

# Department of Medicine



## Study Guide MBBS

**Sharif Medical & Dental College,  
Lahore**



## PREFACE

Dear students, this study guide is an effort from your college and department of Internal Medicine to facilitate you in improving your understanding and knowledge of this subject and improving your learning as well as performance. This handbook is designed to make you familiar with the subject, learning objectives, detailed plans of lectures & clinical classes, assessments, and detailed course contents. The handbook is prepared according to the requirements of Pakistan Medical Commission and The University of Lahore guidelines.

The noble purpose of making you a competent, responsible, knowledgeable, lifelong learner and ethical doctor will only be possible if you work hard and pay extra attention, take keen interest and make untiring efforts to understand and practice not only the subject of Internal Medicine but your whole curriculum. You can make this possible with your discipline, punctuality, attention, dedication, and self-organization. You are always welcome to come to the department for anything concerning your understanding of the subject or any academic difficulty you face.

**“This document is an outline provided for the guidance of the students to learn & understand Medicine well. Students must clearly understand that no book can completely cover the vastness of the subject of Medicine. Students need to study a variety of books / literature in addition to all the teachings & trainings he/ she receives from the teachers to become a good physician.”**

We from the department of Internal Medicine, Sharif Medical and Dental College wish and pray for your success in future.

May Allah the Greatest of All, helps you and us in achieving this. Ameen.

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## **Vision & Mission of UHS**

Qualitative and Quantitative Revolution in Medical Education and Research through Evolution and thereby improve Health Care delivery to Populace.

UHS shall be innovative global center of excellence in learning and research, supporting a community of scholars and professionals committed to serving society, promoting the development of students to reach their true potential in becoming competent, ethical, caring, and inquiring health professionals for the benefit of the country and the wider world.

## **Mission of SMDC**

Sharif Medical & Dental College is dedicated to best serve the nation through preservation and dissemination of advanced knowledge and educating the students by latest trends in learning and research reaching levels pars excellence.

The Institution is committed to provide standardized quality medical education to its students by inculcating professional knowledge, skills and responsibilities in them with the aim of:

- Preparing them as modern physicians having initiative to act as future leaders in their respective fields and becoming lifelong learners.
- Encouraging the spirit of critical thinking through research and publication.
- Building up an understanding of the ethical values compatible with our religion, culture and social norms.
- Developing a sense of being responsible citizens of the society possessing professional competence and instilling in them the values of hard work and dedication thus preparing them to be accountable to the stakeholders and the state.

The Institution is devoted to keep abreast its faculty with the latest trends in Medical Education encompassing teaching/learning methodologies, assessment tools, research opportunities and professionalism to facilitate their professional development, competencies and commitment towards continues learning.

Our patient-centered mission is achieved by outstanding medical care & services in professional practice with due emphasis and focus on our local health needs.

Our mission further elaborate upon establishing academic and research facilities in areas of local demand under global gold standards and leading advancement in research, education & patient care.

## **Vision of SMDC**

To be recognized for the provision of a safe and functional environment conducive to collaborative teaching & learning, comfortable working atmosphere, and conducting world class research through professionalism and excellence.



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## GENERAL STUDENT LEARNING OBJECTIVES

The MBBS medical students at the end of the undergraduate training program in the subject of Internal Medicine should be able to demonstrate the following outcomes:

- Skillful
- Knowledgeable
- Community health promoter
- Critical thinker
- Professional and role model
- Researcher
- Leader

### **Course Objectives:**

At the end of undergraduate training program in the subject of Internal Medicine, the graduate should possess essential knowledge, skills and attitude in order to enable them to:

1. Take comprehensive history, perform detailed physical examination and make a probable diagnosis with a list of differential diagnoses.
2. Devise an investigation plan, interpret the information and apply his knowledge.
3. Suggest a treatment plan for patients.
4. Apprehend and diagnose possible complications.
5. Document all aspects properly and timely.
6. Write and present the cases.
7. Identify medical diseases presenting in out-patients, in-patients and emergency departments.
8. Provide primary health care, at the community level.
9. Perform essential medical emergency and planned procedures.
10. Communicate and counsel effectively with the patient, their families and the community, regarding disease and its relevant issues.
11. Understand medical ethical issues and their application in reference to Internal Medicine.
12. Maintain the confidentiality of the patient.
13. Counsel patients and families regarding common medical problems.
14. Guide the patients and families regarding rehabilitation.
15. Understand the prevalence and prevention of the common Public Health Problems related to Internal Medicine in the community.
16. Understand the principles of medical research including medical writing.
17. Understand the fundamentals of Information Technology and basic computer soft wares.
18. Understands the principles of sterilization and disinfection techniques to prevent infections to the patients and save himself or herself from patients.
19. Be a life-long self-directed learner.
20. Exhibit Professionalism.
21. Competent in Preventive Medicine.



