



INTEGRATED MODULAR COURSE

STUDENT'S STUDY GUIDE

MBBS YEAR III

2023-2024



BAQAI MEDICAL COLLEGE BAQAI MEDICAL UNIVERSITY

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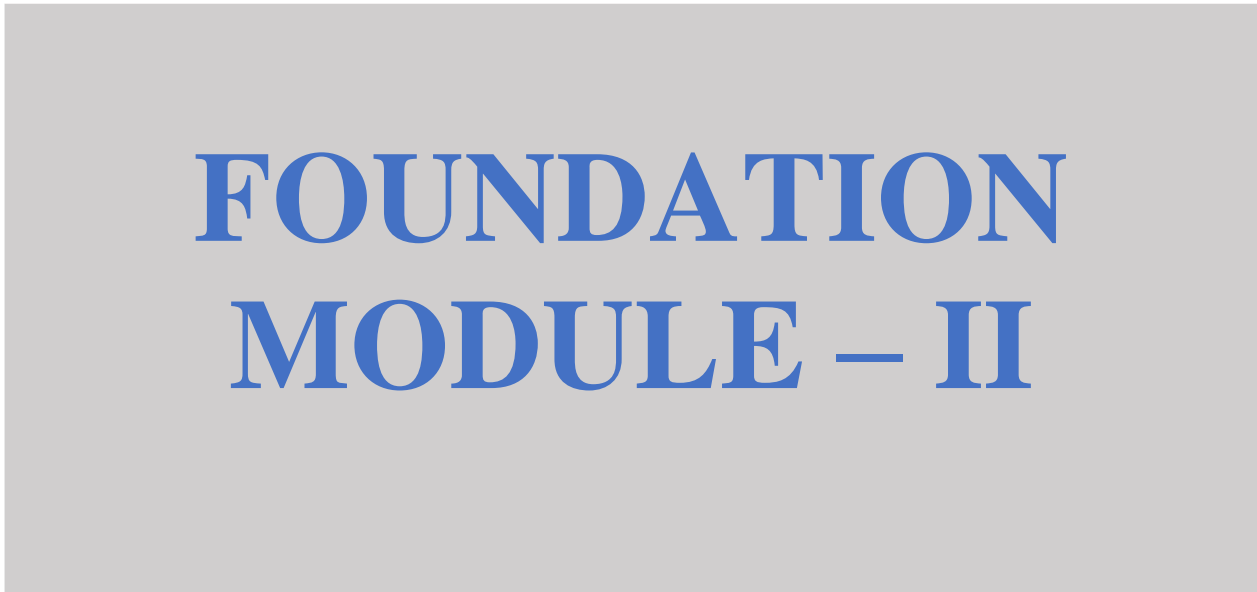
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SPIRAL II



FOUNDATION MODULE – II

(Duration: 8 Weeks)



MODULAR COMMITTEE FOR FOUNDATION MODULE-II

1.	Dr. Sarah Azhar (Pathology)
2.	Dr. Nazia Jameel (Community Medicine)
3.	Dr. Faraz Saleem (Pharmacology)
4.	Dr. Rafay A. Siddiqui (Forensic Medicine)
5.	Ms. Maria Rahim (Research)
6.	Dr. Azra Shaheen (Behavioral Sciences)
7.	Dr. Saadia Akram (Gynae / Obs.)
8.	Dr. Bushra Rabbani (Medicine)
9.	Dr. S. M. Abdullah Bukhari (Surgery)
10.	Dr. Talal Bin Taheer (Medical Education)

Module Number	Module Name	Dates	Duration	Module In charge	Assessment Date & Pattern
1.	Foundation Module	Begins: 13 th March, 2023 Ends: 12 th May, 2023	8 weeks	Dr. Sarah Azhar	07 th July, 2023 (Subject to minor changes) MCQs, SEQs & OSPE/Viva

ASSESSMENT TOOLS:

1. Formative assessment
 - Quiz (face to face or online)
2. Summative assessment
 - MODULAR EXAM:
 - A single modular exam will be held at the end of module which will include all the subjects taught in the module.
 - Module will be assessed by MCQ, SEQ and OSPE / Viva.

