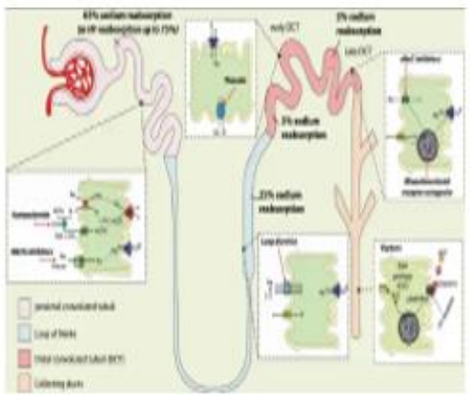
Rawalpindi Medical University

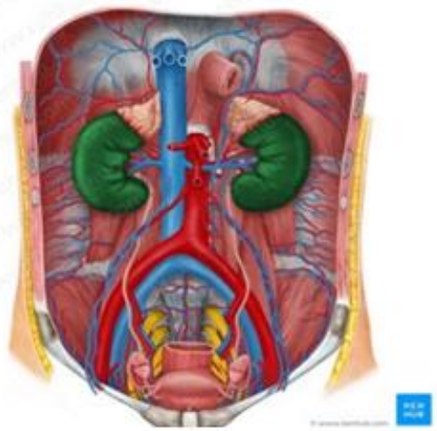
# STUDY GUIDE RENAL MODULE

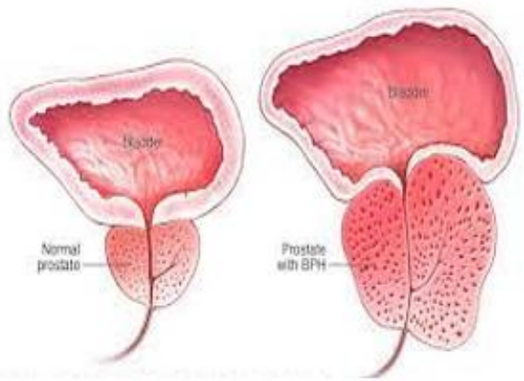
## Integrated Modular Curriculum

## 4th year MBBS










# Fourth Year MBBS 2024

# Study Guide

# Renal Module

# Table of Contents


| | |
|---|---|
| University Moto, Vision, Values and Goals | 5 |
| Renal Module Team | 6 |
| Discipline wise Details of Modular Content | 7-8 |
| Introduction to spiral curriculum | 9-10 |
| Renal Module | 11 |
| Section I - Terms & Abbreviations | 12 |
| Teaching and Learning Methodologies / Strategies | 14-17 |
| Section II-Learning Objectives, Teaching Strategies & Assessments | 18-19 |
| Pharmacology Large Group Interactive Session (LGIS) | 20 |
| Pathology Large Group Interactive Session (LGIS) | 21-22 |
| Community Medicine Large Group Interactive Session (LGIS) | 23-25 |
| Pathology Small Group Discussion (SGDs) | 26 |
| Pharmacology Small Group Discussion (SGDs) | 27 |
| Pharmacology Case Based Learning (CBL) | 27 |
| Pathology Self Directed Learning (SDL) | 28 |
| Community Medicine Self Directed Learning (SDL) | 28 |
| Pharmacology Self Directed Learning (SDL) | 29 |
| SECTION III : Vertically Integrated Subjects | 30-34 |
| Large Group Interactive Sessions (LGIS) urology | 30-31 |
| Large Group Interactive Sessions (LGIS) nephrology | 32-33 |
| Large Group Interactive Sessions (LGIS) Paediatrics | 34 |
| Section IV-Time Table | 35 |

Content Categorization of pharmacology 36
Human Resources of Pharmacology 37
Content Categorization of Pathology 38
Human Resources of Pathology 39
Content Categorization of Community Medicine 40
Human Resources of Community Medicine 41
Week wise Time table 43-50
Section- V Assessment Policies 51
Research 60
Biomedical Ethics 60
Family Medicine 61
Artificial Intelligence 61

# 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 center of excellence in Medical Education, using evidence-based training techniquesfor 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 inan 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 caredelivery system.
- Help you attain and maintain the highest possible levels of ethical and professional conduct in yourfuture life.
- Kindle a spirit of inquiry and acquisition of knowledge to help you attain personal and professionalgrowth & excellence.

# Renal Module Team

**Module Name: Renal Module**

**Duration of Module: 4 Weeks**

**Coordinator: Dr. Uzma Umar**

**Co-coordinator:Dr. Memuna kanwal**

**Review by:Module Committee**

| Module Committee | | | Module Task Force Team | |
|---|---|---|---|---|
| 1. | Vice Chancellor RMU | Prof. Dr. Muhammad Umar | 1. Coordinator | Dr. Uzma Umar (APWMO) |
| 2. | Director DME | Prof. Dr. Rai Muhammad Asghar | 2. DME Focal Person | Dr. Maryum Batool |
| 3. | Convener Curriculum | Prof. Dr. Naeem Akhter | 3. Co-coordinator | Dr. Memuna Kanwal(Demonstrator) |
| 4. | Dean BasicnSciences | Prof. Dr. Ayesha Yousaf | | |
| 5. | Additional Director DME | Prof. Dr. Ifra Saeed | | |
| 6. | Chairperson Pharmacology | Dr. Attiya munir | | |
| 7. | Chairperson Pathology | Prof. Dr. Mobina Dhodhy | **DME Implementation Team** | |
| | | | 1. Director DME | Prof. Dr. Rai Muhammad Asghar |
| 8. | Focal person community medicine | Dr Mehwish Riaz | 2. Additional Director DME | Assoc.Prof Dr Asma Khan |
| 9. | Focal Person Pathology | Dr aisha | 3. Module planner & Implementation coordinator | Dr. Omaima Asif |
| 10. | Focal Person Quran Translation Lectures | Mufti abdul Wahid | 4. Editor | Dr Omaima Asif |
| 11. | Focal Person Family Medicine | Dr Sadia | | |
| 12. | Focal Person Bioethics Department | Prof. Dr. Akram Randhawa | | |
| 13. | Focal Person Surgery | Dr Huma Sabir | | |
| • | | | | |

## Discipline wise Details of Modular Content

| Block | Module | Content |
|---|---|---|
| | • Pharmacology | • Diuretics<br>• Use of diuretics in pulmonary edema<br>• Drugs used in urinary tract infections |
| | • Pathology | • Mechanism Of Glomerular Injury, Nephritic Syndrome (Post Streptococcal Glomerulonephritis)<br>• Diseases Causing Nephritic Syndrome<br>• Pathologic Basis Of Nephrotic Syndrome<br>• Primary Glomerular Diseases<br>• Nephrotic Syndrome In Systemic Diseases , Diabetes Mellitis ,Amyloidosis , Sle<br>• Miscellaneous<br>• Renal tumors<br>• Renal vascular diseases |
| | • Community Medicine | • Entomology<br>• Introduction & Classification of Arthropods of Public Health Importance<br>• Transmission of Arthropod Infections Diseases transmitted by Arthropods integrated vector management<br>• Vector Born Diseases<br>• Prevention of Leishmaniasis & Scabies & Modes of Transmission of Filariasis<br>• Snake Bite<br>• Disaster Management<br>• Zoonotic diseases |
| | **Spiral Component** | |
| | • Quran Studies | • Imaniyat |
| | • Bioethics & Professionalism | • Research ethics<br>• Functions of ethical review board |
| | • Family Medicine | • Red flags of BPH and haematuria |
| | • Research Innovation (IUGRC) | • IUGRC presentations |

| | | |
|---|---|---|
| | • Vertical Integration | **Medicine/nephrology**<br>• Glomerulonephritis<br>• Nephrotic syndrome<br>• Acute renal failure<br>• Chronic renal failure<br>• Interstitial nephritis<br>• Urinary Tract Infection |
| | | **Surgery/urology**<br>• Urinary Tract Congenital Anomalies<br>• Congenital anomalies<br>• Urinary stones upper tract<br>• Urinary stone disease lower tract<br>• Urinary tract trauma<br>• Urinary incontinence<br>• Benign Prostatic Hyperplasia (BPH<br>• Prostate cancers<br>• Renal cell carcinoma<br>• Bladder cancers<br>• Urinary Tract Infections |
| | | **Paerdiatrics**<br>• Nephrotic syndrome<br>• Renal failure<br>• Urinary Tract Infections |

# Introduction to Spiral Curriculum

## Bioethics:

Biomedical ethics, also known as bioethics, is a field of study that addresses the ethical, social, and legal issues arising from medicine and the life sciences. It applies moral principles and decision-making frameworks to the practice of clinical medicine, biomedical research, and health policy. Biomedical ethics seeks to navigate the complex ethical dilemmas posed by advances in medical technology, research methodologies, and healthcare practices. Key areas of focus include patient rights and autonomy, confidentiality, informed consent, end-of-life care, resource allocation, and the ethics of genetic engineering, among others.

Biomedical ethics within medical universities plays a pivotal role in shaping the moral framework through which future healthcare professionals navigate the complex and often challenging decisions they will face in their careers. This critical discipline integrates ethical theories and principles with clinical practice, research, and healthcare policy, fostering a deep understanding of the ethical dimensions of medicine. By embedding biomedical ethics into the curriculum, Rawalpindi medical university equips students with the tools to critically analyze and address ethical dilemmas, ranging from patient confidentiality and informed consent to end-of-life care and the equitable distribution of healthcare resources.

This education goes beyond theoretical knowledge, encouraging students to apply ethical reasoning in practical scenarios, thus preparing them for the moral complexities of the medical field. Biomedical ethics also promotes a culture of empathy, respect, and integrity, ensuring that future medical practitioners not only excel in their technical skills but also uphold the highest ethical standards in patient care and research. Through seminars, case studies, and interdisciplinary collaborations, students are encouraged to engage in ethical discourse, reflecting on the societal impact of medical advancements and the responsibility of medical professionals to society. This foundational aspect of medical education cultivates a generation of healthcare professionals committed to ethical excellence, patient advocacy, and the pursuit of equitable healthcare for all.

## Professionalism

Professionalism in medicine refers to the set of values, behaviors, and relationships that underpin the trust the public has in doctors and other healthcare professionals. It encompasses a commitment to competence, integrity, ethical conduct, accountability, and putting the interests of patients above one's own. Professionalism involves adhering to high standards of practice, including maintaining patient confidentiality, communicating effectively and respectfully with patients and colleagues, and continually engaging in self-improvement and professional development. It also includes a responsibility to improve access to high-quality healthcare and to contribute to the welfare of the community and the betterment of public health. In essence, professionalism in medicine is foundational to the quality of care provided to patients and is critical for maintaining the trust that is essential for the doctor-patient relationship.

