spectrum of Fluoroquinolones Discuss uses of Fluoroquinolones based upon their Spectrum Discuss adverse effects & contraindications of Fluoroquinolones in pregnancy and in children	C1 C2 C2 C2	LGIS	C2 MCQs/SEQs
L43	Brucellosis	Medicine	•Recognize epidemiology of infection. •Describe clinical findings of brucellosis. •Describe investigations, differential diagnosis, complications and treatment of brucellosis.	C1 C2,A3 C2	LGIS	SEQS, MCQs, OSPE
L44	An approach to patient with fever	Family Medicine	Explain the rationale and management of fever.		LGIS	MCQs, SEQs
L45	Gram Negative rods related to respiratory tract (Important properties &epidemiology, pathogenesis, laboratory diagnosis)	Pathology	Describe Important properties &epidemiology of Gram Negative rods related to RTI. -Discuss transmission, pathogenesis, signs and symptoms, laboratory diagnosis of Haemophillus. -Discuss important properties -Discuss pathogenesis, laboratory diagnosis of bacteria of respiratory tract. Explain pathogenesis of Bordetella, - Discuss legionnaire's disease and important properties of organism	C2 C2 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs,OSPE
SGD	Helicobacter and Campylobacter	Pathology	-Discuss related diseases of Helicobacter and Campylobacter , Discuss pathogenesis and laboratory diagnosis of Campylobacter and Helicobacter ,	C2 C2	SGD	MCQs, SEQs,OSPE
CBL	Gram Negative Rods Related to Zoonotic diseases	Pathology	-Discuss pathogenesis and laboratory diagnosis of brucella, -Discuss important properties -Discuss pathogenesis and laboratory diagnosis of Yersinia pestis -Explain pathogenesis and laboratory diagnosis of infections caused by Francisella and Pasteurella ,	C2 C2 C2 C2	LGIS	MCQs, SEQs,OSPE
L 46	Inorganic irritants Metallic Poisons (Lead)	Forensic Medicine& Toxicology	•Classify the types of Inorganic Irritants (Lead). •Describe mechanism of action of in Inorganic irritants and clinical features of a poisoning with lead. •Mention the fatal dose, management, medicolegal importance of each type of inorganic poisoning. •Briefly explain the autopsy findings of a victim of inorganic metallic poisoning	C1 C2 C2 C2	LGIS	MCQs, SEQs,OSPE
SDL	Actinomycosis, Mycoplasma	Pathology	Differentiate between Actinomyces and nocardia, - Explain laboratory diagnosis of actinomyces and nocardia, - Discuss important features, laboratory diagnosis and treatment of atypical pneumonia caused by Mycoplasma pneumoniae -	C2 C2 C2	SDL	MCQs, SEQs, Viva, OSPE
P7	P drug & Prescription writing (UTIs)	Pharmacology	P drug & prescription writing for UTIs in children and adults			C3 OSPE
P8	Phosphorus Iodine	Forensic medicine & Toxicology	-Classify the types of Inorganic non-metallic Irritants (Phosphorus & Iodine) -Describe mechanism of action of in Inorganic irritants and clinical features of a poisoning with (Phosphorus & Iodine) -Mention the fatal dose, management, medico-legal importance of each type of inorganic poisoning.	C1 C2 C2	CBL/SGD	MCQs, Viva

			-Briefly explain the autopsy findings of a victim of inorganic metallic poisoning(Mercury, Copper& Zinc) -Identify specimen of Inorganic irritants Metallic Poisons (Phosphorus & Iodine) -The student will be able to establish a case of Phosphorus and copper poisoning and perform duty as CMO.	C2		
P9	Culture media ,Gram Staining	Pathology	• -Identify bacteria on the basis of staining properties.– • -Describe the usage of culture media for different microorganism • Perform Gram Staining • Identify different culture media on the basis of differential , selective and enriched properties	C1 C2 P3 P3	Value the importance of adhering to the SOPs while ordering tests for bacterial culture A2	OSPE,VIVA

Week 4						
Code No	Topic	Discipline	Knowledge	C/P/A	Teaching Strategy	Assessment tool
CBL	Tetracyclines (Clinical Pharmacology)	Pharmacology	Use of Tetracycline in a specific clinical scenario	C2, C3	CBL	C2 MCQs/SEQs
L47	Sulphonamides &Trimethoprim	Pharmacology	-Describe the mechanism of action of Cotrimoxazole	C2	LGIS	C2 MCQs/SEQs
			-Describe spectrum, uses and adverse effects of Cotrimoxazole	C2		
			-Describe the spectrum of Co-trimoxazole	C2		
L48	Aminoglycosides	Pharmacology	-Classify Aminoglycoside	C1	LGIS	C2 MCQs/SEQs
			Examine Pharmacokinetics of Aminoglycosides	C2		
			--Describe spectrum of Aminoglycosides	C2		
			-Describe Clinical uses of Aminoglycosides	C2		
			-Describe adverse effects and contraindication Aminoglycosides	C2		
L49	Antimicrobial treatment in surgical infections	Surgery	-Understand principles of antimicrobial treatment in surgical infections. -Describe rational empirical antibiotics use according to flora.	C2 C3	LGIS	,MCQs, SEQs
L50	food poisoning	Forensic Medicine	Describe the microbial classification implicated in Food poisoning Describe the non microbial contamination of Food. Describe the symptoms of food poisoning Describe the guidelines for stool collection and preservation in case of suspected food poisoning. Describe the medicolegal importance of Food poisoning.	C1 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs, VIVA
CBL	Aminoglycosides Clinical Pharmacology	Pharmacology	•Use of Aminoglycosides in specific clinical scenario	C2,C3	CBL	C3 PBQ
L51	Rickettsia, Chlamydia	Pathology	-Enlist types of Rickettsia, Chlamydia Describe Pathogenesis, Clinical features, treatment of diseases caused by Rickettsia, Chlamydia	C2 C2		MCQs, OSPE, Viva
CBL	Medical Errors	Medical Ethics	• Perform the Pharmaco vigilance in clinical setting with special focus on performing Pharmaco vigilance and filling following forms a. Error reporting form b. Error analysis form c. WHO guidelines for surgical procedure safety d. Guidelines for prevention of medication error e. Guidelines for prevention of diagnostic error	C2 C2 C2 C2 C2	CBL	Assignment based assessment on performing the Pharmaco vigilance of assigned ward under aggregate Marks (Internal Assessment
SDL	Minor Bacterial Pathogens	Pathology	Discuss diseases caused by different minor bacterial pathogens.–	C2	SDL	MCQ, Viva
P10	P drug & Prescription writing (Pnemonia)	Practical Pharmacology	• P drug & prescription writing for various types of pneumonias			C3 OSPE
P11	Forensic entomology • Snake • Bees • Wasp venom	Forensic Medicine	-Classify the types of Snakes and state their mechanism of action w.r.t their types . -Briefly describe the clinical features of Snake, wasp, scorpion and Bees poisoning and their management -State their Medicolegal importance and autopsy findings of a victim of their poisoning. Identify specimen of different snakes	C1 C2 C2	Practical	OSPE
P12	Biochemical Test,	Pathology	-Explain Principles of Catalase, Coagulase, Urease, oxidase. Indole test,	-Perform	Value the	

	Catalase, Coagulase, Urease, oxidase, indole test, citrate		citrate - - Describe interpretation of these tests -	different types of catalase and Coagulase test.– C3 -Perform urease, Oxidase, and citrate test.– C3	importance of adhering to the SOPs while ordering tests for bacterial culture and identification A2	

Week 5						
Code No	Topic	Discipline	Knowledge	C/P/A	Teaching Strategy	Assessment tool
CBL	Spirochetes	Pathology	Explain different stages of syphilis, Describe different serological techniques used for diagnosis of syphilis, Discuss treatment and prevention of syphilis, Explain Lyme's Disease, Explain transmission of Leptospira	C2 C2 C2 C2 C2	CBL	MCQs, SEQs, OSPE
L52	Macrolides	Pharmacology	Enumerate Macrolides Discuss mechanism of action of Macrolides Discuss spectrum of antibacterial activity of Macrolides Discuss adverse effects of macrolides	C1 C2 C2 C2	LGIS	C2,MCQs/SEQs
L53	Streptogramin &oxazolidinediones	Pharmacology	-Enumerate Streptogramin and oxazolidinediones C1 Describe mechanism of action of Streptogramin and Oxazolidinediones Discuss antibacterial spectrum along with adverse effects of streptogramin and oxazolidinediones	C1 C2 C2	LGIS	C2 MCQs/SEQs
L54	Influenza	Medicine	Recall epidemiology of influenza. Describe clinical findings. Describe abnormal lab investigations. Recognize complications of influenza. Describe management/treatment of infection	C2,A3 C2 A3 C2 A3 C2 A3	LGIS	SEQS, MCQs, OSPE
CBL	Diarrheal Viruses	Pathology	Explain the important properties (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses & immunity of individuals (C2) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C1-2)	C2 C2 C2 C2 C2 C1	CBL	MCQs, SEQs
L55	Clindamycin, Chloramphenicol	Pharmacology	Describe mechanism of action of clindamycin and chloramphenicol C2 Discuss antibacterial activity of clindamycin and chloramphenicol Discuss adverse effects of both agents	C2 C2 C2		C2 MCQs/SEQs
L56	Measles / Mumps / Rubella	Pathology	Explain the important properties (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses & immunity of individuals (C2) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C2)	C2 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs, OSPE
L57	TaleemwaTaalum	Quran class			LGIS	
L58	Antiviral agents I Classification	Pharmacology	Classify anti-viral drugs based on the viral disease Classify anti-viral drugs based on mechanism of action of drugs	C1 C2	LGIS	C2 MCQs/SEQs
L59	Polio, Rabies Virus	Medicine	•Recall epidemiology of infection. C1 •Describe clinical findings of infections. C2 •Describe investigations, differential diagnosis, complications and management plan for infections. C2 •Recognize preventive aspects of infection. C1	C1 A3 C2 A3 C2A3 C2 A3	LGIS	SEQS, MCQs, OSPE
L60	Housing	Community Medicine	-Describe criteria for healthful housing	C2	LGIS	MCQ/SEQ

