



# **Jinnah Medical & Dental College**

## **Study Guide**

### **Medicine**



**MBBS  
2021**

*A wise man should  
consider that  
health is the  
greatest of human  
blessings*

**HIPPOCRATES**

## Team Members of Medicine & Allied 2021

<b>Name</b>	<b>Committee</b>	<b>Department</b>
Prof. Muhammad Ishaq Ghauri Professor/HOD	Member	Medicine
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## Abbreviations

EOM	End of Module
WT	Ward Test
R	Rotation
LGIS	Large group Interactive session
CBD	Case Based Discussion
OPD	Out Patient Department
K	Knowledge
S	Skill
A	Attitude
MCQ	Multiple Choice Question
OSCE	Objective Structured Clinical Examination
Mini CEX	Mini Clinical Evaluation Exercises
DOPS	Direct Observation of Procedural Skills



## JMDC CURRICULUM FRAMEWORK: MBBS 1-5 YEARS

Year	Module 1	EOM	Module 2	EOM	Module 3	EOM	Module 4	EOM	Module 5	EOM	Module 6	EOM* End of Exam				
1	Foundation-1 8 weeks		Blood-1 4 weeks		Locomotor-1 8 weeks		Respiratory-1 4 weeks		CVS-1 4 weeks		GIT-1 4 weeks					
Clinical Rotations (Each Batch)      WT* = Ward test																
2	Module 7	EOM	Module 8	EOM	Module 9	EOM	Module 10	EOM	Module 11	EOM	Module 12	EOM				
	Head & Neck-1 5 weeks		Neurosciences-1 7 weeks		Special Senses 3 weeks		Endocrine-1 5 weeks		Reproductive-1 4 weeks		Urinary-1 5 weeks					
Clinical Rotations (Each Batch)      WT* = Ward test																
3	Module 13	EOM	Module 14	EOM	Module 15	EOM	Module 16	EOM	Module 17	EOM	Module 18	EOM				
	Foundation 2 10 weeks		Blood-2 5 weeks		Locomotor-2 4 weeks		Respiratory-2 4 weeks		CVS-2 5 weeks		GIT-2 7 weeks					
Clinical Rotations (Each Batch)      WT* = Ward test																
R1	Medicine 2 weeks	WT	Psychiatry 2 weeks	WT	Surgery 2 weeks	WT	Orthopedics 2 weeks	WT	OBS/ GYN 2 weeks	WT	Pediatrics 2 weeks	WT	Eye 2 weeks	WT	Ent 3 weeks	WT
R2	Medicine 2 weeks		Psychiatry 2 weeks		Surgery 2 weeks		Orthopedics 2 weeks		OBS/ GYN 2 weeks		Pediatrics 2 weeks		Eye 2 weeks		Ent 3 weeks	
Clinical Rotations (Each Batch)      WT* = Ward test																
4	Module 19	EOM	Module 20	EOM	Module 21	EOM	Module 22	EOM	Module 23	EOM	Module 24	EOM	Lectures			
	Orthopedics 7 weeks		Reproductive-2 7 weeks		Neuroscience-2 9 weeks		Genetics 1 week		Dermatology 2 weeks		Rehabilitation 2 weeks		ENT/ EYE			
Clinical Rotations (Each Batch)      WT* = Ward test																
R1	Medicine 3 weeks	WT	Psychiatry 3 weeks	WT	Surgery 3 weeks	WT	Orthopedics 3 weeks	WT	OBS/ GYN 3 weeks	WT	Pediatrics 3 weeks	WT	Eye 3 weeks	WT	Ent 3 weeks	WT
R2	Medicine 3 weeks	WT			Surgery 3 weeks	WT			Eye 3 weeks	WT			Ent 3 weeks			WT
LECTURES      R***= Rotation																
5	Medicine				Surgery				OBS/Gynae				Pediatrics			
Clinical Rotations																
R1	Medicine 4 weeks				Surgery 4 weeks				OBS/ GYN 4 weeks				Pediatrics 4 weeks			
R2	Medicine 5 weeks				Surgery 5 weeks				OBS/ GYN 5 weeks				Pediatrics 5 weeks			

Final Exam

## **Introduction**

A very warm welcome to medical students in the Medicine posting. Medicine is a combination of both basic and applied under the umbrella of medical science. It is the science and practice of caring for a patient, managing the diagnosis, prognosis, prevention, treatment, palliation of adult diseases. Medical availability and clinical practices vary across the world due to regional differences in culture and technology. Training in medicine varies considerably across the world due to regional differences in culture and technology. Disease outbreaks is a great challenge in our developing country Pakistan. Lack of basic facilities, insufficient health policies, weak governance, an indifferent attitude of the public towards general protective measures further worsen the scenario.

This study guide had been developed to impart integrated teaching as a part of curriculum in Jinnah Medical and Dental College, Karachi. It will be covered in 3 years. This will benefit the students to understand the basic biomedical information in relation to clinical sciences. This study guide had been designed to introduce new entrants to the MBBS program basic concepts essential for understanding a number of topics in Medicine subject. It encompasses a variety of health care practices evolved to maintain and resolve health by the prevention and treatment of illness. Hence, it provides a framework within which learners are expected to build future competencies.

## **Rationale**

The clinical posting of Medicine specialty is designed to focus on prevention, diagnosis and treatment of adult diseases.

## **Vision**

To set local and global standards for quality patient outcomes – creating a culture of excellence to promote a transformative experience for the 21<sup>st</sup> century clinicians, educators and researchers to benefit all humanity.

## **Mission Statement**

We are committed to develop well-rounded academics, thinkers, clinicians and researchers by strengthening a global view, broadening intellectual foundation and teaching effective communication. It is our aspiration to cultivate creative and critical thinking skills for problem solving, sensitive to cultural and ethical values and responsibilities. Our graduates will be role models and leaders for society.

## **General Learning Objectives**

By the end of the Medicine posting, students will be able to:

1. Take proper history and perform Physical examinations of all the systems
2. Perform detail examination of Gastrointestinal Tract, Respiratory system, cardiovascular system and Thyroid.
3. Perform detail examination of Central Nervous system and discuss diseases regarding central nervous system
4. Discuss the illnesses regarding Psychiatry
5. Describe diseases of Gastrointestinal diseases
6. Explain the illnesses of Lung diseases
7. Discuss Rheumatology
8. Portray detail of the Blood disorders
9. Explain the Renal disorders
10. Depict the diseases regarding Endocrine disorders
11. Discuss infectious disorders
12. Describe Genetic disorders
13. Identify and discuss the features of Nutritional diseases



## **MAIN CONTENT AREAS**

### **3<sup>rd</sup> year**

1. History taking
2. General Physical examination
3. Gastrointestinal examination
4. Respiratory examination
5. Cardiovascular examination
6. Thyroid examination
7. Interpretation of basic findings in CBC. LFT, TFT, ABGS, PFTS
8. Basic findings in chest X ray
9. Basic findings in ECG

### **4<sup>th</sup> year (Neurosciences II & Psychiatry)**

1. Neurology
2. Psychiatry
3. Dermatology
4. Orthopedic/musculoskeletal
5. Rehabilitation

### **5<sup>th</sup> year**

1. Neurological disorders
2. Gastrointestinal disorders
3. Rheumatological disorders
4. Pulmonological disorders
5. Hematological disorders
6. Cardiovascular disorders
7. Renal disorders
8. Endocrine disorders
9. Infectious disease
10. Genetic disorders
11. Environmental diseases
12. Nutritional diseases
13. Poisoning and Envenomation

## **Competencies assessed in this module**

Knowledge

Skill

Attitude

## **Teaching / Learning Methods**

The teaching /learning sessions in medicine from 3<sup>rd</sup> year to final year will be of diverse types:

- a. Large group interactive sessions (LGIS)
- b. Small group teaching will include tutorials, case – based learning session.
- c. Problem – based learning sessions.
- d. Bedside Teaching in Clinical rotations at STH and MCGH
- e. Skill laboratories,
- f. Seminars: on different topics, in which students will make oral presentations on different aspects of the allocated topic.
- g. Self-directed learning sessions: This is the time during which students are expected to revise what they have learnt in the class, clear their concepts by consulting different textbooks, reference material and prepare their assignments and projects.

## Students Assessment

- For 3<sup>rd</sup> and 4<sup>th</sup> year, there will be ward test at the end of each clinical rotation as well as there will be End of module examination comprising of MCQ and 10 OSCE stations.

### Summary of marks of each module exam

**Theory (BCQs) = 100 marks**

**OSCE (10 stations) = 100 marks**

**Total =200 marks**

- For final year there is continuous assessment of students throughout the year in the form of **Mini CEX** (Mini Clinical Evaluation Exercise) and **DOPS** (Direct Observation of Procedural Skill).4 to 6 sessions for each of the student. In addition, there will be an examination at the end of ward rotation clinical rotation in medicine ward which will comprise the following components: -

#### **i. Written Assessment**

The theory paper will have components of one – best type multiple – choice questions (MCQs).

#### **ii. OSCE examination:**

This will comprise Objective Structured Practical Examination (OSCE). The OSCE will have both observed and non-observed stations. The end of rotation written exam will be of 2 hours duration.

Moreover, there will also midterm and pre-professional examination comprising of 100 BCQ and 10-12 OSCE stations (both observed and unobserved)

**Internal Assessment:**

- Continuous monitoring of attendance and practical assessment in short groups.
- It may be in the form of MCQs and OSCE.
- Internal assessment carries 20% weightage

**Course Evaluation:**

Course evaluation will be obtained through a feedback form which will be posted on the JMDC website

**Mandatory Policy:****Eligibility for sitting in Professional Examinations is as follows:**

- 75% overall Class Attendance
- 75% Attendance all Clinical Wards with passing marks in all Clinical Ward Tests.
- Minimum 40% aggregate marks on all Internal Examinations (Module Tests, Midterm, Pre-Professional Examinations)
- MBBS 4<sup>th</sup>& Final Year: CPC Presentation at least once in a year
- Skills Labs: Must be completed with passing marks

**Failure to Meet the Eligibility Requirements:**

- A Student failing to meet the above listed eligibility for sitting in the professional examination will NOT be allowed to sit in first attempt of the Professional Examination. The college has the right to withhold all students who however, not met the eligibility requirements from sitting in the first attempt.
- Such students who have been withheld from sitting in the first attempt of the Professional exam because of failure to meet the eligibility requirements will be allowed only to sit in the retake of that examination.  
It is expected that deficiency in requirements of Professional communication assignments, Behavioral Sciences & Research Module assessments, journal Club presentations, CPC,

Skills Labs must be made up and fulfilled before a student will allowed sitting in the retake exam.

### **Details of ATTENDANCE POLICY**

The CR is responsible to bring attendance sheets from Student Affairs Office to each class. At the end of class, the attendance sheet must be signed and returned by the faculty member to the Student Affairs Office. No attendance sheets from students will be accepted.