Rawalpindi Medical University emphasizes the importance of professionalism in medicine, integrating it throughout its curriculum to ensure that students embody the core values of respect, accountability, and compassion in their interactions with patients, colleagues, and the community. This focus on professionalism is designed to prepare students for the complexities of the healthcare environment, instilling in them a deep sense of responsibility to their patients, adherence to ethical principles, and a commitment to continuous learning and improvement. Through a combination of theoretical learning, practical training, and mentorship, RMU encourages its students to exemplify professionalism in every aspect of their medical practice. Workshops, seminars, and clinical rotations further reinforce these values, providing students with real-world experiences that highlight the importance of maintaining professional conduct in challenging situations. RMU's approach to professionalism not only shapes competent and ethical medical professionals but also contributes to the broader mission of improving healthcare standards and patient outcomes. By prioritizing professionalism, Rawalpindi Medical University plays a crucial role in advancing the medical profession and ensuring that its graduates are well-equipped to meet the demands of a rapidly evolving healthcare landscape with honor and integrity.

## Communication Skills

Communication skill for health professionals involves the ability to effectively convey and receive information, thoughts, and feelings with patients, their families, and other

healthcare professionals. It encompasses a range of competencies including active listening, clear and compassionate verbal and non-verbal expression, empathy, the ability to explain medical conditions andtreatments in an understandable way, and the skill to negotiate and resolve conflicts. Effective communication is essential for establishing trust, ensuring patient understanding and compliance with treatment plans, making informed decisions, and providing holistic care. It directly impacts patient satisfaction, health outcomes, and the overall efficiency of healthcare delivery

At Rawalpindi Medical University (RMU), the development of communication skills is regarded as a fundamental aspect of medical education, recognizing its critical importance in enhancing patient care, teamwork, and interdisciplinary collaboration. RMU is dedicated to equipping its students with exceptional communication abilities, enabling them to effectively interact with patients, their families, and healthcare colleagues. The curriculum is thoughtfully designed to incorporate various interactive and experiential learning opportunities, such as role-playing, patient interviews, and group discussions, which allow students to practice and refine their communication skills in a supportive environment.

By integrating communication skills training throughout its programs, RMU not only enhances the interpersonal competencies of its future healthcare professionals but also contributes to improving the overall quality of healthcare delivery. Graduates from RMU are distinguished not just by their clinical expertise but also by their ability to connect with patients and colleagues, making them highly effective and compassionate practitioners.

## Introduction to Family Medicine

Family medicine is a medical specialty dedicated to providing comprehensive health care for people of all ages and genders. It is characterized by a long-term, patient-centered approach, building sustained relationships with patients and offering continuous care across all stages of life. It focuses on treating the whole person within the context of the family and the community, emphasizing preventive care, disease management, and health promotion.

The Family Medicine Curriculum at Rawalpindi Medical University (RMU) marks a significant stride towards holistic healthcare education, aiming to prepare medical graduates for the comprehensive and evolving needs of family practice. This curriculum is designed to offer a broad perspective on healthcare, focusing on preventive care, chronic disease management, community health, and the treatment of acute conditions across all ages, genders, and diseases. Emphasizing a patient-centered approach, the curriculum ensures that students develop a deep understanding of the importance of continuity of care, patient advocacy, and the ability to work within diverse community settings.

RMU's Family Medicine Curriculum integrates theoretical knowledge with practical experience. Students are exposed to a variety of learning environments, including community health centers, outpatient clinics, and inpatient settings, providing them with a well-rounded understanding of the different facets of family medicine. This hands-on approach is complemented by interactive sessions, workshops, and seminars that cover a wide range of topics from behavioral health to geriatric care, ensuring students are well-equipped to address the comprehensive health needs of individuals and families.

# Renal Module

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

**Rationale:** System based learning structure is adopted. The Endocrinology module is designed to impart basic knowledge. This knowledge will serve as a base on which the student will construct further knowledge about the etiology, pathogenesis, prevention of diseases and the principles of their therapeutics and management.

**Module outcomes**:

**Knowledge**

Each student will be able to acquire knowledge about the basic concepts of diseases in the community**,** use technology based medical education and to appreciate concepts & importance of

- **Research**
- **Biomedical ethics**
- **Family medicine**
- **Artificial Intelligence**

**Skills**

Interpret and analyze various practical & practices of clinical sciences.

**Attitude**

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

This module will run in 4 weeks. The content covered will be made visible through introductory titles of the teaching sessions. Instructional strategies are given in the timetable and learning objectives are briefed in study guides. Study guides will also be available on university websites.

# SECTION I:  Terms & Abbreviations

**Contents**


- Domains of Learning
- Teaching and Learning Methodologies/Strategies
    - ✦ Large Group Interactive Session (LGIS)
    - ✦ Small Group Discussion (SGD)
    - ✦ Self-Directed Learning (SDL)
    - ✦ Case Based Learning (CBL)
    - ✦ Peer assisted learning (PAL)
    - ✦ Clinical / skill lab


**Tables and figures**


- ✦ Table 1. Domains of learning according to Blooms Taxonomy
- ✦ Figure 1. Prof Umar's Model of Integrated Lecture
- ✦ Table 2. Standardization of teaching content in Small Group Discussions
- ✦ Table 3. Steps of taking Small Group Discussions

## Table 1: Domains of Learning According To BLOOMS Taxonomy

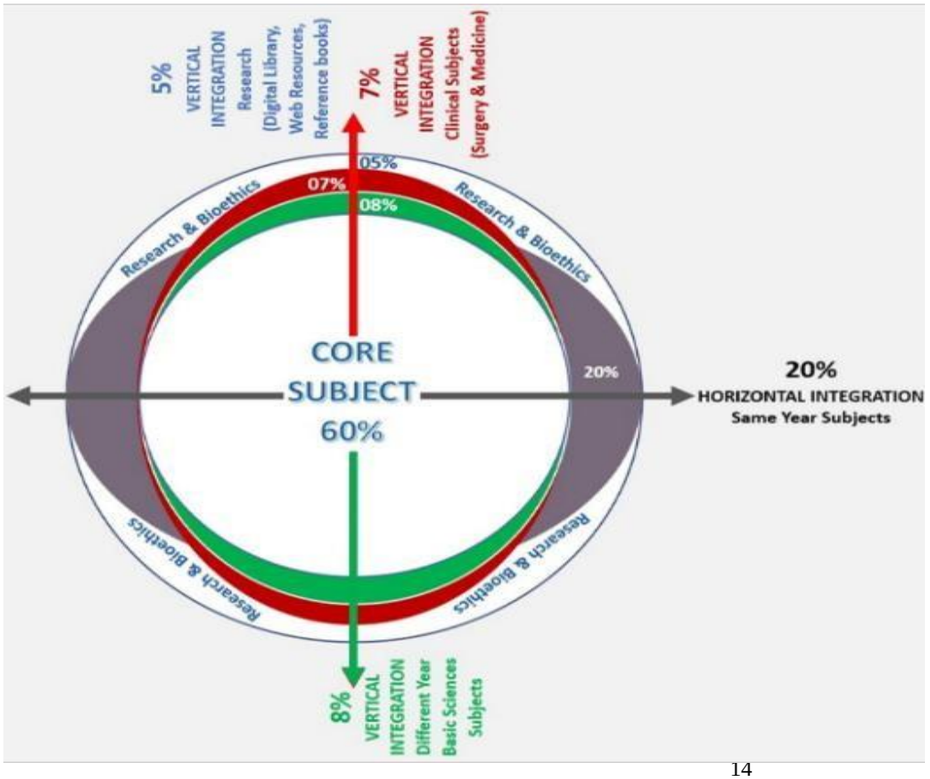
| Sr. # | Abbreviation | Domains of learning |
|---|---|---|
| **1.** | C | **Cognitive Domain:** knowledge and mental skills. |
| | C1 | Remembering |
| | C2 | Understanding |
| | C3 | Applying |
| | C4 | Analyzing |
| | C5 | Evaluating |
| | C6 | Creating |
| **2.** | P | **Psychomotor Domain:** motor 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

## 1) 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 MODEL OF INTEGRATED LECTURE**



## 2) 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 SGD`s Table**

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

**Table 3 : Steps of taking Small Group Discussions**

| Step 1 | Sharing of Learning objectives by using students Study guides | First 5 minutes |
|---|---|---|
| **Step 2** | Asking students pre-planned questions from previous teaching sessionto 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 structuredquestions 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 | |

## 1) SELF DIRECTED LEARNING (SDL)

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

## 2) 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.

## 3) Practical Sessions/Skill Lab (SKL)

| Practical Session/ Skill Lab (SKL) | |
|---|---|
| Demonstration/ power point presentation 4-5 slide | 10-15 minutes |
| Practical work | 25-30 minutes |
| Write/ draw and get it checked by teacher | 20-25 minutes |
| 05 MCQs at the end of the practical | 10 minutes |
| At the end of module practical copy will be signed by head of department | |
| At the end of block the practical copy will be signed by<br><br>Head of Department<br><br>Dean<br><br>Medical education department<br><br>QEC | |

## Section II : Learning Objectives, Teaching Strategies & Assessments

Learning objectives are given to the students and will be based on:

- Purpose to provide students with a relevant opportunity to see theory in practice • Require students to analyze data in order to reach a conclusion.
- Develop analytic, communicative and collaborative skills along with content

# Contents of the Module

i. Horizontally Integrated Basic Sciences (Pharmacology, Pathology & Community Medicine)

ii. Large Group Interactive Session:

- Pharmacology (LGIS)
- Pathology (LGIS)
- Community Medicine (LGIS)
- Nephrology/Medicine
- Urology/Surgery
- Paediatrics

iii. Small Group Discussions

- Pharmacology (SGD)
- Pathology (SGD)
- Community Medicine (SGD)

iv. Self -Directed Topic

- Pharmacology (SDL)
- Pathology (SDL)
- Community Medicine (SDL)

v. Skill Lab

- Pathology
- Pharmacology

vi. CBL

- Pathology
- Pharmacology
- urology

vii. Wards, operation theatres

- Surgery
- Medicine

**Horizontally Integrated Basic Sciences (Pharmacology, Pathology & Community Medicine)**

# LEARNING OBJECTIVES OF PHARMACOLOGY (LGIS)

| TOPIC | Contents Outlines (Major Topics & Sub- Topics) | Learning objectives<br>At the end of session student will be able to | Learning domain | Teaching strategy | Assessment tool |
|---|---|---|---|---|---|
| Diuretics I | Carbonic Anhydrase inhibitors | • Classify Diuretics<br>• Discuss the kinetics and Pharmacodynamics of Carbonic Anhydrase Inhibitors<br>• Rationale of uses of Carbonic Anhydrase Inhibitors in different clinical conditions<br>Discuss the Adverse Effects & drug interactions of Carbonic Anhydrase Inhibitors | C1<br>C2 | LGIS | MCQ/SEQ |
| Diuretics II | Loop Diuretics | • Discuss the kinetics and Pharmacodynamics of loop diuretics<br>• Rationale of uses of loop diuretics in different clinical conditions<br>Discuss the Adverse Effects & drug interactions of loop diuretics | C1<br>C2<br>C1<br>C2 | LGIS | MCQ/SEQ |
| Diuretics III | Thiazide & Thiazide Like Diuretics | • Discuss the kinetics and Pharmacodynamics of Thiazide & Thiazide like Diuretics<br>• Rationale of uses of Thiazide diuretics in different clinical conditions<br>Discuss the Adverse Effects & drug interactions of Thiazide diuretics | C1<br>C2 | LGIS | MCQ/SEQ |
| Diuretics IV | Potassium Sparing Diuretics | • Discuss the kinetics and Pharmacodynamics of Potassium Sparing Diuretics<br>• Rationale of uses of Potassium sparing diuretics in different clinical conditions<br>Discuss the Adverse Effects & drug interactions of Potassium Sparing diuretics | C1<br>C2 | LGIS | MCQ/SEQ |

# Pathology Large Group Interactive Session (LGIS)

| TOPIC | Contents Outlines (Major Topics & Sub- Topics) | Learning objectives After The Session Students Will Be Able To: | Learning domain | Teaching strategy | Assessment tool |
|---|---|---|---|---|---|
| **Mechanism Of Glomerular Injury, Nephritic Syndrome(Post Streptococcal Glomerulonephritis)** | • Classification of glomerular diseases<br>• Introduction types ,causes &sign symptoms of glomerular diseases<br>• Pathophysiology & related<br>• Investigations of post streptococcal glomerulonephritis | The student should be able to<br>-Classify glomerular diseases.<br>-Differentiate between nephrotic and nephritic syndrome<br>-Describe the pathogenic mechanisms of diseases causing nephritic syndrome<br>-Describe the morphological changes in post streptococcal glomerulonephritis | C3<br>C3<br>C2<br>C2 | LGIS | MCQs,<br>SEQs,<br>OSPE<br>Viva |
| **Diseases Causing Nephritic Syndrome<br>Iga Nephropathy ,Hereditary Nephritis,Rpgn, Crescenteric Gn,Immune Complex Mediated Gn** | • Introduction types ,causes &clinical features of Nephritic syndrome<br>• Glomerular injury mechanism<br>• Pathophysiology of nephritic syndrome<br>• Related morphology & investigations | -Describe the morphological changes in diseases causing nephritic syndrome<br>-Describe the lab diagnosis of nephritic syndrome | C2<br>C2 | LGIS | MCQs,<br>SEQs,<br>OSPE<br>Viva |
| **Pathologic Basis Of Nephrotic Syndrome<br>Primary Glomerular Diseases** | • Classification of primary glomerular diseass<br>• Mechanism of diseases causing glomerular injury<br>• Related morphology & investigations | .<br>Categorize glomerular diseases leading to nephrotic syndrome<br>-Describe the pathogenic mechanisms of diseases causing nephrotic syndrome<br>-Describe the morphological changes in diseases causing nephrotic syndrome<br>-Formulate the lab diagnosis of nephrotic syndrome | C3<br>C2<br>C2<br>C3 | LGIS | MCQs,<br>SEQs,<br>OSPE<br>Viva |
| **Nephrotic Syndrome In Systemic Diseases<br>Diabetes Melitis<br>Amyloidosis<br>Sle<br>Miscellaneous** | • Glomerular diseases leading to nephrotic syndrome<br>• Pathogenic mechanisms causing nephrotic syndromes<br>• Related investigations | -Categorize systemic diseases leading to nephrotic syndrome<br>-Describe the pathogenic mechanisms of systemic diseases causing nephrotic syndrome<br>-Describe the morphological changes in systemic diseases causing nephrotic | C3<br>C2<br>C2 | LGIS | MCQs, SEQs, OSPE<br>Viva |

| | | | | | |
|---|---|---|---|---|---|
| | | syndrome<br>-Formulate the lab diagnosis of nephrotic syndrome | C3 | | |

# Community medicine Large Group Interactive Session (LGIS)

| TOPIC | Contents Outlines (Major Topics & Sub-Topics) | Learning objectives<br>After The Session Students Will Be Able To: | Learning domain | Teaching strategy | Assessment tool |
|---|---|---|---|---|---|
| **Entomology I<br>Introduction & Classification of Arthropods of Public Health Importance** | Medical Entomology; Transmission of arthropodborne diseases | • Define Medical entomology. Define vector along with examples.Enlist and classify arthropods of medical importance.<br>• Identify, differentiate and explain features of various classes ofarthropods.<br>• Explain with examples modes of transmission of arthropods bornediseases.<br>• Draw and explain life cycle of plasmodium along with variousmosquito control measures<br>• Describe importance of entomology from public health aspect. | C1<br>C1<br>C2<br>C2 | LGIS | MCQ,<br>SEQ |
| **Entomology II<br>Transmission of Arthropod Infections Diseases transmitted by Arthropods integrated vector management** | Medical Entomology. Principles Of ArthropodsControl | • Enlist diseases caused by house fly. Describe life cycle of housefly and its habitat along with various methods to control fly.<br>• Identify and describe sand-fly, Tsetse fly, and black fly along withdiseases caused by them.<br>• Describe integrated approach towards control of class insect. | C1<br>C2<br>C2 | LGIS | MCQ,<br>SEQ |
| **Vector Born Diseases-I<br>Epidemiology of Viral Hemorrhagic fever & Malaria** | Vector borne diseases;Epidemiological determinants | • Define a vector and enlist various vector borne diseases.<br>• Explain modes of transmission and propagation of parasites.<br>• Define host and its types with examples.<br>• Enlist and explain mosquito | C1&C2<br>C1&C2<br>C1,<br>C2&C3 | LGIS | MCQ,<br>SEQ |

| | | | | | |
|---|---|---|---|---|---|
| | | borne diseases<br>• Explain life cycle of malarial parasites and integrated approachtowards control of malaria.<br>• Name various causes of viral hemorrhagic fever along with theirclinical features.<br>• Enlist causes of relapsing fever and various methods towardscontrol of vector borne diseases. | C1, C2 | | |
| **Vector Born Disease-II Prevention of Leishmaniasis & Scabies & Modes of Transmission of Filariasis** | Vector borne diseases;Prevention & control | • Define and explain filariasis and life cycle of filarial parasites,Describe modes of transmission of filariasis and assessment of various mosquito control programs.<br>• Explain Leishmaniasis, life cycle of sand-fly and integratedmeasures towards fly control.<br>Explain scabies, its mode of spread along with curative and preventive measures. | C1<br>C1<br>C2 | LGIS | MCQ,<br>SEQ |
| **Snake Bite** | Epidemiology<br>Prevention of snakebite | • Describe importance of snake bite, the epidemiology of snake bite<br>• Differentiate between clinical manifestations of different types ofsnakes, Enumerate ways of prevention from snakebite<br>Management of snakebite, Enlist people more at risk | C1<br>C1 | LGIS<br>LGIS | MCQ,<br>SEQ |
| **Disaster Management** | Types of disaster<br>Disaster management<br>Triage | • Define disaster<br>• Differentiate between natural and man made disaster<br>• Classify different types of disaster<br>• Assess the magnitude of disaster<br>• Describe all the disaster management steps<br>• Understand triage and its importance in disaster management | C1&C2<br>C1&C2 | LGIS | MCQ, SEQ |
| **Zoonotic diseases I** | Introduction<br>Viral Zoonotic Disease,Rabies | • Explain introduction of zoonosis, Discuss rabies disease, its originand pathophysiology.<br>• Identify the preventive aspects of rabies.<br>• Enlist vaccination schedule discussion in detail. | C1<br>C2<br>C3<br>C1<br>C1<br>C2 | LGIS | MCQ, SEQ<br>MCQ, SEQ |
| **Viral & Bacterial Zoonotic Disease II** | Chikungunya, Japanese encephalitis, bacterial zoonotic anthrax | • Understand chikungunya, its pathophysiology.<br>• Discuss the preventive and health education aspects relevant to it.<br>• Explain Japanese encephalitis, clinical features and pathophysiology<br>• Strategize its prevention.<br>• Explain Anthrax and classify its types<br>• Identify clinical features , diagnose the disease<br>• Categorize the prevention under different levels of | C1<br>C2<br>C3<br>C1<br>C1<br>C2 | LGIS | MCQ, SEQ<br>MCQ, SEQ |

| | | | | | |
|---|---|---|---|---|---|
| | | prevention | | | |
| **Zoonotic Disease III** | Plague<br>Brucellosis | •Define plague, its history and epidemiology<br>•Demonstrate epidemiological triad of plague, types of plague with its prevention and treatment<br>•Define brucellosis<br>•Demonstrate epidemiological triad<br>•Concept of control in humans, prevention and treatment | C1<br>C2<br>C3<br>C1<br>C1<br>C2 | LGIS | MCQ, SEQ<br>MCQ, SEQ |
| **Zoonotic Disease IV** | Tetanus, Human Salmonellosis | • Identify The causative agent, pathophysiology of tetanus, Enlisttypes of tetanus.<br>• Understand Vaccination schedule of tetanus. Explain Preventive approach to be adopted in tetanus.<br>• Define human salmonellosis', its epidemiology<br>• Demonstrate its epidemiological triad, with its type Prevention and treatment of salmonellosis | C1<br>C2<br>C2<br>C1<br>C2<br>C2 | LGIS | MCQ, SEQ<br>MCQ, SEQ |

# Learning objectives of Bioethics LGIS

| MAJOR TOPIC | SUB TOPICS | LOS at the end of session students will be able to | COGNITIVE DOMAINS | MODE OF ASSESMENT |
|---|---|---|---|---|
| Functions of ethical review board | Discussion will cover;<br>• Ethics Review Committee (ERC) why is it needed, historical importance, composition and working (process of review)<br>• Review of mock research proposals | • Conceptualize the need of ERC<br>• Elaborate the composition and function of ERC<br>• Review the mock research proposals from ethical perspective | C1<br><br><br>C2 | MCQS<br>SEQ |
| Ethical issues for renal transplant | Discussion will cover;<br>• Ethical issues for renal transplant | • | | |