## COURSE OUTLINE

### **1<sup>st</sup> and 2<sup>nd</sup> Year MBBS:**

The teaching & learning in Medicine will start from the first 2 years of MBBS along with the basic science subjects. Students will be taught theoretical aspects of **General Medicine** through lectures only. The topics will be taught in collaboration with the basic sciences heads to impart knowledge about the common clinical problems related to basic subjects. **Cardiology** and **Nephrology** will be taught in 1<sup>st</sup> and 2<sup>nd</sup> year respectively through lectures to provide basic theoretical knowledge about these specialties.

### **Third Year MBBS:**

The students will be taught important symptoms of systems and theoretical aspects of clinical methods etc. in the lectures. **Dermatology** and **Psychiatry** will be taught in lectures but assessment will be included in the final professional exam. Lectures of medicine specialties (**Gastroenterology**, **Pulmonology**, **Nephrology**, **Emergency Medicine** and **Cardiology**) will be part of the lecture schedule. In clinical classes in hospital, students will learn the practical aspect of the teachings with real patients. They will be trained to clinically practice the art of history taking, history writing & history presentation in addition to the practice of skills of conducting the clinical examination of patients.

### **Fourth Year MBBS:**

The teaching & learning in Medicine will be continued with addition of teaching actual textbook Medicine in lectures. In clinical classes students will be rotated in **Gastroenterology**, **Pulmonology**, **Nephrology**, **Dermatology** and **Cardiology** and expected to perform history taking, documentation, presentation and examination under supervision, to pick up the abnormal findings.

### **Final Year MBBS:**

The final year MBBS students are expected to learn Medicine to the level that at the end of the session they should be able to diagnose a patient of common ailments, with the help of history and physical examination. They should be able to devise a plan of investigation and appropriate treatment & rehabilitate. They should also be able to apprehend and prevent the common complications of that problem.

The whole curriculum of Medicine is planned in such a way that it helps in achieving all these learning objectives.



## MODES OF INFORMATION TRANSFER

### LECTURES:

Lectures are planned to give the theoretical knowledge of the course contents. The main purpose of the lectures is to broadly introduce the topic or disease. The lecture schedule with the name of the tutor is mentioned below in the tabulated form. The lectures are taken at the lecture halls of main college building according to the annual devised schedule or academic calendar. Due to COVID-19 pandemic and lockdown with closure of colleges and universities, the classes were interrupted. Online classes through ZOOM meetings, Google classrooms and other online teaching modes were also started.

### CLINICAL TEACHING:

Clinical teaching of students of final year MBBS is done at the affiliated hospitals.

1. Sharif Medical City Hospital, Raiwind Road, Lahore.
2. Ittefaq Hospital, Ferozpur road, Lahore.

### Clinical Teaching Strategies:

- **Out Door Teaching**
- **Ward Teaching**
  - History taking
  - Clinical methods
  - Bedside teaching
  - Ward rounds
  - Case based learning
- **Small group discussions**
- **Clinical Tutorials**
- **Clinico-pathological Conference**
- **Individual presentations and assignments**
- **Skill lab activities**
- **OSCE Examination Practice**
- **Clinical Cards/Log book**, to document and monitor clinical training.

### Objectives of Clinical Classes / Training:

Clinical classes are meant to develop clinical orientation, and approach in a medical student to make him, knowledgeable and expert in dealing with patients in all aspects including, history taking, general & systematic physical examinations, investigations, treatment, rehabilitations, counseling, follow-ups, and possible complications. Students are taught how to manage a patient as a whole, not the concerned disease only.



## TEACHING SCHEDULE OF 1ST YEAR MBBS

There will be one clinical lecture of Medicine per week of one hour duration on Saturday. Cardiology lectures are also taken from 22<sup>nd</sup> October 2021 to 26<sup>th</sup> November 2021 (Friday – 45 minutes duration). These lectures will orient the students regarding clinical aspects of Medicine at a very basic and initial level. Clinical symptoms will be discussed at the basic level. with special emphasis on alarm sign about that particular case.

### Summary of Lectures:

- Medicine – Saturday
- Cardiology – Friday

Date	Topic
1.	Introduction to Medicine
2.	Approach to the patient
3.	Overview of the History taking
4.	Patient Biodata
5.	Presenting complaint
6.	History of present Illness
7.	Past/Personal/Family/Social Hx
8.	Overview of Differential diagnosis
9.	GCS
10.	Vital signs
11.	Overview of Pulse
12.	Overview of Blood pressure
13.	Overview of temperature
14.	Over view of respiratory rate
15.	Approach to unconscious patient
16.	Approach to headache
17.	Approach to fever
18.	<i>Introduction to CVS</i>
19.	ALARM SIGNS in abdominal pain