These attendances will be compiled together as follows:

**LECTURE ATTENDANCE** = # Lectures Attended / Total # of Lectures

**PRACTICAL ATTENDANCE** = # Practical's Attended / Total # of Practicals

**TUTORIAL ATTENDANCE** = # Tutorials Attended / Total # of Tutorials

**FINAL CLASS ATTENDANCE =**

**%Lecture Attendance + %Tutorial Attendance + %Practical Attendance**

# Recommended Reading Material

## GENERAL MEDICINE

Text books:

- Davidson's Principles and Practice of Medicine
- Kumar and Clark's Clinical Medicine.
- MacLeod's clinical examination 13<sup>th</sup> edition
- Bedside techniques of clinical examination edition 4

## PSYCHIATRY

- Oxford textbook of psychiatry by Michael G. Gelder, 2nd Edition

Additional learning resources

- <https://www.medscape.com>
- <https://www.uptodate.com/login>

## Organization

### Time requirements:

- General Medicine =
    - 3<sup>rd</sup> year = 288 hours
    - 4<sup>th</sup> year = 350 hours
    - 5<sup>th</sup> year = 614 hours
  - Psychiatry = 305 hours
  - Emergency Medicine = 108 hours
  - Dermatology = 85 hours
  - Cardiology = 128 hours
  - Pulmonology = 123 hours
- **= 2,001 Hours**

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**Total = 2,001** Dedicated hours

**3<sup>rd</sup> year**

**Clinical Rotations**



Sr. No.	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of the clinical rotation the students will be able to:			
<b>Foundation module</b>				
1.	<ul style="list-style-type: none"> <li>Take proper history <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>History taking</li> </ul>	Bedside teaching 1hour	OSCE
2.	<ul style="list-style-type: none"> <li>Perform General physical examination <b>(S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>General physical Examination</li> </ul>	Bedside teaching 1hour	OSCE
<b>GIT module</b>				
3.	<ul style="list-style-type: none"> <li>Interpret Liver function tests <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Liver function tests</li> </ul>	Demonstrations 1 hour	OSCE
4.	<ul style="list-style-type: none"> <li>Identify, explain indications, contra-indication, and complications of NG tube. <b>(K) (S)</b></li> </ul>	<ul style="list-style-type: none"> <li>Nasogastric tube</li> </ul>	Demonstrations 1 hour  (simulators)	OSCE
5.	<ul style="list-style-type: none"> <li>Interpret Ascitic fluid report <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Interpretation of Ascitic fluid report</li> </ul>	Bedside teaching 1 hour	MCQs
<b>Respiratory module</b>				
6.	<ul style="list-style-type: none"> <li>Perform respiratory examination <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>Respiratory examination</li> </ul>	Bedside teaching + Demonstrations 1 hour	OSCE
7.	<ul style="list-style-type: none"> <li>Interpret basic finding in Chest radiograph <b>(K) (S)</b></li> </ul>	<ul style="list-style-type: none"> <li>X ray chest</li> </ul>	Demonstrations 1 hour	OSCE
8.	<ul style="list-style-type: none"> <li>Depict basic knowledge of Lung function test/inhalers and knowledge proper inhaler's techniques <b>(K) (S)</b></li> </ul>	<ul style="list-style-type: none"> <li>Peak Flow Tests and Inhalers</li> </ul>	Demonstrations 1 hour	OSCE
9.	<ul style="list-style-type: none"> <li>Portray basic knowledge of ABGs <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>ABG Interpretation</li> </ul>	Demonstrations 1 hour	OSCE

<b>CVS module</b>				
10.	<ul style="list-style-type: none"> <li>Perform Cardiovascular examination <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>Cardiovascular examination</li> </ul>	Bedside teaching + Demonstrations 1 hour	OSCE
11.	<ul style="list-style-type: none"> <li>Interpret basic ECG <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Electrocardiographs</li> </ul>	Demonstrations 1 hour	OSCE
<b>Locomotor module</b>				
12.	<ul style="list-style-type: none"> <li>Perform basic joints examination <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>Joint examination</li> </ul>	Bedside teaching + Demonstrations 1 hour	OSCE
<b>Blood module</b>				
13.	<ul style="list-style-type: none"> <li>Interpret CBC <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Complete blood count</li> </ul>	Demonstrations 1 hour	OSCE
<b>Endocrine module</b>				
14.	<ul style="list-style-type: none"> <li>Perform thyroid examination <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>Thyroid examination</li> </ul>	Bedside teaching + Demonstrations 1 hour	OSCE
15.	<ul style="list-style-type: none"> <li>Interpret TFT <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Thyroid Function tests</li> </ul>	Demonstrations 1 hour	OSCE

**4<sup>th</sup> year**  
**Lectures**  
**&**  
**Clinical Rotations**

# NEUROLOGY

Sr. No.	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of this module the students will be able to:			
1.	<ul style="list-style-type: none"> <li>List various neuro imaging techniques</li> <li>List uses of various neurophysiological investigations (EMGs, NCS, EEG)</li> <li>Discuss the indications, contra-indications and process for lumbar puncture</li> <li>Interpret CSF reports of common conditions <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>Investigation of neurological disorder</li> </ul>	LGIS 50mins + Bedside/ CBD 1 hour + Clinical skills	MCQs/ OSPE
2.	<ul style="list-style-type: none"> <li>Perform CNS examination with proper steps on simulated patient. <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>CNS Examination</li> </ul>	LGIS 50mins + Clinical skills	OSPE
3.	<ul style="list-style-type: none"> <li>Localize the likely site or sites in the nervous system where a lesion could produce patient's symptoms and signs</li> <li>List the differential diagnosis based on detailed history/ clinical presentation and complete examination findings. <b>(K) (S)</b></li> </ul>	<ul style="list-style-type: none"> <li>Lesion localization</li> </ul>	LGIS 50mins + Bedside Teaching 1 hour	MCQs
4.	<ul style="list-style-type: none"> <li>List the causes of cranial nerve pathologies</li> <li>Diagnose common cranial nerve lesions that would explain losses of function in the cranial nerves</li> <li>Relate cranial nerve deficits to damage of adjacent, unrelated structures <b>(K), (S)</b></li> </ul>	<ul style="list-style-type: none"> <li>Lesion of cranial nerve.</li> </ul>	LGIS 50mins	MCQs/ OSCE
5.	<ul style="list-style-type: none"> <li>Discuss pathophysiology of coma &amp; altered mental status</li> <li>Assign Glasgow Coma Scale score to a given case scenario</li> <li>Discuss assessment findings associated with coma &amp; altered mental status</li> <li>Discuss management of coma &amp; altered mental status <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Approach to coma</li> </ul>	LGIS 50mins	MCQ

6.	<ul style="list-style-type: none"> <li>Define primary headache syndrome</li> <li>Classify headaches</li> <li>Describe the process of history taking of a patient with headache</li> <li>Diagnose migraine and tension headache based on written data provided</li> <li>Discuss management plans for migraine, tension headache and cluster headache</li> </ul> <p><b>(K) (S) (A)</b></p>	<ul style="list-style-type: none"> <li>Approach to headache &amp; Primary headaches</li> </ul>	<p>LGIS 50mins + Bedside teaching/CBD 1 hour</p>	<p>MCQs/ OSCE</p>
7	<ul style="list-style-type: none"> <li>Discuss differential diagnosis and appropriate diagnostic evaluation for common causes of Secondary headaches</li> <li>List the Red flag signs of secondary headache</li> <li>Describe the classic presentations of trigeminal neuralgia</li> <li>Differentiate between common clinical findings seen in trigeminal neuralgia and other facial pain syndromes</li> </ul> <p><b>(K) (S) (A)</b></p>	<ul style="list-style-type: none"> <li>Secondary headaches</li> </ul>	<p>LGIS 50mins + Bedside teaching/CBD 1 hour</p>	<p>MCQs/ OSCE</p>
8	<ul style="list-style-type: none"> <li>Define epilepsy &amp; status epilepticus</li> <li>Discuss pathophysiology of seizures</li> <li>Classify epilepsy</li> <li>Classify types of seizures clinically</li> <li>List most common causes of seizures</li> <li>Discuss pharmacological treatment of epilepsy</li> <li>Discuss management of status epilepticus</li> </ul> <p><b>(K) (S) (A)</b></p>	<ul style="list-style-type: none"> <li>Epilepsy and status epilepticus</li> </ul>	<p>LGIS 50mins + Bedside teaching/CBD 1 hour</p>	<p>MCQs/ OSCE</p>
9	<ul style="list-style-type: none"> <li>Define the terms stroke/ Cerebrovascular Accidents (CVA) &amp; Transient Ischemic Attack (TIA)</li> <li>Describe causes of stroke</li> <li>Distinguish ischemic stroke (cerebral infarct) from hemorrhagic stroke (intracerebral hemorrhage) in terms of etiology and pathology</li> <li>Discuss assessment findings associated with stroke, TIA</li> <li>Identify the signs &amp; symptoms related to TIA</li> </ul> <p><b>(K) (S) (A)</b></p>	<ul style="list-style-type: none"> <li>Cerebrovascular Accidents - (Stroke)</li> </ul>	<p>LGIS 50mins + Bedside teaching/CBD 1 hour</p>	<p>MCQs/ OSCE</p>
10.	<ul style="list-style-type: none"> <li>Differentiate b/w acute and chronic CNS infections based on data provided</li> <li>Describe the clinical features &amp; investigations of acute CNS infections</li> <li>Summarize the characteristics of the causative organisms</li> </ul>	<ul style="list-style-type: none"> <li>Acute CNS infections</li> </ul>	<p>LGIS 50mins + Bedside teaching/CBD 1 hour</p>	<p>MCQs/ OSPE</p>

	<ul style="list-style-type: none"> <li>Interpret the CSF studies in a patient with acute CNS infection</li> <li>Describe the possible complications of acute CNS infection if left untreated</li> <li>Explain the treatment plan for acute CNS infections</li> </ul> <p>chronic CNS infections <b>(K) (S)</b></p>			
11.	<ul style="list-style-type: none"> <li>Discuss clinical presentation of CNS TB and CNS fungal infections</li> <li>Discuss the management &amp; complications of Chronic CNS infection</li> <li>Interpret the CSF studies in a patient CNS infection</li> </ul> <p><b>(K)</b></p>	<ul style="list-style-type: none"> <li>Chronic CNS infections</li> </ul>	LGIS 50mins	MCQs
12	<ul style="list-style-type: none"> <li>Describe the presentation of a patient with movement disorders</li> <li>Discuss the pathogenesis and clinical features of Parkinson's disease (PD)</li> <li>Discuss approach to a patient with PD</li> <li>Summarize the differential diagnosis of Parkinson's disease</li> <li>Outline the principles of drug management of Parkinson's disease</li> <li>Discuss the clinical presentation and treatment of Wilson's disease.</li> </ul> <p><b>(K)</b></p>	<ul style="list-style-type: none"> <li>Approaches to movement disorders</li> </ul>	LGIS 50mins + Bedside teaching + CBD 1 hour	MCQs/OSCE
13	<ul style="list-style-type: none"> <li>Classify neuropathies</li> <li>Discuss the pathogenesis and clinical features of neuropathies and GBs</li> <li>Summarize the differential diagnosis of GBS</li> <li>Describe and interpret investigations relevant to neuropathies</li> <li>Outline management, complications and rehabilitation of Polyneuropathies/GBS</li> </ul> <p><b>(K)</b></p>	Neuropathies and GBS	LGIS 50mins	MCQ
14	<ul style="list-style-type: none"> <li>Discuss the pathogenesis and clinical features of neuropathies and GBs</li> <li>Summarize the differential diagnosis of myasthenia gravis</li> <li>Describe and interpret investigations relevant to myasthenia</li> <li>Outline management, complications and rehabilitation of myasthenia gravis</li> </ul> <p><b>(K)</b></p>	<ul style="list-style-type: none"> <li>Myasthenia gravis</li> </ul>	LGIS 50mins	MCQ
15	<ul style="list-style-type: none"> <li>Discuss Types of demyelinating disorders</li> <li>Describe the pathogenesis and clinical features of multiple sclerosis</li> </ul>	<ul style="list-style-type: none"> <li>Demyelinating disorders and multiple sclerosis</li> </ul>	LGIS 50mins + CBD 1 hour	MCQ

	<ul style="list-style-type: none"> <li>Summarize the differential diagnosis of multiple sclerosis</li> <li>Describe and interpret investigations relevant to multiple sclerosis</li> <li>Outline management, complications and rehabilitation of multiple sclerosis <b>(K)</b></li> </ul>			
16	<ul style="list-style-type: none"> <li>Discuss Types of motor neuron disease</li> <li>Describe the pathogenesis and clinical features of motor neuron disease</li> <li>Summarize the differential diagnosis of motor neuron disease</li> <li>Describe and interpret investigations relevant to motor neuron disease</li> <li>Outline management, complications and rehabilitation and prognosis of MND <b>(K) (S) (A)</b></li> </ul>	<ul style="list-style-type: none"> <li>Motor neuron disease</li> </ul>	LGIS 50mins + Bedside teaching 1 hour + CBD 1 hour	MCQ/OSCE
17	<ul style="list-style-type: none"> <li>Discuss the definitions of delirium and dementia</li> <li>Discuss causes of delirium and dementia</li> <li>Describe the pathogenesis and clinical features of delirium and dementia</li> <li>Describe and interpret investigations relevant to delirium/dementia</li> <li>Outline management, complications and rehabilitation and prognosis of dementia <b>(K)</b></li> </ul>	<ul style="list-style-type: none"> <li>Dementia and delirium</li> </ul>	LGIS 50mins	MCQ