# SMALL GROUP DISCUSSIONS PATHOLOGY (SGDs)

| TOPIC | Contents Outlines (Major Topics & Sub- Topics) | Learning objectives After The Session Students Will Be Able To: | Learning domain | Teaching strategy | Assessment tool |
|---|---|---|---|---|---|
| • **TUBULOINTERSTITIAL DISEASES** | Acute pyelonephritis causes ,morphology & related investigations<br>Chronic pyelonephritis causes ,morphology & related investigations<br>acute tubular injury/Necrosis causes ,morphology & related investigations | -Categorise Tubulointerstitial disesases on the basis of aetiology<br>-Correlate the pathogenic mechanisms with morphological changes in acute tubular injury<br>-Correlate the pathogenic mechanisms with morphological changes in tubulointerstitial nephritis<br>-Describe the gross and microscopic changes of acute and chronic pyelonephritis. | C3<br>C3<br>C3<br>C3 | • SGD | MCQs, SEQs, OSPE<br>• Viva |
| • **Renal cystic diseases** | Simple cyst morphology investigations<br>Adult polycystic kidney disease Pathogenesis, morphology, clinical features & related investigations<br>Autosomal Recessive polycystic kidney disease Pathogenesis, morphology, clinical features & related investigations<br>Medullary disease with cyst Pathogenesis, morphology, clinical features & related investigations | Classify the common congenital and acquired cystic renal diseases.<br>Correlate the etiology with pathogenesis of simple renal cysts.<br>Correlate the morphological features with pathogenesis of ADPKD<br>Correlate the morphological features with pathogenesis of ARPKD<br>Correlate the pathogenesis with morphology of nephronophthisis | C3 | • SGD | MCQs, SEQs, OSPE<br>Viva |
| • **Renal tumors** | Pathogenesis, morphology , clinical features & related investigations of Neoplasms of kidney | Classify renal tumors on the basis of morphology<br>Correlate the pathogenesis with morphology of benign and malignant tumors<br>Differentiate between the morphology of various renal tumors<br>Enlist Important prognostic markers of Renal cancers | C3<br>C3<br>C3<br>C1 | • SGD | MCQ, SEQ, VIVA |
| • **Renal vascular disease** | Pathogenesis, morphology , clinical features & related investigations of renal vascular disease | | | • SGD | MCQ,SEQ,VIVA |

## SMALL GROUP DISCUSSION COMMUNITY MEDICINE (SGD)

## SMALL GROUP DISCUSSION PHARMACOLOGY

| Topic | Content | Domain | MoA |
|---|---|---|---|
| Drugs used in UTI | Causes , pathogenesis, morphology & related investigations | C2 | MCQs |

**SMALL GROUP DISCUSSION COMMUNITY MEDICINE**

**LEARNING OF**

| | | | |
|---|---|---|---|
| Epidemiology of parasitic disease; amebiasis & ascariasis | • Define parasite and parasitology, Define and explain with examples concepts in parasitology, Describe classification ofparasites.<br>• Describe host factors and modes of transmission of parasiticinfection.<br>• Enlist general measures towards control of parasitic infections. | C1<br>C2<br>C2 | MCQ, SEQ |
| Epidemiology of parasitic disease; dracunculiasis & hookworm infestation | • Describe and explain diseases along with their clinical features caused by class trematodes (Flukes), Describe diseases caused byclass cestodes, Briefly explain life cycle of parasites of medical importance.<br>• Explain epidemiological features of various parasites.<br>• Explain integrated approach towards prevention and control ofparasitic infections. | C1<br>C1<br>C2 | MCQ, SEQ |

## PHARMACOLOGY (CBL)

| TOPIC | Learning objectives<br>At the end of sessions student will be able to: | Learning domain | Assessment tool |
|---|---|---|---|
| Role of diuretics in Pulmonary edema | • Clinical Pharmacology of diuretics | C3 | MCQ |

# SELF DIRECTED LEARNING PHAMACOLOGY

| S. No. | Topic | Los<br>At the end of session student will be able to: | Reference |
|---|---|---|---|
| 1 | Acetazolamide for the prevention of acute mountain sickness | • Enlist the drugs used for acute mountain sickness<br>• Describe the mechanism of action of acetazolamide<br>• Discuss the role of acetazolamide for acute mountain sickness prevention | Acetazolamide for the prevention of acute mountain sickness--a systematic review and meta-analysis https://pubmed.ncbi.nlm.nih.gov/22943270/ |
| 2 | MANITOL USE FOR REDUCING CEREBRAL OEDEMA | • Enlist the drugs used for reducing cerebral oedema<br>• Describe the mechanism of action of manitol<br>• Discuss the role of manitol in reducing cerebral oedema | Cerebral Edema and its Management https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923559/#:~:text=Mannitol%20is%20thought%20to%20decrease,altering%20red%20blood%20cell%20rheology. |

# SELF DIRECTED LEARNING COMMUNITY MEDICINE

| S. No. | Topic | Learning Objectives<br>At the end of session student will be able to: | Reference | Assessment |
|---|---|---|---|---|
| 1. | Antimicrobial resistance,Hospital acquired infections / Nosocomial infections<br>Hospital acquired infections | • Define Antimicrobial resistance.<br>• Causes of antimicrobial resistance<br>• Describe major examples of antimicrobial resistance and possible preventive measures. | K Park Ed. 27th (378-81)<br>K Park Ed. 27th (359-61) | 2-3MCQ<br>LMS |

| | | | | |
|---|---|---|---|---|
| | | • Define HAIs. infections and its types.<br>• Surveillance, Sources, & rout of speared of HAI.<br>• Explain standard precautions and other measures to prevent HAIs | | |
| 2. | Emerging and Re-emerging health problems /Neglected tropical diseases | • Define emerging and re-emerging diseases<br>• Identify different factors in causation of emerging/re emerging diseases<br>• List diseases included, and ways to control | K Park Ed. 27th | 2-3MCQ<br>LMS |
| 3. | Genetics | • Recognize genetics<br>• Identify positive and negative eugenics<br>• Define euthenics<br>• Understand genetic counselling | K Park Ed. 27th<br>page 858,863,865 | 2-3MCQ<br>LMS |

# SELF DIRECTED LEARNING PATHOLOGY

# SECTION III : VERTICALLY INTEGRATED SUBJECTS

## LEARNING OBJECTIVES OF UROLOGY (LGIS)

| S no | topic | Content outline & subtopics | Learning objectives with learning domain | Teaching strategy | Assessment strategy |
|---|---|---|---|---|---|
| **1** | Urinary Tract Congenital Anomalies | Upper urinary tract congenital anomalies, pathogenesis, diagnoses | • Types of renal and ureteric anomalies C2<br>• Discuss Incidence, presentation& impact on renal function C2<br>• Explain Pathogeneses and clinical findings C3<br>• Diagnose of upper urinary tract Anomalies C3<br>• Management of various anomalies & complications C3 | LGIS | MCQS,SEQS |
| **2** | Congenital anomalies | Lower urinary tract congenital anomalies, pathogenesis, diagnoses | • Describe the anomalies of urinary Bladder, Urethra& testis C2<br>• Understand Clinical features, Presentation, Complications & treatment of various anomalies C3 | LGIS | MCQS,SEQS |

| | | | | | |
|---|---|---|---|---|---|
| **3** | Urinary stones upper tract | Theories, Factors & management of urinary stones | • Describe the types of stones, various theories& factors C2<br>• Understand the clinical presentation and Definitive management C3 | LGIS | MCQS,SEQS |
| **4** | Urinary stone disease lower tract | Theories, Factors & management of urinary stones | • Understand the Role of metabolic and malnutrition in the formation of vesical calculi in children C2<br>• Explain Clinical features & diagnosis C3<br>• Discuss diagnosis & treatment of Urinary Tract Infection C3 | LGIS | MCQ, SEQS |
| **5** | Urinary tract trauma | Classification, etiology, management of trauma | • Understand the etiology of Urinary tract trauma. C2<br>• Classify Urinary tract traumas c2<br>• Present & investigate the case C3<br>• Management of Urinary tract trauma C3 | LGIS | MCQS ,SEQS |
| **6** | Urinary incontinence | Types, Causes& management of incontinence | • Causes of urinary incontinence C2<br>• Diagnose and identify different types incontinence C3<br>• Manage urinary incontinence. C3 | LGIS | MCQS, SEQS |
| **7** | Benign Prostatic Hyperplasia (BPH | Risk factors, signs symptoms | • Enlist the risk factors for BPH C2<br>• Enlist LUTS (Lower Urinary Tract Symptoms), Irritative& Obstructive Symptoms C3<br>• Understand IPSS (International Prostate Symptom Score) C3<br>• Investigations required for Diagnosis C3<br>• Discuss management on the basis of IPSS C3<br>• Explain the Indications and complications | LGIS | MCQS, SEQS |
| **8** | Prostate cancers | Incidence & Risk Factor Investigations s, management of ca prostate | • Explain Incidence & Risk Factors C2<br>• Present Patient with Cancer Prostate C3<br>• Enlist Investigations Specially PSA, TRUS/ TRUS guided biopsy and Gleason score & sum C3<br>Discuss management plan on the basis of history, Clinical findings &Histopathology C3 | LGIS | MCQS, SEQS |

| | | | | | |
|---|---|---|---|---|---|
| **9** | Renal cell carcinoma | Incidence & Risk Factor Investigations s, management of ca | • Classify Renal Tumors C2<br>• Enlist etiology &risk factors C2<br>• Enlist Clinical features of Renal Cell Carcinoma C2<br>• Discuss Investigations & Staging of Renal Cell CarcinomaC3<br>Understand Management of Renal Cell Carcinoma | LGIS/CBL | MCQS, SEQS |
| **10** | Bladder cancers | Incidence & Risk Factor Investigations s, management of ca urinary bladder | • Classify and enlist risk factors of bladder cancers C2<br>• Explain Clinical Presentation C3<br>• Enlist Investigations & grading of tumor C3<br>• Discuss Management options C3 | LGIS/CBL | MCQS, SEQS |
| **11** | Urinary Tract Infections | Incidence & Risk Factor Investigations s, management of UTI | • Define UTI C1<br>• Explain Common etiological agents & Risk factors of UTI<br>• Discuss clinical features and complications c3<br>Discuss treatment plan of management C3 | LGIS | MCQS, SEQS |