DEPT. OF PATHOLOGY
LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

(CELL INJURY, CELL DEATH & CELLULAR ADAPTATIONS, INFLAMMATION, HEMODYNAMIC DISORDERS, HEALING & REPAIR)

By the end of each lecture, the students of 3rd year MBBS will be able to:

CELL INJURY, CELL DEATH, CELLULAR ADAPTATIONS			
TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Cell Injury	Lecture # 1	1	<ul style="list-style-type: none"> • Define cell injury. • Categorize the causes of cell injury. • Differentiate between reversible and irreversible cell injury.
Cell Injury	Lecture # 2	1	<ul style="list-style-type: none"> • Describe the pathogenesis of cell injury. • Define Ischemic and hypoxic injury, Ischemic/reperfusion injury. • Describe oxidative stress induced cell injury. • List free oxygen reactive species with antioxidants. • Describe chemical injury.
Cell Death	Lecture # 3	0.75	<ul style="list-style-type: none"> • Define necrosis. • Describe types of necrosis with examples.
	Lecture # 4	1.5	<ul style="list-style-type: none"> • Recall cell cycle. • Define Apoptosis. • List the examples of Apoptosis. • Describe the step-by-step patho-physiology of Apoptosis.
Intra-cellular accumulations, pathological pigmentation, Pathological calcification	Lecture # 5	2	<ul style="list-style-type: none"> • List different types of Intra-cellular accumulations. • Define pathological pigmentation. • List types of pigments. • Differentiate between endogenous and exogenous pigments. • Define pathological calcification. • List the differences between dystrophic and metastatic calcification with examples of each.
Cellular Adaptations	Lecture # 6	0.75	<ul style="list-style-type: none"> • Define cellular adaptations. List the types. • Describe mechanism of Hypertrophy. • Describe mechanism of Hyperplasia. • Describe the mechanism of atrophy. • List physiological & pathological examples of these adaptations.
	Lecture # 7	0.75	<ul style="list-style-type: none"> • Describe the mechanism of Metaplasia with its physiological & pathological examples.

INFLAMMATION			
Acute Inflammation	Lecture # 8	0.75	<ul style="list-style-type: none"> • Define inflammation. • List the hall marks of inflammation. • List the types of inflammation. • Define acute inflammation. • List the causes of acute inflammation. • Tabulate plasma derived mediators & cell derived mediators.
	Lecture # 9	0.75	<ul style="list-style-type: none"> • Describe the sequence of cellular events involved in acute inflammation in relation with chemical mediators. • Describe the sequence of vascular events involved in acute inflammation in relation with chemical mediators.
Chronic Inflammation	Lecture # 10	0.75	<ul style="list-style-type: none"> • Define chronic inflammation. • List the causes of chronic inflammation. • Define granulomatous & agrnulomatous inflammation. • Discuss the pathogenesis of granulomatous & agrnulomatous inflammation and role of chemical mediators.
Outcomes of inflammation	Lecture # 11	2	<ul style="list-style-type: none"> • Describe the outcomes inflammation. • Classify the various defects of inflammation. • Classify the systemic effects of inflammation.
DISORDERS OF HEALING & REPAIR			
Overview to tissue healing and repair	Lecture # 12	0.75	<ul style="list-style-type: none"> • Define Healing, Repair, Regeneration & Scarring. • Differentiate between regeneration and repair. • Enlist the organs that undergo regeneration.
Repair by scarring	Lecture # 13	0.75	<ul style="list-style-type: none"> • Describe the various steps involved in process of repair by scarring (Primary & Secondary intention healing). • List the various mediators involved in the steps of scarring.
Factors affecting wound healing & Defects in wound healing / Scarring	Lecture # 14	2	<ul style="list-style-type: none"> • List the various factors that influence wound healing. List the defects of wound healing and their consequences.
HEMODYNAMIC DISORDERS			
Hyperemia, congestion & Haemorrhage	Lecture # 13	0.75	<ul style="list-style-type: none"> • Define hyperemia and congestion. • Differentiate between congestion & hyperemia according to its pathophysiology. • List the different types of congestion with examples. • Define hemorrhage. • List the cause of hemorrhage. • List types of hemorrhage on the basis of size.
Edema	Lecture # 14	0.75	<ul style="list-style-type: none"> • Define Edema, effusion, ascites, hydrothorax and anasarca. • List the pathophysiological categories of edema with their examples. • Differentiate between transudate and exudate. • Describe the mechanisms of systemic edema in heart failure, renal failure, malnutrition, hepatic failure, and nephrotic syndrome.

Thrombosis	lecture # 15	1	<ul style="list-style-type: none"> • Define thrombosis. • Describe Virchow's triad in thrombosis. • Differentiate between arterial and venous thrombi. • Define vegetations. • Discuss the fate of the thrombus
Embolism	Lecture # 16	1	<ul style="list-style-type: none"> • Define Embolism and Thromboembolism. • List the different types of emboli. • Discuss the pathogenesis. • List the common sites. • List the consequences.
Infarction	Lecture # 17	1	<ul style="list-style-type: none"> • Define Infarction. • Discuss the factors that influence in the development of an infarct • Compare the different types of infarcts according to their site, morphology & presence or absence of infection.
Shock	Lecture # 18	1	<ul style="list-style-type: none"> • Define shock • Discuss the three main types of shock with their examples • Discuss the pathophysiology of Septic shock.