# PSYCHIATRY

Sr. No	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of the clinical rotation the students will be able to:			
1.	<ul style="list-style-type: none"> <li>• Define the Concept of Health, and Mental health</li> <li>• Describe Positive Mental Health</li> <li>• Differentiate between Psychiatry and Psychology</li> </ul> <p style="text-align: center;"><b>(K)</b></p>	<b>Introduction to Mental Health</b>	LGIS 50mins	MCQs
2.	<ul style="list-style-type: none"> <li>• Define Role of biological, physiological and social factors in custom continuation and healing of illness</li> <li>• Discuss the management of illness</li> <li>• List the role of personality, attitudes, and attributes, impact of family society, social factors and cultures on the etiology presentation and the management of illness</li> </ul> <p style="text-align: center;"><b>(K)</b></p>	<b>Biopsychic social model &amp; non-pharmacological intervention</b>	LGIS 50mins	MCQs



3	<ul style="list-style-type: none"> <li>Define counseling</li> <li>Discuss the attending and listening, verbal techniques and role of empathy in healing of illness</li> <li>Discuss the Role of counseling, informational care and handling difficult patients and their families</li> <li>Differentiate among counseling, psychotherapy and active listening</li> <li>Differentiate among various types of psychotherapies/ counseling</li> <li>Differentiate among empathy, sympathy and apathy</li> <li>Describe the prerequisites of counseling/ psychotherapy</li> <li>Differentiate between boundary and barrier</li> <li>Describe the basic rules of counseling</li> <li>Discuss the setting, rules and boundaries of counseling</li> <li>List some basics do's and don'ts of counseling</li> </ul> <p><b>(S)</b></p>	<b>Counseling &amp; Psychotherapy</b>	CBD 1 hour + LGIS 50mins	OSCE
4.	<ul style="list-style-type: none"> <li>List the Importance application of bio psycho-social model in communications in the patient and family</li> <li>Discuss the addressing and dealing the concerns and emotional reactions of patients</li> <li>Discuss different disclosure models of breaking bad news and management of the related issues, Introduction, types, etiology</li> </ul> <p><b>(S) (A)</b></p>	<b>Breaking bad news</b>	LGIS 50mins + Bedside Teaching 1 hour + CBD (1 hour)	OSCE
5.	<ul style="list-style-type: none"> <li>Define Normal and abnormal anxiety.</li> <li>Describe the Presentation of anxiety disorders</li> <li>Discuss the Different etiological theories.</li> <li>Distinguish the essential features of generalized anxiety disorder (GAD), panic attacks, and panic disorder, phobias (Specific, Agoraphobia and Social Phobia). Obsessive-compulsive disorder, acute stress reaction and post-traumatic stress disorder.</li> </ul> <p><b>(K)</b></p>	<b>Anxiety disorder-I</b>	LGIS 50mins + OPD Teaching + CBD (Bedside teaching (1 hour)	MCQs/OSCE

6.	<ul style="list-style-type: none"> <li>Differentiate points, diagnosis and management</li> <li>Discuss the clinical features and etiology of PTSD and Acute stress reaction</li> <li>Explain the causes of PTSD and Acute Stress Disorder</li> <li>Describe the management of these disorders</li> </ul> <p><b>(K)</b></p>	<b>Anxiety disorders-II</b>	LGIS 50mins + OPD Teaching + Bedside teaching 1 hour	MCQs/OSCE
7.	<ul style="list-style-type: none"> <li>Describe the diagnostic criteria for mood disorders (including depression and bipolar disorders)</li> <li>Identify common risk factors for mood disorders.</li> <li>Discuss the effective management of mood disorders</li> <li>Discuss about Self-harm, Suicide and its risk factors</li> </ul> <p><b>(K) (S) (A)</b></p>	<b>Depressive disorder</b>	LGIS 50mins + Bedside teaching + OPD Teaching) 1 hour	MCQs/ OSCE
8.	<ul style="list-style-type: none"> <li>Describe the diagnostic criteria, types of bipolar affective disorder</li> <li>Identify common risk factors, co-morbidities for bipolar affective disorder</li> <li>Discuss the effective management of bipolar affective disorder</li> </ul> <p><b>(K)</b></p>	<b>Bipolar effective disorders</b>	LGIS 50mins + Bedside teaching + OPD Teaching)	MCQs/ OSCE
9.	<ul style="list-style-type: none"> <li>Discuss the assessment of medically unexplained symptoms according to their severity</li> <li>Describe how to make a diagnosis when it is appropriate</li> <li>Manage these conditions appropriately including a stepped approach</li> <li>Diagnosing patients with fits / attack (Epilepsy vs Conversion disorder)</li> </ul> <p><b>(S) (A)</b></p>	<b>Somatic and Medically Unexplained Symptoms</b>	LGIS 50mins + Bedside Teaching 1hour + OPD Teaching 1 hour	OSCE
10.	<ul style="list-style-type: none"> <li>Describe the Concept of Psychosis, its presentation and prevalence of various psychotic disorders.</li> <li>Diagnose Acute Psychotic disorder, schizophrenia, Delusional disorder based on given criteria</li> <li>Discuss the principles of treatment of schizophrenia and other psychotic disorders.</li> <li>Describe the etiological factors and prevalence of this condition</li> </ul> <p><b>(K)</b></p>	<b>Schizophrenia and related disorders</b>	LGIS 50mins + Bedside Teaching 1 hour + OPD Teaching 1 hour	MCQs/ OSCE

11.	<ul style="list-style-type: none"> <li>• Define Addiction,</li> <li>• Discuss the behavioral issues with addiction</li> <li>• Differentiate among tolerance, use/ excessive use, abuse/misuse, dependence, excessive withdrawal and intoxication</li> <li>• List different drugs according to the classification.</li> <li>• Discuss briefly the effects on the body of alcohol and other illicit drugs (cannabis, opioids, cocaine, amphetamines and LSD)</li> <li>• Describe the modes of action of alcohol and other illicit drugs</li> <li>• Explain the psychological, emotional, physical and social insults of these drugs on humans</li> <li>• Describe delirium tremens</li> <li>• Describe the impact of suddenly stopping the use of addictive drugs</li> <li>• Discuss the difference of harm minimization and drug eradication</li> <li>• Discuss different types of psychosexual disorder</li> <li>• Discuss the characteristic features of various psychosexual disorders</li> <li>• Describe the etiology and prevalence of various psychosexual disorders</li> <li>• Explain principles of management of these conditions <b>(S)(A)</b></li> </ul>	<b>Disorders of Addictive Behavior / Alcohol &amp; Other Substance Use Disorders</b>	<p style="text-align: center;">CBD          Bedside teaching          +          OPD          Teaching          1 hour</p>	OSCE/ MCQs
12	<ul style="list-style-type: none"> <li>• Discuss different types of psychosexual disorder</li> <li>• Discuss the characteristic features of various psychosexual disorders</li> <li>• Describe the etiology and prevalence of various psychosexual disorders</li> <li>• Explain principles of management of these conditions <b>(K)</b></li> </ul>	<b>Psycho-sexual Disorders</b>	<p style="text-align: center;">LGIS 50mins</p>	MCQs

13.	<ul style="list-style-type: none"> <li>• Describe different kinds of child abuse</li> <li>• Discuss the implications of child abuse</li> <li>• Explain the risk and etiological factors for child abuse</li> <li>• Discuss the identifying features of child abuse</li> <li>• Explain the legal aspects of rights of a child</li> <li>• Explain the management of cases of various types of child abuse</li> <li>• Discuss the role of mental health professional in child abuse apart from the management of the any associated disorder</li> </ul> <p><b>(K)</b></p>	<b>Violence and Child Abuse</b>	LGIS 50mins	MCQs
14.	<ul style="list-style-type: none"> <li>• Discuss the Presentation of various childhood psychiatric disorders, i.e. Attention deficit hyperactive disorder, Autism Spectrum Disorder, Depressive disorder and Mental Retardation.</li> <li>• Categorize mental health disorders such as emotional disorders, behavior disorders in children and adolescents</li> <li>• Discuss the factors impacting childhood mental and emotional health.</li> <li>• Describe the use of multimodal treatment</li> </ul> <p><b>(K)(S)(A)</b></p>	<b>Introduction to Childhood Psychiatric Disorders</b>	LGIS 50mins + OPD Teaching (1 hour)	MCQs/OSCE

# DERMATOLOGY

Sr. No	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of this module students will be able to:			
1	<ul style="list-style-type: none"> <li>Define common terminologies</li> <li>Describe different lesions in dermatology</li> <li>Differentiate among various skin lesions when shown photographs/real Patients. <b>(K)</b></li> </ul>	<b>Basics of Dermatology</b>	LGIS 50mins	MCQ/ OSCE
2	<ul style="list-style-type: none"> <li>Describe the clinical presentations of common dermatologic Infections:</li> <li><b>a. Bacterial:</b> Impetigo, Ecthyma, Cellulitis, Folliculitis, Furuncle, Carbuncle, Erysipelas, Necrotizing Fasciitis</li> <li><b>b. Viral:</b> Herpes Simplex and Zoster, Chicken Pox, Measles, Viral warts, Molluscum Contagiosum</li> <li><b>c. Fungal:</b> Dermatophyte infections, Candida Albicans, Pityriasis Versicolor</li> <li><b>d. Parasitic:</b> Scabies, Pediculosis, Leishmaniasis</li> <li>Diagnose and treat different skin infections <b>(K)(S)(A)</b></li> </ul>	<b>Common skin infections</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
3	<ul style="list-style-type: none"> <li>Enumerate common STDs</li> <li>Describe the clinical presentations of various STDs which include Gonorrhoea, Chancroid, Syphilis, Lymphogranuloma Venerum (LGV), Granuloma Inguinale</li> <li>Discuss different investigations required for diagnosis</li> <li>Discuss treatment modalities in various STDs</li> <li>Discuss preventive measure and counselling <b>(K) (S) (A)</b></li> </ul>	<b>Sexually transmitted diseases</b>	LGIS 50mins + Bedside Teaching (1hour)	MCQ/ OSCE
4	<ul style="list-style-type: none"> <li>Discuss various types/severity of Acne</li> <li>Explain the causes/pathogenesis and clinical presentations of acne</li> <li>Discuss different treatment modalities in acne <b>(K) (S) (A)</b></li> </ul>	<b>Acne</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
5	<ul style="list-style-type: none"> <li>Define eczema</li> <li>Discuss various types of eczema</li> <li>Discuss clinical presentations, diagnosis and management plan of Eczema <b>(K)(S)(A)</b></li> </ul>	<b>Eczema</b>	LGIS 50mins + Bedside Teaching +	MCQ/ OSCE

			CBD (1hour)	
6	<ul style="list-style-type: none"> <li>Discuss various types, causes/pathogenesis and clinical presentations and different treatment modalities in psoriasis. <b>(K)(S)(A)</b></li> </ul>	<b>Psoriasis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
7	<ul style="list-style-type: none"> <li>Describe the lesions, causes/pathogenesis and clinical presentations and different treatment modalities in lichen planus <b>(K)(S)(A)</b></li> </ul>	<b>Lichen Planus</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
8	<ul style="list-style-type: none"> <li>Discuss various types causes/pathogenesis and clinical presentations and different treatment modalities in urticaria. <b>(K)(S)(A)</b></li> </ul>	<b>Urticaria</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
9	<ul style="list-style-type: none"> <li>Discuss common Cutaneous drugs reactions: Steven Johnson Syndrome, Toxic Epidermal Necrolysis, Erythema Multiform, Urticaria</li> <li>Describe the lesions, clinical and systemic manifestations and treatment Of cutaneous drug reactions <b>(K)(S)(A)</b></li> </ul>	<b>Cutaneous drugs reactions</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
10	<ul style="list-style-type: none"> <li>Discuss the clinical presentations, diagnosis and management plan for Bullous disorder including Pemphigus Vulgaris, Bullous Pemphigoid, Dermatitis Herpetiformis, Epidermolysis Bullosa. <b>(K)(S)(A)</b></li> </ul>	<b>Bullous disorder</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
11	<ul style="list-style-type: none"> <li>Describe cutaneous manifestations of Systemic Diseases in: <ul style="list-style-type: none"> <li>Diabetes mellitus</li> <li>SLE/other CTDs</li> <li>Thyroid disorders,</li> <li>Alopecia</li> <li>Hepatic disorders</li> </ul> </li> <li>Discuss the management of skin complications related to these diseases <b>(K)(S)(A)</b></li> </ul>	<b>Cutaneous Manifestations of Systemic Diseases</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE

# ORTHOPEDIC

Sr. No	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of the MODULE students will be able to:			
1	<ul style="list-style-type: none"> <li>• Differentiate b/w arthritis/ arthralgia</li> <li>• Discuss types of arthritis</li> <li>• Explain history techniques in joint diseases</li> <li>• Discuss the interpretation of joint X rays</li> </ul> <p><b>(K) (S) (A)</b></p>	Approach to a patient with joint pain/X-ray joints	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ
2	<ul style="list-style-type: none"> <li>• Perform complete musculoskeletal examination</li> <li>• Detect common deformities in joint diseases</li> </ul> <p><b>(K) (S) (A)</b></p>	<b>Detailed musculoskeletal examination</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	OSCE
3	<ul style="list-style-type: none"> <li>• Differentiate b/w osteoporosis/osteomalacia</li> <li>• Describe the causes/risk factors</li> <li>• Describe the pathogenesis and clinical features</li> <li>• Describe and interpret investigations</li> <li>• Discuss treatment, complications</li> </ul> <p><b>(K)</b></p>	<b>Osteoporosis/osteomalacia</b>	LGIS 50mins	MCQ
4	<ul style="list-style-type: none"> <li>• Describe the causes/risk factors</li> <li>• Describe the pathogenesis and clinical features</li> <li>• Describe and interpret investigations /x-ray findings</li> <li>• Discuss treatment modalities</li> </ul> <p><b>(K)</b></p>	<b>Osteoarthritis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ
5	<ul style="list-style-type: none"> <li>• Describe the causes/risk factors</li> <li>• Discuss types of gouty arthritis</li> <li>• Describe the pathogenesis and clinical features</li> <li>• Describe and interpret investigations /x-ray findings/synovial fluid analysis</li> <li>• Discuss treatment modalities</li> </ul> <p><b>(K)</b></p>	<b>Gout</b>	LGIS 50mins	MCQ

6	<ul style="list-style-type: none"> <li>Describe the causes/risk factors, pathogenesis and clinical features joint distribution</li> <li>Explain its extra articular manifestations</li> <li>Describe and interpret investigations /x-ray findings/synovial fluid analysis</li> <li>Discuss treatment modalities/exercises/rehabilitation-</li> <li>Discuss complications/prognosis <b>(K) (S) (A)</b></li> </ul>	<b>Rheumatoid arthritis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
7	<ul style="list-style-type: none"> <li>Discuss various causes, examination findings, investigation and management of in specific patients</li> <li>of neck/back pain</li> <li>Explain history techniques in neck/back <b>(K) (S) (A)</b></li> </ul>	<b>Neck pain/back pain</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
8	<ul style="list-style-type: none"> <li>Describe the causes/risk factors, pathogenesis and clinical features/ joint distribution of SLE</li> <li>Explain its extra articular manifestations of SLE</li> <li>Interpret investigations /x-ray findings/synovial fluid analysis, treatment modalities/exercises/rehabilitation and complications/prognosis of SLE <b>(K) (S) (A)</b></li> </ul>	<b>Systemic Lupus Erythematosus</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
9	<ul style="list-style-type: none"> <li>Describe the pathology, prevalence, etiology, symptoms, and diagnosis of systemic sclerosis</li> <li>Discuss the management and complications of systemic sclerosis <b>(K) (S) (A)</b></li> </ul>	<b>Systemic sclerosis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ
10	<ul style="list-style-type: none"> <li>Classify different types of vasculitis</li> <li>Describe the pathophysiology of vasculitis</li> <li>Discuss the clinical manifestations, investigations and treatment and complications/ prognosis of vasculitis <b>(K) (S) (A)</b></li> </ul>	<b>Vasculitis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
11	<ul style="list-style-type: none"> <li>Describe the causes, clinical features, of relevant investigations/x-ray findings of hypo/hyperparathyroidism</li> <li>Discuss the management and complications of Parathyroid conditions of Parathyroid conditions <b>(K)</b></li> </ul>	<b>Parathyroid conditions</b>	LGIS 50mins	MCQ



12	<ul style="list-style-type: none"> <li>Classify different types of myopathies</li> <li>Describe the pathophysiology</li> <li>Discuss the clinical manifestations, investigations and treatment</li> <li>Discuss complications/ prognosis of Congenital and inflammatory myopathies</li> </ul> <b>(K)</b>	<b>Congenital and inflammatory myopathies</b>	LGIS 50mins	MCQ
13	<ul style="list-style-type: none"> <li>Enlist the major pathogenic organisms causing joint infections</li> <li>Describe the pathophysiology, elements of prevention, and management of joint infections</li> <li>Outline the main clinical features and laboratory tests to diagnose joint infections (Septic, Viral, Tuberculous arthritis)</li> </ul> <b>(K) (S) (A)</b>	<b>Joint infections</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
14	<ul style="list-style-type: none"> <li>Classify different types of muscle dystrophies</li> <li>Describe the pathophysiology, clinical manifestations, investigations and treatment of Muscle dystrophies.</li> <li>Discuss complications/ prognosis of Muscle dystrophies/ atrophies</li> </ul> <b>(K) (S) (A)</b>	<b>Muscle dystrophies/atrophies</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
15	<ul style="list-style-type: none"> <li>Describe the pathology, prevalence, etiology, symptoms, and diagnosis, management/ complications of Polymyositis and Dermatomyositis</li> </ul> <b>(K) (S) (A)</b>	<b>Dermatomyositis/polymyositis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE

# REHABILITATION

Sr. No	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of the MODULE students will be able to:			
1	<ul style="list-style-type: none"> <li>• Describe the method of assessment of a patient with common cardiac conditions, and evaluation for rehabilitation</li> <li>• Formulate differential diagnosis for common cardiac conditions</li> <li>• Enlist the therapeutic interventions for common cardiac conditions</li> <li>• Justify a rehabilitation management plan that specifies appropriate modalities of assessment and treatment of cardiac disorders <b>(K) (S) (A)</b></li> </ul>	<b>Rehabilitation in common cardiac disorders</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
2	<ul style="list-style-type: none"> <li>• Describe the method of assessment of a patient with a neurological Disease</li> <li>• Enlist the therapeutic interventions for neurological conditions</li> <li>• Justify a rehabilitation management plan for neurological conditions <b>(K) (S) (A)</b></li> </ul>	<b>Rehabilitation in neurological disorders</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
33	<ul style="list-style-type: none"> <li>• Describe the method of assessment of a patient with musculoskeletal diseases, and evaluation for rehabilitation</li> <li>• Justify a rehabilitation management plan/ treatment for common musculoskeletal arthritis <b>(K) (S) (A)</b></li> </ul>	<b>Management of arthritis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE

**5<sup>th</sup> year**  
**Lectures**  
**&**  
**Clinical Rotations**

# Neurology

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING Activities (Duration)	ASSESSMENT
	At the end of this unit, the students will be able to:			
1.	<ul style="list-style-type: none"> <li>Perform all components of CNS examination with proper steps on simulated patient <b>(S)</b></li> </ul>	<b>CNS Examination</b>	Bedside Teaching 1 hour	OSCE
2.	<ul style="list-style-type: none"> <li>Identify Lumber puncture needle</li> <li>Explain uses and contraindications &amp; complications of Lumber puncture needle <b>(S)</b></li> </ul>	<b>Lumber puncture needle</b>	Bedside teaching 1 hour + CBD 1 hour (Tutorials)	OSCE
3.	<ul style="list-style-type: none"> <li>Localize the likely site or sites in the nervous system where a lesion could produce a patient's symptoms and signs</li> <li>List the differential diagnosis based on detailed history/ clinical presentation and complete examination findings <b>(K) (S)</b></li> </ul>	<b>Lesion localization</b>	LGIS 50mins + Bedside teaching 1 hour	MCQs/ OSCE
4.	<ul style="list-style-type: none"> <li>List the causes of cranial nerve pathologies</li> <li>Diagnose common cranial nerve lesions that would explain losses of function in the cranial nerves</li> <li>Relate cranial nerve deficits to damage of adjacent, unrelated structures <b>(K) (S) (A)</b></li> </ul>	<b>Lesion of cranial nerve</b>	LGIS 50mins + Bedside teaching 1 hour	MCQs/ OSCE
5	<ul style="list-style-type: none"> <li>Define epilepsy &amp; status epilepticus</li> <li>Discuss pathophysiology of seizures</li> <li>Classify epilepsy</li> <li>Classify types of seizures clinically</li> <li>List most common causes of seizures</li> <li>Discuss pharmacological treatment of epilepsy</li> <li>Discuss management of status epilepticus <b>(K) (S) (A)</b></li> </ul>	<b>Epilepsy and status epilepticus</b>	LGIS 50mins + CBD 1 hour	MCQs / OSCE
6.	<ul style="list-style-type: none"> <li>Define the terms stroke/ Cerebrovascular Accidents (CVA) &amp; Transient Ischemic Attack (TIA)</li> <li>Describe causes of stroke</li> <li>Distinguish ischemic stroke (cerebral infarct) from hemorrhagic stroke (intracerebral hemorrhage) in terms of etiology and pathology</li> <li>Discuss assessment findings associated with stroke, TIA</li> </ul>	<b>Cerebrovascular Accidents</b>	LGIS 50mins + Bedside teaching 1 hour + CBD 1 hour Tutorials	MCQs / OSCE

	<ul style="list-style-type: none"> <li>Identify the signs &amp; symptoms related to TIA</li> <li>Discuss the complication of Cerebrovascular Accidents</li> <li>Discuss the management plan of Cerebrovascular Accidents</li> </ul> <p><b>(K) (S) (A)</b></p>			
7	<ul style="list-style-type: none"> <li>Describe the causes, clinical features &amp; investigations of CNS infections</li> <li>Summarize the characteristics of the causative organism</li> <li>Interpret the CSF studies in a patient with CNS infection</li> <li>Describe the possible complications</li> <li>Explain the treatment plan</li> </ul> <p><b>(K) (S) (A)</b></p>	<b>Meningitis/ Encephalitis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQs/ OSCE
8	<ul style="list-style-type: none"> <li>Describe the presentation of a patient with movement disorders</li> <li>Discuss the pathogenesis and clinical features of Parkinson's disease (PD)</li> <li>Discuss approach to a patient with PD</li> <li>Summarize the differential diagnosis of Parkinson's disease.</li> <li>Outline the principles of drug management of Parkinson's disease</li> <li>Discuss the clinical presentation and treatment of Wilson's disease.</li> </ul> <p><b>(K) (S) (A)</b></p>	<b>Movement disorders/ Parkinson's disease</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQs/ OSCE
9.	<ul style="list-style-type: none"> <li>Perform cerebellar examination</li> <li>Discuss common causes, clinical presentation of a patient with cerebellar lesion and possible differential diagnosis of Cerebellar disorders</li> </ul> <p><b>(K)</b></p>	<b>Cerebellar disorders</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQs
10	<ul style="list-style-type: none"> <li>Describe Term paraparesis, types of paraparesis, causes of spastic and flaccid paraparesis, workup, management/rehabilitation for paraparesis</li> </ul> <p><b>(K) (S) (A)</b></p>	<b>Approach to a patient with paraparesis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
11	<ul style="list-style-type: none"> <li>Discuss, etiology, types, pathogenesis, clinical features, investigations, management, complications of MND/Polio</li> </ul> <p><b>(K) (S) (A)</b></p>	<b>Anterior horn cell disease (Motor Neuron Disease, Polio)</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE

12	<ul style="list-style-type: none"> <li>Discuss, etiology types, pathogenesis, clinical features, investigations, management, complications and recent advances of Myasthenia gravis <b>(K) (S) (A)</b></li> </ul>	<b>Myasthenia gravis</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
13	<ul style="list-style-type: none"> <li>Discuss, etiology types, pathogenesis, diagnostic criteria, clinical features, investigations, management, complications and recent advances of polyneuropathies/GBS <b>(K) (S) (A)</b></li> </ul>	<b>Polyneuropathies/ GBS</b>	LGIS 50mins + Bedside Teaching + CBD (1hour)	MCQ/ OSCE
14	<ul style="list-style-type: none"> <li>Discuss, etiology types, pathogenesis, diagnostic criteria, clinical features, investigations, management, complications and recent advances of muscle dystrophies and myopathies <b>(K) (S) (A)</b></li> </ul>	<b>Muscle dystrophies/myopathies</b>	LGIS 50mins + Bedside teaching 1 hour +	MCQ/ OSCE