20.	<i>Approach to chest pain</i>
21.	Approach to abdominal pain
22.	<i>Approach to dyspnea, orthopnea, PND</i>
23.	Approach to cough
24.	<i>Approach to palpitation</i>
25.	Approach to expectoration and hemoptysis
26.	<i>Introduction heart sounds</i>
27.	Approach to abdominal distension
28.	<i>Introduction to BP</i>
29.	Approach to vomiting
30.	Approach diarrhea
31.	Approach to Jaundice
32.	Approach to fits
33.	Approach to edema
34.	Approach to Anemia
35.	Approach to joint pain
36.	Overview of common medical terminologies
37.	Approach to urinary symptoms
38.	Overview of thyroid symptoms
39.	Overview of diabetes symptoms
40.	Importance of investigations
41.	Revision



## TEACHING SCHEDULE OF 2<sup>ND</sup> YEAR MBBS

There will be one clinical lecture of Medicine per week of one hour duration on Monday. Nephrology lectures are also taken from 11<sup>th</sup> November 2021 to 09<sup>th</sup> December 2021 (Thursday – 45 minutes/ lecture). These lectures will orient the students regarding clinical aspects of Medicine at a very basic and initial level. Clinical symptoms will be discussed at the basic level with special emphasis on alarm sign about that particular case.

### Summary of Lectures:

- Medicine – Tuesday
- Nephrology – Thursday

Date	Topic
1.	Introduction to Medicine
2.	Approach to the patient
3.	Overview of the History taking
4.	Patient Biodata
5.	Presenting complaint
6.	History of present Illness
7.	Past/Personal/Family/Social Hx
8.	Overview of Differential diagnosis
9.	GCS
10.	Vital signs
11.	Overview of Pulse
12.	Overview of Blood pressure
13.	Overview of temperature
14.	Over view of respiratory rate
15.	Approach to unconscious patient
16.	Approach to headache
17.	Approach to fever
18.	ALARM SIGNS in abdominal pain
19.	Approach to abdominal pain

20.	Approach to cough
21.	Approach to expectoration and hemoptysis
22.	<i>Introduction to Nephrology</i>
23.	Approach to abdominal distension
24.	<i>Symptoms of Kidney diseases</i>
25.	Approach to vomiting
26.	<i>Approach to polyuria</i>
27.	Approach diarrhea
28.	<i>Overview of urinary symptoms</i>
29.	Approach to Jaundice
30.	<i>Overview of nephrology diseases</i>
31.	Approach to fits
32.	Approach to edema
33.	Approach to Anemia
34.	Approach to joint pain
35.	Overview of common medical terminologies
36.	Approach to urinary symptoms
37.	Overview of thyroid symptoms
38.	Overview of diabetes symptoms
39.	Importance of investigations
40.	Signs of meningeal irritation
41.	Revision



## TEACHING SCHEDULE OF 3<sup>RD</sup> YEAR MBBS

There will be one clinical lecture of General Medicine every week in third year MBBS. Lectures for medicine and allied subspecialties (Gastroenterology, Pulmonology, Emergency Medicine) are included in the schedule. These lectures will provide orientation to the students regarding clinical aspects of Medicine at a very basic and initial level. They will be taught history taking, history writing & history presentation, general and systemic physical examinations, especially their theoretical aspects.

Clinical classes will be conducted in the hospital and include clinical rotation in the department of medicine. Class will be divided in 5 sub-batches and each batch attends medicine ward for 8 weeks. During hospital work students also attend the skill labs according to schedule.

### Summary of Lectures:

- Medicine – Thursday
- **Psychiatry** – Wednesday
- Gastroenterology – Friday
- Pulmonology – Friday
- **Dermatology** – Wednesday
- Emergency – Friday
- Cardiology – Wednesday
- Nephrology – Wednesday

Date	Topic
1.	Introduction to psychiatry
2.	Introduction to Medicine
3.	Introduction to Gastroenterology
4.	Psychiatry symptoms
5.	Approach to the patient
6.	Symptoms of Gastrointestinal diseases
7.	Depression
8.	Overview of the History taking
9.	Dysphagia
10.	Anxiety
11.	Overview of Clinical Exam.
12.	Abdominal pain

13.	Mania
14.	Overview of DD/ Diagnosis
15.	Diarrhea
16.	Psychosis
17.	Symptomatology
18.	Schizophrenia
19.	Pain & types of pain
20.	Acute confusional state
21.	Fever
22.	Suicide
23.	Polyuria/ Nocturia
24.	Introduction to Pulmonology
25.	Anti-psychotic drugs
26.	Frequency/ Dysuria
27.	Symptoms of Pulmonology
28.	Approach to breathlessness
29.	Approach to cough
30.	Alcoholism
31.	Pyuria/ Hematuria
32.	Sputum/ hemoptysis
33.	Hallucinations
34.	Urinary incontinence
35.	Stridor/ wheeze
36.	Phobic disorders
37.	Edema
38.	Orthopnea/ PND
39.	Drug dependence
40.	Chest pain
41.	Pulmonary function test

