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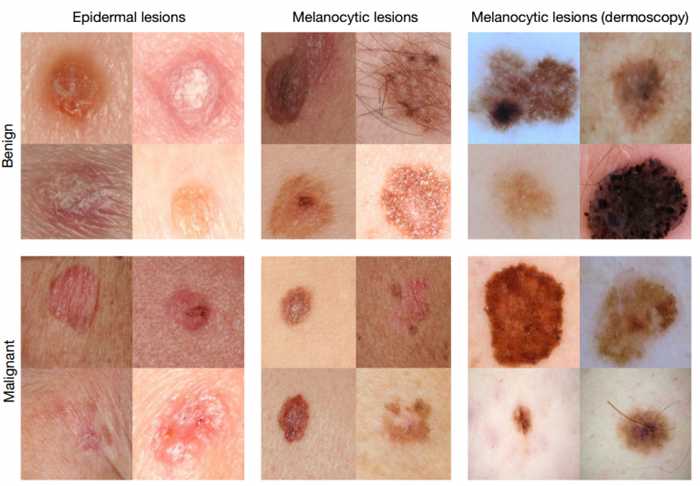
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DEPARTMENT OF MEDICAL EDUCATION (DME)

4th Year MBBS 2025

**Study Guide**

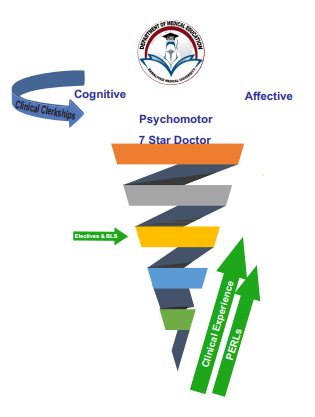
**CNS, Psychiatry & MSK Module-VI**





**CNS Psychiatry & MSK Module -VIII**

**Block -XIII**



**Module –**

**CNS Psychiatry & MSK Module**

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| **Document #:** RMU-MR-SOP-59 | **Rev. #:** 00 | **Issue #:** 01 | **Issue Date:** 09-03-2025 |

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| Department Of Pathology | Curriculum Committee | Vice Chancellor |

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|  | 2019-2020 | 2nd | Developed for fourth Year MBBS.  Composed of Horizontally Integrated subjects of Community Medicine, Pathology & Pharmacology and vertically integrated with Dermatology Neurology Neurosurgery Orthopedics, Medicine, & Surgery.Los revised  & updated. |
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| Dr Mudassira Zahid Associate Professor Pathology Department | 2023-2024 | 5th | Developed for fourth Year MBBS.  Composed of Horizontally Integrated subjects of Community Medicine, Pathology & Pharmacology and vertically integrated with Dermatology Neurology Neurosurgery Orthopedics, Medicine, & Surgery. Los revised & updated. Research & bioethics curriculum incorporated along with Professionalism.  Entrepreneurship curriculum incorporated. |

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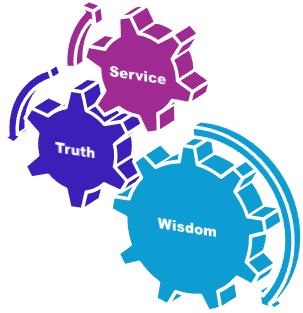
# University Moto, Vision, Values & Goals

**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**

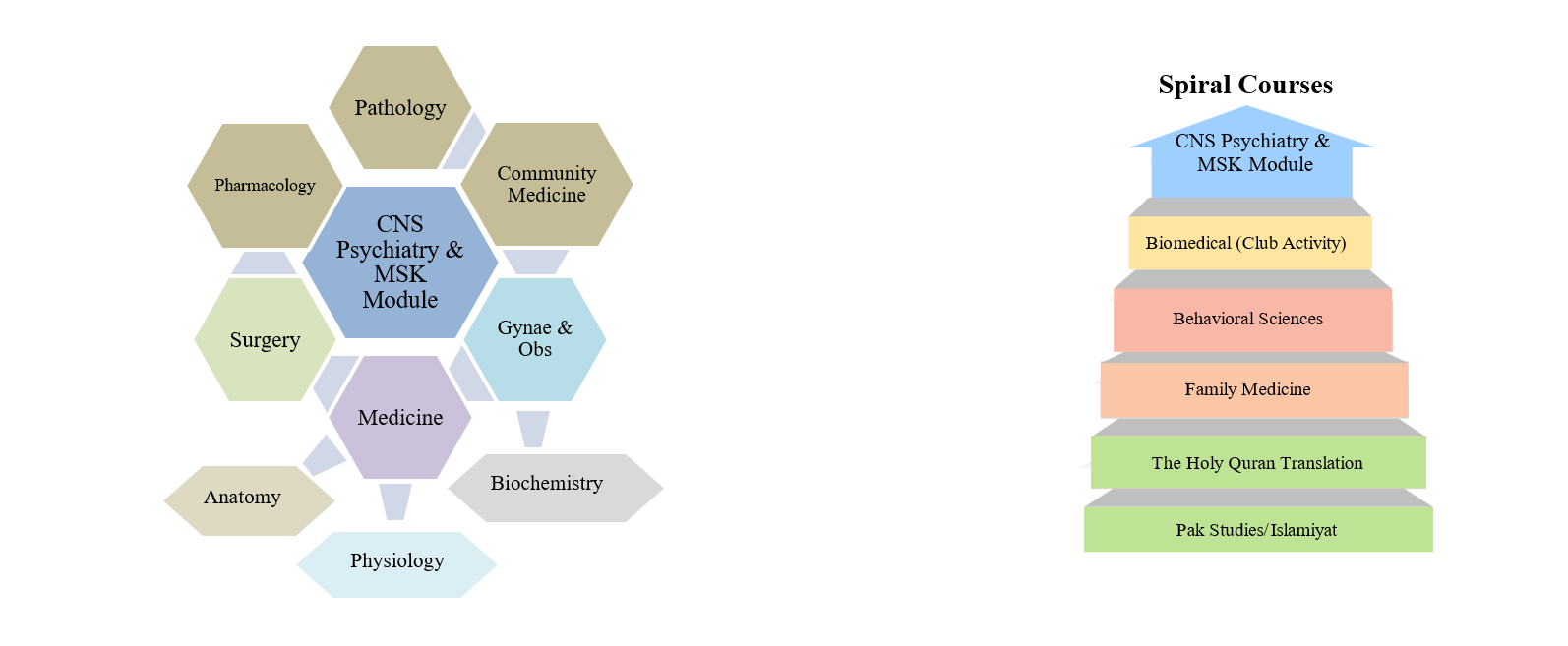
The Undergraduate Integrated Learning Program is geared to provide you with quality medical education in an environment designed to:

* 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.

**Fourth Year MBBS 2025 Study Guide**

**CNS, Psychiatry & MSK Module-VI**

# Integration of Disciplines in CNS, Psychiatry & MSK Module-VI



# Discipline Wise Details of Modular Contents

| SUBJECTS | OUTCOMES |
| --- | --- |
|  | At the end of the module the student will have the understanding of : |
| * Community Medicine | * Mental health * Ergonomics * Social sciences * Mental health & behavioral sciences |
| * Pharmacology | * Central Neurotransmission * Anti –Parkinsonism * Sedative Hypnotics * Skeletal Muscle Relaxants * Local Anesthetics * General Anesthetics * Anti-seizures * Drugs used in Migraine * Anti-depressants * Anti-psychotics * Mood stabilizers * Anti-Rheumatics * Drugs used in Gout * Opioid analgesics * NSAIDs * Alcohol * Drug of abuse |
| * Pathology | * Etiology pathogenesis, morphological changes, laboratory diagnosis of various diseases affecting the brain * Etiology pathogenesis, morphological changes, laboratory diagnosis of various diseases affecting the peripheral nervous system * Etiology pathogenesis, morphological changes, laboratory diagnosis of various diseases affecting the joints * Etiology pathogenesis, morphological changes, laboratory diagnosis of various diseases affecting the bones * Etiology pathogenesis, morphological changes, laboratory diagnosis of various diseases affecting the skeletal muscles * Etiology pathogenesis, morphological changes, laboratory diagnosis of various diseases affecting the skin |
| * Medicine | * Acute CNS infection (pyogenic Meningitis/encephalitis) * Tuberculous meningitis * Stroke * Movement disorders * Osteoarthritis * Overview of Rheumatological disorders |
| * Psychiatry | * Anxiety and Stress * Depressive disorder * Psychosis * Bipolar Affective Disorder (BAD) |
| * Neurosurgery | * Surgical Intervention of Head Injury * Surgical Intervention of Brain Tumours * Surgical Interventions of Cerebrovascular malformation * Surgical Intervention of CNS Infections |
| * Orthopedics | * Classification, clinical presentation, differential diagnosis and management options of Bone infection and fractures * Classification, clinical presentation, differential diagnosis and management options of Bone tumors |
| * Pediatrics | * Classification, clinical presentation, differential diagnosis and management options of Cerebral Palsy * Classification, clinical presentation, differential diagnosis and management options of Meningitis * Classification, clinical presentation, differential diagnosis and management options of GBS * Classification, clinical presentation, differential diagnosis and management options of Epilepsy |
| * Anesthesia | * Basics of anesthetics * drug monitoring |
| * Dermatology | * Core concepts of cutaneous dermatosis |
| * The Holy Quran Translation | * Iffat o pakdamni * Auratoon kay sath husn e salooq |
| * Bioethics & Professionalism |  |
| * Family Medicine | * Core concepts of family medicine in a patient with Headaches * Management strategies in Stroke |

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# CNS Psychiatry & MSK Module Team

Module Name : CNS Psychiatry & MSK Module

Duration of module : 07 Weeks

Coordinator : Dr.Mudassira Zahid

Co-coordinator : Dr Rubab Fatima

Review by : Module Committee

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Module Committee** | | |  |  | **Module Task Force Team** | |
| 1. | Vice Chancellor RMU | Prof. Dr. Muhammad Umar |  | 1. | Coordinator | Dr. Mudassira Zahid (Associate Professor of Pathology) |
| 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. Rubab Fatima |
| 4. | Dean Basic Sciences | Prof. Dr. Ayesha Yousaf |  |  |  |  |
| 5. | Additional Director DME | Prof. Dr. Ifra Saeed |  |  |  |  |
| 6. | Chairperson Pharmacology & Implementation In charge 3rd year MBBS |  |  |  | | |
| 7. | Chairperson Pathology | Prof. Dr. Mobina Dhodhy |  | **DME Implementation Team** | | |
| 8. | Chairperson Community Medicine | Dr Khola Noreen |  | 1. | Director DME | Prof. Dr. Rai Muhammad Asghar |
| 9. | Focal Person Pharmacology | Dr Haseeba |  | 2. | Module planner & Implementation coordinator | Dr. Omaima Asif |
| 10. | Focal Person Pathology | Dr Mudassira Zahid |  | 3. | Editor | Dr Omaima Asif |
| 11. | Focal Person Community Medicine | Dr. Afifa Kulsoom |  |  |  |  |
| 12. | Focal Person Medicine | Dr. Saima Ambreen |  | | | |
| 13. | Focal Person Behavioral Sciences | Dr. Saadia Yasir |
| 14. | Focal Person Dermatology | Dr. Shawana Sharif |
| 15. | Focal Person Quran Translation Lectures | Mufti abdul Wahid |
| 16. | Chairperson Family Medicine | Dr Sadia |
| 17. | Focal Person Bioethics Department | Prof. Dr. Akram Randhawa |
| 18. | Focal Person Surgery | Dr Huma Sabir |

# Module Outcomes

**Introduction:** CNS 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 CNS 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 & Communication Skills**

**• 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 7 weeks. The content covered will be made visible through introductory titles of the teaching sessions. Instructional strategies are given in thetimetable and learning objectives are briefed in study guides. Study guides will also be available on university websites.