## Gastrointestinal Tract

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit, students will be able to:			
1.	<ul style="list-style-type: none"> <li>Perform complete abdominal examination <b>(K) (S) (A)</b></li> </ul>	<b>Abdominal examination</b>	Bedside teaching + CBD (Tutorials) 1 hour	OSCE
2	<ul style="list-style-type: none"> <li>Interpret LFTs/ Ascitic fluid report <b>(K) (S)</b></li> </ul>	<b>LFTs/Ascitic fluid report</b>	Bedside teaching + CBD (Tutorials) 1 hour	OSCE
3	<ul style="list-style-type: none"> <li>Identify the Nasogastric tube,</li> <li>Discuss the use, contraindications and complications of Nasogastric tube <b>(K) (S)</b></li> </ul>	<b>Nasogastric tube</b>	LGIS 50mins + Bedside teaching + CBD (Tutorials) 1 hour	OSCE
4	<ul style="list-style-type: none"> <li>Define acute and chronic diarrhea</li> <li>Discuss the causes of acute diarrhea</li> <li>Specify the investigation of a patient who presents with acute diarrhea</li> <li>Discuss management and complications of acute diarrhea</li> <li>Prevention of acute gastroenteritis/cholera <b>(K)(S)(A)</b></li> </ul>	<b>Acute Diarrhea</b>	LGIS 50mins + Bedside teaching + CBD 1 hour (Tutorials)	MCQs / OSCE
5	<ul style="list-style-type: none"> <li>Define chronic diarrhea,</li> <li>Discuss types of chronic diarrhea</li> <li>Elaborate causes of malabsorption syndrome</li> <li>Explain the work up, management and complications of common causes of chronic dianoia e.g.;</li> </ul>	<b>Chronic diarrhea/ malabsorption syndromes</b>	LGIS 50mins + Bedside teaching + CBD 1 hour	MCQs / OSCE

	coeliac diametrical sprue, intestinal Tuberculosis, etc. <b>(K)(S)(A)</b>		(Tutorials)	
6	<ul style="list-style-type: none"> <li>Enlist the possible causes of Upper and lower G.I bleeding</li> <li>Report investigation for a patient with upper and lower G.I bleeding</li> <li>Portray a patient with upper and lower G.I bleed present</li> <li>Define hematemesis and melena</li> <li>Elaborate emergency management of upper and lower GI bleeding</li> </ul> <b>(K) (S) (A)</b>	<b>Upper and lower G.I Bleed</b>	LGIS 50mins + Bedside teaching 1 hour + CBD 1 hour (Tutorials)	MCQs / OSCE
7	<ul style="list-style-type: none"> <li>Define the term dysphagia and odynophagia</li> <li>Discuss different causes of dysphagia (central, mechanical, motility disorders)</li> <li>Discuss the investigation a patient who presents with dysphagia</li> <li>Enlist the treatment options according to the cause of dysphagia</li> </ul> <b>(K)</b>	<b>Dysphagia</b>	LGIS 50mins + Bedside teaching 1 hour	MCQs
8	<ul style="list-style-type: none"> <li>Describe the definition, etiology/risk factors, clinical features, investigation, management,</li> <li>Discuss serious complication of GERD e.g.; esophageal stricture, Barret esophagus and esophageal carcinoma</li> </ul> <b>(K) (S) (A)</b>	<b>Gastroesophageal reflux disease (GERD) and its complications</b>	LGIS 50mins + Bedside teaching 1 hour	MCQs / OSCE
9	<ul style="list-style-type: none"> <li>Describe the definition, etiology of peptic ulcer, clinical features, investigation, management,</li> <li>Discuss H.Pylori gastritis, its work up and eradication therapies</li> <li>Discuss serious complication of Gastritis/peptic ulcer e.g. pyloric stenosis, perforation, gastric carcinoma</li> </ul> <b>(K) (S)</b>	<b>Gastritis/peptic ulcer disease and its complications</b>	LGIS 50mins + Bedside teaching 1 hour +	MCQs / OSCE



10	<ul style="list-style-type: none"> <li>Define types of IBD</li> <li>Portray a patient present who has IBD</li> <li>Discuss the line of investigation, Histopathological features complications and associated diseases, treatment options and recent advances of IBD <b>(K) (S) (A)</b></li> </ul>	<b>Inflammatory bowel diseases</b>	LGIS 50mins + Bedside teaching 1 hour	MCQs/ OSCE
11	<ul style="list-style-type: none"> <li>Define IBS</li> <li>List the possible causes,</li> <li>Diagnostic criteria and treatment options of IBS <b>(K)</b></li> </ul>	<b>Irritable bowel Syndrome</b>	LGIS 50mins	MCQs
12	<ul style="list-style-type: none"> <li>Define acute and chronic hepatitis</li> <li>Elaborate the causes, mode of transmission, clinical features, investigations, management and complications like fulminant hepatic failure</li> <li>List the causes of chronic hepatitis, Hepatitis B and C.</li> <li>Explain mode of transmission clinical features, investigations, management of chronic viral hepatitis (Hepatitis A, B and C) and treatment options especially for hepatitis B and C</li> <li>Specify recent advances in treatment option for acute and chronic hepatitis. <b>(K) (S) (A)</b></li> </ul>	<b>Acute and chronic Hepatitis</b>	LGIS 50mins + Bedside teaching + CBD (Tutorials) 1 hour	MCQs/ OSCE
13	<ul style="list-style-type: none"> <li>Define compensated and uncompensated liver cirrhosis</li> <li>Enlist all the possible causes of CLD including viral hepatitis, alcoholism, autoimmune hepatitis, genetic diseases</li> <li>Discuss clinical features, investigations in liver cirrhosis</li> <li>Elaborate the complications of Chronic liver disease including: <ul style="list-style-type: none"> <li><b>1.Hepatic Encephalopathy</b> along with its stages and precipitating factors</li> <li><b>2.Portal hypertension/ ascites,</b></li> <li><b>3. Secondary bacterial peritonitis,</b></li> <li><b>4. Hepatorenal syndrome</b></li> <li><b>5.Hepatocellular carcinoma</b></li> </ul> </li> <li>Discuss work up, the management of all CLD complications</li> <li>Illustrate the prognosis of CLD (Child Pugh score)</li> </ul>	<b>Liver Cirrhosis/Chronic liver disease (CLD) and its complications</b>	LGIS 50mins + Bedside teaching + CBD 1 hour (Tutorials)	MCQs / OSCE

	<b>(K) (S) (A)</b>			
14	<ul style="list-style-type: none"> <li>Discuss different genetic disorders affecting the hepatobiliary system including Wilson's disease, hemochromatosis and autoimmune hepatitis</li> <li>Describe the clinical presentation of each disorder, investigations and treatment options of different genetic disorders</li> </ul> <b>(K) (A)</b>	<b>Genetic disorders</b>	LGIS 50mins + Bedside teaching + CBD 1 hour (Tutorials)	MCQs / OSCE

<b>Rheumatology</b>				
<b>S. NO</b>	<b>LEARNING OBJECTIVES</b>	<b>CONTENT AREAS</b>	<b>TEACHING ACTIVITIES (Duration)</b>	<b>ASSESSMENT</b>
	At the end of this unit the students will be able to:			
1.	<ul style="list-style-type: none"> <li>Portray the approach a patient with joint pain</li> <li>Enlist different causes of joint pain</li> <li>Define acute and chronic arthritis</li> <li>Differentiate between inflammatory and non-inflammatory arthritis</li> <li>Define the terms polyarthritis, oligoarthritic and monoarthritic</li> <li>Perform complete musculoskeletal examination</li> </ul> <b>(K)(S)(A)</b>	<b>Joint pain/ examination of joints</b>	LGIS 50mins + Bedside teaching + CBD 1 hour (Tutorials)	OSCE
2.	<ul style="list-style-type: none"> <li>Define Rheumatoid arthritis</li> <li>Portray a patient with Rheumatoid arthritis</li> <li>Clinical features and diagnostic criteria (EULAR), X-ray findings</li> <li>Articular and extra-articular complications of R.A treatment options and recent advances</li> </ul> <b>(K)(S)(A)</b>	<b>Rheumatoid arthritis (R.A)</b>	LGIS 50mins Bedside teaching + CBD 1 hour (Tutorials)	MCQs/OSCE

3.	<ul style="list-style-type: none"> <li>Enlist causes of sero-negative spondyloarthropathies</li> <li>Report investigations including HLA B27 and associated diseases, clinical features and extra articular manifestations and relate treatment options and recent advances for Sero-negative spondyloarthropathies <b>(K)(S)(A)</b></li> </ul>	<b>Sero-negative spondyloarthropathies</b>	LGIS 50mins Bedside teaching + CBD 1 hour (Tutorials)	MCQs/OSCE
4.	<ul style="list-style-type: none"> <li>Define the terms Reactive arthritis and Septic arthritis</li> <li>Enlist the causative organisms for septic arthritis</li> <li>Relate the treatment options commonly affected joint in septic arthritis</li> <li>Portray diagnostic investigations and treatment options of Septic arthritis</li> <li>Depict the Synovial fluid analysis <b>(K)(S)(A)</b></li> </ul>	<b>Infective arthritis/ Reactive Arthritis, Septic Arthritis</b>	LGIS 50mins + + CBD 1 hour (Tutorials)	MCQs/ OSCE
5.	<ul style="list-style-type: none"> <li>Define gout and pseudo gout</li> <li>Specify causes of gout</li> <li>Explain the types of gouty arthritis, clinical presentation, investigations of a patient suffering with gout</li> <li>Relate the management of acute and chronic gouty arthritis</li> <li>Discuss the role of prophylaxis in repeated gouty arthritis <b>(K) (S)</b></li> </ul>	<b>Crystalline arthritis</b>	LGIS 50mins + Bedside Teaching + CBD 1 hour	MCQs / OSCE
6.	<ul style="list-style-type: none"> <li>Define the terms myositis and myopathy</li> <li>Discuss different forms and clinical presentation; Polymyositis, dermatomyositis and Polymyalgia Rheumatica</li> <li>Describe the diagnostic investigations and specific antibodies</li> <li>Enlist the treatment options of Myositis/Myopathies <b>(K)</b></li> </ul>	<b>Myositis/Myopathies</b>	LGIS 50mins	MCQ

7.	<ul style="list-style-type: none"> <li>• Define Systemic Lupus Erythematosus</li> <li>• Explain the Clinical presentation</li> <li>• Describe the old and new diagnostic criteria</li> <li>• Explain the Serology/Immunology and complications of SLE during pregnancy</li> <li>• Relate the treatment options and recent advances</li> <li>• Discuss primary and secondary APLA</li> <li>• Explain the immunology/ antibodies and diagnostic criteria</li> <li>• Relate the treatment options and role of anticoagulation</li> </ul> <p><b>(K)(S)(A)</b></p>	<b>SLE &amp; APLA</b>	LGIS 50mins + Bedside teaching 1 hour + CBD 1 hour (Tutorials)	MCQs/ OSCE
8.	<ul style="list-style-type: none"> <li>• Discuss the different types, presentation, complications and prognosis of systemic sclerosis (Diffuse and CREST syndrome)</li> <li>• Enlist the investigations and specific antibodies to the type of systemic sclerosis</li> <li>• Define Raynaud's phenomenon</li> <li>• Differentiate between primary and secondary Raynaud diseases, investigations and treatment options associated with secondary Raynaud</li> </ul> <p><b>(K)(S)(A)</b></p>	<b>Other CTDs (Systemic sclerosis/MCTD/ Raynaud's)</b>	LGIS 50mins + Bedside teaching 1 hour + CBD 1 hour (Tutorials)	MCQs/ OSCE

9.	<ul style="list-style-type: none"> <li>• Define vasculitis</li> <li>• Classify vasculitis according to the size of the vessel</li> <li>• Explain the clinical presentation of various forms of vasculitis including Giant cell arteritis, Takayasu arteritis, Polyarteritis nodosa, Wegener's granulomatosis and Churg Strauss syndrome</li> <li>• Classify Takayasu arteritis</li> <li>• Diagnose the criteria of Churg Strauss syndrome</li> <li>• Describe the clinical presentation and complications of Wegener's granulomatosis, investigations and antibodies specific to the type of vasculitis</li> <li>• Portray the significance of biopsy and histopathology in different forms of vasculitis <b>(K)</b></li> </ul>	<b>Vasculitis</b>	LGIS 50mins + CBD 1 hour	MCQs/ OSCE
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# PULMONOLOGY