## LEARNING OBJECTIVES OF NEPHROLOGY (LGIS)

| S no | Topic | Content outline & subtopics | Learning objectives with learning domain | Teaching strategy | Assessment strategy |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| **1** | Glomerulonephritis | pathological mechanism different types & treatment plan | • Understand etiological agents/pathological mechanism behind Glomerulonephritis C2<br>• Classify different types of Glomerulonephritis. C2<br>• Individualize treatment plan according to types of GN. C3<br>• Understand the role of renal biopsy in GN. C3 | LGIS | MCQS, SEQS |
| **2** | Nephrotic syndrome | Etiology, clinical features& management plan | • Know etiology of nephrotic syndrome. C2<br>• Describe clinical features of nephrotic syndrome C2<br>• laboratory workup of nephrotic syndrome C3<br>• Explain management plan of nephrotic syndrome.C3 | LGIS | MCQS, SEQS |
| **3** | Acute renal failure | clinical features Laboratory workup& management of AKD | • Recall causes of acute renal failure.C2<br>• Describe clinical features of acute and chronic renal failure C3<br>• Enlist Laboratory workup & renal imaging in chronic kidney disease. C3<br>• Explain Complications of CKD and management OF CKD (Both Pharmacological & Non-pharmacological). C3 | LGIS | MCQS, SEQS |
| **4** | Chronic renal failure | clinical features Laboratory workup& management of CKD | • Recall causes of chronic renal failure. C2<br>• Describe clinical features of acute and chronic renal failure C2<br>• Enlist Laboratory workup & renal imaging in chronic kidney disease. C3<br>• Explain Complications of CKD and management OF CKD (Both Pharmacological & Non-pharmacological). C3 | LGIS | MCQS, SEQS |
| **5** | Interstitial nephritis | clinical features& management plan of interstitial nephritis | • Describe clinical presentation of patient with interstitial nephritis. C3<br>• Enlist laboratory work up and imaging modalities used for diagnosis of interstitial nephritis C3<br>• Explain management plan of interstitial nephritis. C3<br>• Identify etiology of interstitial nephritis.C2 | LGIS | MCQS, SEQS |

| | | | | | |
|---|---|---|---|---|---|
| **6** | Urinary Tract Infection | clinical features& management plan of UTI | • Know common microbes causing UTI, according to various age groups. C2<br>• Identify symptoms and physical findings in UTI. C3<br>• Differentiate between uncomplicated and complicated UTI. C2<br>• Enlist laboratory workup required in UTI and describe pharmacological treatment plan. C3 | LGIS | MCQS, SEQS |

## LEARNING OBJECTIVES OF PEADIATRICS (LGIS)

| **S no** | **topic** | **Content outline & subtopics** | **Learning objectives with learning domain** | **Teaching strategy** | **Assessment strategy** |
|---|---|---|---|---|---|
| *1* | Nephrotic syndrome | clinical presentation investigations, complications & management plan of Nephrotic syndrome | • Define Nephrotic Syndrome C2<br>• Discuss clinical presentation C3<br>• Differentiate minimal change disease from atypical nephrotic syndrome C2<br>• Plan pertinent investigations, interpret and take appropriate action C3<br>• Assess complications C3<br>• Manage disease and its complications C3 | LGIS | MCQS, SEQS |

| | | | | | |
|---|---|---|---|---|---|
| *2* | Renal failure | clinical presentation investigations, complications & management plan of renal failure | • Define Acute& chronic Renal Failure c2<br>• Enlist common causes at different ages C2<br>• Describe clinical presentation C3<br>• Plan pertinent investigations, interpret and take appropriate action C3<br>• Make differential diagnosis C3<br>• Assess Complications C3<br>• Manage disease and its complication C3 | LGIS | MCQS, SEQS |
| *3* | Urinary Tract Infections | clinical presentation investigations, complications & management of UTI | • Define UTI c1<br>• Explain Common etiological agent &Risk factors of UTI C2<br>• Discuss clinical features and complications C3<br>• Discuss treatment plan of management C3<br>• Define acute glomerular nephritis C3<br>• Discuss clinical presentation C3<br>• Make differential diagnosis C3<br>• Plan pertinent investigations, interpret and t<br>• ake appropriate action C3<br>• Assess complications C3<br>Make plan of Management C3 | LGIS | MCQS, SEQS |

## SECTION IV : TENTATIVE TIMETABLE 4TH YEAR MBBS-RENAL MODULE 2024

# Categorization of Modular Content of Pharmacology

| Category A* AND B* | Category C *** | | | |
|---|---|---|---|---|
| LGIS | Demonstrations / SGD | CBL | Practical's | Self-Directed Learning (SDL) |

| | | | | |
|---|---|---|---|---|
| Diuretics I<br><br>Diuretics II<br><br>Diuretics III<br><br>Diuretics IV | Drugs used in UTI | Role of diuretics in Pulmonary edema | _____ | Acetazolamide for the prevention of acute mountain sickness<br><br>Manitol use for reducing cerebral oedema |

| |
|---|
| **Category A*:** By Professors |
| **Category B**:** By Associate & Assistant Professors |
| **Category C***:** By Senior Demonstrators & Demonstrators |

# Teaching Staff / Human Resource of Department of Pharmacology

| Sr. # | Designation Of Teaching Staff / Human Resource | Total Number Of Teaching Staff |
|---|---|---|
| 1. | Associate Professor of Pharmacology | 01 |
| 2. | Assistant Professor of Pharmacology | 02 |
| 3. | Demonstrators of Pharmacology | 07 |

## Contact Hours (Faculty)

| Sr. # | Hours Calculation for Various Type of Teaching Strategies | Total Hours |
|---|---|---|
| 1. | Large Group Interactive Session (LGIS) | 4 |
| 2. | Small Group Discussions (SGD) | 1 |
| 3. | Case Based Learning (CBL) | 1 |
| 4. | Practical / Skill Lab | - |

## Contact Hours (Students)

| Sr. # | Hours Calculation for Various Type of Teaching Strategies | Total Hours |
|---|---|---|
| 1. | Large Group Interactive Session (LGIS) | 4 |
| 2. | Small Group Discussions (SGD) | 1 |
| | | |
| 3. | Case Based Learning (CBL) | 1 |
| 4. | Practical / Skill Lab | - |

# Categorization of Modular Content of Pathology

| Category A* | Category B** | Category C*** | | |
|---|---|---|---|---|
| **LGIS** | LGIS | SGDS | SDL | CBL |
| **Mechanism Of Glomerular Injury, Nephritic Syndrome(Post Streptococcal Glomerulonephritis)** | Nephrotic syndrome in Systemic diseases<br>Diabetes melitis<br>Amyloidosis<br>Sle<br>Miscellaneous | Renal vascular diseases | Pathogenesis & morphology of primary Glomerular diseases | Urinary tract infections |
| **Diseases Causing Nephritic Syndrome**<br>**Iga Nephropathy ,Hereditary Nephritis,Rpgn, Crescenteric Gn,Immune Complex Mediated Gn** | | Tubulointerstitial diseases | . Pathogenesis & morphology of secondary Glomerular diseases | |
| **Pathologic Basis Of Nephrotic Syndrome**<br>**Primary Glomerular Diseases** | | Renal cystic diseases | Diabetic Nephropathy | |
| | | Renal tumors | Causes of Heamaturia and related investigations | |

# Teaching Staff / Human Resource of Department of Pathology

| Sr. # | Designation Of Teaching Staff / Human Resource | Total Number of Teaching Staff |
|---|---|---|
| 1. | Professor of Pathology department | 02 |
| 2. | Associate Professor of Pathology department | 01 |
| 3. | Assistant Professor of Pathology department | 03 |
| 4. | Consultants & Demonstrators of Pathology depart. | 03 +07 |

## Contact Hours (Faculty)

| Sr. # | Hours Calculation for Various Type of Teaching Strategies | Total Hours |
|---|---|---|
| 1. | Large Group Interactive Session (LGIS) | 4 |
| 2. | Small Group Discussions (SGD) | 4 |
| 3. | Case Based Learning (CBL) | 1 |
| 4. | Practical / Skill Lab | |

## Contact Hours (Students)

| Sr. # | Hours Calculation for Various Type of Teaching Strategies | Total Hours |
|---|---|---|
| 1. | Large Group Interactive Session (LGIS) | 4 |
| 2. | Small Group Discussions (SGD) | 4 |
| | Case Based Learning (CBL) | 1 |
| 4. | Practical / Skill Lab | |
| 5. | Self-Directed Learning (SDL) | 4 |

# Categorization of Modular Content of Community Medicine

| Category A* | Category B** | Category C*** | |
|---|---|---|---|
| **LGIS** | LGIS | SDGS | SDL |
| Entomology<br>Introduction & Classification of Arthropods of Public Health Importance | Viral Zoonotic Disease<br>Bacterial Zoonotic Disease | Parasitic Disease<br>Introduction and Classification of Parasites Helminthology I II | Antimicrobial resistance – a major public health problem.<br>Hospital acquired infections / Nosocomial infections<br><br>Emerging and reemerging infection/Neglected tropical disease |
| Vector Borne Diseases-I<br>Epidemiology of Viral Hemorrhagic fever & Malaria, Vector Born Disease-II<br>Bioethics | Rickettsial Zoonotic Disease<br>Parasitic Zoonotic Diseases | | |
| Disaster management, snake bite | | | Genetics |

| |
|---|
| **Category A*:** By Professors |
| **Category B**:** By Associate & Assistant Professors |
| **Category C***:** By Senior Demonstrators & Demonstrators |

| Sr. # | Designation Of Teaching Staff / Human Resource | Total Number of Teaching Staff |
|---|---|---|
| 1. | Associate Professor of community medicine | 02 |
| 2. | Assistant Professor of community medicine | 02 |
| 3. | Demonstrators of community medicine | 03 |

# Teaching Staff / Human Resource of Department of Community Medicine

## Contact Hours (Faculty)

| Sr. # | Hours Calculation for Various Type of Teaching Strategies | Total Hours |
|---|---|---|
| 1. | Large Group Interactive Session (LGIS) | 11 |
| 2. | Small Group Discussions (SGD) | 4X4=16 |

## Contact Hours (Students)

| Sr. # | Hours Calculation for Various Type of Teaching Strategies | Total Hours |
|---|---|---|
| 1. | Large Group Interactive Session (LGIS) | 11 |
| 2. | Small Group Discussions (SGD) | 2 |
| | Case Based Learning (CBL) | - |
| 4. | Practical / Skill Lab | - |
| 5. | Self-Directed Learning (SDL) | 3 |