42.	Revision of psychiatric disorders
43.	Palpitation
44.	Clubbing
45.	Introduction to skin diseases
46.	Medical Ethics/ Counselling
47.	Erythematous Rashes
48.	CVA
49.	Bullous eruptions
50.	Oral cavity lesions
51.	Acne vulgaris
52.	Nausea/ vomiting
53.	Infestations -Scabies
54.	Indigestion/dyspepsia/flatulence
55.	Leprosy
56.	Heartburn and epigastric pain
57.	Syphilis and other STDs
58.	Dysphagia
59.	Psoriasis
60.	Hematemesis/ Malena
61.	Chicken pox
62.	Pulse examination and Pulses
63.	Introduction to emergency medicine
64.	Measles
65.	JVP
66.	Approach to Acute Dyspnea
67.	Pemphigus
68.	Heart sounds and murmurs
69.	Approach to Acute chest pain
70.	Steven johnson syndrome

71.	Cardiac failure
72.	Approach to Acute febrile illness
73.	Herpes simplex and Zoster
74.	Cranial nerve lesions
75.	DKA
76.	Lichen planus
77.	Meningism
78.	Hypoglycemia
79.	Eczema
80.	UMN/ LMN lesions
81.	Approach to an Unconscious patient
82.	Symptoms of cardiac patients
83.	Facial pain
84.	Rheumatic fever
85.	Convulsions/ Fits
86.	Pulse and types of pulses
87.	Conscious status/ coma
88.	Symptoms of Renal disease
89.	GCS
90.	Acute renal failure
91.	Higher mental functions
92.	Chronic renal failure
93.	Speech disorders
94.	Nephrotic syndrome
95.	Revision



## TEACHING SCHEDULE OF 4<sup>TH</sup> YEAR MBBS

There will be two lectures of Medicine & Allied every week in fourth year MBBS. These lectures will be covering the very important aspects to orient the students regarding clinical aspects of Medicine. They will be taught history taking, history writing & history presentation, general and systemic physical examinations, especially their theoretical aspects. The clinical rotation in the hospital will be carried out in batches and there will be 6 batches of equal number of students. Each batch will attend the medicine department and will be rotated in the general medicine ward and allied wards (Dermatology, Cardiology and Nephrology) according to the schedule mentioned below. They will be taught in SGD, PBL and given assignments to complete. Each batch will go to Ittefaq Hospital, Lahore once week for 6 hours where they will be taught in SGD and PBL. The time table is shown below.

### Summary of General Medicine Lectures:

Date	Topic
1.	Introduction/ Medical Ethics/ Counseling
2.	Overview of History taking
3.	Overview of Clinical examination
4.	Chest pain
5.	Dyspnea/ Orthopnea/ PND
6.	Palpitations
7.	Edema
8.	Pulse
9.	JVP
10.	Systemic Hypertension
11.	IHD/
12.	MI
13.	CCF
14.	Rheumatic fever
15.	HTN
16.	Valvular heart disease/ Mitral valve disease
17.	Aortic/ other Valvular lesions
18.	Infective Endocarditis
19.	Cough/ sputum



20.	Hemoptysis/ Hematemesis
21.	Bronchial asthma
22.	COPD
23.	Pleural effusion
24.	Pneumonias
25.	Tuberculosis
26.	Tuberculosis
27.	Pulmonary embolism
28.	Lung carcinoma
29.	Jaundice
30.	Abdominal distension/ Ascites
31.	Vomiting/ Dysphagia
32.	APD/ GERD
33.	Diarrhea
34.	Inflammatory Bowel Disease
35.	Pancreatitis
36.	Hepatitis
37.	Cirrhosis of liver
38.	Upper GI Bleed
39.	Cirrhosis – Other complications
40.	D/ D of Skin Lesions
41.	Urticaria / Angioedema
42.	Chicken pox
43.	Rheumatoid arthritis
44.	Systemic Lupus Erythematosus
45.	Gout
46.	Osteoarthritis
47.	Headache
48.	Convulsions

49.	Coma
50.	Meningitis
51.	Stroke – CVA
52.	CVA – Other
53.	Diabetes Mellitus
54.	Diabetes Mellitus
55.	Hypoglycemia
56.	Goiter – Hypothyroidism
57.	Hyperthyroidism
58.	Cushing’s disease
59.	Addison’s disease
60.	Anxiety
61.	Depression
62.	Cyanosis
63.	Lymphadenopathy
64.	Anemia – IDA
65.	Megaloblastic anemia
66.	Thrombocytopenia
67.	Urological symptoms
68.	ARF
69.	Glomerulonephritis
70.	Nephrotic syndrome
71.	CRF
72.	CRF – Dialysis
73.	Fever / PUO
74.	Malaria
75.	Typhoid
76.	Dengue
77.	Sepsis



## TEACHING SCHEDULE OF FINAL YEAR MBBS

### Lecture Schedule:

The detailed lecture break-up with student learning objectives is given at the end of the subject handbook. There will be three lecture of 45 minutes duration per week. The important topics will be taught in lectures either in the college classrooms or through online media (10% of lectures). This schedule may be changed time to time according to the requirements.