			Describe the housing standards Explain effects of housing on health Define overcrowding Enlist indicators of housing	C2 C2 C1 C1		
L61	Acute Diarrhea In Children	Peads	•Define Diarrhea •Enlist common etiological organisms •Differentiate clinically between different etiological organisms, especially, Shigella, Vibrio Cholera Entamoeba Histolytica, and Giardia Lamblia. •Assess the signs of dehydration and classify dehydration •Plan pertinent investigations, interpret and take appropriate action •Identify complications •Treat dehydration and its complications •Rationalize the use of drugs in diarrhea	C1 C2 C2 C2 C2 C2 C	LGIS	MCQs,Viva
L62	Meteorological Environment	Community Medicine	-Describe heat stress along with its indices -Summarize the effects of heat stress & cold stress along with its prevention -Discuss the elements of meteorology. -Demonstrate the acute mountain sickness. -Explain high altitude pulmonary edema. -Describe the Caisson disease.	C2 C2 C2 C2 C2 C2	LGIS	MCQs,SEQs
CBL	Herpes Viruses, HSV	Pathology	•Explain the important properties of Herpes virus (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses with immunity of individuals (C2) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C2)	C2 C2 C2 C2 C2	CBL	MCQs, SEQs,OSPE
L63	VericellaZooster Virus, Cytomegalovirus	Pathology	-Explain the transmission and pathogenesis C2- Relate the interaction of pathogenesis of viruses with immunity of individual C3 -Explain clinical findings, Lab diagnosis C2. -Describe treatment and prevention. -discuss the reactivation of disease. C2	C2 C3 C2 C2 C2	LGIS	MCQs,SEQs,Viva
L64	Antiviral agents II Herpes simplex/Herpes Zoster	Pharmacology	-Outline the salient pharmacokinetic &pharmacodynamic features of antiviral drugs used to treat HSV, VZV, CMV and influenza C2	C2	LGIS	C2 MCQs/SEQs
L65	HIV and Immunodeficiency	Medicine	Describe natural history and classification of HIV. Describe clinical Assessment of patient with HIV infection. Discuss presenting problems in HIV infection	C2,A3 C2,A3 C3,A3	LGIS	SEQS, MCQs, OSPE
CBL	Poliomyelitis	Pathology	Explain the important properties (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses & immunity of individuals (C2) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C1-2)	C2 C2 C2 C2 C2 C2	CBL Value the importance of polio eradication program in the global burden of the	MCQs, SEQs, OSPE, Viva

					diseases A2	
SDL	Introduction to Medical Virology	Pathology	•Describe structure of viruses(C2) •Compare viruses, other cells, Prions and Conventional viruses (C3) •Explain viral growth curve (C2) •Define Genetics & Genetic Therapy (C1) •classify Medically important viruses (C3) •Explain Antiviral drugs and their mechanism of action (C2) -Discuss Pathogenesis of viral diseases (C2)	C2 C3 C2 C1 C3 C2 C2	SDL	MCQs
P13	P drug & Prescription writing Systemic viral infections)	Pharmacology	• P drug & prescription writing for viral infections			C3 OSPE
P14						
P15	ELISA, PCR, ITC	Pathology	-Explain Mechanism, principle and interpretation of ELISA - C22	Perform The test in laboratory step wise – C3		OSPE

Week 6

Code No	Topic	Discipline	Knowledge	C/P/A	Teaching Strategy	Assessment tool
L66	Respiratory Viruses	Pathology	Explain the important properties of respiratory viruses (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses & immunity of individuals (C3) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C2)	C2 C2 C2 C3 C2 C2	LGIS	SEQS, MCQs, OSPE
L 67	HIV/ diseases , AIDS	Pathology	Explain the important properties (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses & immunity of individuals (C2) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C1-2)	C2 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs, OSPE, Viva
L68	Antiviral agents III (AIDS)	Pharmacology	Define HAART Describe the mechanism of action and adverse effects of major drug groups used in AIDS C2	C2	LGIS	C2 MCQs/SEQs
L69	Miscellaneous , Congenital, Zoonotic, Arboviruses	Pathology	Explain the important properties (C2) •Describe Replicative cycle (C2) •Explain the transmission and pathogenesis of the diseases caused by these viruses (C2) •Explain the interaction of pathogenesis of viruses & immunity of individuals (C2) •Explain clinical findings and its laboratory identification (C2) •Describe the treatment & Prevention (C1-2)	C2 C2 C2 C2 C2 C1,C2	LGIS	SEQS, MCQs, OSPE
L70	Measles / Mumps / Rubella	Peads	•Define the disease •Describe clinical features •Discuss Differential diagnosis •Identify complications •Manage disease and its complications •Discuss immunization against measles/Mumps/Rubella •Enlist preventive measures	C1 C2 C2 C2 C2 C3 C2	LGIS	MCQ,SEQs,OSPE
CBL	Antiviral agents Clinical Pharmacology)	Pharmacology	-Discuss use of anti-viral agent in a specific scenario	C2	CBL	C3,PBQ
L71	Acute Stress Reaction and Adjustment Disorder	Psychiatry	Define stress reaction, stress disorder and adjustment disorders according to ICD-11 diagnostic criteria (C1) Enlist the etiological and epidemiological factors causations of disease (C1) Enumerate relevant investigations for diagnosis of acute stress reaction. (C2) Discuss the relevant investigations and differential diagnosis of stress related disorder and its brief management plan (C3)	C1,A2 C1 C2 C3	LGIS	MCQ
L72	Generalized Anxiety Disorder	Psychiatry	Define Generalized Anxiety Disorder according to ICD-11 diagnostic criteria (C1) Enlist the etiological and epidemiological factors in the causations of disease	C1,A2 C1,A2	LGIS	MCQ

			(C1) Enumerate relevant investigations for diagnosis of Generalized Anxiety Disorder (C2) Discuss the relevant investigations and differential diagnosis Generalized Anxiety disorder and its brief management plan (C3)	C2 C3		
L73	Jahalat	Quran Class				
L74	Light ,Noise and radiation	Community Medicine	Demonstrate the concept of natural &artificial lighting Explain the effects of noise exposure Describe approaches for the control of noise pollution Explain sources of noise. Describe heat stress indices. Identify heat hyperpyrexia and heat exhaustion. Demonstrate preventive measures for heat.	C2 C2 C2 C2 C2 C1 C2	LGIS	MCQ/SEQ
L75	Sexually transmitedinfections	Family Medicine	classify STDs Describe the management approach to a patient with STD in family practice Identify at risk patients and offer them screening Describe prevention of STDs	C1 C2 C2 C2	LGIS	MCQs, SEQs
L76	Systemic Mycosis	Pathology	•Identify the morphology of fungi (C1) •Describe the important features of systemic fungal diseases (C1) •Describe laboratory diagnosis of systemic fungi (C1)	C1 C1 C1	LGIS	MCQ,SEQ,OSPE
L77	Antifungal agents I (Classifications &Amphotericin B)	Pharmacology	-Enumerate various antifungal agents -Describe mechanism of action and antimicrobial spectrum of amphotericin -Discuss pharmacokinetics and unwanted effects of Amphotericin B	C1 C2 C2	LGIS	C2 MCQs/SEQs
CBL	Cutaneous and subcutaneous Mycosis	Pathology	• identify of most common fungal pathogens associated with cutaneous and sub cutaneous mycoses (C1) •Compare the major characteristics of specific fungal diseases affecting the skin (C2)	C1 C2	CBL	MCQS, SEQs, OSPE
CBL	Antifungal Agents (Clinical Pharmacology)	Pharmacology	-Use of anti-fungal agents in a specific clinical scenario		CBL	C3 PBQ
L78	Infections in pregnancy	Gynae/OB	Classify infections in pregnancy Enlist the organism of infection Identify lab diagnosis and treatment	C2 C2 C2	LGIS	MCQs, SEQs
SDL	Introduction to Basic Mycology	Pathology	•List General characteristics of fungi (C1) •Classify medically important fungi (C2) •Describe Host response to fungal infections (C2) •Classify spectrum of fungal diseases (C1) •Describe Laboratory diagnosis (C2) •Describe Importance of direct microscopic techniques in fungal diagnosis (C1) •Describe Anti-fungal agents (C1-2)	C1 C2 C2 C1 C2 C1 C1,C2	SDL	MCQS,SEQs,
P16	P drug & Prescription writing Systemic fungal infections)	Pharmacology	-P drug & prescription writing for fungal infections			C3 OSPE
P17	CORROSIVES (sulph uric acid, Nitric acid, Hydrochloric acid	Forensic Medicine	Identify specimen of CORROSIVES – Classify Corrosives and state its mechanism of actions. •Briefly explain the clinical effects of corrosives on human body.	C1 C2 C2	SGDS \ CBL	MCQs, VIVA

	carbolic and oxalic acid)		-State the fatal dose and management of corrosives burns. -Define Vitreolage -Briefly describe the medico-legal importance of throwing of corrosives and their autopsy findings. -The student will be able to manage case of a CORROSIVES burns	C1 C2		
P18	Lab Diagnosis of fungal infection	Pathology	-	Perform different lab test for identification of fungus in lab. -P3	Demonstrate safe handling of lab equipment and follow SOPs A3	OSPE