# Week 1

| | 8:00 AM – 9:00 AM | | 09:00am – 10:00am | | BREAK 10:00AM – 10:30A | 10:30am – 12:00pm | 12:00pm - 02:00pm |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Tuesday 24-09-24 | PATHOLOGY (LGIS 1) | | Pharmacology(LGIS) | | | Clinical clerkship | |
| | Mechanism Of Glomerular Injury, Nephritic Syndrome | | DIURETICS I | | | | |
| | Even/lec. hall 1 | Odd/lec. hall2 | Even/lec.hall 2 | Odd/lec. Hall 1 | | | |
| | | | Dr attiya munir | Dr haseeba talat | | | |
| Wednesday 25-09-24 | COMMUNITY MEDICINE (LGIS) | | Pharmacology(LGIS) | | | | |
| | Disaster management | | DIURETICS II | | | | |
| | Even/lec hall 1 | Even/lec.hall 2 | Even/lec.hall 2 | Odd/lec. Hall 1 | | | |
| | Dr.Narjis (Senior Demo) | Dr Imrana (Senior Demo) | Dr attiya munir | Dr haseeba talat | | | |
| Thursday 26-09-24 | PATHOLOGY(LGI 2S) | | COMMUNITY MEDICINE (LGIS) | | | | |
| | Diseases Causing Nephritic Syndrome | | Medical Entomology I Transmission Of Arthropods | | | | |
| | Even/lec hall 2 | Odd/ Lec hall 1 | Even/lec.hall 1 | Odd/lec. hall2 | | | |
| | Dr Mudassira Zahid | Dr Mehreen Fatima | Dr. Afifa Kulsoom AP | Dr. Mehwish Riaz AP | | | |
| Friday 27-09-24 | 08:00AM – 09:45AM | | 09:45AM – 10:30 | | 10:30AM – 11:15AM | 11:15AM – 12:00PM | |
| | SGD | | UROLOGY (LGIS) | | NEPHROLOGY (LGIS) | PATHOLOGY(LGIS 3) | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Community Medicine / Pathology** | | **Lower Urinary Tract Congenital Anomalies** | | **Glomerulonephritis** | | **Pathologic Basis Of Nephrotic Syndrome (Primary Glomerular Diseases)** | | | | | | | |
| | Parasitic disease/ Chronic Pyelonephritis , Introduction and Classification of Parasites Amoebiasis ,ascariasis | | | | | | | | | | | | | |
| | **Batch A-H** | **Batch I-P** | **Even hall 4** | **Odd hall 5** | **Even /lec hall 5** | **Odd lec hall 4** | **Even/lec hall 5** | **Odd/lec hall4** | | | | | | |
| | Dr. Afifa Kulsoom AP, Dr Abdul Quddus | | Dr. Zein El Amir (Professor) | Dr M. Amin (sr. registrar) | Dr Sana Kifayat (asst prof,BBH) | Dr Asmara Asrar (asst Prof,HFH) | Dr Fatima Tuz Zahra | Dr Kiran Fatima | | | | | | |
| **Saturday 28-09-24** **SEMINAR NEPHROTIC SYNDROME** | **08:00AM – 09:45AM** | | **09:45AM – 10:30** | | **10:30AM – 11:15AM** | | **BREAK 11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | **12:30PM – 01:15PM** | | **01:15PM – 02:00PM** | | |
| | **SGD / skill lab Community Medicine / Pathology** | | **ISLAMIC STUDIES (LGIS)** | | **NEPHROLOGY (LGIS)** | | | **PATHOLOGY (LGIS 4 )** | | **PAEDIATRICS (LGIS)** | | **UROLOGY (LGIS)** | | |
| | | | Qari abdul wahid | | **Nephritic Syndrome** | | | **Nephrotic Syndrome In Systemic Diseases** | | **Nephrotic Syndrome** | | **Upper Urinary Tract Stone Diseases** | | |
| | **Batch I-P** | **Batch A-H** | | | **ODD hall 4** | **Even hall 5** | | **Even/lec hall 5** | **Odd/lec hall 4** | **Even/lec hall 5** | **Odd Odd/ Lec hall 4** | **Even/lec hall 5** | **Odd/ lec hall 4** | |
| | Dr. Afifa Kulsoom AP, Dr Abdul Quddus | Dr Mahjabeen | | | Dr Sana Kifayat (asst prof,BBH) | Dr Asmara Asrar(asst prof,HFH) | | Dr. Mudassira Zahid | Dr Fatima Tuz Zara | Dr quat ul ain | Dr Maryam amjad | Dr M.Amin (Sr registrar) | Dr M Ali (Sr registrar) | |

# Wk 2

| **DATE / DAY** | **8:00 AM – 9:00 AM** | | **09:00am – 10:00am** | | **BREAK 10:00AM – 10:30AM** | **10:30am – 12:00pm** | **12:00pm - 02:00pm** |
|---|---|---|---|---|---|---|---|
| **Monday 30-09-24** | **COMMUNITY MEDICINE** | | **PHARMACOLOGY (LGIS)** | | | **CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.** | |
| | **Vector Born Diseases Epidemiological Determinants** | | **Diuretics 1II Potassium sparing** | | | | |
| | **Odd /Lec hall 1** | **Even Even/lec hall 2** | **Even Even/lec hall 2** | **Even/lec hall 2** | | | |
| | Dr.Khola Noreen Assoc P | Dr. Sana Bilal Assoc P | Dr attiya munir | Dr haseeba talat | | | |
| **Tuesday** | **COMMUNITY MEDICINE(LGIS)** | | **PHARMACOLOGY (LGIS)** | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1-10-24** | **Vector Born Diseases Prevention & Control** | | **Diuretics 1II Potassium sparing** | | | | | | | |
| | **Even/lec hall 2** | **odd/lec hall 1** | **Even Even/lec hall 2** | **Odd /Lec hall 1** | | | | | | |
| | Dr.Khola Noreen Assoc P | Dr Narjis (Senior Demo) | Dr attiya munir | Dr haseeba talat | | | | | | |
| **Wednesday 2-10-24** | **UROLOGY (CBL)** | | **COMMUNITY MEDICINE (LGIS)** | | | | | | | |
| | **Trauma Urinary Tract.** | | **Medical Entomology II Prevention and control** | | | | | | | |
| | **Odd /Lec hall 1** | **Even/lec hall 2** | **Even/lec hall 2** | **Odd /Lec hall 1** | | | | | | |
| | Dr Zeeshan Qadeer (associate prof) | Dr Sadaat hashmi (chief consultant) | Dr. Afifa Kulsoom AP | Dr. Mehwish Riaz AP | | | | | | |
| **Thursday 3-10-24** | **UROLOGY (LGIS)** | | **FAMILY MEDICINE (LGIS)** | | | | | | | |
| | **Lower Urinary Tract Stone Diseases** | | **Red Flags Of BPH& Heamaturia** | | | | | | | |
| | **Odd /Lec hall 1** | **Even/lec hall 2** | **Even/Odd /Lec hall 1** | | | | | | | |
| | Dr Zeeshan Qadeer (associate prof) | Dr.M. Ali (sr. registrar) | Dr sadia khan | | | | | | | |
| **Friday 4-10-24** | **08:00AM – 09:45AM** | | **09:45AM – 10:30** | | **10:30AM – 11:15AM** | | **11:15AM – 12:00PM** | | | |
| | **SGD / SKILL LAB** | | **ISLAMIC STUDIES (LGIS)** | | **NEPHROLOGY (LGIS)** | | **PATHOLOGY (SGD 1)** | | | |
| | **Community Medicine Epidemiology of parasiticdisease; dracunculiasis &hookworm infestation / Pathology presentations/(Wilms Tumor) SGD** | | Qari abdul wahid | | **Acute Renal Failure** | | **Renal Vascular Diseases** | | | |
| | **Batch A-H** | **Batch I-P** | **Odd /Lec hall 1 Even** | | **Even lecture hall 4** | **Odd lecture hall 5** | **Even lecture hall 4,6** | **Odd lecture hall 5,3** | | |
| | Dr Asif (Senior Demo).Dr. Mehwish Riaz AP | | | | Dr Sana Kifayat (asst prof,BBH) | Dr Asmara Asrar(asst prof,HFH) | Dr Fatima Tuz Zahra Dr Mudassira | Dr Mehreen Dr shabih Haider | | |
| **Saturday 5-10-24 SEMINAR RENAL FAILURE** | **08:00AM – 09:45AM** | | **09:45AM – 10:30** | | **10:30AM – 11:15AM** | | **BREAK 11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | **12:30PM – 01:15PM** | | **01:15PM – 02:00PM** | |
| | **PAL / SKILL LAB Community Medicine Epidemiology of parasiticdisease; dracunculiasis &hookworm infestation / Pathology** | | **PATHOLOGY (SGD 2)** | | **NEPHROLOGY (LGIS)** | | | **PARMACOLOGY(SDL)** | | **PAEDIATRICS (LGIS)** | | **UROLOGY (LGIS)** | |
| | **SGD/Wilms Tumor** | | **Tubulointerstitial Diseases** | | **Chronic Renal Failure** | | | **Diuretics SDL** | | **Renal Failure** | | **Urinary Incontinence.** | |
| | **Batch I-P** | **Batch A-H** | **Hall 3,4** | **Hall 5,6** | **Even hall 4** | **Even hall 5** | | **Even hall 4** | **Odd hall 5** | **Even hall 4** | **Odd hall5** | **Even hall 4** | **Odd hall5** |
| | Dr Asif (Senior Demo).,Dr. | Dr Unaiza Aslam | Dr Mudassira Zahid | Dr Kiran Fatima Dr Sarah Rafi | Dr Sana Kifayat | Dr Asmara Asrar(asst | | Dr ayesha | Dr saba | Dr sadaf | Dr muneeba | **Dr. M. Ameen (sr.** | Dr.M. Ali (sr. registrar |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mehwish Riaz AP | | Dr Fatima Tuz Zahra | | (asst prof,BBH) | prof,HFH) | | | | | | **registrar** | |