The breakup is as follows:

Sr. No.	Topics	No. of Lectures
1	Rheumatology	14
2	Respiratory system	11
3	Cardiovascular system	15
4	Gastrointestinal diseases	12
5	Liver diseases	09
6	Hematology and oncology	08
7	Infectious diseases	09
8	Diabetes Mellitus	06
9	Endocrinology	10
10	Poisoning / metabolic diseases/ immunology/ Genetics	10
11	Revision of important topics or adjustments	10
	<b>TOTAL</b>	<b>116</b>

**IMPORTANT:** the detailed plan of the lectures is proposed and is expected to be changed, time to time and according to the requirements. this is just to give you a broader overview.



## **COURSE OUTLINE FINAL YEAR (MEDICINE & ALLIED)**

### **Distribution of subjects**

#### **Paper-I:**

1. CVS diseases
2. Respiratory disease
3. Rheumatological and bone diseases
4. Neurology and CNS
5. Gastrointestinal system
6. Hepatobiliary and Pancreas
7. Blood or hematology

#### **Paper-II:**

1. Infectious Diseases
2. Endocrinology including Diabetes
3. Genitourinary System, Acid & Base, water and electrolyte Balance
4. Oncology
5. Genetics, Immunology & Metabolic Diseases
6. Psychiatry
7. Dermatology

### **Lecture Topics Final Year**

#### **CARDIOLOGY**

1. Rheumatic fever and infective endocarditis
2. Valvular heart diseases: Mitral valve, Aortic valve
3. IHD: Angina, Myocardial infarction
4. Cardiac arrhythmias: AF, VT, PAC, PVC
5. Heart failure: LVF, CCF, Cor pulmonale, cardiomyopathies
6. Hypertension
7. Congenital heart diseases (brief): Cyanotic/ acyanotic heart diseases, Fallot's tetralogy, ASD, VSD, PDA
8. Pericardial diseases: Constrictive pericarditis, Pericardial effusion
9. Atherosclerosis/arteriosclerosis: Peripheral vascular disease, Arteriosclerosis, Acute & chronic ischemia of the leg, Aneurysms, Buerger's disease, Raynaud's disease.
10. Hyperlipidemia
11. Investigations: Electrocardiography, Xray chest, Echocardiography, Thallium Scan, Stress Testing, Holter And Angiography.

#### **PULMONOLOGY:**

1. Asthma.
2. COAD: Chronic bronchitis, Emphysema.



3. Pneumonia: Community acquired, Nosocomial, Lobar and bronchopneumonia
4. Bronchiectasis.
5. Tuberculosis.
6. Environmental lung diseases/occupational: Interstitial lung diseases, Asbestosis, Silicosis, Bagassosis, Pneumoconiosis, Byssinosis, Farmer's lung
7. Acute respiratory failure: Type-I and type-II respiratory failure, Adult respiratory distress syndrome, Mechanical ventilation
8. Pulmonary thromboembolism: DVT, Acute cor-pulmonale.
9. Disorders of chest wall and pleura: Pleurisy, Pleural effusion, Pneumothorax, empyema, Chest trauma, Deformities of the rib cage.
10. Tumors of the lung.
11. Basics of pulmonary function tests.
12. Imaging in pulmonary diseases/investigations

### **GI & HEPATOBILIARY DISEASE:**

1. Oral cavity: Infections and inflammatory disorders
2. Esophageal disorders: Dysphagia with special reference to Ca esophagus/ GERD/ Achalasia/ Candidiasis
3. Stomach: Gastritis, Peptic ulcer disease, H. Pylori infection
4. Intestines: Malabsorption syndromes, Tropical sprue, Coeliac disease, Irritable bowel syndrome (IBS)
5. Inflammatory bowel diseases: Ulcerative colitis, Crohn's disease
6. Ascites.
7. Jaundice: Congenital hyperbilirubinemia, Gilbert syndrome, Dubin Johnson syndrome, Rotor syndromes, Hemolytic, Obstructive
8. Hepatitis: Viral, acute and chronic, Toxic, Drugs, Auto immune hepatitis.
9. Cirrhosis of liver with complications: Hepatic encephalopathy, Upper & Lower GI bleeding.
10. Carcinoma liver and transplant.
11. Acute and chronic pancreatitis

### **ENDOCRINE DISEASES:**

1. Anterior pituitary: Growth hormone disorders- Acromegaly/ Gigantism, Short stature, Infertility.
2. Diseases of hypothalamus and posterior pituitary: Empty sella syndrome, Diabetes insipidus, Syndrome of inappropriate ADH secretion (SIADH).
3. Thyroid gland: Hyperthyroidism (thyrotoxicosis), Hypothyroidism (myxedema, cretinism), Inflammatory lesions, Benign and malignant tumors.