			Week 7			
L 79	Antifungal agents II	Pharmacology	describe mechanism of action of Azoles, Echinocandinsandother antifungal drugs • Discuss clinical uses and adverse effects of various antifungal drugs	C2 C2	LGIS	MCQ,SEQs
CBL	Candida	Pathology	-Explain Important properties of Candida C1 -Describe its reproduction C1, C2 -Explain transmission, Pathogenesis and diseases caused by this organism C2 -Relate the interaction of pathogenesis of this organism with immunity of individuals.C2 -Explain clinical findings and its laboratory identification C1 - Describe treatment and prevention of Candida C2	.C1 C1,C2 C2 C2 C1 C2	Demonstrate the critical thinking attitude needed for applying basic knowledge to a clinical situationA2	MCQs, SEQs, OSPE, Viva
L80	Anticancer agents I (Classifications & basic rules for cancer regimens)	Pharmacology	- Classify anti-cancer drugs -Explain the term cell-cycle specific and cell cycle non-specific -Enumerate cell-cycle specific and cell cycle non-specific drugs	C1 C2 C1	LGIS	C2 MCQs/SEQs
L81	Somniferous Poisons	Forensic Medicine	• Classify Somniferous Poisons commonly implicated in poisoning. • State its active principle and derivatives of opium. • Describe the clinical presentation of opium and morphine poisoning w.r.t its stages of intoxication. Briefly describe the management of Somniferous Poisons with special emphasis on decontamination, removal of ingested and absorbed poison. • Briefly explain autopsy findings of a victim of Somniferous Poisoning • State the Medicolegal importance of Somniferous Poisons	C1 C1 C2 C2 C2	LGIS	MCQs, SEQs, OSPE
CBL	Opportunistic Mycosis	Pathology	•Identify the morphology of fungi (C1) •Describe the important features of opportunistic fungal diseases (C1) •Explain co-morbidities (C2) •Describe laboratory diagnosis (C2)	C1 C1 C2 C2	CBL	MCQs, SEQs, OSPE
Seminar day L 82	Dengue fever ,Pathological aspects and Lab Diagnosis LGIS	Pathology	-Discuss the Pathogenesis of dengue fever C2 Describe its life cycle , sign, symptoms, lab diagnosis of dengue fever C2 -Describe prevention and treatment C2	C2 C2 C2	LGIS	MCQs, SEQs, VivaS
L83	Dengue fever, Sign symptoms and Treatment	Medicine	Describe pathophysiology of dengue infection. C1 •Recognize signs and symptoms of dengue fever. •Differentiate between DF, DHF, and DSS on basis of symptoms, signs and lab parameters. •Discuss investigations and management of dengue fever. C2-C3	C2-C3,A3 C2,C3,A3 C2,C3,A3 C2,C3,A3	LGIS	MCQ, SEQs,OSPE
L84	Pediatric presentation of Dengue fever	Peads	•Define of Dengue Fever, Dengue Hemorrhagic Fever and Dengue Shock Syndrome •Discuss clinical features and identify warning signs •Plan pertinent investigations, interpret and to take appropriate action •Do appropriate monitoring	C2 C2 C2 C2	LGIS	MCQs, OSPE

			•Discuss Management •Advise preventive measures	C2		
L85	Preventive measures and spread of dengue fever	DID Dr.Mujeeb ,Dr.	-Explain preventive measures of dengue fever.	C2	LGIS	MCQ,SEQs
L86	Anticancer agents II (Cell cycle specific agents)	Pharmacology	Describe the log kill hypothesis Describe advantages of combination anticancer therapy Describe adverse effects common to anti-cancer drugs(shared toxicities)	C2 C2 C2	LGIS	C2 MCQs/SEQs
L87	Forensic Psychiatry	Forensic Medicine	Distinguish between true and feigned insanity. Advise on procedure of restraint of the mentally ill. List limitations to civil and criminal responsibilities of mentally ill.	C2 C3 C3	LGIS	MCQ, Viva
L88	Anticancer agents III (Cell cycle nonspecific agents)	Pharmacology	Describe mechanism of action, uses and adverse effects of alkylating agents C2 Describe mechanism of action, uses and adverse effects of anti-metabolites Methotrexate, Fluorouracil and Mercaptopurine -Describe mechanism of action, uses and adverse effects of Vinca alkaloids Describe mechanism of action, clinical indication and adverse effects of Anti-cancer antibiotics Describe use of hormonal agents in cancer chemotherapy Describe clinical uses & adverse effects of hydroxyurea & asparaginase common to anti-cancer drugs(shared toxicities)	C2 C2 C2 C2 C2 C2	LGIS	C2 MCQs/SEQs
CBL	Anticancer agents (Clinical Pharmacology)	Pharmacology	-Use of combination regimens with advantages & disadvantages	C2,C3	CBL	C3 MCQs/PBQ
L89	Specific Phobias and Agoraphobia	Behavioral Sciences	Define Specific phobias and agoraphobia according to ICD-11 diagnostic criteria Enlist the etiological and epidemiological factors in causation of disease Enumerate relevant investigations for diagnosis of specific phobias and agoraphobia. Discuss the relevant investigations and differential diagnosis specific phobias and agoraphobia related disorder and its brief management plan	C2 C2 C3 (C3)	LGIS	MCQs, SEQ,
L90	Post-Traumatic Stress Disorder	Psychiatry	Define Post-Traumatic Stress Disorder disorders according to ICD-11 diagnostic criteria (C1) Enlist the etiological and epidemiological factors causations of disease (C1) Enumerate relevant investigations for diagnosis of acute stress reaction. (C2) Discuss the relevant investigations and differential diagnosis of Post-Traumatic Stress Disorder and its brief management plan (C3)	C1,A2 C1, A2 C2, A2 C3, A2	LGIS	MCQ
P 19	P drug & Prescription writing (STDs)	Pharmacology	• P drug & prescription writing for STDs			C3 OSPE
P20	Autopsy Visits/Postmortem & Medicolegal Work/Research	Forensic Medicine	Describe the contents of Medicolegal/postmortem reports. Describe the requirements of a mortuary. Describe the classification of pattern of injuries in MLC cases. Observe autopsy and Medicolegal case management at DHQ, Hospital.	Preparation of MLC/autopsy report.	The student will be keen enough to highlight and express his/her obligations towards cases of Medicolegal injuries and	

					deaths	
P21	Lab Diagnosis of fungal infection	Pathology	-IDENTIFY different types of fungus - Perform different lab test for identification of fungus in lab. -	P3	Demonstrate safe handling of lab equipment and follow SOPs A3	OSPE

L75	**Sexually transmitedinfections**	Family Medicine	**classify STDs** **Describe the management approach to a patient with STD in family practice** **Identify at risk patients and offer them screening** **Describe prevention of STDs**	**C1** **C2** **C2** **C2**	**LGIS**	**MCQs, SEQs**

Bioethics:

L3	Medical Errors	Medical ethics	**Understand Medical Errors** **• Explain the background of medical errors** **• Elaborate why medicine susceptible to error** **• Delineate the reasons of reluctance to report** **• Classify the medical errors**	**C2** **C2** **C2** **C2**	**LGIS**	**MCQs**

Reference Books

Pharmacology:

1. Katzong's Basic and Clinical Pharmacology, 13th edition
2. Essentials of Medical Pharmacology(KDTripathi), 7th edition
3. Liponcotty Illustrated Review, 7th edition
4. Katzong's and Trevor's Pharmacology, 12th edition

Forensic medicine:

Text book

Parikh's Textbook of Medical Jurisprudence, Forensic Medicine & Toxicology

Reference Books

1. Principles & Practice of Forensic Medicine by Nasib R Awan
2. Principles of Forensic Medicine & Toxicology by Rajesh Bardale

Pathology:

Warren and Levinson Review of medical Microbiology and Immunology 14th Edition
Jawetz Melnick & Adelbergs Medical Microbiology 28 Edition

Medicine:

Davidson Textbook of Medicine

Surgery:

Balley & Love Textbook of Surgery

Medical Ethics:

Medical Errors: The Scope of the Problem. Fact sheet, Publication No. AHRQ 00-P037. Agency for Healthcare Research and Quality, Rockville, MD.
http://www.ahrq.gov/qual/errba
http://nbcpakistan.org.pk/assets/may-16-bioethics-facilitator-book---may-16%2c-2017.pdf (page 195)
NBC Guidelines for Healthcare Professionals* Interaction with Pharmaceutical Trade and Industry
http://nbcpakistan.org.pk/assets/may-16-bioethics-facilitator-book---may-16%2c-2017.pdf (page 276)
nbcpakistan.org.pk/assets/ppi_guidelines_may_2011-1-final-copy-on-PHRC-wbesite.pdf Open source document
http://karachibioethicsgroup.org/PDFs/Karachi_Bioethics_Group_Ethical_Guidelines.pdf Karachi Bioethics Group Institutional Ethical Guidelines for Physician Pharmaceutical Industry Interaction
Medical Ethics:
http://nbcpakistan.org.pk/assets/may-16-bioethics-facilitator-book---may-16%2c-2017.pdf (page 194)

Time Table
2023

Integrated Modular Curriculum

Microbes & Anti Microbials Module -VI

Duration Of Module: O7 Weeks
Module Coordinators: Dr. Syeda Fatima Sughra Rizvi
Module Co-Coordinator: Dr.Faiza Zafar

Module Committee	
Vice Chancellor RMU	Prof. Dr. Muhammad Umar
Director DME	Prof. Dr. Rai Muhammad Asghar
Convener Curriculum	Prof. Dr. Naeem Akhter
Dean Basic Sciences	Prof. Dr. Ayesha Yousaf
Additional Director DME	Prof. Dr. Ifra Saeed
Chairperson Pharmacology & Implementation Incharge 3rd year MBBS	Dr. Asma Khan
Chairperson Pathology	Prof. Dr. Mobina Dodhy
Chairperson Forensic Medicine	Dr Filza
Focal Person Pharmacology	Dr Sobia
Focal Person Pathology	Dr Fareeha Afzal
Focal Person Forensic Medicine	Dr. Gulzeb
Focal Person Medicine	Dr. Saima Ambreen
Focal Person of Gynecology	Dr. Sobia Nawaz
Focal Person Community Medicine	Dr. Afifa Kulsoom
Focal Person Quran Translation Lectures	Mufti Abdul Wahid
Focal Person Family Medicine	Dr Sadia Khan
Focal Person Bioethics Department	Prof. Dr. Akram Randhawa
Focal Person Surgery	Dr Huma Sabir