# Wk 3

| DATE / DAY | 8:00 AM – 9:00 AM | | 09:00am – 10:00am | | BREAK 10:00AM – 10:30AM | 10:30am – 12:00pm | 12:00pm - 02:00pm |
|---|---|---|---|---|---|---|---|
| **Monday 7-10-24** | **UROLOGY (CBL)** | | **COMMUNITY MEDICINE (LGIS)** | | | **CLINICAL CLERKSHIP of community medicine attached as annexures at the end of document Community oriented clerkship and other rotations will remain same. These will be completed at end of yr.** | |
| | **Benign Prostatic Hyperplasia.** | | **Zoonotic Diseases Classification, Epidemiology Of Viral Zoonotic Diseases Rabies** | | | | |
| | **Odd /Lec hall 1** | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | | | |
| | Dr. Zeeshan Qadeer ( associate Professor) | Dr. Faraz Basharat (Sr. registrar) | Dr Narjis Zaidi | Dr Imrana Saeed | | | |
| **Tuesday 8-10-24** | **UROLOGY (LGIS)** | | **COMMUNITY MEDICINE (LGIS)** | | | | |
| | **Carcinoma Prostate** | | **Epidemiology Of Viral Zoonotic Diseases, Chikungunya, Japanese Encephalitis** | | | | |
| | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | **Odd /Lec hall 1** | | | |
| | Dr. Zein El Amir (Professor) | Dr Faraz (sr. registrar) | Dr Narjis Zaidi | Dr Imrana Saeed | | | |
| **Wednesday 9-10-24** | **UROLOGY (LGIS)** | | **COMMUNITY MEDICINE (LGIS)** | | | | |
| | **Renal Cell Carcinoma.** | | **Epidemiology Of Bacterial Zoonotic Plague ,Brucellosis** | | | | |
| | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | **Odd /Lec hall 1** | | | |
| | Dr Zain el Amir ( prof) | Dr M. Ali (sr. registrar) | Dr Abdul Quddus | Dr Asif | | | |
| **Thursday 10-10-24** | **UROLOGY (LGIS)** | | **COMMUNITY MEDICINE (LGIS)** | | | | |
| | **Bladder Tumors.** | | **Epidemiology Of Bacterial Zoonotic Tetanus, Anthrax** | | | | |
| | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | **Odd /Lec hall 1** | | | |
| | Dr. Zeeshan Qadeer (Associate professor) | Dr Rameez Ahmed (sr. registrar) | Dr Abdul Quddus | Dr Asif | | | |
| **Friday 11-10-24** | **08:00AM – 09:45AM** | | **09:45AM – 10:30** | | | **10:30AM – 11:15AM** | **11:15AM – 12:00PM** |
| | **Community medicine SGD / skill lab** | | **PATHOLOGY (SGD3)** | | | **NEPHROLOGY (LGIS)** | **PATHOLOGY** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | genetics | | **Renal Tumors** | | **Renal Tumors** | | **Revision class/SDL** | | | |
| | **Cpc hall** | | **Even hall 4** | **Even hall 5,6/forensic lab** | **Even hall 4** | **Odd hall 5** | **Even hall 4** | **Odd hall 5** | | |
| | Dr abdul qudoos | | Dr Kiran Fatima Dr Fatima Tuz Zahra | Dr Mehreen Dr Shabih Haider | Dr Sana Kifayat (asst prof,BBH) | Dr Asmara Asrar(asst prof,HFH) | Dr Mehreen | Dr Shabih Haider | | |
| **Saturda 12-10-24 y SEMINAR** | **08:00AM – 09:45AM** | | **09:45AM – 10:30** | | **10:30AM – 11:15AM** | | **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | **12:30PM – 01:15PM** | **01:15PM – 02:00PM** |
| | **Pathology CPC hall** | | **PATHOLOGY- CBL** | | **NEPHROLOGY (SDG)** | | | **PHARMACOLOGY (SGD)** | **PAEDIATRICS (LGIS)** | **UROLOGY(LGIS)** |

| **DATE / DAY** | **8:00 AM – 9:00 AM** | **09:00am – 10:00am** | **12:00pm - 02:00pm** |
|---|---|---|---|

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Saturda 12-10-24 y SEMINAR** | **/Renal Cell Carcinoma And Transitional Cell Carcinoma** | | **UTI** | | **Urinary Tract Infections** | | **11:15AM – 11:45AM** | **Drugs Used To Treat Urinary Tract Infection** | | **Urinary Tract Infections** | | **Urinary Tract Infections.** | |
| | **Whole class** | | **Hall 3,4** | **Hall 5,6** | **Even hall 4** | **Even hall 5** | | **Even hall 3,4** | **Odd hall 5,6/forensic lab** | **Even hall 4** | **Odd hali 5** | **Even hall 4** | **Odd hall 5** |
| | Dr Iqbal Haider ) | | Dr syeda Aisha Dr Faiza Zafar | Dr Mahjabeen Dr Nida Fatima | Dr Sana Kifayat (asst prof,BBH) | Dr Asmara Asrar(asst prof,HFH) | | **Drarsheen Dr uzma Dr zoefishan** | **Dr memuna Dr aisha Dr saba Dr zaheer** | Dr sumbal ghazi | Dr nadia mumtaz | **Dr. M. Ameen (sr. registrar** | Dr.M. Ali (sr. registrar |

## Wk 4

| | | | | |
|---|---|---|---|---|
| **Monday 14-10-24** | **COMMUNITY MEDICINE (LGIS)** | | **PATHOLOGY (SDG4)** | |
| | **BIOETHICS Duties of ERB Medical** | | **Renal Cystic Diseases** | |
| | **Even/lec hall 2**<br>Dr. Sana Bilal Assoc P | **Odd/lec hall 1**<br>Dr. Khola Noreen Assoc. P | **Even/lec hall 2**<br>**Dr Mudassira Dr Kiran Fatima** | **Odd/lec hall 1**<br>**Dr Shabih Haider Dr Mehreel** |
| **Tuesday 15-10-24** | **NEPHROLOGY (LGIS)** | | **PHARMACOLOGY (CBL)** | |
| | **BIOETHICS**<br>**ethical issues in renal transplant** | | Role Of Diuratics In Pulmonary Edema | |
| | **odd/lec hall1**<br>**Dr nouman butt** | **Even Even/lec hall 2**<br>Dr Sana kifayat) | **Even/lec hall 2**<br>**Drarsheen Dr uzma Dr zoefishan** | **Odd/lec hall 1**<br>**Dr memuna Dr aisha Dr saba Dr zaheer** |
| **Wednesday 16-10-24** | **UROLOGY (LGIS)** | | **COMMUNITY MEDICINE (LGIS)** | |
| | **Upper Urinary Tract Congenital Anomalies** | | **Prevention of snake bite** | |
| | **Even/lec hall 2**<br>**Dr. Zein el Amir (Prof)** | **Odd/lec hall 1**<br>**Dr. M. Ameen (sr. registrar)** | **Even/lec hall 2**<br>**Dr Sana** | **Odd/lec hall 1**<br>**Dr Imrana** |

**Thursday**
**17-10-24**

# Module exam

# Distribution of Teaching Hours of Disciplines

| Sr. No. | Disciplines | LGIS | SGD | CBL | SDL | Hours |
|---|---|---|---|---|---|---|
| 1. | Pharmacology | 4 | 01 | 01 | 2 | 8 |
| 2. | Pathology | 04 | 04 | 01 | 04 | 13 |
| 3. | Community Medicine | 11 | 2- | - | 3 | 15 |
| 4. | Surgery | 11 | - | - | - | - |
| 5. | Medicine | 6 | - | - | - | - |
| 6. | Paediatrics | 3 | - | - | - | - |
| 7. | Ethics | 2 | - | - | - | - |
| | Total hours | 40 | 7 | 02 | 9 | **58** |

# Practical & Clerkship Hours

| Disciplines | Practical hours | Disciplines | Clerkship hours |
|---|---|---|---|
| | | | |
| Pathology | x4 = 08 hrs | Medicine | x 16= 35 hrs |
| Community Medicine | x4 = 08 hrs | Sub Specialty | x 16 = 35 hrs |

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

# VENUES FOR
# ACADEMIC SESSIONS
# 4th YEAR MBBS

- **LARGE GROUP INTERACTIVE SESSIONS (LGIS)**

  Odd roll numbers: Lecture Hall 01

  Even roll numbers: Lecture Hall 02

- **SMALL GROUP DISCUSSION (SGD) /CASE BASED LEARNING (CBL)**

  Lecture Hall 01
  Lecture Hall 02
  Lecture Hall 04
  Lecture Hall 05

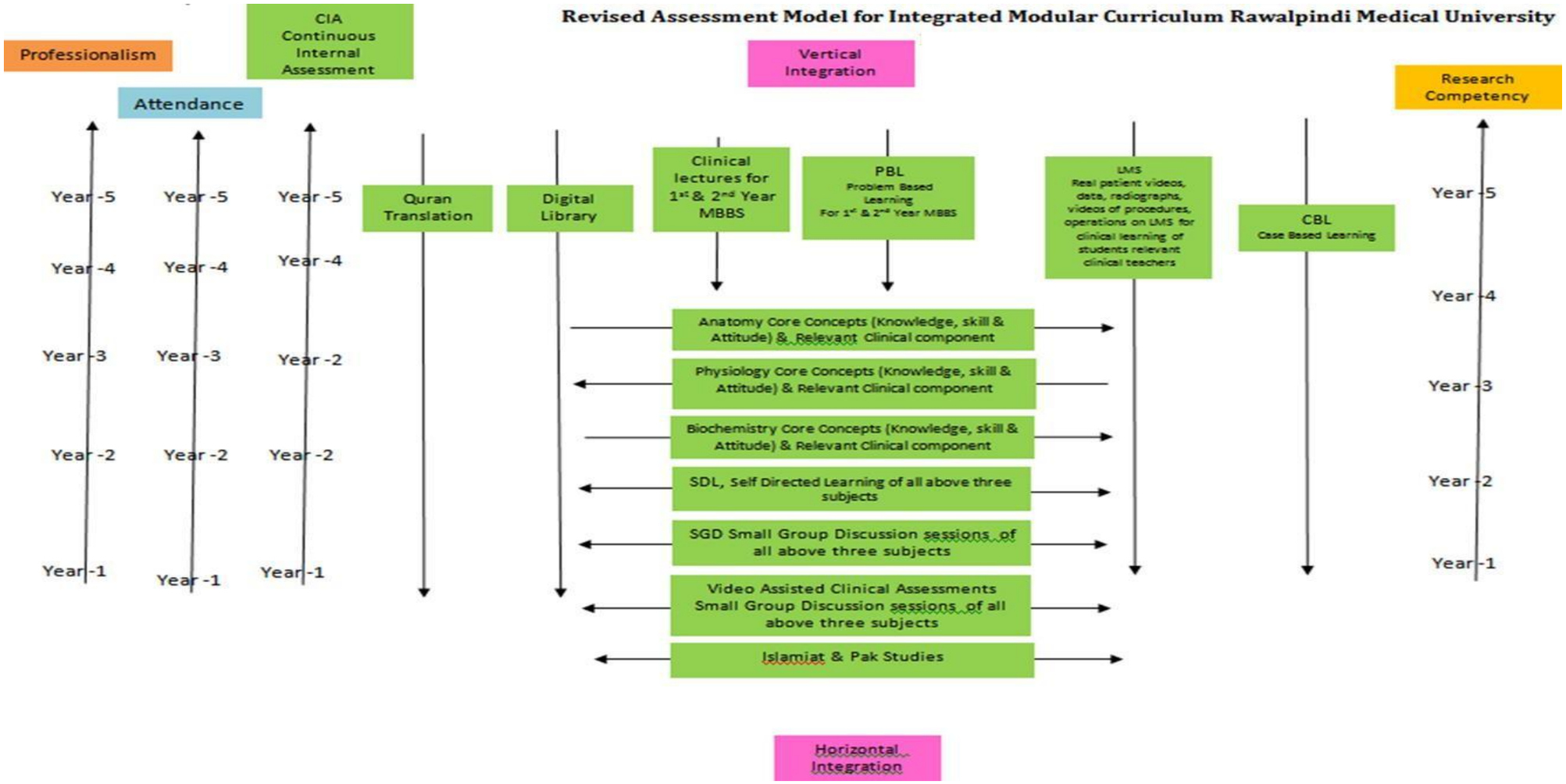
  } In case of non availability of these venues due to 4th Year Prof CPC will be used for two batches