4. Adrenal Gland: Cushing Syndrome, Aldosteronism (Primary/Secondary), Hirsutism, Addison's disease/ Acute Addisonian crisis, Inflammatory lesions, Adrenocortical tumors including Pheochromocytoma.
5. Endocrine Pancreas: Diabetes mellitus and hypoglycemic states, Other associated endocrine disorders.
6. Testes: Sexual precocity, Heterosexual precocity, Gynecomastia, inflammations, Tumors.
7. Multiple endocrine neoplasia: Type I, Type II.

#### **RHEUMATOLOGY:**

1. Osteoarthritis.
2. Osteoporosis.
3. Rheumatoid arthritis and related arthropathies.
4. Gout and hypercalcemia.
5. Paget's disease of the bone.
6. Osteopetrosis (marble bone disease).
7. Multiple myeloma.
8. Multi-System Immunological Diseases.
9. Systemic lupus erythematosus (SLE).
10. Serum sickness.
11. Systemic sclerosis (scleroderma).
12. Mixed connective tissue diseases (brief), Sjogren's syndrome (brief), Ankylosing spondylitis, Bechet's syndrome (brief),
13. Vasculitis syndromes (brief), Anaphylactoid purpura, Polyarteritis nodosa, Hypersensitivity vasculitis, Wegner's granulomatosis, Temporal arteritis, Takayasu's arteritis, Thromboangitis obliterans (Burger's disease)
14. Sarcoidosis (brief).

#### **METABOLIC DISORDER:**

1. Hemochromatosis
2. Porphyrias
3. Wilson's disease
4. Storage diseases.
5. Lipid: Leukodystrophies, Niemann pick disease, Gaucher's disease.
6. Glycogen: Fabry's disease
7. Hereditary connective tissue disorders: Osteogenesis imperfect, Ehler's danlos, syndrome, Chondrodysplasias, Marfan syndrome.
8. Alport syndrome.
9. Disorders of amino acid metabolism and storage: Homocystinuria, Alkaptonuria, Hartnup disease.
10. Renal glycosuria.



## **INFECTIOUS DISEASES:**

### **1. Clinical syndromes:**

- a. Sepsis and septic shock.
- b. Meningococemia.
- c. Acute infectious diarrheal diseases and bacterial food poisoning.
- d. Hospital acquired infections.

### **2. Common disease syndromes caused by the following bacteria and their drug therapy:**

- a. Pneumococci.
- b. Staphylococci.
- c. Streptococci.
- d. Hemophilus influenzae.
- e. Shigella.
- f. Gonococci.
- g. Pseudomonas.

### **3. Following diseases in detail:**

- a. Tetanus.
- b. Enteric fever/salmonellosis.
- c. Cholera.
- d. Tuberculosis.
- e. Leprosy.
- f. Amoebiasis/giardiasis/trichomoniasis.
- g. Malaria.
- h. AIDS.
- i. Rabies.
- j. Infectious mononucleosis.

### **4. Helminthic infestations:**

- a. Ascariasis.
- b. Hookworm.
- c. Whipworm (trichiasis).
- d. Threadworm (entrobiasis).
- e. Taenia (tapeworm).
- f. Hydatid diseases

## **HEMATOLOGICAL DISORDERS:**

1. **Anemias:** Classification, Iron deficiency, Megaloblastic (B-12 deficiency/ Folic acid deficiency), Anemia of chronic disorder, Hemolytic anemia (Hereditary/ Acquired/ Intra-corporcular/ Extra-corporcular), Aplastic anemia.
2. **Haemoglobinopathies:** Sickle cell syndromes, Thalassemia.



3. **Myeloproliferative diseases:** Chronic myeloid leukemia (CML), Polycythemia vera, Myelofibrosis, Essential thrombocytosis, Leukemias (Acute/ Chronic), Lymphomas (Non-Hodgkin's/ Hodgkin's).
4. **Disorders of hemostasis:** Thrombocytopenia, Idiopathic thrombocytopenic purpura (ITP), Von Willebrand's disease, Vessel wall disorders, Disorders of coagulation, Hemophilia, Vitamin K deficiency, Disseminated intravascular coagulation (DIC).
5. **Anticoagulants Therapy:** Heparin, Oral (warfarin etc.), Vit. K infusion, Antiplatelet drugs.
6. Blood groups and blood transfusion.
7. Bone marrow transplantation.