Reviewed by: Module committee
Approved by:
Curriculum Committee RMU

Prepared By:
Dr. Syeda Fatima Sughra Rizvi
Pathology Department,

Time Table 3rd YearMBBS –Microbes And Anti Microbial Module 2023 (1stWeek)

DATE / DAY							
Monday 5-6-23	8:00 AM 11: 30 AM Clinical Clerkship		11:30 -12:00 Biochemistry L1 Revisit Lecture	12:00 PM – 02:00 PM Batch / Discipline / Topic of Practical A Pharmacology P-1 B Forensic Medicine P-2 C Pathology P-3 End module Theory Exam/ viva			
Tuesday 6-6-23			Pathology L2* Structure of Bacterial CelI wall Teachers Name:Dr.TayyabaAli,Dr.Muddasarah , Venue: LH1,LH 2	Batch / Discipline / Topic of Practical B Pharmacology P-1 C Forensic Medicine P-2 A Pathology P-3 End module Exam/ viva			
Wednesday 7-6-23			Medical Ethics L3 Medical Errors	Batch / Discipline / Topic of Practical C Pharmacology P-1 A Forensic Medicine P-2 B Pathology P-3 End module Exam/ viva			
Thursday 8-6-23			Pharmacology L-4* Introduction to Chemotherapy Dr.Asma Khan, Dr.AttiyaMunir LH1, LHll	Pathology L5* 12:00 PM – 01:00 PM Bacterial Metabolism and growth curve Teachers name: Dr.Fariha,, Dr. Syeda Fatima Rizvi Venue:LH1,LH 2		Community medicine L-6 01:00 PM – 02:00 PM Disposal of Waste: Dr,Khaula,Dr. Imran Teacher Name: Venue: LH2, LH1	
Friday 9-6-23	08:00am - 08:45am MedicineL-7 Introduction and basic symptoms analysis and investigations Teacher Name: Prof. M. Khurram/Dr. NidaAnjamVenue: LH1,LH2	08:45am – 09:30am SurgeryL-8 Microbiology of Surgical infection Teacher Name:DrAurangzaib, Dr.Atif Venue: LH 2,LHI	09:30am – 10:15am Pathology L-9 Bacterial Genetics Teacher Name: Dr.Fariha,, Dr. Syeda Fatima Rizvi Venue: LH1,LH 2	10:15am - 11:00am Pathology L -10 Pathogenesis of infectious agents in microbiology Name: Dr.TayyabaAli,Dr.Rabiya Khalid Venue: LH1, LH2	11:00am – 12:00pm Pharmacology L-11 Penicillin l Classification and pharmacokinetics Dr.ZuneraHakim,Dr.Sobiajavaid LHl,LHll		
Saturday 10-6-23	08:00am - 08:45am Medicine L-12 Fever of unknown origin Teacher Name: :Prof. M. khurram/Dr. NidaAnjam Venue: LH1,LH2	08:45am – 09:30am Surgery L-13 Presentation of surgical infectionsTeacherName:Dr. HumaSabir,Dr.RahatS Venue: LH2,LHI	09:30am – 10:30am Pharmacology L-14 Penicillin ll Pharmacodynamics with interaction Dr.ZuneraHakim,Dr.Sobiajavaid LHl,LHll	10:30 AM – 11:00 am BREAK 	11:00am – 12:00pm Pathology L-15 Laboratory diagnosis in microbiology Teacher Name: Venue: Dr.Fariha,, Dr. Syeda Fatima Rizvi LH 1,LH 2	12:00:pm – 01:00pm Pharmacology L16 Vancomycin Dr.ZuneraHakim,Dr.Sobiajavaid LHl,LHll	01:00pm – 02:pm Family Medicine L-17 Ethical Consideration of infectious diseases Name: Dr. Sadia Venue: LH 2

Time Table 3rd Year MBBS –Microbes And Anti Microbial Module 2023 (2nd Week)

DATE / DAY	8:00 AM 11:00 AM	11:00 am – 12:00pm	12:00 PM – 02:00 PM				
Monday 12-6-23	Clinical Clerkship	Pathology L-18*	Batch	Discipline	Topic of Practical		
	Batch : A Surgery Batch : B Sub Specialty Batch : C Medicine (Refer to annexure 2)	Anti-microbial drugs resistance Teacher Name: Prof.NaeemAkhtar, Dr. .Muddasarrah Venue:LH 1, LH 2	A	Pharmacology P-4	1-P drug & prescription writing for various types of superficial skin infections 2-P drug & Prescription writing(Tonsillitis & Upper respiratory infections) Teacher Name: 1Dr.Uzma,Dr.umaima,Dr.RubinaDr.Haseeba Venue: Lecture Hall: 06, Experimental Lab		
			B	Forensic Medicine P-5	Autopsy Visits (Practical) DrNaila Venue: Lecture Hall: 04 Forensic Lab		
			C	Pathology P-6	1-Microscope 2-Bacterial Morphology Teacher Name: 1-Dr.Unaiza 2-Dr.Nida Venue: Pathology Lab, NTB		
Tuesday 13-6-23		Forensic Medicine L-19*	Batch	Discipline	Topic of Practical	Teacher Name:	
		Medicolegal Autopsy-II (Exhumation &postmortem artifacts) DrRomana DrShahida Venue:LH 1, LH 2	B	Pharmacology P-4	1-P drug & prescription writing for various types of superficial skin infections 2-P drug & Prescription writing (Tonsillitis & Upper respiratory infections) Teacher Name: Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba Venue:Lecture Hall: 06 Experimental Lab		
			C	Forensic Medicine P-5	Autopsy Visits (Practical) DrNaila Venue: Lecture Hall: 04 Forensic Lab		
			A	Pathology P-6	1-Microscope 2-Bacterial Morphology Teacher Name: 1-Dr.Unaiza 2-Dr.Nida Venue: Pathology Lab, NTB		
Wednesday 14-6-23		Pathology L-20*	Batch	Discipline	Topic of Practical	Teacher Name:	
		Sterilization and disinfection 1 Teacher Name: Sara Rafi,Dr.Mehreen Venue: LH 1, LH 2	C	Pharmacology P-4	1-P drug & prescription writing for various types of superficial skin infections 2-P drug & Prescription writing (Tonsillitis & Upper respiratory infections) Teacher Name: Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba Venue:Lecture Hall: 06 Experimental Lab		
			A	Forensic Medicine P-5	Autopsy Visits (Practical) DrNaila Venue: Lecture Hall: 04 Forensic Lab		
			B	Pathology P-6	1-Microscope 2-Bacterial Morphology Teacher Name: 1-Dr.Unaiza 2-Dr.Nida Venue: Pathology Lab, NTB		
Thursday 15-6-23		Pathology L-21*	Pathology L- 22			SurgeryL-23	
		LH1Staphylococci 1 Teacher Name: : Prof.Mobina ,Dr. Fatima tuz Zahra Venue:LH1,LH2	12:00 PM – 01:00 PM			01:00 PM – 02:00 PM	
			Sterilization and disinfection2 Name: Sara Rafi,Dr.Mehreen Venue: LH 1, LH 2			Critical Surgical infections and their treatment Teacher Name:Dr. Iqbal , Dr. Zafar Venue: LH2,	

	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:15am	10:15am - 11:00am	11:00am – 12:00pm		
Friday 16-6-23	Forensic Medicine L-24*	Pharmacology L25	Pathology SGD	Pathology L- 26	Pharmacology L27		
	Inorganic irritants Metallic Poisons (Arsenic) Teacher Name: DrShahida DrRomana LH2, LH1	Cephalosporins Dr. Sobia , Dr.Zunaira LH1,LHll	Clostridia (All 4 types) Teacher Name: Dr.MuddasarrahDr.Fatima Rizvi, Dr.Fariha Sardar ,Dr.MehreenDr.Amna Venue: LH1,LH2,LH6,Pharma Lab	Staphylococci 2 Teacher Name: Prof.Mobina ,Dr.Fatima Tuz Zahra Venue:LH1,LH	Miscellaneous Cell wall inhibitors Dr.Zunera,Dr.Sobia LHl,L LHll		
Saturday 17-6-23	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:30am	10:30 AM – 11:00 am	11:00am – 12:00pm	12:00:pm – 01:00pm	01:00pm – 02:pm
	Peads L-28	Surgery L-29	Pathology L 30	BREAK	Pathology L-31*	Peads L-32	Pharmacology C***/SGD
	Neonatal Tetanus Teacher Name: Dr.muhammadHafiz,Dr.NoshinaRiaz Venue:: LH2, LH1	Prevention of surgical infection Teacher Name: Dr.AbdulQadir, Dr.Sarmad Venue: LH 2, LH I	Streptococci Name:Prof.Mobina ,Fatima Tuz Zahra Venue: LH 1, LH 2		Gram Negative cocci Nisseria Teacher Name:Dr.Mehreen,Dr.Sara Rafi Venue: LH1, LH2,	Diphtheria, Pertusis,Chickenpox Teacher Name: Dr.asmatperveen,Dr.Afrah Tariq Venue: LH2,LHI	Pencillin (clinical Pharmacology) Dr.ARsheenDr.Uzma,r.Umaima Venue: LH1,LH2,LH6,Pharma Lab

Rawalpindi Medical University Rawalpind

Time Table 3rdYear MBBS –Microbes And Anti Microbial Module 2023 (3rd Week)

DATE / DAY	8:00 AM 11:00 AM	11:00 am – 12:00pm	12:00 PM – 02:00 PM				
Monday 19-6-23	Clinical Clerkship	Pathology L-33*	Batch	Discipline	Topic of Practical		
		Listeria, Corynebacterium	A	Pharmacology P-7	P drug & Prescription writing	Teacher Name Dr.Uzma,Dr.umaima,	Venue:Lecture Hall: 06 Experimental Lab