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

# SECTION V : Assessment Policies

## Contents

- **Assessment plan**
- **Types of Assessment:**
- **Modular Examinations**
- **Block Examination**
- **Table 4: Assessment Frequency & Time in renal Module**


Revised Assessment Model for Integrated Modular Curriculum Rawalpindi Medical University
Professionalism
CIA
Continuous
Internal
Assessment
Attendance
Vertical
Integration
Research
Competency
Year -5
Year -4
Year -3
Year -2
Year -1
Quran
Translation
Digital
Library
Clinical
lectures for
1st & 2nd Year
MBBS
PBL
Problem Based
Learning
For 1st & 2nd Year MBBS
LMS
Real patient videos,
data, radiographs,
videos of procedures,
operations on LMS for
clinical learning of
students relevant
clinical teachers
CBL
Case Based Learning
Anatomy Core Concepts (Knowledge, skill &
Attitude) & Relevant Clinical component
Physiology Core Concepts (Knowledge, skill &
Attitude) & Relevant Clinical component
Biochemistry Core Concepts (Knowledge, skill &
Attitude) & Relevant Clinical component
SDL, Self Directed Learning of all above three
subjects
SGD Small Group Discussion sessions of
all above three subjects
Video Assisted Clinical Assessments
Small Group Discussion sessions of all
above three subjects
Islamiat & Pak Studies
Horizontal
Integration

**Gauge for Continuous Internal Assessment (CIA)**

| Red Zone | High Alert | Yellow Zone | Green Zone | Excellent | Extra Ordinary |
|---|---|---|---|---|---|
| 0 - 25% | 26 - *50% | 51 - 60% | 61 – 70% | 71 – 80% | 81 - 100% |

*50% and above is Passing Marks.

**Gauge for attendance percentage**

| Red Zone | High Alert | Yellow Zone-1 | Yellow Zone-2 | Green Zone | Excellent |
|---|---|---|---|---|---|
| 0 - 25% | 26 - 50% | 51 - 60% | 61 – 74% | *75 – 80% | 81 - 100% |

*75% is eligibility criteria for appearing in professional examination.

# Assessment Plan

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

**Types of Assessment:**

The assessment is formative and summative.

**Formative Assessment:** Formative assessment is taken from topics of SDL, SGD (MS TEAM).

**Summative Assessment:** Summative assessment is taken at the mid modular, modular/block levels.

**Modular Examinations**

**Theory Paper:**

There is a module examination at the end of first module. The content of the whole teaching of the module are tested in this examination.

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 Examination**

On completion of a block which consists of two modules, there is a block examination which consists of one theory paper and 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.

# Types of Assessment:

1. Formative
2. summative

**Formative Assessment**

Formative assessment will be done in every week of module of SDL and SGD through LMS . Assessment of clinical lectures on LMS. Tool for this assessment will be one best choice question.

**Summative Assessment:**

Summative assessment will be taken at the end of module, block and will be subject wise

# ASSESSMENT FREQUENCY & TIME IN RENAL MODULE

| | Endocrinology Module | Type of Assessments | T otal Assessment Time | | | No. of Assessments | |
|---|---|---|---|---|---|---|---|
| **Sr #** | **Types of Assessments** | **Nature of assessment** | **Assessment Time** | **Summative Assessment Time** | **Formative Assessment Time** | **Formative** | **Summative** |
| 1 | Weekly LMS based assessments (pathology 20, Community Medicine 20, pharmacology20) (60 MCQs)60 marks | summative | 60 Minutes per wk.=3hrs | 15 hours | 1hr 30 Minutes | 02 | 05 |
| 3 | End Module Examinations | Summative | Detailed below | | | | |
| | Breakup of EOM Assessment | | | | | | |
| | i. Community medicine (5SEQs,5 SAQs, 1 EMQ & 25 MCQs) 100 marks | Summative | 3 Hrs. | | | | |
| | ii. Pathology 5SEQs,7 SAQs, 1 EMQ and 25 MCQs) 100 marks | Summative | 3 Hrs. | | | | |
| | iii. pharmacology 5SEQs,7 SAQs, 1 EMQ and 25 MCQs) 100 marks | Summative | 3 Hrs. | | | | |
| 4 | iv (video assisted OSPE) for each subject 10 stations(50 marks) | Summative | 50 minutes | | | | |
| | v.Ward test at the end of two weeks rotation in clinical subjects & End of clerkship C med | | 1 hr. 40 min | | | | |
| 5. | I. Reflective writing<br>II. End Module LMS based MCQs (45 MCQs) 45 marks | formative | 45+45=90 min | | | | |

## Table of specifications (TOS)  End of week assessment (LMS-MCQs)

| S. No | Discipline | Type of Assessment | Number of MCQs | Cognitive domains | | | Marks |
|---|---|---|---|---|---|---|---|
| | | | | C1 | C2 | C3 | |
| | LMS 1 | | | | | | |
| 1. | Community medicine | summative | 20 | 4 | 5 | 11 | 20 |
| 2. | Pathology | Summative | 20 | 4 | 5 | 11 | 20 |
| 3. | Pharmacology | summative | 20 | 3 | 5 | 12 | 20 |
| | LMS II | | | | | | |
| 4. | Medicine & Allied | formative | 10 | 2 | 3 | 5 | 10 |
| 5. | Surgery & Allied | formative | 10 | 2 | 3 | 5 | 10 |
| 6. | Bioethics, Research, AI Longitudinally running disciplines | formative | 10 | 2 | 3 | 5 | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total | | 90 | 17 | 24 | 49 | 90 |

# Type of Assessment ---------Community Medicine

| S. No | Mode of Assessment | Type of Assessment | Schedule of Assessment | Venue | Frequency |
|---|---|---|---|---|---|
| 1. | End of wk. MCQ based Test | summative | Weekly | LMS | 01 x no. of weeks |
| 2. | Theory (MCQ+SEQ+ SAQs + EMQ) | Summative | End of module | On campus | 01 |
| 3. | End of module MCQs test | formative | End of module | LMS | 01 |
| 4. | End of clerkship Exam MCQs, OSCE | summative | end of clerkship batch | On campus | 01 x 2 wks |

# Type of Assessment ---------- Pharmacology

| S. No | Mode of Assessment | Type of Assessment | Schedule of Assessment | Venue | Frequency |
|---|---|---|---|---|---|
| 1. | End of wk. MCQ based Test | summative | Weekly | LMS | 01 x no. of weeks |
| 2. | Theory (MCQ+SEQ+ SAQs + EMQ) | Summative | End of module | On campus | 01 |
| 3. | End of module MCQs test | formative | End of module | LMS | 01 |
| 4. | End of Skill lab Exam, MCQs | summative | End of module | On campus | 01 |

# Types of Assessment ------- Pathology

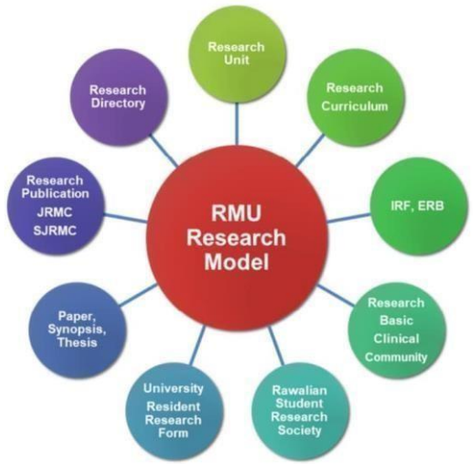
| S. No | Mode of Assessment | Type of Assessment | Schedule of Assessment | Venue | Remarks |
|---|---|---|---|---|---|
| **1.** | End of wk. MCQ based test | Summative | Weekly | LMS | 01 x no. of weeks |
| **2.** | Theory (MCQ+SEQ+SAQs + EMQ) | Summative | End of module | On campus | 01 |
| **3.** | End of module One best option MCQs test | Formative | End of module | LMS | 01 |
| **4.** | End of Skill lab Exam, MCQs, | Summative | | On campus | 01 |

# Table of Specification for end of block Assessment (TOS)

| Block Name& Order | Modules Names & Numbers | Subject | Theory | | | Scheme of Integration | | | | | | Total marks Theory | Practical Assessment | | | | | | | | Total Block marks | End of block LMS MCQs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 25 MCQs (1 mark each) | 5+1 SAQ +EMQ (5 marks each) | 5 SEQs (9marks each) | Core Subject. 70% | | Hori- & Verti-Integ. 20% | | *Spiral Integ. 10% | | | OSVE | | | | OSPE (05 marks each) | | | Total marks Practical | | |
| | | | | | | | | | | | | | Module I | | Module 2 | | Observed | Unobserved | Video assisted | | | |
| Population Medicine & reproduction | Endocrinology | Community medicine | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | - | | | | | | | | | |
| | | Pharmacology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | | | | | | | | | | |
| | | Pathology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | | | | | | | | | | |
| | Population Med & Reproduction | Community medicine | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | Viva marks | Book marks | Viva marks | Book marks | 10 stations | 10 stations | 20 stations | | 400 | 30 |
| | | | | | | | | | | | | | 45 | 5 | 45 | 5 | 50 | 50 | 100 | 300 | | |
| | | Pharmacology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 45 | 5 | 45 | 5 | 50 | 50 | 100 | 300 | 400 | 30 |
| | | Pathology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 45 | 5 | 45 | 5 | 50 | 50 | 100 | 300 | 400 | 30 |

# Research

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




# Biomedical Ethics

Ethical choices, both minor and major, confront us every day in the provision of health care for persons with diverse values living in a pluralistic and multicultural society.

Four commonly accepted principles of health care ethics, excerpted from Beauchamp and Childress (2008), include the:

1. Principle of respect for autonomy,
2. Principle of no maleficence, 3. Principle of beneficence, and 4. Principle of justice.

# Family Medicine

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

# Artificial Intelligence

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