# Terms & Abbreviations

**Contents**

• Domains of Learning

• Teaching and Learning Methodologies/Strategies Large Group Interactive Session (LGIS)

* Small Group Discussion (SGD) Self-Directed Learning (SDL)
* Clinical / Skill Lab

**Tables & Figures**

• Table1. 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

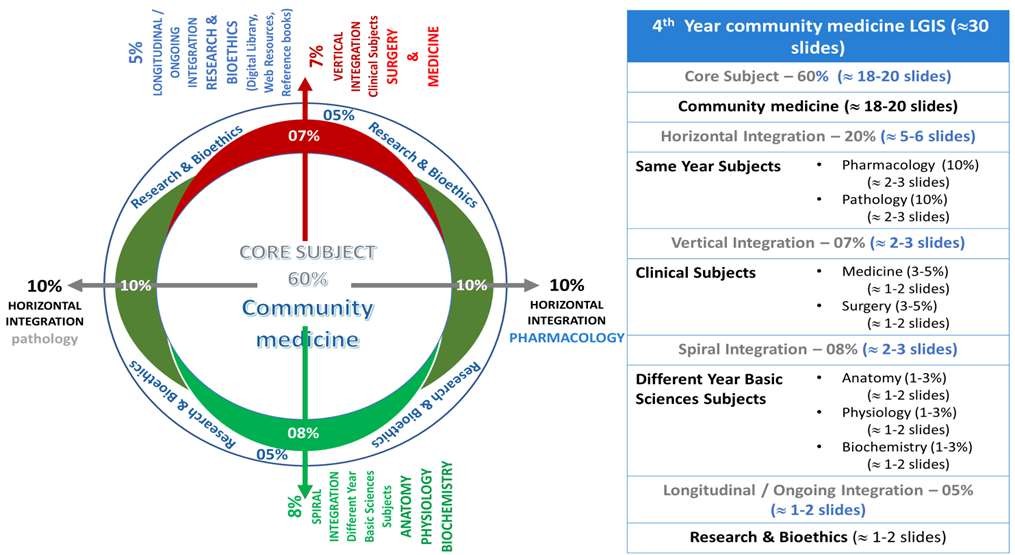
# Domains of learning according to Blooms Taxonomy

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

# 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.



SMALL GROUP DISCUSSION (SGD)

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

**Standardization of teaching content in SGD`s**

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

Steps of taking Small Group Discussions

|  |  |  |  |
| --- | --- | --- | --- |
| **Step 1** | **Sharing of Learning objectives by using students Study guides** | **First 5 minutes** |  |
| **Step 2** | Asking students pre-planned questions from previous teaching session 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 every Tuesday during the CNS 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.

|  |  |
| --- | --- |
| SELF-DIRECTED LEARNING (SDL) | CASE BASED LEARNING (CBL) |
| * 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 = Textbook (page no), web site * Assessment:   i Will be online on LMS (Mid module/ end of Module) ii.OSPE station | * It’s a learner centered model which engages students in discussion of specific scenarios that typically resemble real world examples. * Case scenario will be given to the students * Will engage students in discussion of specific scenarios that resemble or typically are real-world examples. * Learning objectives will be given to the students and will be based on   1. To provide students with a relevant opportunity to see theory in practice   2. Require students to analyze data in order to reach a conclusion.   3. Develop analytic, communicative, and collaborative skills along with content knowledge. |

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 Head of Department  Dean  Medical education department QEC | |

## CONTENTS OF THE MODULE

1. **Horizontally Integrated Basic Sciences (Physiology, Pharmacology, Pathology, Community Medicine)**
2. **Large Group Interactive Session (LGIS):**
3. Pathology
4. Community Medicine
5. Pharmacology
6. Medicine
7. Surgery
8. Dermatology
9. Psychiatry

1. **Small Group Discussions (SGD)**

i. Pathology

ii. Community Medicine

iii . Pharmacology

1. **Self-Directed Topic, Learning Objectives & References (SDL)**

i. Pathology

ii. Community Medicine

iii. Pharmacology

**5. PAL- Community medicine**

**6. SKILL LAB**

i. Pathology

ii. Pharmacology

**7. CBL**

i. Pathology

ii. Pharmacology

**8. Wards, operation theatres**

i. Surgery

ii. Medicine

iii. Gynae& obs

# SECTION – II

# Learning Objectives, Teaching Strategies & Assessments

**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

## HORIZONTALLY INTEGRATED BASIC SCIENCES

|  |  |  |
| --- | --- | --- |
| S NO | SUBJECTS | TEACHING HOURS WITHOUT PRACTICAL/PAL |
| 1 | Pathology (LGIS+SGD+CBL) | 16 |
| 2 | Community medicine (LGIS+SGD) | 16 |
| 3 | Pharmacology (LGIS+SGD+CBL) | 34 |

# Content of Pathology

## Learning Objectives of Pathology (LGIS)

| TOPIC | **SUBTOPICS** | LEARNING OBJECTIVES  AFTER THE SESSION STUDENTS WILL BE ABLE TO: | LEARNING DOMAIN | **ASSESSMENT** |
| --- | --- | --- | --- | --- |
| Infectious diseases of CNS | Pathophysiology of bacterial meningitis  Pathophysiology of viral meningitis  Pathophysiology of tuberculous meningitis  Lab diagnosis of meningitis | The students should be able to  Classify the etiological organisms on the basis of type of meningitis and age group affected  Describe the pathogenesis and morphological characteristics of bacterial viral and tuberculous meningitis  Describe the lab diagnosis of meningitis | C2  C3  C3 | MCQs, SEQs, OSPE  Viva |
| Diseases of myelin and neurodegenerative diseases | Demyelinating diseases  Neurodegenerative diseases  Alzheimer disease, Parkinson’s disease | The students should be able to  1)compare and differentiate between Demyelinating  Neurodegenerative  Alzheimer Parkinson’s disease  2) describe pathophysiology and morphology of each disease. | C3  C2 | MCQs, SEQs, OSPE  Viva |
| Tumors of CNS | Gliomas  Neuronal and Glioneuronal Tumors  Primary CNS Lymphoma  Meningiomas  Metastatic Tumors | Students should be able to  classify tumors of brain  correlate the morphological features of brain tumors with clinical presentation  correlate the WHO grade of astrocytomas with morphological features  enlist the investigations for diagnosing brain tumors | C2  C3  C2  C2 | MCQs, SEQs, OSPE  Viva |
| Tumors of Skin | Benign Epithelial Tumors  Premalignant skin lesions  Malignant  Epidermal Tumors  Tumors of dermis | Describe the morphology of Benign Epithelial Tumors of skin  enlist the etiological factors for skin tumors  describe the pathogenesis of skin tumors  describe the morphology of malignant epidermal and dermal tumors | C2  C1  C3  C3 | MCQs, SEQs, OSPE  Viva |
| Dermatosis & Infections of Skin | Acute Inflammatory  Dermatoses  Chronic Inflammatory  Dermatoses  Blistering (Bullous) Diseases  Infection | Classify dermatosis  Describe the pathogenesis and morphology of acute inflammatory dermatoses  Describe the pathogenesis and morphology of chronic inflammatory dermatoses  Describe the pathogenesis and morphology of Blistering (Bullous) Diseases  Describe the skin lesions due to viral and bacterial skin infections | C1  C2  C3  C3  C2 | MCQs, SEQs, OSPE  Viva |
| Diseases of skeletal muscles and myopathies | Skeletal Muscle Atrophy  Neurogenic and Myopathic Changes in Skeletal Muscle  Inflammatory Myopathies  Toxic Myopathies | Describe the mechanisms of Skeletal Muscle Atrophy  And Neurogenic and Myopathic Changes in Skeletal Muscle  Describe the pathophysiology of Inflammatory Myopathies  Describe the pathophysiology of  Toxic Myopathies | C3  C2  C2 | MCQs, SEQs, OSPE  Viva |
| Metabolic diseases of bone | Osteopenia and Osteoporosis  Osteomalacia and Rickets  Hyperparathyroidism  Renal Osteodystrophy  Paget Disease | Describe the pathogenesis and morphological features of Osteopenia and Osteoporosis  Describe the pathogenesis and morphological features of Hyperparathyroidism  Renal Osteodystrophy  Describe the pathogenesis and morphological features of Paget Disease | C2  C3  C3 | MCQs, SEQs, OSPE  Viva |
| Bone Tumors And Tumor-Like Lesions | Bone-Forming Tumors  Cartilage-Forming Tumors  Tumors of Unknown histogenesis | Classify bone tumors  Enlist bone tumors arising from metaphysis , diaphysis and epiphysis  Describe the morphology of bone forming tumors  Describe the morphology of cartilage forming tumors  Describe the morphology of Ewing’s sarcoma and giant cell tumor of bone | C1  C1  C3  C3  C3 | MCQs, SEQs, OSPE  Viva |
| Neuropathies, neuromuscular junction disorders | Inflammatory Neuropathies  Infectious Neuropathies  Metabolic Neuropathies  Toxic Neuropathies  Diseases of the Neuromuscular  Junction | Differentiate between the presentation of different types of neuropathies  Describe the pathophysiology and mechanisms of injury in different types of neuropathies  Describe the pathophysiology of Diseases of the Neuromuscular  Junction | C3  C2  C3  C3 | MCQs, SEQs, OSPE  Viva |
| Inflammatory And Degenerative Diseases Of The Joint | Osteoarthritis  Rheumatoid Arthritis  Juvenile Idiopathic Arthritis  Seronegative Spondyloarthropathies  Crystal-Induced Arthritis | Describe the pathogenesis of different types of arthritis  Differentiate between osteoarthritis and rheumatoid arthritis describe the morphological changes occurring in various types of arthritis  Correlate the x ray findings with morphological findings.  Describe the lab diagnosis for arthritis | C2  C3  C3  C2  C3 | MCQs, SEQs, OSPE  Viva |

## PATHOLOGY SMALL GROUP DISCUSSION (SGD)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DEMONSTRATION | CONTENTS OUTLINES (MAJOR TOPICS & SUB- TOPICS) | LEARNING OBJECTIVES | LEARNING DOMAIN | ASSESSMENT TOOL |
| Patterns of injury in nervous system physical traumatic head injury | Skull Fractures  Concussion  Parenchymal Injuries  Epidural Hematoma  Subdural Hematoma  Intracranial Hemorrhage | Students should be able to  Differentiate the pathophysiological patterns of different types of traumatic brain injuries  Differentiate between various hematomas in the brain and their pathogenesis  Describe the pathophysiology of concussion  Describe the effects of diffuse axonal injury and parenchymal injury | C2  C3  C2  C2 | MCQs, SEQs, OSPE  Viva |

## PATHOLOGY CASE BASE LEARNING (CBL)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DEMONSTRATION | CONTENTS OUTLINES (MAJOR TOPICS & SUB- TOPICS) | LEARNING OBJECTIVES | LEARNING DOMAIN | ASSESSMENT TOOL |
| Bone Infections And Fractures | Healing of Fractures  Osteonecrosis  Osteomyelitis | Students should be able to  Describe the patterns and mechanisms involved in fracture healing and its complications  Describe the mechanisms and morphology of osteonecrosis  Elist etiology of osteomyelitis  Differentiate between pathophysiology and morphology of Pyogenic Osteomyelitis  Mycobacterial Osteomyelitis and  Skeletal Syphilis | C2  C2  C3  C3  C2 | MCQs, SEQs, OSPE  Viva |
| Arthritis | OSTEOARTHRITIS  RHEUMATOID ARTHRITIS | Correlate the clinical presentation with the pathophysiology of various joint diseases  Counsel a patient with arthritis regarding life style modification and prevention | C3  C3 | MCQs, SEQs, OSPE  Viva |
| Soft tissue tumors and tumor-like lesions | Fibrous Tumors  Rhabdomyosarcoma  Smooth Muscle Tumors | Describe the morphological patterns in soft tissue tumors  Describe the grading of soft tissue tumors  Differentiate between the morphology of various soft tissue tumors | C2  C2  C2 | MCQs, SEQs, OSPE  Viva |
| Tumors of Adipose Tissue | Tumors of Adipose Tissue  Tumors of Uncertain Origin | Describe the morphological patterns in lipoma and liposarcoma  Describe the grading of soft tissue tumors  Differentiate between the morphology of lipoma with liposarcoma | C2  C2  C2 | MCQs, SEQs, OSPE  Viva |

## PATHOLOGY SELF-DIRECTED LEARNING (SDL)

|  |  |  |  |
| --- | --- | --- | --- |
| **SR. NO.** | **TOPIC** | **LEARNING OUTCOMES**  **At the end of session students will be able to:** | **REFERENCE** |
| 01 | Genetic Metabolic Diseases of CNS | * The student should be able to: * Describes the types of Genetic Metabolic Diseases and their effects of brain and spinal cord | Robin Cotran Pathologic basis of disease 10th Edition Chapter The Central Nervous System page 1289-1290 |
| 02 | Toxic and Acquired Metabolic Diseases of CNS | * Describe the pathogenesis and morphological changes occurring due to toxic and acquired metabolic diseases in CNS | Robin Cotran Pathologic basis of disease 10th Edition Chapter The Central Nervous System page 1290-1293 |
| 03 | Inherited Diseases of Skeletal Muscle | * Describe the pathogenesis and genetic defects of various muscle dystrophies and myopathies | Robin Cotran Pathologic basis of disease 10th Edition Chapter Peripheral Nerves and  Skeletal Muscles page 1231-1234 |
| 04 | Peripheral Nerve Sheath Tumors | * Describe the morphology and pathogenesis of various peripheral nerve sheath tumors. | Robin Cotran Pathologic basis of disease 10th Edition Chapter Peripheral Nerves and  Skeletal Muscles page 1236-1239 |
| 05 | Infections of skin | * Describe the pathogenesis and morphological features of various bacterial and viral skin infections | Robin Cotran Pathologic basis of disease 10th Edition Chapter The skin pages; 1166-1169 |
| 06 | Infectious Arthritis | * Describe the etiology pathogenesis and morphology of infectious arthritis | Robin Cotran Pathologic basis of disease 10th Edition Chapter Bones, Joints, and Soft  Tissue Tumors pages; 1203-1204 |