	Batch : A Surgery Batch : B Sub Speciality Batch : C Medicine (Refer to annexure 2)	Diphtheria, Bacillus Teacher Name: Prof.Mobina ,Prof Wafaue: LH1,LH 2			(UTIs)	Dr.rubinaDr.Haseeba	
			B	Forensic Medicine P-8	Inorganic irritants Metallic Poisons (Mercury, Copper& Zinc)SGDS \ CBL	DrShahida	Venue: Lecture Hall: 04 Forensic Lab
			C	Pathology P-9	Culture media	Teacher Name: Dr.IqbalHaider	Venue: Pathology Lab, NTB
Tuesday 20-6-23		Pathology L-34	Batch	Discipline	Topic of Practical		
		Introduction to Enterobacteriacae and E. coli, Klebsiella 1 Teacher Name: Name: Dr.Amna,, Dr..Fatima Tuz Zahra Venue: LH1, LH2,	B	Pharmacology P-7	P drug & Prescription writing (UTIs)	Teacher Name: Dr.Uzma,Dr.umaima, Dr.rubinaDr.Haseeba	Venue:Lecture Hall: 06 Experimental Lab
			C	Forensic Medicine P-8	Inorganic irritants Metallic Poisons (Mercury, Copper& Zinc)SGDS \ CBL	DrShahida	Venue: Lecture Hall: 04 Forensic Lab
			A	Pathology P-9	Culture media ,	Teacher Name:Dr.IqbalHaider	Venue: Pathology Lab, NTB
Wednesday 21-6-23		Pathology L-35	Batch	Discipline	Topic of Practical		
		Introduction to Enterobacteriacae and E. coli, Klebsiella 2 Teacher Name: Name: Dr.Amna Noor,, Dr..Fatima ZahraVenue: LH1, LH2,	C	Pharmacology P-7	P drug & Prescription writing(UTIs)	Teacher Name: Dr.Uzma,Dr.umaima, Dr.rubinaDr.Haseeba	Venue:Lecture Hall: 06 Experimental Lab
			A	Forensic Medicine P-8	Inorganic irritants Metallic Poisons (Mercury, Copper& Zinc)SGDS \ CBL	DrShahida	Venue: Lecture Hall: 04 Forensic Lab
			B	Pathology P-9	Culture media ,	Teacher Name: Dr.IqbalHaider	Venue: Pathology Lab, NTB
Thursday 22-6-23		Pathology L-36	Pharmacology L37			Pathology L-38	
		Shigella, Vibrio Cholerae Teacher Name: Name: Dr.Tayyaba Ali, ,Dr.Rabiya Khalid Venue: LH1,LH2,	12:00 PM – 01:00 PM Tetracycline Teacher Name: Dr.Asma khan Dr.AttiyaMunir Venue: LH2, LH1			01:00 PM – 02:00 PM Salmonella 1 Teacher Name: Name: Prof.NaeemAkhtar,Dr.Muddasarrah Zahid Venue: LH1, LH2,	
Friday Seminar day Typhoid 23-6-23	08:00am – 9:00 am Pathology L39* Salmonella infection Prof.NaeemAkhtar , Dr.Muddasarrah Zahid LHl, LHll	9:00am – 10:00am Medicine L40* Enteric Fever Prof.Khurum,Dr.NidaAnjumLHl, LHll	10:00am – 11:00am Peads L 41 Enteric Fever/Acute DiarrhoeaDr.Amal Hasham,Dr.Muneeba Iqbal LHl, LHll,		11:00am - 12:00am Pharmacology L 42 Quinolones/Floroquinolones Dr.Asma Khan , Dr.Attiya LHl, LHll		
Saturday 24-6-23	08:00am - 08:45am Medicine L-43 Brucellosis Teacher Name: Prof.khurum, Dr.Nida, Venue: LH1, LH2,	08:45am – 09:30am Family MedicineL-44 An approach to patient with fever Teacher Name: Dr. Venue: LH1, LH2,	09:30am – 10:30am Pathology L-45 Gram negative rods related to respiratory tract Teacher Name: Dr.Tayyaba Ali, Dr.Rabiya Khalid Venue: LH1, LH2,	10:30 AM – 11:00 am BREAK 	11:00am – 12:00pm Pathology S-** Helicobacter and Compylobacter Teacher Name:Dr.MuddasarrahDr.Fatima Zahra, Dr.Tayyaba ,Dr.Rabiya Khalid Venue: LH1, LH2, LH 6, Phama Lab	12:00:pm – 01:00pm Pathology CBL- Gram Negative Rods Related to Zoonotic diseases Teacher Name: Dr. SyedaAyesha,Dr.Unaiza, Dr.Faiza ,Dr.Haider. Venue:LH1, LH2,	01:00pm – 02:pm Forensic Medicine L-46 Inorganic irritants Metallic Poisons Lead Teacher Name: : DrRaheel DrShahrukh Venue: LH 2, LH1

Rawalpindi Medical University Rawalpindi

Time Table 3rd yearMBBS –Microbes And Anti Microbial Module 2023 (4thWeek)

DATE / DAY	8:00 AM 11:00 AM	11:00am – 12:00pm	12:00 PM – 02:00 PM		
	Clinical Clerkship	Pharmacology C*	Batch	Discipline	Topic of Practical
Monday 24-7-23	Batch : A Surgery Batch : B Sub Speciality	Tetracycline Dr.Robina, Dr.Haseeba, Dr.Uzma,Dr.Arsheen Venue: LH1,LH2,LH6,Pharma Lab	A	Pharmacology P-10	P drug & Prescription writing (Pnemonia) Teacher Name:Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba Venue: Lecture Hall: 06 Experimental Lab
			B	Forensic Medicine P-11	Non-Metallic Poisons (Phosphorus& Iodine)SGDS \ CBL Teacher name :Dr.Raheel Venue: Lecture Hall: 04Forensic Lab
			C	Pathology 12	Gram Staining,ZNStaing Dr.Saeed

	Batch : C Medicine				Venue: Pathology Lab, NTB
Tuesday 25-7-23	(Refer to annexure 2)	Pharmacology L47	Batch	Discipline	Topic of Practical / Teacher Name
		Sulphonamides, Tripithoprim Dr.Asma Khan, DrAttiyaMunir LHl,LHll	B	Pharmacology P-10	P drug & Prescription writing (Pnemonia) Teacher Name:Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba Venue: Lecture Hall: 06 Experimental Lab
			C	Forensic Medicine P-11	Non-Metallic Poisons (Phosphorus& Iodine)SGDS \ CBL Teacher name :Dr.Raheel Venue: Lecture Hall: 04Forensic Lab
			A	Pathology 12	Gram Staining,ZNStaing Dr.Saeed Venue: Pathology Lab, NTB
Wednesday 26-7-23		Pharmacology L-48**	Batch	Discipline	Topic of Practical / Teacher Name
		Aminoglycosides Teacher Name: Dr.Asma Khan ,Dr.AttiyaMunir, Venue: LH2, LH1	C	Pharmacology P-10	P drug & Prescription writing (Pnemonia) Teacher Name:Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba Venue: Lecture Hall: 06 Experimental Lab
			A	Forensic Medicine P-11	Non-Metallic Poisons (Phosphorus& Iodine)SGDS \ CBL Teacher name :Dr.Raheel Venue: Lecture Hall: 04Forensic Lab
			B	Pathology 12	Gram Staining,ZNStaing Dr.Saeed Venue: Pathology Lab, NTB
Thursday 27-7-23		Pharmacology CBL	12:00am – 1:00pm		1:00-2:00 pm
			Pathology L-51		Surgery L-49*
		Aminoglycoside Dr.Robina, Dr.Haseeba, Dr.Uzma,Dr.umaima LHl,LHll,LH 6,Pharma lab	Rickettssia , Chylamediae Teacher Name:,Dr.Amna Noor,Dr.Mehreen Venue: LH1, LH2		Antimicrobial treatment in surgical infections Teacher Name: Dr.Robina Shahzad ,Dr.Samra S Venue: LH2, LH1
Friday 28-7-23	Youm E Ashur (9th Muharam ul Haram)				
Saturday 29-7-23	Youm E Ashur (10th Muharam ul Haram)				

Rawalpindi Medical University Rawalpindi

Time Table 3rd Year MBBS –Microbes And Anti Microbial Module 2023 (5th Week)

DATE / DAY	8:00 AM 11:00 AM	11:00 am – 12:00pm	12:00 PM – 02:00 PM				
	Clinical Clerkship	Pathology CBL	Batch	Discipline	Topic of Practical	Teacher Name	Venue
Monday 31-7-23	Batch : A Surgery Batch : B Sub Speciality Batch : C Medicine (Refer to annexure 2)	Spirochetes Teacher Name: Dr.Abid,Dr.Saeed,Dr.Mahjabeen,Dr.Nida Venue: LH1, LH2,	A	Pharmacology –P13	P drug & Prescription writing (Herpes infections)	Dr.Uzma,Dr.umaima, Dr.rubinaDr.Haseeba	Venue: Lecture Hall: 06 Experimental Lab
			B	Forensic Medicine P-14	CORROSIVES (sulphuric acid, Nitric acid, Hydrochloric acid carbolic and oxalic acid)SGDS \ CBL	DrShahrukh	Venue:LH04 Forensic lab
			C	Pathology P-12	Biochemical Test, Catalase, Coagulase, Urease, oxidase, indole test, citrate	Teacher Name: Dr.Faiza Zafar	Venue: Pathology Lab, NTB
Tuesday 1-8-23		Pharmacology L-52	Batch	Discipline	Topic of Practical	Teacher Name	Venue
		Macrolides Dr.Zunera, Dr.Sobia LHl,LHll	B	Pharmacology P-13	P drug & Prescription writing (Herpes infections)	Teacher Name Dr.Uzma,Dr.umaima, Dr.rubinaDr.Haseeba	Venue: Lecture Hall: 06 Experimental Lab