S. NO.	LEARNING OBJECTIVES  At the completion of this unit the students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> <li>Discuss history taking in cough/dyspnea</li> <li>Enlist the respiratory causes of shortness of breath/cough (S)</li> </ul>	<b>Cough and shortness of breath</b>	Bedside teaching + CBD 1 hour (Tutorials)	OSCE
2	<ul style="list-style-type: none"> <li>Perform complete respiratory examination (K)(S)</li> </ul>	<b>Respiratory examination</b>	Bedside teaching + CBD 1 hour	OSCE
3	<ul style="list-style-type: none"> <li>Portray the findings of normal chest x-ray</li> <li>Interpret the findings of pathological chest X-ray (K)(S)</li> </ul>	<b>Chest X-Ray</b>	Bedside teaching + CBD 1 hour (Tutorials)	OSCE
4	<ul style="list-style-type: none"> <li>Counsel the patients with asthma</li> <li>Demonstrate correct use of inhalers (K)(S)(A)</li> </ul>	<b>Counselling in asthma/Inhaler techniques</b>	Bedside teaching + Demonstrations 1 hour	OSCE
5	<ul style="list-style-type: none"> <li>Interpret basic changes in PFTs/ABGs (S)</li> </ul>	<b>PFTs/ABGs interpretation</b>	CBD 1 hour (Tutorials)	OSCE
6	<ul style="list-style-type: none"> <li>Identify endotracheal tube, along with indications, contraindications, complications of Endotracheal tube (K)(S)</li> </ul>	<b>Endotracheal tube</b>	Bedside teaching + CBD 1 hour (Tutorials)	OSCE
7	<ul style="list-style-type: none"> <li>Define the terms of obstructive and restrictive lung disease</li> <li>Enlist the causes of Obstructive lung diseases,</li> </ul>	<b>Bronchial asthma</b>	LGIS 50mins + Bedside	MCQs/ OSCE

	<ul style="list-style-type: none"> <li>Classify Asthma,</li> <li>Discuss triggers and severity of asthma</li> <li>Explain the clinical features, investigations, treatment options (controllers/relievers), side effects of therapy, Management of acute exacerbation of Asthma</li> <li>Relate the Complications and Prognosis of Bronchial Asthma <b>(K)(S)(A)</b></li> </ul>		teaching + CBD 1 hour (Tutorials)	
8	<ul style="list-style-type: none"> <li>Define the Chronic bronchitis and Emphysema,</li> <li>Discuss the risk factors, clinical features, investigations, severity, acute and long-term management, complications, prevention of Chronic Obstructive Airway Disease/smoking cessation <b>(K)(S)(A)</b></li> </ul>	<b>Chronic Obstructive Lung Disease (COPD)</b>	LGIS 50mins + Bedside teaching + CBD 1 hour (Tutorials)	MCQs/ OSCE
9	<ul style="list-style-type: none"> <li>Define Interstitial Lung diseases</li> <li>Discuss the etiology, classification, clinical features, investigations, management, complications, recent advances of Interstitial Lung diseases <b>(K)(S)(A)</b></li> </ul>	<b>Interstitial lung diseases</b>	LGIS 50mins + Bedside teaching 1 hour	MCQs/ OSCE
10	<ul style="list-style-type: none"> <li>Define the terms pleural effusion and pneumothorax</li> <li>Enlist the causes of pleural effusion (Exudative and transudative) and Pneumothorax</li> <li>Interpret Chest x-ray findings of Pleural effusion and Pneumothorax</li> <li>Relate the diagnosis and investigation and treatment options of Pleural effusion and Pneumothorax</li> <li>Explain the Light's criteria for pleural effusion</li> <li>Describe the Thoracentesis</li> <li>Interpret the analysis of pleural fluid</li> <li>Enlist the Indications for tube thoracostomy <b>(K)(S)</b></li> </ul>	<b>Pleural effusion &amp; Pneumothorax</b>	Bedside teaching + CBD 1 hour (Tutorials)	MCQ/ OSCE
11	<ul style="list-style-type: none"> <li>Describe etiology, primary/reactivation of TB, MDR TB transmission, risk factors, clinical features, Chest x-ray findings sputum analysis of Pulmonary Tuberculosis</li> <li>Discuss the first line and second line anti tuberculous drugs</li> <li>Explain the Adverse effects of ATT with Management plan; initial and maintenance therapy of Pulmonary Tuberculosis</li> <li>Enlist the Complications of Pulmonary tuberculosis <b>(K)(S)(A)</b></li> </ul>	<b>Pulmonary Tuberculosis</b>	LGIS 50mins + Bedside teaching 1 hour + CBD 1 hour (Tutorials)	MCQs/ OSCE

12	<ul style="list-style-type: none"> <li>Define Bronchiectasis</li> <li>Enlist the causes, clinical presentation and most commonly involved organisms of Bronchiectasis</li> <li>Discuss the investigations of Bronchiectasis</li> <li>Relate the treatment options and complications of Bronchiectasis</li> </ul> <b>(K)</b>	<b>Bronchiectasis</b>	LGIS 50mins	MCQs
13	<ul style="list-style-type: none"> <li>Define Sarcoidosis and associated diseases</li> <li>Explain the clinical presentation, Radiological classification, Specific investigations of Sarcoidosis</li> <li>Relate the treatment options and complications of Sarcoidosis</li> </ul> <b>(K)</b>	<b>Sarcoidosis</b>	LGIS 50mins	MCQs
14	<ul style="list-style-type: none"> <li>How does a patient with pulmonary embolism presents?</li> <li>Enlist the possible causes of Pulmonary embolism</li> <li>Explain the Wells score,</li> <li>Discuss the diagnostic investigations, typical ECG findings in pulmonary embolism and Duration of anticoagulation, complications</li> </ul> <b>(K)</b>	<b>Pulmonary embolism</b>	LGIS 50mins	MCQs
15	<ul style="list-style-type: none"> <li>Differentiate between type 1 and type 2 respiratory failure</li> <li>Enlist the causes of type 1 and 2 respiratory failure, ABG interpretation</li> <li>Define ARDS</li> <li>Explain the Etiology, Investigations and treatment options</li> </ul> <b>(K)</b>	<b>Respiratory failure/ARDS</b>	LGIS 50mins	MCQs
16	<ul style="list-style-type: none"> <li>Identify the risk factors, types, clinical features, investigations, staging, treatment options, complications, paraneoplastic syndromes and prognosis of Bronchogenic carcinoma</li> </ul> <b>(K)(S)(A)</b>	<b>Bronchogenic Carcinoma</b>	LGIS 50mins + CBD 1 hour (Tutorials)	MCQs/ OSCE



## BLOOD DISORDERS

S. No.	LEARNING OBJECTIVES At the end of this unit, students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1.	<ul style="list-style-type: none"> <li>• Define Anemia with values</li> <li>• Classify Anemia, functions of iron in the body, absorption of iron, daily recommended dose of iron, dietary sources of iron</li> <li>• Discuss causes, clinical features in Iron Deficiency Anemia treatment of IDA, Oral/parenteral iron therapy</li> <li>• Enlist the side effects of oral/parenteral iron therapy <b>(K)(S)(A)</b></li> </ul>	<b>Iron Deficiency Anemia</b>	LGIS 50mins + CBD 1 hour (Tutorials)	MCQs/ OSCE
2	<ul style="list-style-type: none"> <li>• Interpret CBC report <b>(K)(S)</b></li> </ul>	<b>Interpretation of CBC</b>	LGIS 50mins + CBD 1 hour	MCQs/ OSCE
3	<ul style="list-style-type: none"> <li>• Discuss the Functions of B12/folate in the body, absorption of B12/folate, daily recommended dose and dietary sources of B12/folate</li> <li>• Depict the causes, clinical features, investigations and treatment of megaloblastic anemia <b>(K)(S)(A)</b></li> </ul>	<b>Megaloblastic anemia</b>	LGIS 50mins + CBD 1 hour	MCQs/ OSCE
4	<ul style="list-style-type: none"> <li>• Depict different types of Hemoglobinopathies</li> <li>• Classify Thalassemia,</li> <li>• Discuss the clinical presentation, investigations and treatment of thalassemia minor/intermedia/major by               <ul style="list-style-type: none"> <li>• Indication of Blood transfusions/transfusion reactions</li> <li>• Iron over load and iron chelators</li> <li>• Complications/ Prognosis</li> <li>• Genetic counselling</li> </ul> </li> </ul> <b>(K)(S)(A)</b>	<b>Hemoglobinopathies/ thalassemia</b>	LGIS 50mins + CBD 1 hour (Tutorials)	MCQs/ OSCE
5	<ul style="list-style-type: none"> <li>• Discuss the Epidemiology, etiology/pathogenesis, clinical features, investigations, treatment, complications and prognosis of:               <ol style="list-style-type: none"> <li>1. Sickle cell disease</li> <li>2. G6PD deficiency</li> </ol> </li> </ul>	<b>Hemoglobinopathies (Sickle cell disease, G6PD deficiency, Hereditary spherocytosis)</b>	LGIS 50mins	MCQs

	3. Hereditary spherocytosis <b>(K)</b>			
6	<ul style="list-style-type: none"> <li>Discuss the Etiology/risk factor, Pathogenesis, clinical features, investigations, treatment complications and prognosis</li> <li>1. Autoimmune hemolytic anemia</li> <li>2. Anemia of chronic disease</li> </ul> <b>(K)</b>	<b>Autoimmune hemolytic anemia/anemia of chronic disease</b>	LGIS 50mins	MCQ
7	<ul style="list-style-type: none"> <li>Define thrombocytopenia and thrombocytosis</li> <li>Discuss the causes of Thrombocytosis</li> <li>Explain the etiology, clinical presentation and treatment of Idiopathic thrombocytopenic purpura</li> <li>Describe the process of Counselling before surgical procedure/safe range of platelets for patient with thrombocytopenia</li> <li>Discuss and differentiate between TTP and HUS</li> <li>Discuss causes, Clinical presentation, Investigations, Treatment and complications in TTP/HUS</li> </ul> <b>(K)(S)(A)</b>	<b>Platelet disorder</b> 1. Idiopathic thrombocytopenic purpura, 2. Thrombotic thrombocytopenic purpura, (TTP) 3. Hemolytic uremic syndrome (HUS)	LGIS 50mins + CBD 1 hour (Tutorials)	MCQs/ OSCE
8	<ul style="list-style-type: none"> <li>Define the term polycythemia</li> <li>Enlist the types of polycythemia</li> <li>Discuss the etiology and diagnostic criteria of Polycythemia rubra Vera</li> <li>Relate the treatment of polycythemia rubra Vera</li> <li>Enlist the causes of secondary polycythemia</li> </ul> <b>(K)(S)(A)</b>	<b>Polycythemia</b>	LGIS 50mins + CBD 1 hour (Tutorials)	MCQs/ OSCE
9.	<ul style="list-style-type: none"> <li>Discuss different types of Leukemia</li> <li>Explain the Age of occurrence of different forms of leukemia</li> <li>Describe the Clinical presentation of a patient with specific form of leukemia</li> <li>Portray Examination findings, Investigations, staging, complications of Leukemia</li> <li>Relate the treatment (Chemo/stem cell transplant) for Leukemia</li> </ul> <b>(K)</b>	<b>Leukemia</b>	LGIS 50mins	MCQs
10	<ul style="list-style-type: none"> <li>Classify Hodgkin and Non-Hodgkin lymphoma</li> <li>Discuss the clinical presentation, staging and examination findings of a patient with lymphoma</li> <li>Describe investigation, treatment options and chemotherapy of Lymphoma</li> </ul> <b>(K)(S)</b>	<b>Lymphoma</b>	LGIS 50mins + CBD 1 hour	MCQs/ OSCE

11.	<ul style="list-style-type: none"> <li>Discuss the etiology, clinical presentation, investigations and complications of multiple myeloma</li> <li>Relate Treatment options and chemotherapy for Multiple myeloma <b>(K)</b></li> </ul>	<b>Multiple myeloma</b>	LGIS 50mins	MCQs
12	<ul style="list-style-type: none"> <li>Discuss the Etiology /Types, clinical presentation, investigations, management of active bleeding, long-term management, complications, genetic counselling/ counselling before surgical procedures of Hemophilia/ Willebrand disease</li> <li><b>(K)(S)</b></li> </ul>	Hemophilia/Von Willebrand disease	LGIS 50mins + CBD 1 hour	MCQs/ OSCE
13	<ul style="list-style-type: none"> <li>Describe the term DIC</li> <li>Discuss the etiology, types and complications of Disseminated intravascular coagulation</li> <li>Interpret coagulation profile (PT/APTT/INR)</li> <li>Narrate treatment options for DIC <b>(K)</b></li> </ul>	<b>Disseminated intravascular coagulation</b>	LGIS 50mins	MCQs