## PATHOLOGY SKILL LAB (SKILL)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TOPIC** | **LEARNING OBJECTIVES** | **LEARNING DOMAIN** | **TEACHING STRATEGIES** | **ASSESSMENT TOOLS** |
| **Brain tumors and CNS infections** | Identify the morphology of various brain tumors  Demonstrate the collection and transport of CSF for routine analysis  Interpret report of CSF analysis | C2  C2  C2  P3 | **PRACTICAL** | **OSPE** |
| **Skin tumors** | Identify the morphology of various skin tumors | C1  C2  P3 | **PRACTICAL** | **OSPE** |
| **Tumors of bones** | Identify the morphology of bone tumors  Demonstrate the collection and transport of synovial fluid for routine analysis  Interpret report of synovial fluid analysis | C2  C2  C2  P3 | **PRACTICAL** | **OSPE** |
| **Soft tissue tumors** | Identify the morphology of various soft tissue tumors | C2  C2  P2 | **PRACTICAL** | **OSPE** |

**Teaching Staff / Human Resource of Department of Pathology**

|  |  |  |
| --- | --- | --- |
| **SR.NO.** | **DESIGNATION** | **TOTAL NUMBER OF TEACHING STAFF** |
| **1** | Professor | 01 |
| **2** | Associate professor | 01 |
| **3** | Assistant professor | 02 |
| **4** | Demonstrators | 09 |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. no. | Hours Calculation for Various Type of Teaching Strategies | Total Hours  (Faculty) | Total Hours  (Students) | Faculty level |
| 1 | LGIS (10). 1hrs each session (half class sessions) | 2 x 10= 20hrs. | 10 | Professor, associate, and assistant professors |
| 2 | SGD (1) approx. 1hrs each session. 1/4th class | 1 x 4= 4 hrs. | 01 | Assistant professors |
| 3 | CBL(4) approx. 1hrs per session. (4 small group sessions. 1 session per day) | 4 x 4 = 16 hrs. | 04 | Demos (subject specialists) supervised by professional faculties |
| 4 | Practical | 3.5hr x 4= 14hr | 07 | Demos (subject specialists) |
| 5 | SDL (6) | 1 x 6 = 6 hrs. | 06 | Demos (subject specialists) |
|  |  | Total: 60hrs | 28 hrs |  |

## CATEGORIZATION OF MODULAR CONTENT OF PATHOLOGY DEPARTMENT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CATEGORY A\* | CATEGORY B\*\* | CATEGORY C\*\*\* | | |
| LGIS | LGIS | SGDS | SDL | CBL |
| Infectious diseases of CNS Bacterial and viral meningitis | Metabolic diseases of bone | Patterns of injury in nervous system physical traumatic head injury | Genetic Metabolic Diseases of CNS | Bone Infections And Fractures |
| Tumors of CNS Gliomas neural tumors meningioma | Diseases of skeletal muscles and myopathies |  | * Toxic and Acquired Metabolic Diseases of CNS | Arthritis |
| Bone Tumors And Tumor-Like Lesions | Dermatosis & Infections of Skin |  | Inherited Diseases of Skeletal Muscle | Soft Tissue Tumors |
| Diseases of myelin and neurodegenerative diseases Alzheimer disease, Parkinson’s disease | Neuropathies, neuromuscular junction disorders |  | Peripheral Nerve Sheath Tumors | Tumors of adipose tissue |
|  | Inflammatory And Degenerative Diseases Of The Joint |  | Infections of skin |  |
|  | Tumors of Skin |  | Infectious Arthritis |  |

Category A\*: Fundamental & Complex Concepts taken by Professors, Associate Professors and Assistant Professors

Category B\*\*: Intermediate concepts. Exercises. By Professorial faculty and Senior Demonstrators/ subject specialists.

Category C\*\*\*: Relatively lower complex concepts, exercises/ applications. By Assistant professors, Demonstrators)

# Content of Community Medicine

## LEARNING OBJECTIVES OF LARGE GROUP INTERACTIVE SESSIONS (LGIS)

| TOPICS | CONTENTS OUTLINES  (MAJOR TOPICS & SUB- TOPICS) | LEARNING OBJECTIVES  AFTER THE SESSION STUDENTS WILL BE ABLE TO: | LEARNING DOMAIN | TEACHING STRATEGY | ASSESSMENT TOOL |
| --- | --- | --- | --- | --- | --- |
| Mental Health | Components of Mental Health  Etiological factors  Preventive aspect of mental health | * Understand the components of mental health * Understand the etiological factors responsible for mental health * Comprehend the preventive aspect of mental health | C2  C2  C2 | LGIS | MCQs, SEQs |
| Occupational Health | Ergonomics | * Define Occupational Health. * Enlist Occupational Hazards encountered in various occupations. * Elaborate the concept and significance of Ergonomics. | C1  C1  C2 | LGIS | MCQs, SEQs |
| Pneumoconiosis | Silicosis  Asbestosis  Anthracosis  Byssinosis | * Define Pneumoconiosis. * Enumerate important diseases grouped under pneumoconiosis. * Describe the occupations and common features of silicosis. * Describe the occupations and common features of anthracosis. * Describe the occupations and common features of byssinosis. | C1  C1  C2  C2  C2 | LGIS | MCQs, SEQs |
| Dynamics of Social Sciences | Social Sciences  Family  Society  Culture | * Define social sciences * Identify branches of social science * Define families and its types * Define Society and its types * Briefly describe culture and its components | C1  C2  C1  C1  C2 | LGIS | MCQs, SEQs |
| Medical Anthropology | Medical anthropology and its branches  Anthropological methods  Research & anthropological techniques  Human ecology | * Describe medical anthropology and its branches * Appreciate anthropological methods * Explain Research and anthropological techniques * Briefly describe human ecology | C2  C2  C2  C2 | LGIS | MCQs, SEQs |
| Health problems due to industrialization | Lead Poisoning  Sickness absenteeism  Accidents in industry  Health problems due to industrialization | * Explain the common features, occupations and diagnostic investigations of lead poisoning * Illustrate common causes and prevention of Sickness absenteeism. * Describe industrialization and its causes and impact on health of massive * Enlist common hazards occurring in agricultural workers. * Describe functions of occupational health service. | C2  C3  C2  C1  C2 | LGIS | MCQs, SEQs |
| Measures of health protection of workers and prevention of occupational diseases | Measures of health protection of workers  Medical measures  Engineering measures  Legislation | * Describe measures of health protection of workers * Discuss various aspects of prevention of occupational diseases | C2  C2 | LGIS | MCQs, SEQs |
| Concept of Behavioral sciences & mental health | Behavioral Science & Mental Health | * Describe behavior and its dynamics * Elaborate various human needs * Define attitude and its components * Recognize learning and its types * Differentiate between behavioral medicine & behavioral sciences * Illustrate habits * Discuss the types of personality and IQ | C2  C3  C1  C2  C2  C3  C2 | LGIS | MCQs, SEQs |
| Types of Learning | Conditions affecting learning  Types of learning | * Recognize learning and its types * Discuss the types of personality * Describe IQ and its ranges * Briefly discuss factors affecting IQ | C2  C2  C2  C2 | LGIS | MCQs, SEQs |
| Leadership in Health | Leadership and leadership in health  Styles of leadership  Levels of leadership  Attributes of a leader  Leadership and community development  Role of public health professional in community development  WHO leadership development initiative | * Explain Leadership and leadership in health * Discuss Styles of leadership * Enlist Levels of leadership * Enlist Attributes of a leader * Briefly describe Leadership and community development * Discuss Role of public health professional in community development * Explain WHO leadership development initiative | C2  C2  C1  C1  C2  C2  C2 | LGIS | MCQs |
| Ethics of Medical Profession | Nuremberg Code  Declaration of Geneva  The Helsinki Declaration  Oath of Medical and Dental Practitioners by PMDC  International code of medical ethics | * Define and comprehend the rationale of medical ethics. * Recognize the principle of medical ethics * Knowledge of different codes of medical ethics * Appreciate the principles of research ethics | C1  C2  C2  C3 | LGIS | MCQs, SEQs |
| Biomedical ethics | Equity and cultural diversity  The Islamic perspective  Ethics and research  Ethics in the curriculum and beyond | * Define Equity and cultural diversity * Discuss the Islamic perspective * Explain Ethics and research * Briefly discuss Ethics in the curriculum and beyond | C1  C2  C2  C2 | LGIS | MCQs, SEQs |

## COMMUNITY MEDICINE SMALL GROUP DISCUSSION SGD

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| DEMONSTRATION | CONTENTS OUTLINES (MAJOR TOPICS & SUB- TOPICS) | LEARNING OBJECTIVES | LEARNING DOMAIN | TEACHING STRATEGY | ASSESSMENT TOOL |
|  | Behavioral Sciences & Life Style | * Understand behaviour * Identify types of emotions * Identify and analyze the various ways in which emotions are expressed and communicated. * Evaluate roles of emotions in health and disease * Elaborate control of emotions * Define motivation and incentives. | C2  C2  C2  C3  C3  C1 | SGD | MCQs, SEQs |
|  | Drug abuse | * Define Drug Abuse * Discuss over the counter medication use and its side effects * Discuss Dependence producing drugs * Discuss Environmental and host factors responsible for drug abuse * Enlist Symptoms of drug abuse * Describe Prevention and rehabilitation strategies for drug addicts | C1  C2  C2  C2  C1  C2 | SGD | MCQs, SEQs |
|  | Alcohol and Alcoholism | * Define Alcohol use by levels of harms * Classification of Alcohol consumption * Define Alcohol abuse * Discuss Alcoholism or Alcohol dependence * Briefly describe causes of Alcoholism * Discuss Prevention of Alcohol abuse | C1  C2  C1  C2  C2  C2 | SGD | MCQs, SEQs |
|  | Tobacco and Health | * Briefly describe chemical constituents and habits related to tobacco * Discuss Health effects of Tobacco * Briefly discuss passive smoking * Discuss Tobacco control measures * Explain WHO tobacco free initiative | C2  C2  C2  C2  C2 | SGD | MCQs, SEQs |

## SELF-DIRECTED LEARNING (SDL) COMMUNITY MEDICINE

Week 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | MAJOR TOPIC | CONTENTS OUTLINES / SUB- TOPICS | LEARNING OBJECTIVES. STUDENTS WILL BE ABLE TO … | LEARNING RESOURCE | ASSESSMENT TOOL -MCQS (TOS) | MODE OF ASSESSMENT |
| 1 | Dynamics of human behavior (Human psychology) | Intro to selected important relevant concepts of psychology relevant to community medicine | Students should be able to:   * Describe dynamics of human behavior in terms of health behavior, illness behavior and treatment behavior * Comprehend learning as Behavior change. * Describe 3 types of learning | K Park Ed. 27th (673, 674, 676, 678) | 5 MCQ | LMS 1 |

Week 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2 | Concepts of sociology relevant to community medicine | Intro to selected important relevant concepts of sociology relevant to epidemiology & medical research | Students should be able to:   * Comprehend definitions of, Society, community, social structure & institution, social control mechanisms, * Comprehend customs, culture, social problems, social pathology, case study & field study. | 1. K Park Ed. 27th (670-73) | 5 MCQs | LMS 2 |

Week 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Mental Health Ethics | Ethical and legal  issues related to  mentally ill  patient | Students should be able to:   * Discuss the ethical and legal challenges of the mentally ill and how they are different from those with physical illness with emphasis on their vulnerability and the risks involved.   Discuss how the needs of the mentally ill are different from those with physical illness (with emphasis on the concept of consent/capacity; confidentially/sharing of information; working with the families; risk assessment etc) in the context of legal, sociocultural and religious factors in Pakistan | Public health and community Medicine by Ilyas Shah Ansari, 8th edition,Chapter Biomedical ethics(318-328) | 5 MCQs | LMS 3 |

Week 4

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Measures of health protection of workers and prevention of occupational diseases | Measures of health protection of workers  Medical measures  Engineering measures  Legislation | Students should be able to:   * Describe measures of health protection of workers   Discuss various aspects of prevention of occupational diseases | K Park , Chapter Occupational Health(756-760) | 5MCQs | LMS 4 |

Week 5

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Community Psychiatry | Team in community Psychiatry  Community mental health center functions  Subtypes of Community Psychiatry | Students should be able to:   * Describe Operation of community psychiatry * Enlist Team in community psychiatry * Discuss Community Mental health center functions * Briefly describe hive system * Enlist physical components of community Psychiatry * Briefly describe functions of subtypes of community Psychiatry | K Park, Chapter Community Mental Health ( 678-684) | 5MCQs | LMS 5 |

Week 6

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Alcohol related problems |  | Students should be able to:   * Discuss socio-economic factors related to alcoholism * What are special vulnerability situations in alcoholism * Enlist major alcohol related problems | K Park, Chapter Mental Health(772-777) | 5MCQs | LMS 6 |