				C	Forensic Medicine P-14	CORROSIVES (sulphuric acid, Nitric acid, Hydrochloric acid carbolic and oxalic acid)SGDS \ CBL	DrShahrukh	Venue:LH04 Forensic lab
				A	Pathology P-12	Biochemical Test, Catalase, Coagulase, Urease, oxidase, indole test, citrate	Teacher Name: Dr.Faiza Zafar	Venue: Pathology Lab, NTB
Wednesday 2-8-23			Pharmacology L-53	Batch	Discipline	Topic of Practical	Teacher Name	Venue
			Pharmacology L-54 Streptogramins And oxazolidindiones Dr.Zunaira , Dr.Sobia Venue: LH2, LH1	C	Pharmacology P-13	P drug & Prescription writing (Herpes infections)	Teacher Name: Dr.Uzma,Dr.umaima, Dr.rubinaDr.Haseeba	Venue: Lecture Hall: 06 Experimental Lab
				A	Forensic Medicine P-14	CORROSIVES (sulphuric acid, Nitric acid, Hydrochloric acid carbolic and oxalic acid)SGDS \ CBL	DrShahrukh	Venue:LH04 Forensic lab
				B	Pathology P-12	Biochemical Test, Catalase, Coagulase, Urease, oxidase, indole test, citrate	Teacher Name: Dr.Faiza Zafar	Venue: Pathology Lab, NTB
Thursday 3-8-23			Medicine L-54	Pathology CB L-			Pharmacology L-55	
			Influenza Teacher Name: Dr. Prof.khurum, Dr.Nida, Venue: LH1, LH2	12:00 PM – 01:00 PM			01:00 PM – 02:00 PM	
				Diarrhoeal Viruses Teacher Name: Dr.Faiza,Dr.Haider, Dr.AyeshaDr.Unaiza Venue: LH1, LH2,			Clindamycine , Chlorumphenicol Dr.Asma Khan, Dr.AttiyaMunir LHl,LHll	

Friday 4-8-23	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:15am	10:15am - 11:00am	11:00am – 12:00pm		
	Peads L-56	Quran Class L-57	Pharmacology L-58	Medicine L-59	Community Medicine –L-60		
	Measles / Mumps / Rubella Teacher Name: Venue: LH2, LH1	Taleem-wa-Taalum Venue:- Lecture Hall 1 Teacher : Qari Abdul Wahid	Antiviral drugs l Teacher Name: DrAsma Khan ,,Dr.AttiyaMunirVenue: LH1, LHll	Polio Virus Teacher Name: Prof.khurum, Dr.Nida, , Venue: LH1, LH2	Housing Teacher Name: Dr.Narjis Dr. Imrana Venue: LH2, LH1		
Saturday 5-8-23	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:30am	10:30 AM – 11:00 am	11:00am – 12:00pm	12:00:pm – 01:00pm	01:00pm – 02:pm
	Peads L-61	Community medicine L-62	Pathology CBL	BREAK 	Pathology L-63	Pharmacology L 64	Medicine L-65
	Acute Diarrhoea Teacher Name: Dr.Syra Liaqat,Dr.Huma Asghar Venue: LH2, LH1	Meteorological Environment Teacher Name: Prof .Arshad ,Dr.GulMahar Venue: LH2, LH1	Herpes Viruses, HSV Teacher Name: Dr.Saeed , Dr.Nida,,Dr.Mahjabeen Dr.Abid : Venue: LH1, LH2, Pharma Lab. Lab 6		Vericella Zooster Virus, Cytomegalovirus Teacher Name: Dr Wafa Omer Dr.Rabiya khalid Venue: LH1, LH2	Antivial drug ll Dr.Asma Khan, Dr.AttiyaMunir LHl.LHll	HIV and Immunodeficiency Teacher Name: Prof.khurum, Dr.Nida, Venue: LH1, LHll

Time Table 3rd Yearmbbs –Microbes And Anti Microbial Module – 2023 (6th Week)

DATE / DAY	8:00 AM 11:00 AM	11:00 am – 12:00pm	12:00 PM – 02:00 PM				
Monday 7-8-23	Clinical Clerkship	Pathology L-66	Batch	Discipline	Topic of Practical		
	Batch : A Surgery Batch : B Sub Speciality Batch : C Medicine (Refer to annexure 2)	Respiratory Viruses Teacher Name:,Dr.Fatima Rizvi , Dr.Fariha Sardar Venue: LH1, LH2	A	Pharmacology P-16	P drug & Prescription writing Systemic fungal infections)	Teacher Name Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba	Venue: Lecture Hall: 06 Experimental Lab
			B	Forensic Medicine P-17	DELERIANTS (dhatura ,cannabis & cocaine)(Practical)	Teacher Name: .Dr.Gulzaib	Venue: Forensic lab
			C	Pathology P-15	ELISA, PCR, ITC	Dr.Sara Rafi	Venue: Pathology Lab, NTB
Tuesday 8-8-23		Pathology L 67	Batch	Discipline	Topic of Practical	Teacher Name	
		HIV/ diseases , AIDS, Teacher Name: Prof.Naeem,Prof Wafa Omer Venue: LH1, LH2,	B	Pharmacology P-16	P drug & Prescription writing Systemic fungal infections)	Teacher Name Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba	Venue: Lecture Hall: 06 Experimental Lab
			C	Forensic Medicine P-17	DELERIANTS (dhatura ,cannabis & cocaine)(Practical)	Teacher Name: .Dr.Gulzaib	Venue: Forensic lab
			A	Pathology P-15	ELISA, PCR, ITC	Dr.Sara Rafi	Venue: Pathology Lab, NTB
Wednesday 9-8-23		Pharmacology L 68	Batch	Discipline	Topic of Practical	Teacher Name	
		Anti viraldugslll (AIDS)	C	Pharmacology	P drug & Prescription writing	Teacher Name	Venue: Lecture Hall: 06

			Teacher Name: DrAsma Khan ,,Dr.AttiyaMunirVenue: LH1, LHll		P-16	Systemic fungal infections)	:Dr.Uzma,Dr.umaima,Dr.rubinaDr.Haseeba	Experimental Lab
				A	Forensic Medicine P-17	DELERIANTS (dhatura ,cannabis & cocaine)(Practical)	Teacher Name: .Dr.Gulzaib	Venue: Forensic lab
				B	Pathology P-15	ELISA, PCR, ITC	Dr.Sara Rafi	Venue: Pathology Lab, NTB
Thursday 10-8-23			Pathology L-69	Pathology L -70			Pharmacology C BL	
			Miscellaneous , Congenital, Zoonotic, Arboviruses Teacher Name: Prof NaeemAkhtarDr Sara Rafi Venue: LH1, LH2,	12:00 PM – 01:00 PM Measles / Mumps / Rubella Teacher Name:, Dr.Fatima Rizvi , Dr.Fariha Sardar Venue: LH1, LH2,			01:00 PM – 02:00 PM Antivral (Clinical Pharmacology Dr.Rubina,Dr.Haseeba Dr.Uzma Umar Dr.OmaimaAsif	
Friday 11-8-23	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:15am	10:15am - 11:00am		11:00am – 12:00pm		
	Behavioural Sciences L-71	Behavioural Sciences L 72	Quran Class L 73	Community Medicine L-74		Pathology CBL-		
	Acute Stress Reaction and Adjustment Disorder Teacher Name:Dr.sadia yasir, Dr.AzeemRao Venue: LH2, LH1	Generalized Anxiety Disorder Teacher Name: Dr.QuratulAin,,Dr.ZonaTahir Venue: LH2, LH1	Jahalat Venue: Lecture Hall 1 Teacher : Qari Abdul Wahid	Light ,Noise and radiation Teacher Name: Dr. Maimoona Dr. AbdulaQadoos Venue: LH2, LH1		Polio, Rabies Virus Dr.Faiza, Dr.Haider, Dr,Ayesha,Dr.unaiza Venue: LH1,LH2,LH6,Pharma Lab		
Saturday 12-8-23	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:30am	10:30 AM – 11:00 am		11:00am – 12:00pm	12:00:pm – 01:00pm	01:00pm – 02:pm
	Family medicine L-75	Pathology L-76	Pharmacology L77	BREAK 		Pathology CBL-	PharmacologyCB L	Gynae OB L-78
	Sexually transmitedinfections Dr.Sadia Venue: LH2	Systemic Mycosis Teacher Name: Dr..Sara Dr.Mehreen Venue: LH1, LH2,	Antifungal drugs 1 Teacher Name: DrAsma ,Dr.Attiya Venue: Lecture Hall: LH2,			Cutaneous and subcutaneous Mycosis Teacher Name: Dr.Faiza ,Dr.Haider, Dr,AyeshaDr.Unaiza Venue: LH1, LH2,	Antifungal Agents (Clinical Pharmacology)Dr.Rubina,Dr. HaseebaDr.Uzma Umar Dr.OmaimaAsif Venue: LH1,LH2,LH6,Pharma Lab	Infections in pregnancy Dr.Sobia Nawaz

Time Table 3rd Year MBBS–Microbes And Anti Microbial Module – 2023 (7th Week)