#### **MISCELLANEOUS/ EMERGENCY:**

1. Heat stroke.
2. Snake bite.
3. Electric shock.
4. Poisoning etc.

#### **KIDNEYS AND URINARY SYSTEM:**

1. Acute renal failure
2. Chronic renal failure
3. Nephrotic syndrome
4. Nephritic syndrome
5. Urinary tract infections
6. Inflammatory lesions of the kidneys
7. Introduction to dialysis & renal transplant
8. Drugs causing renal disease (brief) (Analgesic nephropathy, Lead, uric acid, hypercalcemia, radiation & hypersensitivity, Nephropathy, Drugs contra-indicated in renal insufficiency, Drugs to be used with caution in renal disease)
9. Polycystic kidneys
10. Renal vascular disorders (Renal artery stenosis, Renal vein thrombosis, Tumors,
11. Hemolytic uremic syndrome
12. Prostatic diseases

#### **DERMATOLOGY:**

1. Infestations: Scabies, Pediculosis
2. Leprosy
3. Syphilitic lesions & other STDs
4. Eczemas
5. Psoriasis
6. Acne vulgaris





7. Lichen planus
8. Chicken pox, herpes simplex and Herpes zoster
9. SJ syndrome
10. Bullous disorders
11. Pigmentary disorders
12. Disorders of hairs and nails

### **NEUROLOGY:**

1. CVA (• Ischemic • Embolism • Infarction • Hemorrhage)
2. Meningitis (Bacterial, TB, Viral)
3. Encephalitis
4. Brain abscess, SOL Brain, Hydrocephalus
5. Epilepsy and other convulsive disorders
6. Parkinson's disease and other movement disorders
7. Myasthenia gravis
8. Dementia and Alzheimer's disease
9. Myopathies and Muscular dystrophies
10. Peripheral nerve disorders (• Peripheral polyneuropathy • Gullian Barry syndrome)
11. Motor neuron disease
12. Multiple sclerosis
13. Cranial nerve and Spinal cord disorders

### **PSYCHIATRY:**

1. Anxiety disorders (acute and generalized anxiety states)
2. Major Depressive disorders
3. Schizophrenia
4. Alcoholism, Addiction
5. Phobic disorders



## **CLINICAL/ WARD TRAINING:**

**History taking, GPE, Interpretation of related radiological and laboratory investigations, General medication and prescription writing.**

## **PROCEDURES (OBSERVE/ ASSIST/ LEARN):**

1. ECG taking and basic reading i.e. Normal, Acute MI, Ischemia, complete heart block, APC, VPC, SVT, VT etc.
2. X-ray chest interpretation.
3. Electro-version therapy (DC shock) with indications, complications etc
4. Echocardiography, Thallium Scan, Stress Testing, Holter and Angiography Etc.
5. Pericardial effusion aspiration.
6. Thrombolytic therapy, heparinisation/ anticoagulation therapy and control, antiplatelet therapy, nitrates infusion, digitalization, treatment of acute pulmonary oedema, O2 therapy.
7. Cardiac monitoring.
8. Basics of ETT.
9. How to start O2 therapy, indications, complications.
10. Pleural aspiration
11. Endotracheal suction
12. Pleural biopsy.
13. FNA biopsy
14. Under water seal aspiration
15. Management of respiratory failure
16. Bronchoscopy
17. N/G tube passing and feeding
18. Peritoneal fluid aspiration.
19. Endoscopies, upper and lower GIT, Preparing a patient for GI endoscopies.
20. Bone marrow aspiration/trephine.
21. Injection I/V, I/M, S/C, intradermal, cutdown, CVP.
22. IV lines/Fluids/ Blood/Blood products.
23. Oxygen therapy, Nebulisation.
24. Urinary catheterisation, Foley's catheter/Red rubber catheter.
25. Collection of samples, Collection of blood samples/ blood film preparation.
26. IOP record maintenance.
27. Aspiration of fluids (Pleural, Pericardial, Peritoneal, Knee).
28. Lumbar Puncture.

## **CVS:**

## **CASE DISCUSSIONS:**

1. Systemic hypertension
2. IHD



3. CCF
4. Valvular diseases and infective endocarditis

**D/D:**

1. Palpitation
2. Breathlessness
3. Chest pain
4. Raised JVP

**PULMONOLOGY:**

**CASE DISCUSSIONS:**

1. Bronchial asthma
2. Chronic obstructive airway disease
3. Pleural effusion
4. Pneumonia
5. Pulmonary tuberculosis
6. Type-I and type-II respiratory failure
7. Bronchogenic carcinoma

**D/D:**

1. Cough/expectoration/sputum, Haemoptysis
2. Breathlessness, Orthopnoea, Paroxysmal nocturnal dyspnoea (PND)
3. Wheezing

**GI & HEPATOBILARY:**

**CASE DISCUSSIONS:**

1. Acid peptic disease, Variceal bleeding and peptic ulcer bleeding.
2. Tender hepatomegaly, Hepatosplenomegaly.
3. Jaundice, Chronic liver disease.
4. Acute and chronic diarrhoea
5. Abdominal Koch's infection

**D/D:**

1. Oral ulceration
2. Dysphagia, Heart burn
3. Nausea/vomiting, heart burn, Indigestion/flatulence
4. Acute diarrhoeal diseases, Diarrhoea and constipation
5. Melena, hematemesis, bleeding per rectum
6. Abdominal distension/ascites