**Human Resource of Department of Community Medicine**

|  |  |  |
| --- | --- | --- |
| **SR.NO.** | **DESIGNATION** | **TOTAL NUMBER OF TEACHING STAFF** |
| 1. | Professor | 0 |
| 2. | Associate professor | 2 |
| 3. | Assistant professor | 2 |
| 4. | Demonstrators | 4 |

**Detail of Contact Hours community medicine (Faculty &Students)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SR. NO.** | **HOURS CALCULATION FOR VARIOUS TYPE OF TEACHING STRATEGIES** | **TOTAL HOURS**  **(FACULTY)** | **TOTAL HOURS**  **(STUDENTS)** | **FACULTY LEVEL** |
| 1. | LGIS (12). 1hrs each session (half class sessions) | 12 x 2= 24 hrs. | 12 | Professor, Associate Professor, and Assistant Professors |
| 2. | SGD (4) approx. 2hrs each session. 1/2 class | 2x4x2 = 16 hrs. | 8 | Demos (subject specialists) |
| 3. | SDL (6) | 6 x 1=6 | 6 | Demos (subject specialists) |
|  |  | 46 hours | 26 |  |

CATEGORIZATION OF MODULAR CONTENT OF COMMUNITY MEDICINE DEPARTMENT

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category A\*** | |  | **Category B\*\*** | | **Category C\*\*\*** | | | |
| **LGIS** | |  | LGIS | | SGDS | | | SDL |
| Biomedical ethics  Ethics of Medical profession  Occupational Health Ergonomics  Pneumoconiosis  Health problems due to industrialization | |  | Mental Health  Concept of Behavioral sciences & mental health  Medical anthropology  Types of learning | |  | Drug Abuse  Behavioral Sciences & Life Style |  | Dynamics of human behavior (Human psychology).  Mental Health ethics  Measures of health protection of workers and prevention of occupational diseases  Community Psychiatry |
| Alcohol and Alcoholism  Tobacco and Health |
|  |  |  |  | Leadership in Health |  | | | Concepts of sociology relevant to community medicine |
|  |
|  |
| Measures of health protection of workers and prevention of occupational diseases | |  | Dynamics of Social sciences | |  | | | Alcohol related problems |

Category A\*: Fundamental & Complex Concepts taken by Professors, Associate Professors

Category B\*\*: By Professorial faculty and Senior Demonstrators/ subject specialists

Category C\*\*\*: By Assistant professors, Demonstrators

**Community medicine Faculty Wise Lectures Allocation**

|  |  |  |
| --- | --- | --- |
| **Sr no** | **Faculty nominated** | **No of lectures** |
| **1.** | (Assc Prof) Dr. Khola Noreen | 05 |
| **2.** | (Assc Prof) Dr. Sana Bilal | 05 |
| **3.** | (Asst Prof) Dr. Afifa kulsoom | 05 |
| **4.** | (Asst Prof) Dr Mehwish Riaz | 05 |
| **5.** | (APMO) Dr. Imrana Saeed | 03 |
| **6.** | (APMO) Dr Narjis Zaidi | 03 |
| **7.** | (Sr Demo) Dr. Asif Maqsood Butt | 03 |
| 8. | Dr, Abdul Qudoos | 03 |

# Pharmacology Content

## LEARNING OBJECTIVES OF PHARMACOLOGY LGIS

| TOPIC | LEARNING OBJECTIVES | LEARNING DOMAINS | TEACHING STRATEGY | ASSESSMENT TOOL |
| --- | --- | --- | --- | --- |
| Central Neurotransmission | * Discuss the role of different neurotransmitters and their pharmacological importance | C2 | LGIS | SEQ MCQ  VIVA |
| Anti –Parkinsonism I | * Classify the drugs for the treatment of parkinsonism * Discuss important pharmacokinetic features | C1  C2 | LGIS | SEQ MCQ  VIVA |
| Anti –Parkinsonism II | * Discuss Pharmacodynamics of anti-Parkinsonism * Discuss adverse effects, drug interaction & Clinical uses | C2  C2 | LGIS | SEQ MCQ  VIVA |
| Sedative Hypnotics I | * Classify the drugs used as sedatives & Hypnotics * Discuss important pharmacokinetic features | C1 C2 | LGIS | SEQ MCQ  VIVA |
| Sedative Hypnotics II | * Discuss Pharmacodynamics of Sedatives& Hypnotics * Discuss adverse effects, drug interaction & Clinical uses | C2  C2 | LGIS | SEQ MCQ  VIVA |
| Skeletal Muscle Relaxants I | * Classify Skeletal Muscle Relaxants * Discuss important pharmacokinetic features | C1 C2 | LGIS | SEQ MCQ  VIVA |
| Skeletal Muscle Relaxants II | * Discuss Pharmacodynamics * Discuss adverse effects, drug interaction & Clinical uses | C1 C2 | LGIS | SEQ MCQ  VIVA |
| Local Anesthetics I | * Classify Local anesthetics * Discuss important pharmacokinetic features | C1 C2 | LGIS | SEQ MCQ  VIVA |
| Local Anesthetics II | * Discuss Pharmacodynamics * Discuss adverse effects, drug interaction & Clinical uses | C2  C2 | LGIS | SEQ MCQ  VIVA |
| General Anesthetics I  Inhalational Anesthetics | * Classification of general anesthetic agents * Balanced anesthesia & MAC | C1  C2 | LGIS | SEQ MCQ  VIVA |
| General Anesthetics II  Inhalational Anesthetics | * Discuss important pharmacokinetic features * Discuss Nitrous oxide, Diffusional Hypoxia & Second gas effects | C2  C3 | LGIS | SEQ MCQ  VIVA |
| General Anesthetics III  Intravenous Anesthetics | * Discuss Pharmacokinetic & Pharmacodynamics of IV anesthetics. * Discuss adverse effects & drug interactions * Discuss anesthetic agents used in ICU with important Pharmacological features | C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| Anti-seizures I | * Classify the drugs for the seizures * Discuss important pharmacokinetic features | C1  C2 | LGIS | SEQ MCQ  VIVA |
| Anti-seizures II | * Discuss Pharmacodynamics of anti-seizures * Discuss adverse effects, drug interaction & Clinical uses | C2  C2 | LGIS | SEQ MCQ  VIVA |
| Drugs used in Migraine | * Classify anti migraine drugs * Explain MOA of each group * Describe the other therapeutic uses of each group * Describe the adverse effects of each group | C1  C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| Anti-depressants I | * Classify the drugs for the treatment of depression * Discuss important pharmacokinetic features | C1  C2 | LGIS | SEQ MCQ  VIVA |
| Anti-depressants II | * Discuss Pharmacodynamics of anti-depressive agents * Discuss adverse effects, drug interaction * Discuss rationale of use of anti-depressive agents in * Other disorders | C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| Anti-psychotics I | * Classify the drugs for the treatment of psychosis * Differentiate between typical & atypical antipsychotics | C1  C3 | LGIS | SEQ MCQ  VIVA |
| Anti-psychotics II | * Discuss important pharmacokinetic features * Discuss Pharmacodynamics of anti-Parkinsonism * Discuss adverse effects, drug interaction & Clinical uses | C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| Mood stabilizers | * Enumerate Mood Stabilizers * Describe the mechanism of action of Lithium * Describe the Uses of Lithium * Describe the adverse effects of Lithium | C1  C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| Anti-Rheumatics | * Enlist DMARDs * Describe the mechanism of action & rationale of use of important DMARDs | C1  C2 | LGIS | SEQ MCQ  VIVA |
| Drugs used in Gout | * Classify Drugs used in the treatment of Gout * Describe the role of Corticosteroids in the treatment * Describe the role of NSAIDs in the treatment of Gout | C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| Opioid analgesics I | * Enumerate Opioid analgesics * Discuss Pain theory | C1  C2 | LGIS | SEQ MCQ  VIVA |
| Opioid analgesics II | * Discuss Pharmacokinetics & Pharmacodynamics * Discuss adverse effects, drug interaction | C2  C2 | LGIS | SEQ MCQ  VIVA |
| Opioid analgesics III | * Discuss clinical uses * Discuss Opioid antagonists | C2  C2 | LGIS | SEQ MCQ  VIVA |
| NSAIDs I | * Classify NSAIDs * Describe the mechanism of action of NSAIDs * Describe the actions of Aspirin * Discuss the Shared Toxicities of NSAIDs * Discuss the adverse effects of Aspirin | C1  C2  C2  C2  C2 | LGIS | SEQ MCQ  VIVA |
| NSAIDs II | * Differentiate between Non-Selective COX Inhibitors and Selective COX-2 Inhibitors | C3 | LGIS | SEQ MCQ  VIVA |
| Alcohol & Drug of abuse | * Describe the metabolism of Alcohol * Describe Adverse Effects of Alcohol * Describe pharmacological treatment of acute alcohol intoxication, alcohol withdrawal syndrome and alcoholism * Discuss different drugs of abuse with important pharmacological features | C2 C2  C2 | LGIS | SEQ MCQ  VIVA |

## PHARMACOLOGY CBL

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TOPIC** | **LEARNING OBJECTIVES** | **LEARNING DOMAIN** | **TEACHING STRATEGIES** | **ASSESSMENT TOOLS** |  |
| Case Scenario Parkinsonism | * Apply relevant knowledge to the clinical case | C3 | CBL | SEQ MCQ PBQ | **Dr. Zaheer**  **Dr. saba**  **Dr. zoefishan**  **Dr. arsheen** |
| Case scenario of sedatives & Hypnotics | * Apply relevant knowledge to the clinical case | C3 | CBL | SEQ MCQ PBQ | **Dr. aisha**  **Dr. memuna**  **Dr. uzma**  **Dr. arsheen** |
| Case scenario on Grand mal Epilepsy | * Apply relevant knowledge to the clinical case | C3 | CBL | SEQ  MCQ PBQ | **Dr. Zaheer**  **Dr. saba**  **Dr. zoefishan**  **Dr. uzma** |
| Case scenario on Depression | * Apply relevant knowledge to the clinical case | C3 | CBL | SEQ MCQ PBQ | **Dr. aisha**  **Dr. memuna**  **Dr. aisha**  **Dr. arsheen** |
| Case scenario on Schizophrenia | * Apply relevant knowledge to the clinical case | C3 | CBL | SEQ  MCQ PBQ | **Dr. saba**  **Dr. zoefishan**  **Dr. uzma**  **Dr. aisha** |
| Case scenario on Nicotine & Opioid poisoning | * Clinical Pharmacology of drugs used in nicotine and opioid poisoning | C3 | CBL | PBQ | **Dr. memuna**  **Dr. arsheen**  **Dr. Zaheer**  **Dr. arsheen** |

## SELF-DIRECTED LEARNING (SDL) PHARMACOLOGY

| **SR. NO.** | **TOPIC** | **LEARNING OBJECTIVES** | **REFERENCE** |
| --- | --- | --- | --- |
|  | Role of neurotransmitter in physiology and pathology of CNS | * Discuss the role of inhibitory and excitatory neurotransmitters in mental health and disease | * Teleanu RI, Niculescu AG, Roza E, Vladâcenco O, Grumezescu AM, Teleanu DM. Neurotransmitters-Key Factors in Neurological and Neurodegenerative Disorders of the Central Nervous System. Int J Mol Sci. 2022 May 25;23(11):5954. doi: 10.3390/ijms23115954. PMID: 35682631; PMCID: PMC9180936. |
|  | Pharmacological treatment of nicotine addiction | * Discuss the features of nicotine addiction * Describe different pharmacological strategies employed in nicotine addiction | * Giulietti, F., Filipponi, A., Rosettani, G. et al. Pharmacological Approach to Smoking Cessation: An Updated Review for Daily Clinical Practice. High Blood Press Cardiovasc Prev 27, 349–362 (2020). <https://doi.org/10.1007/s40292-020-00396-9> * Pajai D D, Paul P, Reche A (February 16, 2023) Pharmacotherapy in Tobacco Cessation: A Narrative Review. Cureus 15(2): e35086. doi:10.7759/cureus.35086 |
|  | Multimodal analgesia | * Identify different agents used for analgesia * Discuss the mechanism of action of different types of analgesics * Discuss pain ladder management | * Paladini A, Varrassi G. Multimodal pharmacological analgesia in pain management. InPain Management-Practices, Novel Therapies and Bioactives 2020 Sep 3. London, UK: IntechOpen. * Ehrlich AT, Kieffer BL, Darcq E. Current strategies toward safer mu opioid receptor drugs for pain management. Expert opinion on therapeutic targets. 2019 Apr 3;23(4):315-26. |
|  | Fetal outcomes of AED use during pregnancy | * Identify different effects of antiepileptic drug on fetus taken during pregnancy * Recognize anti-epileptic drugs considered relatively safe in pregnancy | * Nie Q, Su B, Wei J. Neurological teratogenic effects of antiepileptic drugs during pregnancy. Experimental and therapeutic medicine. 2016 Oct 1;12(4):2400-4. * Bjørk MH, Zoega H, Leinonen MK, Cohen JM, Dreier JW, Furu K, Gilhus NE, Gissler M, Hálfdánarson Ó, Igland J, Sun Y. Association of prenatal exposure to antiseizure medication with risk of autism and intellectual disability. JAMA neurology. 2022 Jul 1;79(7):672-81. |
|  | Cognitive enhancers | * Define cognitive enhancers * Describe the mechanism of action of cognitive enhancers * Identify the clinical utility of different cognitive enhancers | * Malík M, Tlustoš P. Nootropics as cognitive enhancers: types, dosage and side effects of smart drugs. Nutrients. 2022 Aug 17;14(16):3367. * https://www.bma.org.uk/media/1068/bma\_ cognitive\_enhancing\_drugs\_and\_the\_workplace\_oct\_2019.pdf * Husain M, Mehta MA. Cognitive enhancement by drugs in health and disease. Trends in cognitive sciences. 2011 Jan 1;15(1):28-36. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Topic** | **Learning Objectives** | **Learning Domain** | **Teaching strategies** | **Assessment tools** |
| **Reflex time** | Interpret and report the effects of drugs on frog’ CNS | C3 | **PRACTICAL** | **OSPE** |
| **CNS Depressants** | Interpret and report the effects of depressant drugs on frog’ CNS | C3 | **PRACTICAL** | **OSPE** |
| **CNS Stimulants** | Interpret and report the effects of stimulant drugs on frog’ CNS | C3 | **PRACTICAL** | **OSPE** |
| **Prescription writing of a case of myasthenia gravis** | Write an appropriate prescription based on the selected p drug for this clinical condition | C3 | **PRACTICAL** | **OSPE** |
| **RA, GA, OA** | Select the appropriate p drug for RA, GA, OA using the six-step method  Write an appropriate prescription based on the selected p drug for these clinical conditions | C3 | **PRACTICAL** | **OSPE** |
| **Copy checking** |  |  |  |  |