DATE / DAY	8:00 AM 11:00 AM	11:00 am – 12:00pm	12:00 PM – 02:00 PM				
Monday 14-8-23	Clinical Clerkship		Batch	Discipline	Topic of Practical		
	Batch : A Surgery Batch : B Sub Speciality Batch : C Medicine (Refer to annexure 2)	14th August Independence Day					
Tuesday 15-8-23		Pharmacology L79 Antifungal ll (Drugs for Systemic fungal infection,andonycomycosis) Dr.ASMA,Dr.Attiya LHl,LHll	Batch	Discipline	Topic of Practical	Teacher Name	
			Whole class	Pathology P-18	Lab Diagnosis of fungal infection	Dr. Abid Hassan	Venue: CPC hall NTB if available/ LHI,LH2
Wednesday 16-8-23		Pathology CBL Candida Teacher Name:Dr.Abid, , Dr.Saeed Dr.Nida ,Dr.Mahjabeen Venue: LH1, LH2, LH 6, Phama Lab	Batch	Discipline	Topic of Practical	Teacher Name	
			Whole class In two shifts	Pharmacology P-16	P drug & Prescription writing (STDs)	Dr.Uzma,Dr.umaima,Dr.rubina Dr.Haseeba	Venue: Lecture Hall: LH1,LH2
			Whole class in 2 shifts	Forensic Medicine P-17	ANIMAL POISONS Management of Snake ,Wasp, Bees Scorpion Bite	Teacher Name: Dr.Naila	Venue: LH1,LH2
Thursday 17-8-23		Pharmacology L 80 Anticancer l (Classification and basic rules of cancer regime) Dr.Zunera, Dr.Sobia LHl,LHll	Forensic Medicine L 81 12:00 PM – 01:00 PM Somniferous Poisons Teacher Name: DrGulzaibDrFilza Venue: LH2,			Pathology CBL 01:00 PM – 02:00 PM Oppertunistic Mycosis Dr.Abid,Dr.Saeed,Dr.Nida, Dr.Mahjabeen LHl,LHll	
Friday Seminar Dengue 18-8-23	09:00am – 10:00 am	10:00am – 11:00am	11:00am - 12:00pm				
	Pathology 82 Pathological aspects and Lab Diagnosis of Dengue Fever Dr.Tayyaba ,Dr.Rabbiya khalid LHl,LHll	Medicine L 83 Dengue fever , Prof.Khurum, Dr.Nida LHl,LHll	Peads L 84 Pediatric presentation of Dengue fever Dr.muhammadHafiz,Dr.Noshin aRiaz LHl,LHll	DID LGIS 85 Preventive measures and spread of dengue fever,Dr.Mujeeb , LHl,LHll			
Saturday 19-8-23	08:00am - 08:45am	08:45am – 09:30am	09:30am – 10:30am	10:30 AM – 11:00 am	11:00am – 12:00pm	12:00:pm – 01:00pm	01:00pm – 02:pm
	Pharmacology L86 Anticancer ll (cell cycle specific agents) Dr.Zunera, Dr.Sobia LHl,LHll	Forensic medicine L87 Forensic Psychiatry Teacher Name: DrFilza DrGulzaib Venue: LH2, LH1	Pharmacology L 88 Anti-Cancer lll (cell cycle non- specific agents) Dr.Zunera, Dr.Sobia LHl,LHll	BREAK BREAK	Forensic Medicine L-89 Food poisoning Teacher Name: DrShahrukhDrRaheel Venue: LH2,	Behavioural Sciences L-90 Specific Phobias and Agoraphobia Teacher Name: Dr .MehmoodAli,Dr.Mehboob Ali Shah Venue: Lecture Hall: LH1	Behavioural Sciences L-91 Post-Traumatic Stress Disorder Teacher Name: Dr Zaidan idrees Dr.ZarnainUmer Venue: LH2, LH1

Rawalpindi Medical University Rawalpindi

Time Table 3rdYear MBBS–Microbes And Anti Microbial Module – 2023 (8th Week)

DATE / DAY	8:00 AM 11:00 AM	11:00am – 11:450am	11:45 PM – 12:30 PM	12:30 -1:15 PM	1:50 PM – 02:00 PM
21-8-23	Assessment				
Tuesday 22-8-23	Assessment				
Wednesday 23-8-23	Assessment				
Thursday 24-8-23	Assessment				
Friday Seminar Dengue 25-8-23	Assessment				
Saturday 26-8-23	New Module				

Teaching Hours

SR No.	Disciplines	LGIS	SGD	CBL	SDL	Hours
1.	Pharmacology	21	03	03	05	32
2.	Pathology	27	02	08	06	43
3.	Forensic Medicine	06	0	0	06	12
4.	Community Medicine	04	0	0	0	04
5.	Surgery	05	0	0	0	05
6.	-Medicine -Department of Infectious diseases (DID)	08 01	0	0	0	09
7.	Peads	05	0	0	0	05
8.	Behavioral Sciences	05	0	0	0	05
9.	Quran Class	02	0	0	0	02
10.	Family Medicine	03	0	0	0	03
11.	Medical Ethics	01	0	02	0	03
	Total Hours = 123					

Practical and Clinical Clerkship hours

Disciplines	Practical hours	Disciplines	Clerkship hours
Pharmacology	2x6 = 12 hrs	Surgery	2.5 x 4 x6= 60 hrs
Pathology	2x6 = 12hrs	Medicine	2.5 x 4 x6= 60 hrs
Forensic Medicine	2x6 = 12 hrs	Sub Specialty	2.5 x 4 x6= 60hrs

- LGIS (L) *
- SGD (S) **
- CBL (C) ***
- SDL (SL) ****

❖ For CBL/SGDs, whole class will be divided into 04 batches

Batch: A = Lecture hall 1(starting from clinical batch A1 to A4) Batch: B = Lecture Hall 02 (starting from clinical batch A5, B1,B2,B3)

Batch: C = Lecture Hall 06 (starting from clinical batch B4, B5, C1,C2) Batch: D = Pharma Lab (starting from clinical batch C3,C4 &C5)

The batch distribution & venues for whole year are fixed with no change except for extra ordinary situations.

Lectures & Practical distribution of All subjects

Subject	No of lectures	Lecturer	No of lectures	No. Of lectures per facilitator
Pharmacology	21	Dr. Asma Khan Head of Department (Associate professor)	11	LGIS
		Dr.Attiya Munir Assistant Professor (9LGIS)	11	LGIS
		Dr.Sobia Assistant Professor (10 LGIS)	10	LGIS
		Dr.Zunera Hakim Assistant Professor (10 LGIS)	10	LGIS
Forensic Medicine	O6	Dr Romana Head of Department	02	LGIS
		DrFilza Assistant Professor	02	LGIS
		Dr Shahida Senior Demonstrator	02	LGIS
		DrGulzaib Senior Demonstrator	02	LGIS
		Dr.Raheel Senior Demonstrator	02	LGIS
		Dr.Shahrukh Senior Demonstrator	02	LGIS
Forensic Medicine Practical	06	Dr.Naila	02 (Practical)	-
		Dr.Shahida	01(Practical)	-
		Dr.Raheel	01(Practical)	-
		Dr.Shahrukh	01(Practical)	-
		DrGulzaib	01(Practical)	-
Pathology		Prof.Mobina Dodhy (Professor)	03	03 LGIS
		Prof. Naeem Akhtar (Professor)	05	05LGIS
		Prof. Wafa Omer (Professor)	03	03 LGIS
		Dr. Mudassira Zahid (Associate Professor)	06	06 LGIS
		Dr. Fatima tuz Zohra (Assistant Professor)	06	05 LGIS, 01 SGD
		Dr. Tayyaba Ali (Assistant Professor)	06	05 LGIS, 01 SGD
		Dr. Rabiya Khalid (Assistant Professor)	06	05 LGIS, 01 SGD
		Dr. Fariha Sardar (Demonstrator)	07	05 LGIS, 01 SGD, 01 SDL
		Dr. Syeda Fatima Rizvi (Demonstrator)	07	05 LGIS, 01 SGD, 01 SDL
		Dr. Mehreen Fatima (Demonstrator)	07	05 LGIS, 01 SGD, 01 SDL
		Dr. Sarah Rafi (Demonstrator)	05	04 LGIS, 01 SGD

		Dr. Amna Noor (Demonstrator)	05	03 LGIS, 01SGD,01SDL
Pathology Practical	06	Dr.Saeed (Sn.Demonstrator)	01	Practical
		Dr. Faiza (Sn.Demonstrator)	01	
		Dr. Iqbal Haider (Sn.Demonstrator)	01	
		Dr.Mahjabeen (Demonstartor)	01	
		Dr.Nida (Demonstartor)	01	
		Dr.Abid (Sn.Demonstrator)	01	
		Dr. Unaiza(Demonstartor)	01	
Surgery	05	Dr.Aurangzaib (Senior Registrar)	01	LGIS
		Dr.Atif (Assistant Professor)	01	
		Dr.Huma sabir Khan (Assistant Professor)	01	
		Dr.Rahat (Assistant Professor)	01	
		Dr.Iqbal (Assistant Professor)	01	
		Dr.Zafar (Assistant Professor)	01	
		Dr.Abdul Qadir (Senior Registrar)	01	
		Dr.Sarmad (Assistant Professor)	01	
		Dr.Rubina Shahzad (Senior Registrar)	01	
		Dr.Samra (Senior Registrar)	01	
		Dr.Umer (Senior Registrar)	01	
		Dr.Tooba (Senior Registrar)	01	
Peads	05	Dr.M Hafeez (Senior Registrar)	01	LGIS
		Dr.Noshina Riaz (Senior Registrar)	01	
		Dr.Naila Ahsan (Senior Registrar)	01	
		Dr.Qudsia Riaz (Senior Registrar)	01	
		Dr.Amal Hasham (Senior Registrar)	01	
		Dr.Muneeba Iqbal (Senior Registrar)	01	
		Dr.Qurat ul Ain(Senior Registrar)	01	
		Dr.Ayesha Tariq (Senior Registrar)	01	
		Dr.Syrah Liaqat (Senior Registrar)	01	
		Dr.Huma Asghar (Senior Registrar)	01	
		Dr.Nida Mumtaz(Senior Registrar)	01	
		Dr.Jawaria Zia (Senior Registrar)	01	
Medicine	09	Prof.Khurum (Professor)	09	LGIS
		Dr.Nida (Assistant Professor)	09	LGIS

DID	01	Prof Mujeeb (Head of DID)	01	LGIS
Behavioral Sciences	05	Dr.Sadia Yasir (Assistant Professor)	01	LGIS
		Dr.AzeemRao (Assistant Professor)	01	
		Dr.ZonaTahir (Senior Registrar)	01	
		Dr.Qurat ul Ain (Assistant Professor)	02	
		Dr.Mehmood Ali khan (Assistant Professor)	02	
		Dr.Mehboob Ali Shah (Consultant)	01	
		Dr.Zaidan Idrees (Senior Registrar)	01	
		Dr.Zarnain Umer		
Family Medicine	03	Dr.Sadia HOD	03	LGIS
Medical Ethics	03		03	2 LGIS, 1 CBL
Quran Class	03	Qari Abdul Wahid (HOD)	03	LGIS