# CARDIOVASCULAR SYSTEM

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit the students will be able to:			
1.	<ul style="list-style-type: none"> <li>Define basics of ECG and interpretation of ECG abnormalities <b>(K)(S)(A)</b></li> </ul>	<b>ECG</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
2.	<ul style="list-style-type: none"> <li>Define /staging Systemic hypertension</li> <li>Discuss the primary/sec HTN, risk factors, pathogenesis, clinical features, differential diagnosis, investigations, management, complications and prevention of systemic hypertension <b>(K)(S)(A)</b></li> </ul>	<b>Systemic Hypertension</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
3.	<ul style="list-style-type: none"> <li>Define Acute Coronary syndrome/ typical cardiac pain, types of ACS</li> <li>Discuss the risk factors, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and Prognosis, prevention of ACS/Ischemic heart diseases <b>(K)(S)(A)</b></li> </ul>	<b>Acute coronary syndrome /Ischemic Heart Disease</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE

4.	<ul style="list-style-type: none"> <li>Define Congestive Heart failure</li> <li>Discuss the etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of congestive heart failure <b>(K)(S)(A)</b></li> </ul>	<b>Congestive heart failure</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
5.	<ul style="list-style-type: none"> <li>Define Rheumatic fever</li> <li>Discuss etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications prognosis of Rheumatic fever <b>(K)(S)(A)</b></li> </ul>	<b>Rheumatic Fever</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
6.	<ul style="list-style-type: none"> <li>Define Infective Endocarditis</li> <li>Discuss the etiology/risk factors, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis, prevention of Infective Endocarditis <b>(K)(S)(A)</b></li> </ul>	<b>Infective Endocarditis</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
7.	<ul style="list-style-type: none"> <li>Define Valvular anomalies</li> <li>Explain the etiology, pathogenesis, clinical features differential diagnosis, investigation, management, complications, prognosis of Valvular Heart Disease <b>(K)(S)(A)</b></li> </ul>	<b>Valvular Heart Diseases:</b> <ul style="list-style-type: none"> <li>Mitral Stenosis</li> <li>Mitral Regurgitation</li> <li>Aortic Stenosis</li> <li>Aortic regurgitation</li> </ul>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
8.	<ul style="list-style-type: none"> <li>Define Congenital heart diseases</li> <li>Discuss the types, etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of congenital heart diseases <b>(K)(S)(A)</b></li> </ul>	<b>Congenital Heart Diseases:</b> <ul style="list-style-type: none"> <li>Atrial Septal defect (<b>ASD</b>)</li> <li>Heart End Systolic Diameter (<b>ESD</b>)</li> <li>Ventral Septal Defect (<b>VSD</b>)</li> <li>Patent Ductus Arteriosus (<b>PDA</b>)</li> </ul>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE

		<ul style="list-style-type: none"> <li>Tetralogy of Fallot (<b>TOF</b>)</li> <li>Coarctation of Aorta (<b>COA</b>)</li> </ul>		
9.	<ul style="list-style-type: none"> <li>Define Pericardial Effusion</li> <li>Discuss the etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of Pericardial Effusion <b>(K)</b></li> </ul>	<b>Pericardial Effusion</b>	LGIS 50mins	MCQs
10.	<ul style="list-style-type: none"> <li>Define Pericarditis</li> <li>Discuss etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of Pericarditis <b>(K)</b></li> </ul>	<b>Pericarditis</b>	LGIS 50mins	MCQs
11.	<ul style="list-style-type: none"> <li>Define Cardiomyopathies</li> <li>Explain the etiology pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of Cardiomyopathies <b>(K)(S)(A)</b></li> </ul>	<b>Cardiomyopathies</b>	LGIS 50mins + CBD	MCQs/ OSCE
12.	<ul style="list-style-type: none"> <li>Perform Cardiovascular examination <b>(K)(S)</b></li> </ul>	<b>Cardiovascular examination</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
13.	<ul style="list-style-type: none"> <li><b>Counsel</b> the patients regarding uncontrolled hypertension, Congestive Cardiac Failure and Ischemic Heart Disease <b>(K)(S)</b></li> </ul>	<b>Counseling</b> <ul style="list-style-type: none"> <li>Uncontrolled hypertension</li> <li>Congestive Cardiac Failure</li> <li>Ischemic Heart Disease</li> </ul>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE

# RENAL DISORDERS

<b>RENAL DISORDERS</b>				
<b>S. NO</b>	<b>LEARNING OBJECTIVES</b>	<b>CONTENT</b>	<b>TEACHING ACTIVITIES (Duration)</b>	<b>ASSESSMENT</b>
	At the completion of this unit the students will be able to:			
<b>1.</b>	<ul style="list-style-type: none"> <li>Define nephrotic syndrome</li> <li>Explain the etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of Nephrotic syndrome <b>(K)(S)</b></li> </ul>	<b>Nephrotic syndrome</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
<b>2</b>	<ul style="list-style-type: none"> <li>Define nephritic syndrome</li> <li>Explain the types, etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of Nephritis syndromes <b>(K)(S)</b></li> </ul>	<b>Nephritic Syndromes</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
<b>31</b>	<ul style="list-style-type: none"> <li>Define acute kidney injury</li> <li>Explain the etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, indication of dialysis, complications and prognosis of Acute Kidney injury <b>(K)(S)</b></li> </ul>	<b>Acute kidney injury</b>	LGIS 50mins + CBD/ Bedside teaching 1 hour	MCQs/ OSCE
<b>4</b>	<ul style="list-style-type: none"> <li>Define/staging CKD</li> <li>Explain the etiology, pathogenesis, clinical feature, investigation, management, renal replacement therapies, complications and management of complications prognosis of Chronic Kidney Disease <b>(K)(S)</b></li> </ul>	<b>Chronic Kidney disease (CKD)/ESRD</b>	LGIS 50mins + CBD/ Bedside teaching 1 hour	MCQs/ OSCE
<b>5</b>	<ul style="list-style-type: none"> <li>Define Renal tubular acidosis</li> <li>Explain the types, etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of Renal tubular acidosis <b>(K)</b></li> </ul>	<b>Renal tubular acidosis</b>	LGIS 50mins	MCQs
<b>6</b>	<ul style="list-style-type: none"> <li>Define Cystic kidney diseases</li> <li>Explain the types, etiology, pathogenesis, clinical features, differential diagnosis, investigation, management,</li> </ul>	<b>Cystic diseases of kidney</b>	LGIS 50mins	MCQs

	complications and prognosis of Cystic kidney diseases <b>(K)</b>			
7	<ul style="list-style-type: none"> <li>Describe the Types, Indication, Pre/post dialysis Investigation, Management of complications/fistula care and Prognosis of Renal Dialysis <b>(K)</b></li> </ul>	<b>Renal Dialysis</b>	LGIS 50mins	MCQs
8	<ul style="list-style-type: none"> <li>Describe the Indications, Pretransplant work up, Investigations, Management, Post-transplant follow-up, Immunosuppression and its complications and Prognosis for Renal transplant <b>(K)</b></li> </ul>	<b>Renal transplant</b>	LGIS 50mins	MCQs
9	<ul style="list-style-type: none"> <li>Define tubulointerstitial nephritis</li> <li>Explain the types, etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prognosis of tubulointerstitial nephritis <b>(K)</b></li> </ul>	<b>Tubulointerstitial nephritis</b>	LGIS 50mins	MCQs
10	<ul style="list-style-type: none"> <li>Explain the types, etiology/risk factors pathogenesis, clinical features, differential diagnosis, investigation, management, complications and prevention of recurrent UTI <b>(K)(S)</b></li> </ul>	<b>Urinary Tract Infection</b>	LGIS 50mins + CBD / +Bedside teaching 1 hour	MCQs/ OSCE
11	<ul style="list-style-type: none"> <li>Describe the Etiology/ pathogenesis, clinical features, Investigation/ECG findings, management and Complications of Electrolytes Imbalances <b>(K)</b></li> </ul>	<b>Electrolytes Imbalances</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
12	<ul style="list-style-type: none"> <li>Recognize abnormalities in UCE/ Urine DR <b>(K)(S)</b></li> </ul>	<b>Urea, Creatinine &amp; Electrolytes Urine DR interpretation</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
13	<ul style="list-style-type: none"> <li>Identify and describe Foleys catheter (indications, contraindications) <b>(K)(S)</b></li> </ul>	<b>Foley's catheter</b>	Demonstrations 50mins + Bedside teaching 1 hour	<b>OSCE</b>



# ENDOCRINE DISORDERS

S. NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<p>At the end of this UNIT, students will be able to:</p> <ul style="list-style-type: none"> <li>Define Diabetes Mellitus</li> <li>Discuss types, risk factors, pathogenesis, clinical features, differential diagnosis, investigation, diagnostic criteria, management, oral medications/types of insulin therapy and their side effects, complications (micro/macro vascular, infections) prognosis and recent advances of Diabetes Mellitus <b>(K)(S)(A)</b></li> </ul>	<b>Diabetes Mellitus</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
2.	<ul style="list-style-type: none"> <li>Define Diabetes Insipidus</li> <li>Discuss etiology, pathogenesis, clinical features, differential diagnosis, Investigation, management, and complications of Diabetes Insipidus</li> <li>Relate the prognosis and recent advances in Diabetes Insipidus <b>(K)(S)(A)</b></li> </ul>	<b>Diabetes insipidus</b>	LGIS 50mins	MCQs
3.	<ul style="list-style-type: none"> <li>Define Pituitary diseases</li> <li>Explain the etiology, pathogenesis, clinical features differential diagnosis, investigation, management and complications of Pituitary diseases</li> <li>Relate the prognosis and recent advances in Pituitary diseases <b>(K)(S)(A)</b></li> </ul>	<b>Pituitary Diseases (Hypopituitarism, acromegaly)</b>	LGIS 50mins	MCQs/ OSCE

4.	<ul style="list-style-type: none"> <li>Define the Thyroid disorders</li> <li>Discuss the etiology, pathogenesis, clinical features, differential diagnosis, investigation, management and complications of Thyroid diseases</li> <li>Relate the Prognosis and recent advances of Thyroid diseases <b>(K)(S)(A)</b></li> </ul>	<b>Thyroid Disorders</b> Hyperthyroidism Hypothyroidism	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
5.	<ul style="list-style-type: none"> <li>Define Parathyroid disease</li> <li>Explain the etiology, pathogenesis, clinical features, differential diagnosis, investigation, management, and complications</li> <li>Relate the prognosis and recent advances of Parathyroid diseases <b>(K)</b></li> </ul>	<b>Para thyroid Disorders</b>	LGIS 50mins	MCQs
6.	<ul style="list-style-type: none"> <li>Define Adrenal Disorder</li> <li>Explain the etiology, pathogenesis, clinical features differential diagnosis, investigation, management and complications of Adrenal disorders</li> <li>Relate the prognosis and recent advances <b>(K)(S)(A)</b></li> </ul>	<b>Adrenal Disorders (Addison's, Cushing, pheochromocytoma)</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
7.	<ul style="list-style-type: none"> <li>Interpret and understand thyroid profile</li> <li>Identify and discuss the indications, contraindication and complications of insulin syringe</li> <li>Council the patient regarding diabetes, its complications, diet and lifestyle modification <b>(K)(S)(A)</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Thyroid profile interpretation</b></li> <li><b>Insulin syringe</b></li> <li><b>Counseling: uncontrolled diabetes mellitus</b></li> </ul>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE

# INFECTIOUS DISEASES

<b>INFECTIOUS DISEASES</b>				
<b>S.NO</b>	<b>LEARNING OBJECTIVES</b>	<b>CONTENT AREAS</b>	<b>TEACHING ACTIVITIES (Duration)</b>	<b>ASSESSMENT</b>
	At the end of this unit, students will be able to:			
1.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, Investigation, diagnosis management, complications and of Pyrexia of Unknown origin (PUO) <b>(K)(S)(A)</b></li> </ul>	<b>Pyrexia of unknown origin (PUO)</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs
2.	<ul style="list-style-type: none"> <li>Explain the types, etiology, clinical features, differential diagnosis, Investigation, diagnosis, management, complications and prevention of Malaria <b>(K)(S)(A)</b></li> </ul>	<b>Malaria</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
3.	<ul style="list-style-type: none"> <li>Describe the etiology, transmission, clinical features, differential diagnosis investigation, diagnosis, management, complications prevention of Enteric Fever <b>(K)(S)(A)</b></li> </ul>	<b>Enteric fever</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
4.	Describe the etiology, clinical features, differential diagnosis, investigation, diagnosis, management, complications and prevention of common viral fever <b>(K)(S)</b>	<b>Common Viral fever (Herpes, chicken pox, IMN, CMV)</b>	LGIS 50mins	MCQs
5.	<ul style="list-style-type: none"> <li>Discuss etiology, clinical features differential diagnosis, investigation, diagnosis, management, complications and prevention /mosquito control, of Dengue fever <b>(K)(S)(A)</b></li> </ul>	<b>Dengue Fever/other viral hemorrhagic fevers</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE

6.	<ul style="list-style-type: none"> <li>Explain the etiology, transmission, clinical features, differential diagnosis, investigation, management, complications (AID syndrome), prevention of Human deficiencies viruses (HIV) <b>(K)(S)(A)</b></li> </ul>	<b>Human deficiencies viruses (HIV)</b>	LGIS 50mins	MCQs/ OSCE
7.	<ul style="list-style-type: none"> <li>Discuss etiology, clinical features differential diagnosis, investigation, diagnosis, management, complications and prevention of Mumps/Measles <b>(K)(S)(A)</b></li> </ul>	<b>Mumps/measles</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
8.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, investigation, diagnosis, management, complications and prevention of Diphtheria /Tetanus/brucella <b>(K)(S)</b></li> </ul>	<b>Diphtheria/Tetanus/brucella</b>	LGIS 50mins + CBD 1 hour	MCQs/ OSCE
9.	<ul style="list-style-type: none"> <li>Discuss the etiology, clinical features, differential diagnosis, investigation, diagnosis, management, complications and prevention of Sock, Hospital Acquired infection <b>(K)(S)</b></li> </ul>	<b>Shock</b> <ul style="list-style-type: none"> <li>Septic</li> <li>Hypovolemic,</li> <li>Anaphylactic</li> </ul> <b>Hospital Acquired Infections (UTI, pneumonia)</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs/ OSCE
10	<ul style="list-style-type: none"> <li>Describe the etiology, transmission, clinical features, differential diagnosis, investigation, diagnosis, management, complications, ARDS and precautions/vaccination <b>(K)(S)(A)</b></li> </ul>	<b>Influenza/SARS/COVID 19 pandemic</b>	LGIS 50mins	MCQs/ OSCE

# GENETIC DISORDERS

<b>GENETIC DISORDERS</b>				
<b>S.NO</b>	<b>LEARNING OBJECTIVES</b> At the completion of this unit students will be able to:	<b>CONTENT AREAS</b>	<b>TEACHING ACTIVITIES</b> (Duration)	<b>ASSESSMENT</b>
1.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, Investigation, diagnosis management, complications and prevention of Down's syndrome <b>(K)(S)(A)</b></li> </ul>	<b>Down's syndrome</b>	LGIS 50mins + CBD 1 hour	MCQs OSCE
2.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, Investigation, diagnosis management, complications of Klinefelter syndrome <b>(K)</b></li> </ul>	<b>Klinefelter syndrome</b>	LGIS 50mins	MCQs
3.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, Investigation, diagnosis management, complications of Turner syndrome <b>(K)(S)(A)</b></li> </ul>	<b>Turner syndrome</b>	LGIS 50mins + CBD 1 hour	MCQs OSCE
4.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, Investigation, diagnosis management, complications of Marfan syndrome <b>(K)</b></li> </ul>	<b>Mar fan syndrome</b>	LGIS 50mins	MCQs

# ENVIROMENTAL DISEASES

S.NO.	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit students will be able to:			
1	<ul style="list-style-type: none"> <li>Discuss the difference between heat stroke/heat exhaustion, risk factors, clinical features, differential diagnosis, investigation &amp; diagnosis, management and complications of Heat stroke and heat exhaustion (K)</li> </ul>	<b>Heat stroke and heat exhaustion</b>	LGIS 50mins	MCQs
2.	<ul style="list-style-type: none"> <li>Explain the etiology, clinical features, differential diagnosis Investigation, diagnosis, Management, types of rewarming, and complications of Hypothermia (K)</li> </ul>	<b>Hypothermia /Frost bite</b>	LGIS 50mins	MCQs
3.	<ul style="list-style-type: none"> <li>Describe the clinical features, investigation &amp; diagnosis, management and complications, prevention of near drowning/ decompression sickness/high altitude (K)</li> </ul>	<b>Near drowning/ Decompression sickness/complications at high altitude</b>	LGIS 50mins	MCQs
4.	<ul style="list-style-type: none"> <li>Describe the risk factors, investigation &amp; diagnosis, management and complications of electric shock (K)</li> </ul>	<b>Electric burns/shock</b>	LGIS 50mins	MCQs

# NUTRITIONAL DISEASES

s.no	<b>LEARNING OBJECTIVES</b> At the completion of this unit students will be able to:	<b>CONTENT AREAS</b>	<b>TEACHING ACTIVITIES</b> (Duration)	<b>ASSESSMENT</b>
1.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, investigation, management and complications of Metabolic syndrome and Obesity <b>(K)(S)(A)</b></li> </ul>	<b>Metabolic syndrome and Obesity</b>	LGIS 50mins + CBD / Bedside teaching 1 hour	MCQs OSCE
2.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, investigation &amp; diagnosis, management and complications of Eating disorder <b>(K)</b></li> </ul>	<b>Eating disorder</b>	LGIS 50mins	MCQs
3.	<ul style="list-style-type: none"> <li>Describe the etiology, clinical features, differential diagnosis, investigation &amp; diagnosis, management and complications of Refeeding syndrome <b>(K)</b></li> </ul>	<b>Refeeding syndrome</b>	LGIS 50mins	MCQs
4.	<ul style="list-style-type: none"> <li><b>Describe the</b> Types /names of fat /water soluble vitamin, Clinical presentations, Investigation, Management and Complications of vitamin deficiencies <b>(K)</b></li> </ul>	<b>Vitamin deficiencies</b>	LGIS 50mins	MCQs

## Poisoning/Envenomation

<b>Poisoning/Envenomation</b>				
S.NO.	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit students will be able to:			
1.	<ul style="list-style-type: none"> <li>Explain how to approach to a patient of poisoning, clinical features, investigation, common drugs and antidotes, emergency management <b>(K)</b></li> </ul>	<b>Approach to a patient of poisoning</b>	LGIS 50mins	MCQs
2.	<ul style="list-style-type: none"> <li>Portray the clinical features, toxic dose, investigation &amp; diagnosis, management, antidotes and complications of Paracetamol/Salicylic Acid (ASA) poisoning <b>(K)</b></li> </ul>	<b>Paracetamol/ salicylic acid (ASA) poisoning</b>	LGIS 50mins	MCQs
3.	<ul style="list-style-type: none"> <li>Relate the clinical features, investigation &amp; Management, antidotes and complications of Organophosphate poisoning <b>(K)</b></li> </ul>	<b>Organophosphate poisoning</b>	LGIS 50mins	MCQs
4.	<ul style="list-style-type: none"> <li>Depict the clinical features, toxic dose, Investigation, management and complications of Benzodiazepine/ Barbiturate poisoning <b>(K)</b></li> </ul>	<b>Benzodiazepine/Barbiturate poisoning</b>	LGIS 50mins	MCQs
5	<ul style="list-style-type: none"> <li>Describe the complications, Investigation, management and of Corrosives/ petroleum/ kerosene ingestion</li> </ul>	<b>Corrosives/petroleum/kerosene ingestion</b>	LGIS 50mins	MCQs



6.	<ul style="list-style-type: none"><li>Discuss the types of venomous snakes' clinical features, investigations management, allergic reaction with anti-sera and complications of Snake bite management <b>(K)</b></li></ul>	<b>Snake bite management</b>	LGIS 50mins	MCQs
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# Medical Education

## Lectures/ Workshop

S.NO	Learning Objectives (domain) At the end of session, student will be able to:	Content Areas	Teaching Activity (Duration)	Assessment
1.	How to do Educational Planning (S)	Educational Planning	Workshop 3 Hours	-
2.	Writing Educational Objectives (How, What, Why) (S)	Educational Objectives	Workshop 3 Hours	
3.	Develop OSPE/OSCE stations (S)	OSPE/OSCE Development	Workshop 3 Hours	-
4.	How to do students engagement and Teaching methodologies (S)	Student Engagement & Teaching Methodologies	Workshop 3 Hours	
5.	Prepare TOS and Assessment Planning (S)	TOS and Assessment planning	Workshop 3 Hours	

## Problem based learning (PBL) / Case base learning (CBL)

- 1 session will be conducted every week

Learning Tool	Theme	Case Scenario	Specialty integrated in PBL
PBL/CBL 1	NEUROSCIENCES MODULE	A 55 years old male smoker, K/C DM, HTN for 10 years. Taking amlodipine 5 mg and Glucophage 500mg. He comes in ER with right sided weakness and difficulty in speech since morning. O/E Patient is confused.	Learning objectives will be from Neurosciences
PBL/CBL 2	NEUROSCIENCES MODULE	A 30 years old male NKCM, presented in ER with Alter consciousness secondary to 3 episodes of jerking movements in all 4 limbs with clenching of teeth and up rolling of eyes since morning	Learning objectives will be from Neurosciences

### Learning Resources:

The students will be guided to look for the relevant study material from the books, internet guided by each discipline in the study guide in their relevant section in addition to other reference books from the college library

**Jinnah Medical & Dental College**  
**MBBS Final Year 2021 – Batch 21 (REVISED TIMETABLE)**

**Starting Date: August 8<sup>th</sup>, 2021**  
**Lecture Venue: JMCH AUDITORIUM, KORANGI**

	09:00 – 09:50	09:55-10:45	11:00-2:00 Clinics			2:10-3:00 CLINICAL TUTORIAL	3:30 pm–9:00 am	Teaching Facilitator
MON	MEDICINE	SURGERY	11-12 Mini CEX / DOPs	12-1 Bedside Teaching	1-2 CBD		NIGHT DUTY As Per Department Schedule	DR. Ashok Dr. Shariq
TUES	GYNECOLOGY	PEDIATRICS	11-12 Mini CEX / DOPs	12-1 Bedside Teaching	1-2 CBD	Clinical Scenario Discussion MEDICINE	NIGHT DUTY As Per Department Schedule	Dr. Mehwish Dr. Shariq
WED	Clinics			12:15 – 01:05 CLINICAL PATHOLOGY CONFERENCE	01:10 – 02:00 OBSTETRICS	CLINICAL TUTORIAL	NIGHT DUTY As Per Department Schedule	Prof. M. Ishaq Chauri Dr. Shariq
	9-10 Bedside Teaching	10-11 CBD	11-12 Mini CEX / DOPs					
THUR	9-10 Bedside Teaching	10-11 Mini CEX	11-12 CBD	12:15 – 01:05 CLINICAL PATHOLOGY CONFERENCE	01:10 – 02:00 MEDICINE	Clinical Scenario Discussion SURGERY	NIGHT DUTY As Per Department Schedule	Dr. Ashok Dr. Raheel
FRI	9:00-9:55 SURGERY	Clinics			11:30-01 CBD		NIGHT DUTY As Per Department Schedule	Dr. Nausheen  Dr. GA Lail
		10-11:30 Bedside Teaching						
SAT	Clinics			12:15 – 01:05 DEPARTMENTAL JOURNAL CLUB	01:10 – 02:00 CLINICAL TUTORIAL		NIGHT DUTY As Per Department Schedule	Prof. Ajeet Kumar Dr. Shariq
	9-10 Bedside Teaching	10-11 CBD	11-12 Mini CEX					

**Note: This timetable will be followed w.e.f. 20<sup>th</sup> September, 2021 onwards.**

**BUSES PROVIDED BY JMDC WILL LEAVE MEDICARE CAMPUS AT 8:15 AM SHARP**

**END of academic session**

**Medicine Theory MCQs**

**Medicine Practical OSCE**