## PHARMACOLOGY PRACTICAL SKILL LABORATORY (SKL)

**Teaching Staff / Human Resource of Department of Pharmacology**

|  |  |  |
| --- | --- | --- |
| **Sr.no.** | **Designation** | **Total number of teaching staff** |
| **1** | Professor | 1 |
| **2** | Associate professor | 00 |
| **3** | Assistant professor | 3 |
| **4** | Demonstrators | 7 |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. no. | Hours Calculation for Various Type of Teaching Strategies | Total Hours  (Faculty) | Total Hours  (Students) | Faculty level |
| 1 | LGIS 1hrs each session (half class sessions) | 28 x 2 = 28 hrs. | 28 | Professor, associate, and assistant professors |
| 3 | CBL/ SGD (approx. 1hrs per session. (4 small group sessions. 1 session per day) | 6 x 4 = 24 hrs. | 6 | Demos (subject specialists) supervised by professional faculties |
| 4 | Practical | 4x2 x 4 = 16 hrs. | 4 |  |
| 5 | SDL | 6 x 1 = 6 hrs. | 6 | Demos (subject specialists) |
|  |  | Total: 74 hrs | 44 hrs |  |

**Categorization of Modular Content of Pharmacology Department**

| Category A\* | Category B\*\* | Category C\*\*\* |  | |
| --- | --- | --- | --- | --- |
| LGIS | LGIS | CBL/SGDS | | SDL |
| Anti –Parkinsonism I | Central Neurotransmission | Case Scenario Parkinsonism | | Role of neurotransmitter in physiology and pathology of CNS |
| Anti –Parkinsonism II | Mood stabilizers | Case scenario of sedatives & Hypnotics | | * Pharmacological treatment of nicotine addiction |
| Sedative Hypnotics I | Alcohol | Case scenario on Grand mal Epilepsy | | Multimodal analgesia |
| Sedative Hypnotics II | Drug of abuse | Case scenario on Depression | | Fetal outcomes of AED use during pregnancy |
| Skeletal Muscle Relaxants I | Drugs used in Migraine | Case scenario on Schizophrenia | | Cognitive enhancers |
| Skeletal Muscle Relaxants II |  | Case scenario on Nicotine & Opioid poisoning | |  |
| Local Anesthetics I |  |  | |  |
| Local Anesthetics II |  |  | |  |
| General Anesthetics I |  |  | |  |
| General Anesthetics II |  |  | |  |
| General Anesthetics III |  |  | |  |
| Anti-seizures I |  |  | |  |
| Anti-seizures II |  |  | |  |
| Anti-depressants I |  |  | |  |
| Anti-depressants II |  |  | |  |
| Anti-psychotics I |  |  | |  |
| Anti-psychotics II |  |  | |  |
| Anti-Rheumatics |  |  | |  |
| Drugs used in Gout |  |  | |  |
| Opioid analgesics I |  |  | |  |
| Opioid analgesics II |  |  | |  |
| NSAIDs I |  |  | |  |
| NSAIDs II |  |  | |  |

Category A\*: Fundamental & Complex Concepts taken by Professors, Associate Professors and Assistant Professors

Category B\*\*: Intermediate concepts. Exercises. By Professorial faculty and Senior Demonstrators/ subject specialists.

Category C\*\*\*: Relatively lower complex concepts, exercises/ applications. By Assistant professors, Demonstrators)

# Learning objectives Vertically integrated subjects

## NEUROSURGERY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TOPIC** | **LEARNING OBJECTIVES** | **LEARNING DOMAIN** | | | **TEACHING STRATEGY** | **ASSESSMENT TOOL** |
| Surgical Intervention of Head Injury | * Describe Pathophysiology involved in Head Injury * Classify different types of Head Injuries * Summarize the management plan for Head Injury Patients | | C1,C2 | LGIS | | MCQS |
| Surgical Intervention of Brain Tumours | * Describe signs & symptoms of brain tumors * Classify the types of brain tumors * Enlist the common diagnostic modalities of brain tumors * Summarize the management options including surgery | | C2,C3 | LGIS | | MCQS |
| Surgical Interventions of Cerebrovascular malformation | * Recall anaotmy of Cerebrovasuclar malformation * Classify different types of CV malformations * Compare different investigation modalities * Select appropriate surgical treatment plan * Counsel patient/attendent for post-op care and followup | | C1,2,3  A | LGIS | | MCQS |
| Surgical Intervention of CNS Infections | * Enlist different types of CNS infections * Identify different signs symptoms of CNS infections * Compare different investigation modalities * Select appropriate surgical treatment plan * Counsel patient/attendent for post-op care and followup | | C2.C3  A | LGIS | | MCQS |

## ORTHOPEDICS

| **TOPIC** | **LEARNING OBJECTIVES** | **LEARNING DOMAIN** | **TEACHING STRATEGY** | **ASSESSMENT TOOL** |
| --- | --- | --- | --- | --- |
| Bone infection and fractures |  | C2 C3 | LGIS | MCQS |
| bone tumors | * Introduction * WHO classification * Radiographic assessment * Clinical presentation * Clinical examination * Benign bone tumors – Age distribution * Bone scan, CT, MRI * Surgical staging * Osteoid osteoma * Osteoblastoma * Osteochondroma * Enchondroma * Chondroblastoma * Unicameral bone cyst * Aneurysmal bone cyst * Giant cell tumor * Malignant tumors of Bone * Osteosarcoma * Ewing Sarcoma * Chondrosarcoma | C2 C3 | LGIS | MCQS |

## MEDICINE LGIS

| TOPIC | * LEARNING OBJECTIVES | LEARNING DOMAIN | TEACHING STRATEGY | ASSESSMENT TOOL |
| --- | --- | --- | --- | --- |
| Acute CNS infection (pyogenic Meningitis/encephalitis) | * Identify the pathological features of acute CNS infections * Differentiate between viral and bacterial CNS infections on the basis of * Clinical presentation and investigations * Interpret CSF examination report to formulate a diagnosis of CNS infections * Formulate a management plan for patients presenting with CNS infections | Cognitive | LGIS | MCQs |
| Tuberculous meningitis | * Identify clinical presentation and clinical signs of patients presenting with tuberculous meningitis. * Interpret CSF examination findings and neuroimaging to formulate a diagnosis of tuberculous meningitis. | Cognitive | LGIS | MCQs |
| Stroke | * Identify clinical presentation physical examination findings in a patient with stroke. * Describe risk factors and etiology of stroke * Differentiate between different types of stroke * Formulate a management plan for patients presenting with stroke. * Effectively counsel a patient presenting with stroke | Cognitive | LGIS | MCQs |
| Epilepsy |  | Cognitive | LGIS | MCQs |
| Movement disorders | * Identify different clinical presentation of patients presenting with movement disorders * Identify medications used in management of movement disorders * Discuss the clinical variants of Parkinson’s disease. * Identify the impact of movement disorders on quality of life if patient. | Cognitive | LGIS | MCQs |
| Osteoarthritis | * Correlate joint physiology with pathophysiology of osteoarthritis. * Formulate a differential diagnosis for patients with joint pains. * Identify clinical presentation of patients presenting with osteoarthritis * Formulate a management plan for patients presenting with osteoarthritis. | Cognitive | LGIS | MCQs |
| Overview of Rheumatological disorders | * Identify common presenting problems of various rheumatological disorders. * Differentiate between common rheumatological disorders based on their clinical presentations. * Formulate an investigation plan for diagnosis of patients presenting with rheumatologic disorders. * Formulate a management plan for patients with rheumatologic disorders. | Cognitive | LGIS | MCQs |

## PSYCHIATRY

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TOPIC** | **LEARNING OBJECTIVES** | | | **MOT/MIT** | **FACILITATOR** |
| COGNITION | **SKILLS** | **ATTITUDE** |
| Anxiety and Stress | To be able to define anxiety and stress keeping in view ICD 11 criteria  To be able to discuss differential diagnosis and Prognosis of anxiety and stress  To be able to outline a management plan of anxiety and stress keeping in view etiological, psychopathological and epidemiological factors. | --------- | A3 | LGIS/Power point presentation | Dr Qurrat Ul Ain  Dr Sadia Yasir |
| Purpureal psychosis | Students should be able to define depression keeping in view ICD 11 criteria for depressive illness  To be able to discuss differential diagnosis and Prognosis of depressive patients  To be able to outline a management plan of a depressed patient keeping in view etiological, psychopathological and epidemiological factors.  To be able to identify the risk of self-harm / suicide in a depressed patients | ----------- | A3 | LGIS/Power point presentation | Dr Muhammad Azeem Rao  Dr Mehboob Ali Shah |
| Psychosis | Be able to define Psychosis and describe how to recognize and diagnose psychotic condition. **(C1)**  To summarize epidemiology, diagnostic criteria, clinical features, course and complications of psychotic illness. **(C2)**  Recognize the common substances associated with psychosis. **(C2)**  Describe the pharmacological and psychosocial treatments of psychotic illnesses. **(C3)** | ----------- | A3 | LGIS/Power point presentation | Dr Qurrat Ul Ain  Dr Sadia Yasir |
| Bipolar Affective Disorder (BAD) | Be able to define BAD according to ICD-11 diagnostic criteria. **(C1)**  Identify various presentations and natural history, onset, course and prognostic features of BAD. **(C2)**  Recognize the sign and symptoms of BAD and discuss its differential diagnosis with appropriate treatment plan. **(C3)** | ----------- | A3 | LGIS/Power point presentation | Dr Muhammad Azeem Rao  Dr Mehboob Ali Shah |

## LEARNING OUTCOMES DERMATOLOGY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Topic** | **Learning Objectives** | **Learning Domain** | **Teaching Strategy** | **Assessment tool** |
| An approach to a patient with Lichen planus | At the end of lecture, the student should be able to  1-Describe the risk factors of Lichen planus  2-Describe the types according to morphology  3-Explain the modification of Lichen planus by site  4-Describe the clinical features of Lichen planus  5-Know the treatment options of Lichen planus | C2  C3 | LGIS/PPT PRESENTATION | MCQS |

## LEARNING OUTCOMES ANESTHESIA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Topic** | **Learning Objectives** | **Learning Domain** | **Teaching Strategy** | **Assessment tool** |
| Basic Anesthesia And Its Types | Define anesthesia  Enumerate the components of anesthesia  Understand different modalities of anesthesia  Briefly describe the pros and cons of general anesthesia and regional anesthesia | C2  C1  C3  C3 | LGIS/PPT PRESENTATION | MCQS |
| Basic drug monitoring | Correlate the pharmacodynamics and pharmacokinetics of drugs used in anesthesisa  Describe the monitoring of neuromuscular blockade during anesthesia and recovery from them .  Understand step ladder approach for pain relief.  Understand the mechanism of action of local anesthetics. | C3  C2  C2  C3 | LGIS/PPT PRESENTATION | MCQS |