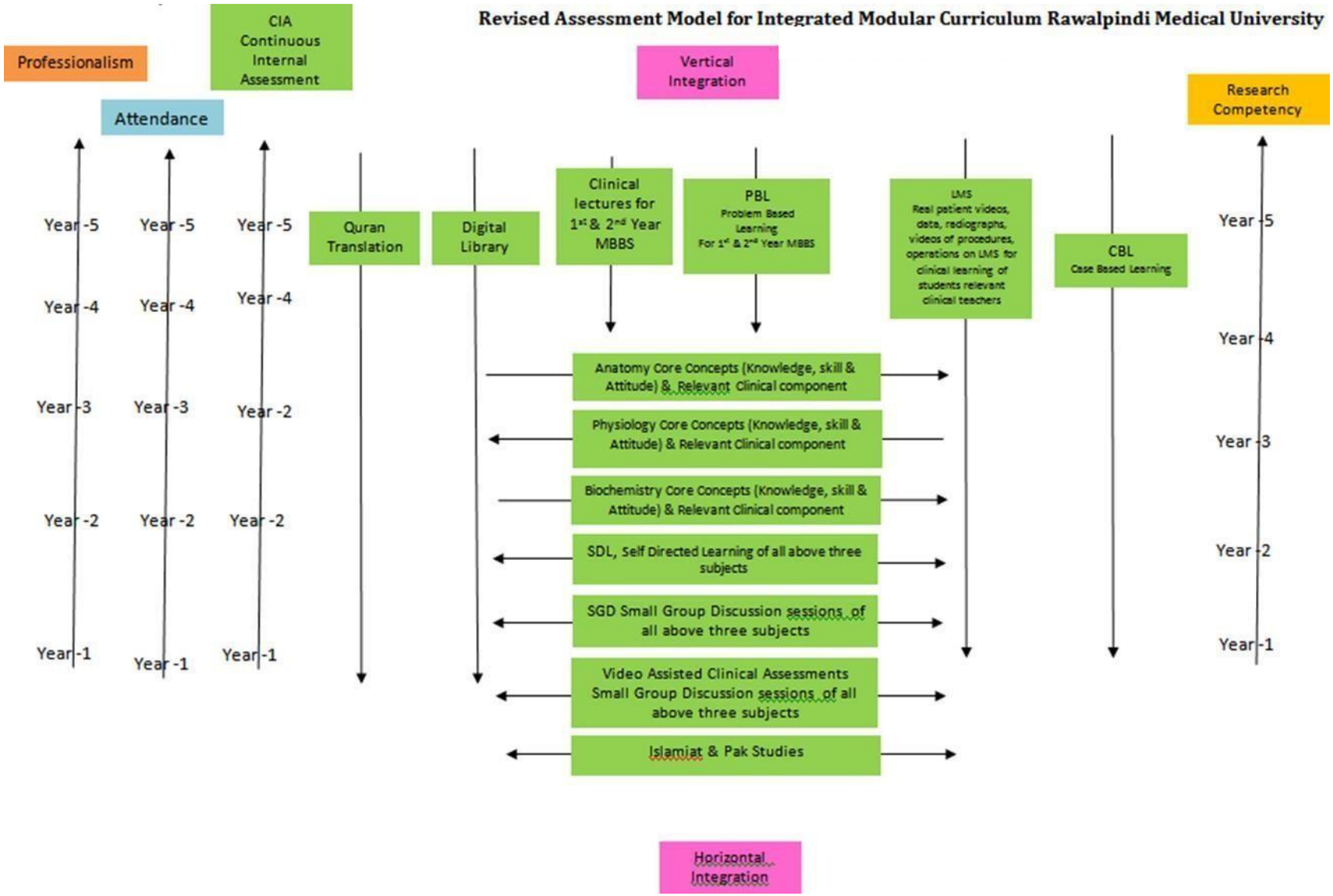
Section IV-

Assessment Policies

Contents

Section IV:

Assessment Policies



Assessment plan

University has followed the guidelines of Pakistan Medical and Dental Council for assessment. Assessment is conducted at the mid modular, modular and block levels.

Types of Assessment:

The assessment is formative and summative.

Formative Assessment

Formative assessment is taken at modular (2/3rd of the module is complete) level through MS Teams. Tool for this assessment is best choice questions and all subjects are given the share according to their hour percentage.

Summative Assessment:

Summative assessment is taken at the mid modular (LMS Based),modular and block levels.

Assessment

Theory Paper

There is a module Assessment at the end of first module of each block. The content of the whole teaching of the module are tested in this Assessment.
It consists of paper with objective type questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the module. (Annexure I attached)
Viva Voce:
Structured table viva voce is conducted including the practical content of the module.

Block Assessment
On completion of a block which consists of two modules, there is a block Assessment which consists of one theory paper and a structured viva with OSPE.
Theory Paper
There is one written paper for each subject. The paper consists of objective type questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the module.

Block OSPE
This covers the practical content of whole block.

Assessment Plan For Each Block

Module 1 Total Marks 155

Theory 60 Viva-Practical : 95

Module 2 Total Marks 155

Theory 60 Viva Pactical : 95

	Theory				Viva Practical				Internal assessment			
	Module 1		Module 2/Block		Module 1	Module 2/Block			Theory	Practical		
Pathology	60		60		40	80			45	45		
	MCQ	SEQ	MCQ	SEQ	Viva	OSPE 45		Viva & Copy 35	Module Exams	OSPE	Viva	Lab Rotation
	25	35	25	35	40	AV 4x5 =20	LAB 4x5=20 OB St 3=15	30+ 5+ book =40	**7.5**X6 =45	**8**X3=24	**3**X6 =18	**3**
Total Marks	120				135				90			

Internal assessment

For module 1 Theory 7.5 marks

Viva 3 marks

For module 2 Theory 7.5 marks

Viva 3 marks

OSPE 8 marks

Total Intern Ass marks for Block 29 marks

Lab rotation 3 marks (to be added at end of year)

		Module 1				Module 2						Block			
		Theory		Practical Viva		Theory		Practical Viva				Theory		VivaPractical	
Roll No	Name Of Student	Marks Theory (60)	Intern Assess Theory (7.5)	Marks Viva (40)	Intern Assess Viva (3)	Marks Theory (60)	Intern Assess Theory (7.5)	Marks Viva (35)	Intern Assess Viva (3)	Marks OSPE (45)	Intern Assess OSPE (8)	Total Marks Theory (120)	Internal Assessment Theory (Add all Int Ass Marks of Theory)	Total Marks VivaPractical (120)	Internal Assessment VivaPractical (Add all Int Ass Marks of Practical viva)

Assessment Frequency & Time in Microbes and Anti-Microbial Module

Block		Module – 1	Type of Assessments	Total Assessments Time			No. of Assessments	
	Sr #	Microbes and Anti-Microbial Module Module Components		Assessment Time	Summative Assessment Time	Formative Assessment Time		
Block-II	1	Mid Module Assessments LMS based (Pharmacology, Pathology, Forensic Medicine, Medicine, Surgery, community medicine,Peads,Family Medicine,)	Summative	30 Minutes	7 hours	30 Minutes	1 Formative	5 Summative
	2	Topics of SDL Assessment on MS Team	Formative	10 Minutes (Every Thursday)				
	3	End Module Assessments (SAQ & MCQs Based)	Summative	6 Hours				
	4	Pharmacology Structured and Clinically Oriented Viva	Summative	10 Minutes				
	5.	Forensic Medicine Structured and Clinically oriented Viva	Summative	10 Minutes				
	5	Pathology Structured & Clinically oriented Viva	Summative	10 Minutes				

Microbes and Anti-Microbial Module Assessment Plan

Date / day	Assesment plan	Total marks	Assesment mode	Content
Thursday 26-7-23	Mid module assesment	20	LMS- 20 mcq	15mcq-(pathology, pharmacology and forensic 5xeach) 3 mcq –Peads 1 community medicine 1 mcq- surgery and 3 MCQ medicine
8-6-23 15-6-23 22-6-23 26-7-23 3-8-23 10-8-23	Weekly assesements on SDL topics	15 15 15 15 15 15	15 mcq 15 mcq 15 mcq 15 mcq 15 mcq 15 mcq	-(pathology, pharmacology and forensic 5xeach) every week each
Tuesday S 22-8-23	End module theory exam (9 am to 2pm)	Pathology:60 Marks ForensicMedicine: 40 Marks Pharmacology:50	Forensic medicine (9 to 10:30 am) Pathology,(10: 45 am to 12 :15pm) Pharmacology (12:15 pm to 2pm)	Pathology- 60 marks Pharmacology-50 Forensic medicine-40 (for mcq/seq distribution see table)
Thursday 24-8-23	Audiovisual OSPE	Pathology:20Marks ForensicMedicine:15 Marks Pharmacology:25	Whole class in 4-5 divided batches	Pathology:20 marks Pharmacology: 25 Marks Forensic Medicine:15 marks
23-8-23 24-8-23 25-8-23	Lab OSPE	Pathology:35 Marks Forensic Medicine: 15 Marks Pharmacology 30 marks	Integrated Lab OSPE of batches in respective departments	Pathology:35 Marks ForensicMedicine: 15 Marks Pharmacology 30 marks
23-8-23 24-8-23 25-8-23	Viva (12pm-2pm)	Pathology: 40 Marks Forensic Medicine: 25 Marks Pharmacology 15 marks	viva of batches in respective department	Pathology- 40 marks Pharmacology-15 marks Forensic medicine -25 marks

Table of Specification (TOS) For Microbes and Anti-microbial module end block Assessment for 3rd Year MBBS

Sr. #	Discipline	No. of MCQs (%)	No. of MCQs according to cognitive domain			No. of SEQs (%)		No. of SEQs according to cognitive domain			Viva voce	OSPE Marks	Total Marks
			C1	C2	C3	No. of items	Marks	C1	C2	C3			
1.	Pharmacology	15	2	9	4	7	35	2	4	1	15	55	120
2.	Forensic Medicine	15	4	9	3	5	25	2	2	1	25	30	95
3.	Pathology	25	2	5	3	7	35	2	4	1	40	55	155
	Total												370

Section III

(Sample MCQ & SEQ papers with analysis)