## **ENDOCRINE DISEASES:**

### **CASE DISCUSSIONS:**

1. Diabetes mellitus
2. Thyroid diseases
3. Cushing's disease
4. Infertility and common reproductive disorders

## **RHEUMATOLOGY:**

### **CASE DISCUSSIONS:**

1. Rheumatoid arthritis.
2. Osteoarthritis.
3. Multiple Myeloma.
4. SLE

### **D/D:**

1. Joint pain, swelling and deformities.
2. Muscle cramps, Muscle weakness, Muscular wasting.

## **INFECTIOUS DISEASES:**

### **CASE DISCUSSIONS:**

1. Malaria.
2. Typhoid fever.
3. Generalized septicaemia.

### **D/D:**

1. Fever, PUO,

## **HEMATOLOGY:**

### **CASE DISCUSSIONS:**

1. Anaemias.
2. Bleeding disorders.
3. Myeloproliferative or lymphoproliferative diseases.

## **THE LOG BOOK/ CLINICAL CARD RECORD:**

The log book is a collection of evidence that learning has taken place, it is a reflective record of achievements. The students are expected to make a record of his/her achievements in the log book. The log book shall also contain a record of the procedures which student would have performed in final year.

## **FEEDBACK:**

The teaching faculty will give constructive feedback on the performance of the students. This will be individual in clinical classes and collective in class tests and mega tests (however students who fail to perform good in tests or those who want to know about their performance may be given individual feedback). Students should take all the feedbacks in positive spirit &



attitude to find out the level of their performance, areas where they need improvements and suggestions and guidance from the teachers, how to improve the weaknesses etc. the sole purpose of feedbacks is to improve the learning of students.

### **ATTENDANCE:**

- Students are required to ensure maximum attendance in all sections including lectures and clinical classes.
- Minimum attendance to qualify for appearing in final professional examination is 75% of lectures and clinical classes. But this is not the desired level. All students should make sure that they attend the classes 100%, except some unavoidable circumstances. Because missing one lecture or clinical class means one has missed a topic, a disease or a very important aspect of the subject.
- If a student is continuously absent for 07 days or more, his /her name will be stuck off from the college, and he /she will have to get re-admission after consideration by the administration.



## CONTINUOUS INTERNAL ASSESSMENT

Internal assessment carries 10% weightage in final professional examination. It will be decided by the performance of student in the whole academic year.

### Course Learning Outcomes and assessment methods:

At the end of the session / section; the student will be able to

1. Diagnose a case scenario
  2. Devise an investigation plan
  3. Write down a comprehensive management plan
  4. Describe the common complications and their management
  5. Knows the follow up & rehabilitation plan of the common as well as important diseases of a particular system.
- **Formative Assessment (MCQ/SEQ Test);**

Sr. No.	TOPIC	Formative Assessment
1	<b>Gastroenterology</b>	MCQ/SEQ Test
2	<b>Cardiology</b>	MCQ/SEQ Test
3	<b>Rheumatology</b>	MCQ/SEQ Test
4	<b>Diabetes Mellitus</b>	MCQ/SEQ Test
5	<b>Infectious diseases</b>	MCQ/SEQ Test
6	<b>Pulmonology</b>	MCQ/SEQ Test
7	<b>Endocrinology</b>	MCQ/SEQ Test
8	<b>Poisoning/ metabolic diseases/ immunology/ Misc.</b>	MCQ/SEQ Test
9	<b>Hepatology</b>	MCQ/SEQ Test
10	<b>Hematology/ Oncology</b>	MCQ/SEQ Test



## STAFF CONTACT

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10	Dr. Muhammad Moosa	<a href="mailto:dr.moosaljr@gmail.com">dr.moosaljr@gmail.com</a>
11	Dr. Ayaz Ahmad	



## **RECOMMENDED BOOKS / MATERIALS**

1. **Davidson's Principles and Practice of Medicine** by Davidson. 23<sup>rd</sup> edition.
2. **Kumar & Clark's Clinical Medicine** by Parveen J Kumar & Michael Clark. 9<sup>th</sup> Edition
3. **Hutchison's Clinical Methods** by Michael Swash. 21<sup>st</sup> edition
4. **Basic psychiatry** by Myre Sim, e. B. Gordon
5. **Oxford Text Book of Psychiatry**
6. **ABC of Dermatology**. Latest Edition.
7. **Smith's General Urology** by Emil A. Tanagho and Jack W. McAninch 15<sup>th</sup> edition.2007
8. **Online Journals and Reading Materials** through HEC Digital Library Facility.

### **RESOURCE PERSONS:**

1. **Professor Ayub Latif Khawaja (Head of Department of Medicine)**
2. **Professor Taj Jamshaid (Professor of Medicine)**