## PEDIATRICS (LGIS)

|  |  |  |  |
| --- | --- | --- | --- |
| **TOPIC** | **LEARNING OBJECTIVES** | **LEARNING DOMAIN** | **ASSESSMENT TOOL** |
| Cerebral Palsy | * Define Cerebral palsy * Know etiology and classification * Describe different clinical presentation * Discuss the Differential diagnosis * Manage with multidisciplinary approach | C1  C2  C2  C2  C3 | **MCQs** |
| Epilepsy | * Define epilepsy * Classification of epilepsy * Discuss differentials of epilepsy * Brief idea about epileptic syndromes * Discuss clinical features * Discuss plan of treatment   Counseling aspects of management | C1  C2  C2  C2  C3 | **MCQs** |
| Polio/GBS | * Define AFP * Make differential diagnosis of AFP * Discuss various types and clinical features of poliomyelitis * Plan pertinent investigations, interpret and take appropriate action * Immediately notify the case | C1  C2  C2  C2  C3 | **MCQs** |
| Bacterial meningitis | * Define meningitis * Enlist common etiological factors according to age * Describe pathogenesis and clinical features * Plan pertinent investigations, interpret and take appropriate action * Make differential diagnosis * Monitor for complications * Enlist steps of management plan | C1  C2  C2  C2  C3  C3  C1 | **MCQs** |
| Muscular Dystrophy | * Define muscular dystrophy * Types of muscular dystrophy * Pathogenesis & clinical features * Make differential diagnosis * Plan investigations * Enlist steps of management of complications | C1  C2  C2  C2  C2  C3 | MCQs |

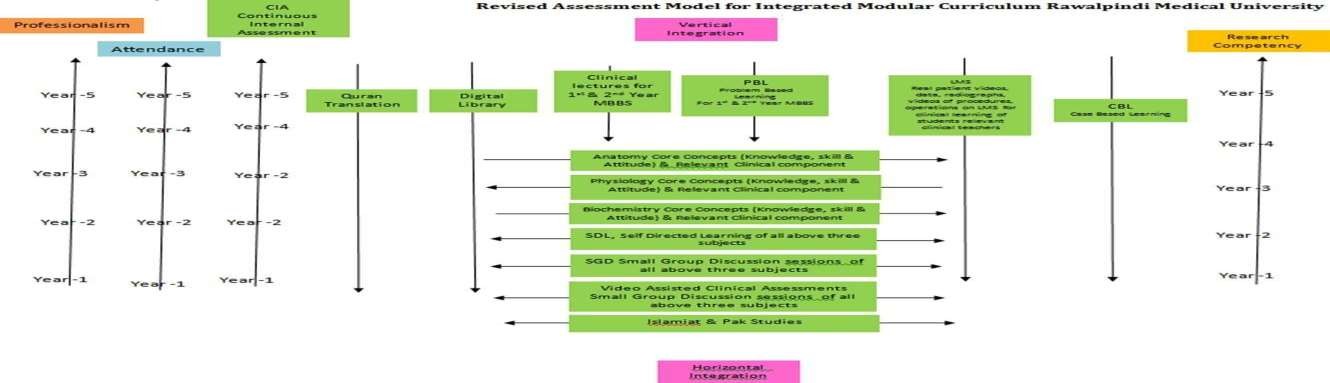
## Learning Objectives of Family Medicine (LGIS)

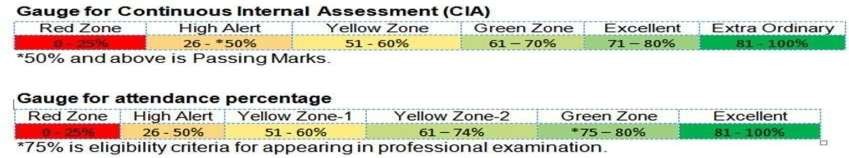
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO** | **Broad**  **topic** | **Major syllabus with sub-topics** | **Learning objectives** | **Learning domain** | **Assessment tools** |
| **1** | **Approach to a patient with Headaches** |  |  |  |  |
| **2** | **Management strategies in Stroke** |  |  |  |  |

# Assessment Policies

**CONTENTS:**

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





# Assessment Plan

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

**Modular Examinations:**

**Theory Paper:**

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

It consists of paper with objective type questions, extended matching question, short answer questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the module.

**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, viva and video assisted & practical OSPE.

**Theory Paper**

There is one written paper for each subject. The paper consists of objective type questions, extended matching question, short answer 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 TYPES

**Types of Assessment**:

1. Formative
2. summative

**Formative Assessment**

Formative assessment will be done at the end of module as reflective writing & multiple-choice questions through LMS. Assessment of clinical lectures will also be on LMS. Tool for this assessment will be one best choice question.

**Summative Assessment:**

Summative assessment will be taken weekly through LMS as well as at the end of module/ block and will be subject wise

## ASSESSMENT FREQUENCY & TIME IN CNS & PSYCHIATRY MODULE

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | CNS & PSYCHIATRY **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)  V. Ward test at the end of two weeks rotation in clinical subjects & End of clerkship C med | Summative | 50 minutes |  | | | |
| 1 hr. 40 min |
| 5. | 1. Reflective writing 2. End Module LMS based MCQs (45 MCQs) 45 marks | formative | 45+45=90 min |

## TABLE OF SPECIFICATIONS (TOS)END OF WEEK ASSESSMENT (LMS)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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, Family Medicine  (Longitudinally running disciplines ) | Formative | 10 | 2 | 3 | 5 | 10 |
|  | Total |  | 100 | 17 | 24 | 49 | 90 |

**Types of Assessment Community Medicine**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.  NO | MODE OF ASSESSMENT | TYPE OF ASSESSMENT | SCHEDULE OF ASSESSMENT | VENUE | FREQUENCY |
|  | End of wk. MCQ based Test | summative | Weekly | LMS | 01 x no. of weeks |
|  | Theory (MCQ+SEQ+ SAQs + EMQ) | Summative | End of module | On campus | 01 |
|  | End of Block AV OSPE | Summative | End of module | On campus | 01 |
|  | End of block practical OSPE | Summative | End of block | On campus | 01 |
|  | End of block structured VIVA | Summative | End of block | On campus | 01 |
|  | End of module MCQs test | formative | End of module | LMS | 01 |
|  | 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 block AV & practical OSPE | Summative | End of block | On campus | 01 |
| 4. | End of block structured VIVA | Summative | End of block | On campus | 01 |
| 5. | End of module MCQs test | formative | End of module | LMS | 01 |
| 6. | 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 block ,AV & practical OSPE | Summative | End of block | On campus | 01 |
| **4.** | End of block structured VIVA | Summative | End of block | On campus | 01 |
| **5.** | End of module One best option MCQs test | Formative | End of module | LMS | 01 |
| **6.** | 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** |
| Renal CNS & Psychiatry Block IV | Renal Module | Community medicine | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 10 stations  - | | | | | | | | | | |
| Pharmacology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 10 stations | | | | | | | | | | |
| Pathology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 10 stations | | | | | | | | | | |
| CNS & Psychiatry Module | 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 | 10 stations |  | 400 | 30 |
| 45 | 5 | 45 | 5 | 50 | 50 | 50 | 300 |
| Pharmacology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 45 | 5 | 45 | 5 | 50 | 50 | 50 | 300 | 400 | 30 |
| Pathology | 25 | 25+5 | 45 | 19 | 46 | 4 | 12 | 2 | 7 | 100 | 45 | 5 | 45 | 5 | 50 | 50 | 50 | 300 | 400 | 30 |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4THYEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (1STWEEK)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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**  **13-10-25** |  | | | | | | **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.** | | | | | | | | | | | |
| **Tuesday**  **14-10-25** |
| **Wednesday**  **15-10-25** |
| **Thursday**  **16-10-25** | **Medicine LGIS** | | | **Pharmacology LGIS** | | |
| Acute CNS infection | | | Central Neurotransmission | | |
| **Even/lec hall 1** | | **Odd /Lec hall 2** | **Even/lec hall 1** | | **Odd /Lec hall 2** |
| Dr Arshad Rabbani | | Dr Lubna Mairaj | Dr. Arsheen | | Dr. Aisha |
| **Friday**  **17-10-25** | **08:00AM – 09:45AM** | | | **09:45AM – 10:30** | | | **10:30AM – 11:15AM** | | | **11:15AM – 12:00PM** | | | | |  | | | | |
| **SGIS / SKILL LAB** | | | **Pathology LGIS** | | | **Pediatrics LGIS** | | | **Medicine LGIS** | | | | |
| C. Medicine/Pathology | | | Infectious diseases of CNS | | | Bacterial meningitis | | | **Tuberculous meningitis** | | | | |
| **Batch A-H** | **Batch I-P** | | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | | |
| Meningitis and brain tumors  Dr Faiza | Behavioral Sciences & Lifestyle Dr. Abdul Qudoos  Dr. Asif | | Prof. Mobina | | Dr Mudassira | Dr. Sheryar Shahid | | Dr. Afrah Tariq | Dr Arshad Rabbani | | Dr Lubna Mairaj | | |
| **Saturday**  **18-10-25** | **08:00AM – 09:45AM** | | | **09:45AM – 10:30** | | | **10:30AM – 11:15AM** | | | **BREAK**  **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | **12:30PM – 01:15PM** | | | | **01:15PM – 02:00PM** | |
| **SGIS / SKILL LAB** | | | **Pathology LGIS** | | | **C. Medicine LGIS** | | | **Pediatrics LGIS** | | **Surgery LGIS** | | | | Pharmacology **LGIS** | | |
| C. Medicine/Pathology | | | Neuropathies | | | Mental Health | | | Polio GBS | | Surgical Intervention of CNS Infections | | | | Sedative Hypnotic I | | |
| **Batch A-H** | | **Batch I-P** | **Even hall 4** | **Odd hall 5** | | **Even hall 4** | | **Even hall 5** | **Even hall 4** | **Odd hall 5** | **Even hall 4** | | | **Odd hall5** | **Even hall 4** | **Odd hall5** | |
| Behavioral Sciences & Lifestyle Dr. Abdul Qudoos  Dr. Asif | | Meningitis and brain tumors  Dr Faiza | Dr Kiran | Dr Fatima | | Dr. Afifa | | Dr. Imrana | Dr. Hina Sattar | Dr. Sonia Fazal | Dr Soban | | | Dr Usman | Dr. Attiya | Dr. Haseeba | |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4THYEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (2ND WEEK)

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| **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**  **20-10-25** | **Psychiatry LGIS** | | | | | | | **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.** | | | | | | | | | | | | |
| Anxiety & Stress | | | | | | | **Sedatives & Hypnotics II** | |
| **Odd /Lec hall 1** | | | | | | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** |
| Dr Muhammad Kashif | | | | | | Dr Mehvish | Dr. Haseeba | Dr. Attiya |
| **Tuesday**  **21-10-25** | **Pharmacology CBL** | | | | | | | **C. Medicine LGIS** | |
| Case scenario of Sedatives & Hypnotics | | | | | | | Dynamics of Social Sciences | |
| **Odd /Lec hall 1** | | | **Even/lec hall 2** | | | | **Odd /Lec hall 1** | **Even/lec hall 2** |
| Dr. Aisha  Dr. Sadia | | | Dr. Uzma  Dr. Arsheen | | | | Dr. Afifa | Dr. Imrana |
| **Wednesday**  **22-10-25** | **C. Medicine LGIS** | | | | | | | **Pharmacology LGIS** | |
| Medical Anthropology | | | | | | | Anti-Depression I | |
| **Odd /Lec hall 1** | | | | **Even/lec hall 2** | | | **Odd /Lec hall 1** | **Even/lec hall 2** |
| Dr. Mehwish | | | | Dr. Mehjabeen | | | Dr. Zunera | Dr. Attiya |
| **Thursday**  **23-10-25** | **Pharmacology LGIS** | | | | | | | **Pharmacology CBL** | |
| Anti-Depression II | | | | | | | Case scenario on Depression | |
| **Odd /Lec hall 1** | | | | | **Even/lec hall 2** | | **Odd /Lec hall 1** | **Even/lec hall 2** |
| Dr. Zunera | | | | | Dr. Attiya | | Dr. Aisha  Dr. Memuna | Dr. Aisha  Dr. Arsheen |
| **Friday**  **24-10-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | **10:30AM – 11:15AM** | | | **11:15AM – 12:00PM** | | | | | |  | | | | |
| **SGIS / SKILL LAB** | | | | | | | **C. Medicine LGIS** | | **Psychiatry LGIS** | | | **Pharmacology LGIS** | | | | | |
| C. Medicine/Pharmacology | | | | | | | Concept of Behavioral sciences & mental health | | Psychosis | | | Anti-Psychotic I | | | | | |
| **Batch A-H** | | **Batch I-P** | | | | | **Even hall 4** | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | | | |
| SGD Drug Abuse  Dr Asif  Dr Mehreen | | Effect of drugs on frog’s CNS (depressants) Dr. Zoefishan  Dr. Aisha  Dr. Sohail | | | | | Dr. Mehwish | Dr. Mehjabeen | Dr Azeem Rao | | Dr Aaiza nusrat | Dr. Memuna | | Dr. Haseeba | | | |
| **Saturday**  **25-10-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | **10:30AM – 11:15AM** | | | **BREAK**  **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | | **12:30PM – 01:15PM** | | | | **01:15PM – 02:00PM** | |
| **SGIS / SKILL LAB** | | | | | | | **Quran Class** | | **Pharmacology LGIS** | | | **Psychiatry LGIS** | | | C. Medicine **LGIS** | | | | **Bioethics LGIS** | | |
| C. Medicine/Pharmacology | | | | | | | Anti-Psychotic II | | | **Puerperal Psychosis** | | | Occupational health Ergonomics | | | |  | | |
| **Batch A-H** | **Batch I-P** | | | | | | **Even Odd** | | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | | **Odd hall 5** | **Even hall 4** | **Odd hall5** | |
| Effect of drugs on frog’s CNS (depressants) Dr. Zoefishan  Dr. Aisha  Dr. Sohail | SGD Drug Abuse  Dr Asif  Dr Mehreen | | | | | | Qari Abdul Wahid | | Dr. Memuna | | Dr. Haseeba | Dr Aamina Shakeel | | Dr Ruqaiyya | Dr. Khaula | | | Dr. Sana |  |  | |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4TH YEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (3RD WEEK)

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| **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**  **27-10-25** | **Pharmacology CBL** | | | | | | | Psychiatry **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.** | | | | | | | | | | | |
| Case scenario on Schizophrenia | | | | | | | Bipolar Disorder | | | | | |
| **Odd /Lec hall 1** | | | | | | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | | | | |
| Dr. Saba  Dr. Zoefishan | | | | | | Dr. Sohail  Dr. Aisha | Dr Mehmood Ali khan | Dr . Mehboob Ali Shah | | | | |
| **Tuesday**  **28-10-25** | **Pharmacology LGIS** | | | | | | | **C. Medicine LGIS** | | | | | |
| Mood Stabilizer | | | | | | | Health problems due to industrialization | | | | | |
| **Odd /Lec hall 1** | | | **Even/lec hall 2** | | | | **Odd /Lec hall 1** | | | | | **Even/lec hall 2** |
| Dr. Zoefishan | | | Dr. Arsheen | | | | Dr Khaula | | | | | Dr Sana |
| **Wednesday**  **29-10-25** | **Pharmacology LGIS** | | | | | | | **C. Medicine LGIS** | | | | | |
| Alcohol & Drug of Abuse | | | | | | | Pneumoconiosis | | | | | |
| **Odd /Lec hall 1** | | | | **Even/lec hall 2** | | | **Odd /Lec hall 1** | | | **Even/lec hall 2** | | |
| Dr. Aisha | | | | Dr. Saba | | | Dr Afifa | | | Dr Zaira | | |
| **Thursday**  **30-10-25** | **C. Medicine LGIS** | | | | | | | **Pharmacology LGIS** | | | | | |
| Measures of health protection of workers and prevention of occupational diseases | | | | | | | General Anesthetics I | | | | | |
| **Odd /Lec hall 1** | | | | | **Even/lec hall 2** | | **Odd /Lec hall 1** | | | | **Even/lec hall 2** | |
| Dr Khaula | | | | | Dr Sana | | Dr. Haseeba | | | | Dr. Zunera | |
| **Friday**  **31-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | | **10:30AM – 11:15AM** | | | **11:15AM – 12:00PM** | | | | |  | | | | |
| **SGIS / SKILL LAB** | | | | | | | **Surgery LGIS** | | | | | | **Pharmacology LGIS** | | | **Anaesthesia LGIS** | | | | |
| C. Medicine/Pharmacology | | | | | | | Surgical Intervention of Head Injury | | | | | | General Anesthetics II | | | Basic anaesthesia & its types | | | | |
| **Batch A-H** | | **Batch I-P** | | | | | **Even hall 4** | | | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | | |
| SGD Alcohol and Alcoholism Dr Abdulquddoos  Dr Mehrish | | Effect of drugs on frog’s CNS (stimulants) Dr. Aisha Dr. Arsheen  Dr. Sadia | | | | | Dr Sundas Ali/Dr Yousaf | | | | Dr Faraz Mehmood | | Dr. Zunera | | Dr. Haseeba | Dr Anum Malik | | Dr Ayesha Nazir | | |
| **Saturday**  **1-12-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | | **10:30AM – 11:15AM** | | | **BREAK**  **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | **12:30PM – 01:15PM** | | | | **01:15PM – 02:00PM** | |
| **SGIS / SKILL LAB** | | | | | | | **Pediatrics LGIS** | | | | | | **Medicine LGIS** | | | **Family medicine LGIS** | | **Pathology SGD** | | | | **Pharmacology LGIS** | | |
| C. Medicine/Pharmacology | | | | | | | Cerebral Palsy | | | | | | Stroke | | | Management strategies in Stroke | | Physical traumatic head injury | | | | General Anesthetics III | | |
| **Batch A-H** | **Batch I-P** | | | | | | **Even hall 4** | | **Odd hall 5** | | | | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | **Odd hall 5** | **Even hall 3 4** | | | **Odd hall 5 6** | **Even hall 4** | **Odd hall 5** | |
| Effect of drugs on frog’s CNS (stimulants) Dr. Aisha Dr. Arsheen  Dr. Sadia | SGD Alcohol and Alcoholism Dr Abdulquddoos  Dr Mehrish | | | | | | Dr. Ayesha Tariq | | Dr. Mansoor | | | | Dr Arshad Rabbani | | Dr Lubna Mairaj | Dr Sadia Khan | Dr Ishtiaq Bashir | Dr Shabeeh Dr Kiran | | | Dr Fatima Dr Mehreen | Dr. Zunera | Dr. Haseeba | |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4TH YEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (4TH WEEK)

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| **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**  **3-11-25** | **Anaesthesia LGIS** | | | | | | | **Pathology 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.** | | | | | | | | | | | | | | | |
| Basic Drug Monitoring | | | | | | | Tumours of CNS | | | | |
| **Odd /Lec hall 1** | | | | | | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | | | |
| Dr Waqas Anjum | | | | | | Dr Abeera Zareen | Prof Mobina | Dr Mudassira | | | |
| **Tuesday**  **4-11-25** | **Surgery LGIS** | | | | | | | **Pharmacology LGIS** | | | | |
| Surgical intervention of brain tumours | | | | | | | Drugs Used In Parkinsonism I | | | | |
| **Odd /Lec hall 1** | | | **Even/lec hall 2** | | | | **Odd /Lec hall 1** | | | | **Even/lec hall 2** |
| Dr Ataul Munam | | | Dr Sundas Ali | | | | Dr Aisha | | | | Dr. Uzma |
| **Wednesday**  **5-11-25** | **Pharmacology LGIS** | | | | | | | **C. Medicine LGIS** | | | | |
| Drugs used in Parkinsonism II | | | | | | | Ethics of Medical Profession | | | | |
| **Odd /Lec hall 1** | | | | **Even/lec hall 2** | | | **Odd /Lec hall 1** | | **Even/lec hall 2** | | |
| Dr Aisha | | | | Dr. Uzma | | | Dr. Narjis | | Dr. Bushra | | |
| **Thursday**  **6-11-25** | **Pathology LGIS** | | | | | | | **Pharmacology CBL** | | | | |
| Diseases of myelin and neurodegenerative diseases | | | | | | | Case Scenario Parkinsonism | | | | |
| **Odd /Lec hall 1** | | | | | **Even/lec hall 2** | | **/Lec hall 1 4** | | | **lec hall 2 5** | |
| Dr Fatima | | | | | Dr Kiran Fatima | | Dr. Zaheer  Dr. Purwa | | | Dr. Zoefishan  Dr. Arsheen | |
| **Friday**  **7-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | **10:30AM – 11:15AM** | | | | **11:15AM – 12:00PM** | | | | | | |  | | | | | |
| **SGIS / SKILL LAB** | | | | | | | Medicine LGIS | | | | | Pharmacology LGIS | | | | **C. Medicine LGIS** | | | | | | |
| C. Medicine/Pathology | | | | | | | Movement disorders (Parkinson's disease) Huntington's disease) | | | | | Anti-seizures I | | | | Types of Learning | | | | | | |
| **Batch A-H** | | **Batch I-P** | | | | | **Even hall 4** | | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | | | | |
| Soft tissue tumors | | SGD Tobacco and Health Dr Asif  Dr Saba | | | | | Dr Arshad Rabbani | | | Dr Lubna Mairaj | | Dr. Attiya | | Dr. Zunera | | Dr Narjis | | Dr Mehjabeen | | | | |
| **Saturday**  **8-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | **10:30AM – 11:15AM** | | | | **BREAK**  **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | | | **12:30PM – 01:15PM** | | | | | **01:15PM – 02:00PM** | |
| **SGIS / SKILL LAB** | | | | | | | Quran class | | | | | Surgery **LGIS** | | | | **Medicine LGIS** | | | | | **Pediatrics LGIS** | | | **Pharmacology CBL** | | | |
| C. Medicine/Pathology | | | | | | | Surgical interventions of cerebrovascular malformation | | | | Epilepsy | | | | | **Epilepsy** in Infants | | | Case scenario on Grand mal Epilepsy | | | |
| **Batch A-H** | **Batch I-P** | | | | | | **Odd /Lec hall 1**  **Even** | | | | | **Even hall 4** | | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | | | **Even hall 4** | | **Odd hall 5** | **Even hall 3 4** | | **Odd hall 5 6** | |
| SGD Tobacco and Health Dr Asif  Dr Saba | Soft tissue tumors  Dr Nida | | | | | | Qari Abdul Wahid | | | | | Dr Yousaf | | | Dr Faraz Mehmood | Dr Arshad Rabbani, | | Dr Lubna | | | Dr. Farah Naz | | Dr. Nadia Mumtaz | Dr. Zaheer  Dr. Purwa | | Dr. Zoefishan  Dr. Uzma | |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4TH YEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (5TH WEEK)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **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**  **10-11-25** | **Pharmacology LGIS** | | | | | | | **C. 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.** | | | | | | | | | | | | | | | |
| Anti-seizures II | | | | | | | Leadership in Health | | | | | |
| **Odd /Lec hall 1** | | | | | | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | | | | |
| Dr. Zunera | | | | | | Dr. Attiya | Dr. Mehwish | Dr. Narjis | | | | |
| **Tuesday**  **11-11-25** | **Family medicine LGIS** | | | | | | | **Pharmacology LGIS** | | | | | |
| Approach to a patient with Headaches | | | | | | | Drugs used in migraine | | | | | |
| **Odd /Lec hall 1** | | | **Even/lec hall 2** | | | | **Odd /Lec hall 1** | | | | | **Even/lec hall 2** |
| Dr Sadia Khan | | | Dr Ishtiaq Bashir | | | | Dr. Zoefishan | | | | | Dr. Zaheer |
| **Wednesday**  **12-11-25** | **Surgery LGIS** | | | | | | | **Pathology CBL** | | | | | |
| Bone Infections And Fractures | | | | | | | Bone Infections And Fractures | | | | | |
| **Odd /Lec hall 1** | | | | **Even/lec hall 2** | | | **Odd /Lec hall 1** | | | **Even/lec hall 2** | | |
| Dr Muhammad Hassan | | | | Dr Obaid ur Rahman | | | Dr Iqbal Dr Ayesha | | | Dr Shabih Dr Unaiza | | |
| **Thursday**  **13-11-25** | **Pathology LGIS** | | | | | | | **Pharmacology LGIS** | | | | | |
| Metabolic diseases of bone | | | | | | | NSAIDS I  (Classification) | | | | | |
| **Odd /Lec hall 1** | | | | | **Even/lec hall 2** | | **Odd /Lec hall 1** | | | | **Even/lec hall 2** | |
| **Dr Fatima** | | | | | **Dr Kiran** | | Dr. Haseeba | | | | Dr. Attiya | |
| **Friday**  **14-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | | **10:30AM – 11:15AM** | | | | **11:15AM – 12:00PM** | | | | | | |  | | | | | |
| **SGIS / SKILL LAB** | | | | | | | **Pathology LGIS** | | | | | | **Pharmacology LGIS** | | | | **Medicine LGIS** | | | | | | |
| Pathology/Pharmacology | | | | | | | Bone Tumours And Tumour-Like Lesions | | | | | | NSAIDS II  (MOA & Adverse effects) | | | | Overview of Rheumatological diseases | | | | | | |
| **Batch A-H** | | **Batch I-P** | | | | | **Even hall 4** | | | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | | | | |
| Bone tumors  Dr Unaiza | | Case Scenario RA, GA, OA Dr. Saba  Dr. Zaheer  Dr. Sadia | | | | | Prof Mobina | | | | Dr Mudassira | | Dr. Attiya | | Dr. Haseeba | | Dr Shamaila Mumtaz | | Dr Faran Maqbool | | | | |
| **Saturday**  **15-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | | **10:30AM – 11:15AM** | | | | **BREAK**  **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | | | **12:30PM – 01:15PM** | | | | | **01:15PM – 02:00PM** | |
| **SGIS / SKILL LAB** | | | | | | | **Surgery LGIS** | | | | | | **Pathology LGIS** | | | | **Pharmacology LGIS** | | | | | Medicine **LGIS** | | | Pathology CBL | | | |
| Pathology/Pharmacology | | | | | | | Surgical Intervention of bone tumours | | | | | | Inflammatory & Degenerative Joint Diseases | | | | Anti-Rheumatics | | | | | Osteoarthritis | | | Arthritis | | | |
| **Batch A-H** | **Batch I-P** | | | | | | **Even hall 4** | | **Odd hall 5** | | | | **Even hall 4** | | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | | | **Even hall 4** | | **Odd hall 5** | **Even hall 4 3** | | **Odd hall 5 6** | |
| Case Scenario RA, GA, OA Dr. Saba  Dr. Zaheer  Dr. Sadia | Bone tumors  Dr Unaiza | | | | | | Dr Muhammad Hassan | | Dr Obaid ur Rahman | | | | Dr Fatima | | | Dr Kiran | Dr. Attiya | | Dr. Zunera | | | Dr Shamaila Mumtaz | | Dr Faran Maqbool | Dr Iqbal Haider  Dr Ayesha | | Dr Mahjabeen Dr Shabih | |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4TH YEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (6TH WEEK)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **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**  **17-11-25** | **Pharmacology LGIS** | | | | | | | **Pediatrics 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.** | | | | | | | | | | | | | | | |
| Drugs used in Gout | | | | | | | Muscular Dystrophy | | | | | |
| **Odd /Lec hall 1** | | | | | | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | | | | |
| Dr. Zaheer | | | | | | Dr. Zunera | Dr. Sheheryar | Dr. Bushra | | | | |
| **Tuesday**  **18-11-25** | **Pathology LGIS** | | | | | | | **Pharmacology LGIS** | | | | | |
| Diseases of skeletal muscles & myopathies | | | | | | | Skeletal Muscle Relaxants (Classifications) | | | | | |
| **Odd /Lec hall 1** | | | **Even/lec hall 2** | | | | **Odd /Lec hall 1** | | | | | **Even/lec hall 2** |
| Dr Fatima | | | Dr Sara | | | | Dr. Zunera | | | | | Dr. Uzma |
| **Wednesday**  **19-11-25** | **Pharmacology LGIS** | | | | | | | **Pathology CBL** | | | | | |
| Skeletal Muscle Relaxants (Mechanism of Action & adverse effects | | | | | | | Tumours Of Adipose Tissue | | | | | |
| **Odd /Lec hall 1** | | | | **Even/lec hall 2** | | | **Odd /Lec hall 1** | | | **Even/lec hall 2** | | |
| Dr. Zunera | | | | Dr. Uzma | | | Dr. Iqbal Haider, Dr .Nida, | | | Dr Unaiza, Dr. Faiza | | |
| **Thursday**  **20-11-25** | **Pathology CBL** | | | | | | | **Pharmacology LGIS** | | | | | |
| Soft Tissue Tumors | | | | | | | Opioid Analgesic I | | | | | |
| **Odd /Lec hall 1** | | | | | **Even/lec hall 2** | | **Odd /Lec hall 1** | | | | **Even/lec hall 2** | |
| Dr Unaiza Dr Nida | | | | | Dr Faiza Dr Ayesha | | Dr. Zunera | | | | Dr. Attiya | |
| **Friday**  **21-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | | **10:30AM – 11:15AM** | | | | **11:15AM – 12:00PM** | | | | | | |  | | | | | |
| **SGIS / SKILL LAB** | | | | | | | **Pharmacology LGIS** | | | | | | **Bioethics LGIS** | | | | **Pharmacology CBL** | | | | | | |
| Pathology/Pharmacology | | | | | | | Opioid Analgesics II | | | | | |  | | | | Case scenario on Nicotine & Opioid poisoning | | | | | | |
| **Batch A-H** | | **Batch I-P** | | | | | **Even hall 4** | | | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | | **Even hall 4** | | **Odd hall 5** | | | | |
| Case Scenario of myasthenia gravis Dr. Aisha Dr. Memuna Dr. Sohail | | Tumors of skin  Dr Shabih | | | | | Dr. Attiya | | | | Dr. Zunera | |  | |  | | Dr. Memuna  Dr. Sadia | | Dr. Zaheer  Dr. Saba | | | | |
| **Saturday**  **22-11-25** | **08:00AM – 09:45AM** | | | | | | | **09:45AM – 10:30** | | | | | | **10:30AM – 11:15AM** | | | | **BREAK**  **11:15AM – 11:45AM** | **11:45AM – 12:30PM** | | | | **12:30PM – 01:15PM** | | | | | **01:15PM – 02:00PM** | |
| **SGIS / SKILL LAB** | | | | | | | **Pharmacology LGIS** | | | | | | **Dermatology LGIS** | | | | **Pharmacology LGIS** | | | | | **Pathology LGIS** | | | **Pathology LGIS** | | | |
| Pathology/Pharmacology | | | | | | | Opioid Analgesics III | | | | | | An approach to a patient with Lichen planus | | | | Local Anesthetics I | | | | | Tumours of skin | | | Dermatosis & Infections of Skin | | | |
| **Batch A-H** | **Batch I-P** | | | | | | **Even hall 4** | | **Odd hall 5** | | | | **Even hall 4** | | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | | | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | |
| Tumors of skin Dr Shabih | Case Scenario of myasthenia gravis Dr. Aisha Dr. Memuna Dr. Sohail | | | | | | Dr. Attiya | | Dr. Zunera | | | | Dr. Shawana Sharif | | |  | Dr. Memuna | | Dr. Attiya | | | Dr Sara | | Dr Mehreen | Dr Fatima | | Dr Kiran | |

**Rawalpindi medical University Rawalpindi**

## TIMETABLE 4TH YEAR MBBS-CNS & PSYCHIATRY MODULE 2025 (7TH WEEK)

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| **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**  **24-11-25** | **Pharmacology LGIS** | | | | | | **C. 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.** | | | | | | | | | | | | | | | |
| Local Anesthetics II | | | | | | Biomedical ethics | | | | |
| **Odd /Lec hall 1** | | | | | **Even/lec hall 2** | **Odd /Lec hall 1** | **Even/lec hall 2** | | | |
| Dr. Attiya | | | | | Dr. Memuna | Dr. Imrana | Dr. Maria | | | |
| **Tuesday**  **25-11-25** | **END OF BLOCK EXAM** | | | | | | | | | | |
| **Wednesday**  **26-11-25** |  | | | | | |  | | | | |
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| **Thursday**  **27-11-25** |  | | | | | |  | | | | |
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| **Friday**  **28-11-25** | **08:00AM – 09:45AM** | | | | | | **09:45AM – 10:30** | | | | | **10:30AM – 11:15AM** | | | | **11:15AM – 12:00PM** | | | | | | |  | | | | | |
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| **Saturday**  **29-11-25** |  | | | | | |  | | | | |  | | | |  |  | | | |  | | | | | **01:15PM – 02:00PM** | |
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|  |  | | | | |  | |  | | |  | | |  |  | |  | | | **Even hall 4** | | **Odd hall 5** | **Even hall 4** | | **Odd hall 5** | |
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**Distribution of Teaching Hours of Disciplines**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SR**  **No.** | **Disciplines** | **LGIS** | **SGD** | **CBL** | **SDL** | **Skill Lab** | **PAL** | **Hours** |
|  | Community Medicine | 12 | 8 | - | 6 | - |  | 26 |
|  | Pathology | 10 | 1 | 4 | 6 | 8 |  | 29 |
|  | Pharmacology | 28 | - | 6 | 5 | 8 |  | 47 |
|  | Medicine | 7 |  |  |  |  |  | 7 |
|  | Pead’s | 5 |  |  |  |  |  | 5 |
|  | Neurosurgery Surgery | 4 |  |  |  |  |  | 4 |
|  | Psychiatry | 4 |  |  |  |  |  | 4 |
|  | Orthopedics | 2 |  |  |  |  |  | 2 |
|  | Anesthesia | 2 |  |  |  |  |  | 2 |
|  | Dermatology | 1 |  |  |  |  |  | 1 |
|  | Family medicine | 2 |  |  |  |  |  | 2 |
|  | Quran Class | 2 |  |  |  |  |  | 2 |
|  | Bioethics | 2 |  |  |  |  |  | 2 |
|  | Total | 81 | 9 | 10 | 17 | 16 | - | 133 |

**PRACTICAL AND CLERKSHIP HOURS**

|  |  |
| --- | --- |
| **Disciplines** | **Practical hours** |
| Pharmacology | 2x4= 8 |
| Pathology | 2x4 =8 |
| Forensic Medicine | 2x4 = 8 |

* 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.

# Community Oriented Clerkship Module (annex I)

**Theme (AIM):**

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

### LEARNING OUTCOMES (LOS):

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

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

### MODULE OUTLINE:

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

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

### SOPS OF LEARNING & ASSESSMENTS:

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

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Da y** | **Activity -I**  **10.30 –**  **11.00** | **Activity – II 11.00-**  **11.30am** | **Activity III 11.30- 01.00pm** | **Act-V**  **01.00 – 2.00pm** | **Sites of teaching- learning** | **Assessment** | **Session outcome (level of learning)** |
|  | Session topic | Session topic | Session topic | Session topic |
| 1st day | instructing / demonstrati on on  Practical Manual based Assignment s | Visit to CHC   * SGIS on Health days commemor ation work, Display material, PPT. | * SGIS on HMDTD   practicum. Topic finalization, CHC-  Message draft outlines finalization. | * PPT based Demo on   How to conduct & report HHS.   * Guidelines on PHI work to be done during clinical rotations / ward   duties | * Demonstration on n / lec Hall 3 * CHC -   Dept. CM NTB RMU. | * 1-2 OSPE in end of clerkship exam (credit will   part of IA)   * Assessment of HHS -   Report (Max marks:5 part practical  /viva exam  4th | * Construct a health message. (C6) * Prepare Health days commemoration stuff, Display material, PPT, (P) * Undertake a health survey. (HHS) (C3) |
|  |  | Prof MBBS) |

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|  | Follow up session on.  - HM-DTD  work - HHS work - health days commemorat  ion work | SGIS/  Briefing / PPT based guidelines on field visit of the day ( EPI services center HFH) | FV to the EPI center HFH | Health awareness work (HAW) | * Demo Room, * EPI   Center HFH   * OPD,   hospital shelters sites for health awareness work (HAW) | * 1-2 OSPE in end of clerkship exam (credit will part of IA) * Grade of performance in EPI visit reporting. * Credit of HAW | * Explain cold chain component at EPI center * Vaccinate (EPI) vaccines to the clients. * Comprehend EPI system |
|  | Follow up session on  HM- DTD  work & HHS | SGIS /  Briefing / PPT based guidelines on FV to MCH & FP  Services Center HFH | FV to the MCH  services & FP center HFH | Health awareness work (HAW) | * FP Center HFH * OPD,   hospital shelters sites for  HAW | * 1-2 OSPE in end of   clerkship exam (credit will part of IA)   * Grade of performance in EPI visit reporting. * Credit of HAW | * Identify CP devices available at MHC FP center * Counsel clients for use of a contraception method * Place CP devices to client (P) |
|  | Follow up session on  HM- DTD  work & HHS | Briefing / guidelines on FV Hospital waste disposal system in hospitals | * FV to the hospital waste disposal system & relevant sites /   Incinerator | Health awareness work (HAW) | * FP Center HFH   OPD, hospital shelters sites for HAW | * End of module OSPE * Grade of performance in visits to sites | * Explain hospital waste disposal system * Develop a hospital waste management plan * Explains various domains of hospital management (C2) |

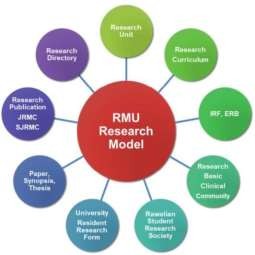
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|  | SGIS / PPT  based briefing on Hospital management & administration on | Visit to Hospital management & administration (HFH) office | Health awareness work (HAW | | HHF | * End of module OSPE * Grade of performance in visits to sites |  |
|  | SGIS / PPT  based briefing on visit to First level of health care facility (FLCF) BHU/RHC | Field visit to RHC  Khayaban Sir-Syed (RHC) or BHU | * Demo room / lec Hall 3 NTB / CPC-   Hall.   * RHC / BHU | | Health awareness work (HAW at site visited | * End of module OSPE * Report credit in PJ | * Explain working of FLCF * Appreciate PHC elements at FLCF. (C2) |
|  | Health days commemoration  (walk/ seminar/ presentation/ CHC-message dissemination work  (10.30 – 12.00pm) | | | 12.00 – 2.00pm   * Completion & assessment of relevant Practical Journal work, * HHS-report book, * Logbook etc. * Feedback discussion on PHI | | * Communication skills * Comprehend frequency Preventable RFs of NCDs in the real population (RF surveillance) * Undertake a preventive Healthcare inquiry | |

**Note:**

1. Colander schedule of each batch will be noticed by the Department of community Medicine prior to the commencement of the batch rotation.
2. Students will have to record all activities of the clerkship in the relevant Logbook accordingly. Students will keep logbook updated and duly signed by faculties & departments.

# 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.