By the end of each practical ((TASK BASED LEARNING) session, the students of 3rd year MBBS will be able to:

CELL INJURY, CELL DEATH, CELLULAR ADAPTATIONS			
TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Specimen Collection & Tissue Processing, Morphology of Cell Injury	Practical # 1 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Define tissue processing. • List the steps of histo-technology. • Identify the use of different reagents and stains. • Identify the morphological features of types of cell injury. • Observe & perform how to operate the microscope and focus the glass slide.
Morphology of different types of Necrosis	Practical # 2 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • List the types of necrosis. • Identify the gross & microscopic pathological features of different types of necrosis.
Morphology of different types of Cellular Adaptations	Practical # 3 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • List the types with examples. • Identify the gross & microscopic pathological features of different types of necrosis.
INFLAMMATION			
Morphology of Acute Inflammation and Chronic Inflammation	Practical # 4 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Identify the gross & microscopic pathological features of acute inflammation in the given specimen / slide. • List the types of chronic inflammation on the basis of morphology. • Identify the gross & microscopic pathological features of chronic inflammation in the given specimen / slide.
DISORDERS OF HEALING & REPAIR			
Morphology of Granulation tissue and Keloid	Practical # 5 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Identify the gross & microscopic features of granulation tissue. • Identify the gross & microscopic pathological features of keloid.
HEMODYNAMIC DISORDERS			
Hyperemia, congestion & Haemorrhage	Practical # 6 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Identify the gross & microscopic features of hyperemia, congestion & Haemorrhage.
Thrombus & Embolism	Practical # 7 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Identify the gross & microscopic features of Thrombus & Embolism

DEPT. OF PHARMACOLOGY & THERAPEUTICS
LEARNING OBJECTIVES OF FOUNDATION MODULE – II

GENERAL PHARMACOLOGY,
PHARMACOLOGY OF CHEMICAL MEDIATORS,
ANTI-INFLAMMATORY DRUGS
& DRUGS ACTING ON AUTONOMIC NERVOUS SYSTEM

LEARNING OBJECTIVES OF LECTURES

By the end of each lecture, the students of 3rd year MBBS will be able to :

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
INTRODUCTION OF PHARMACOLOGY & ROUTES OF DRUG ADMINISTRATION	Lecture # 1	1	Define Pharmacology Classify Pharmacology Define Drug Classify the routes of drug administration. List the specific advantages and disadvantages of Enteral route of drug administration. List the specific advantages and disadvantages of Parenteral route of drug administration.
PRINCIPLES OF DRUG DEVELOPMENT	Lecture # 2	1	Define the process of drug development. List the phases of drug development. Define pre-clinical studies of drug development. Explain the different phases of clinical trials. Explain the role of FDA in drug development. Define post-marketing surveillance of drugs.
CELLULAR MECHANISMS OF DRUG ABSORPTION	Lecture # 3	0.75	Define drug absorption. Explain various cellular mechanisms of drug absorption. Explain various factors influencing drug absorption.

			Define bioavailability.
			<ul style="list-style-type: none"> List various factors affecting bioavailability of a drug with examples. Explain area under the curve.
CELLULAR MECHANISMS OF DRUG DISTRIBUTION	Lecture # 4	0.75	<ul style="list-style-type: none"> Define drug distribution. Explain drug distribution in various compartments of body. List various factors influencing drug distribution with examples. Explain the effects of the physiological barriers for drug distribution. Define volume of distribution. Define half-life. <p>List factors influencing drug half-life.</p>
CELLULAR MECHANISM OF DRUG METABOLISM	Lecture # 5	0.75	<ul style="list-style-type: none"> Define metabolism of a drug. Define biotransformation List the consequences of biotransformation List the phases of metabolic reactions of a drug. Differentiate between the phases of metabolic reactions with examples Define enzyme inducers and inhibitors with examples. Define first pass effect with example.

CELLULAR MECHANISM OF DRUG EXCRETION	Lecture # 6	0.75	<ul style="list-style-type: none"> Define excretion of a drug. <p>Explain different modes of drug excretion.</p> <ul style="list-style-type: none"> List factors affecting excretion of a drug. Define steady state concentration of a drug Define first and zero order kinetics of drug elimination Define total drug clearance.
CELLULAR RECEPTORS	Lecture # 7	0.75	<ul style="list-style-type: none"> Define Receptor, Receptor site & Effector. <p>Explain major types of drug receptors with examples.</p> <ul style="list-style-type: none"> Explain signal transduction pathway. <p>Define Tachyphylaxis.</p> <p>Define up regulation & down regulation of receptors.</p> <p>Define Spare receptors.</p>
CELLULAR RECEPTOR AGONISTS & ANTAGONISTS	Lecture # 8	0.75	<ul style="list-style-type: none"> Define drug agonist and antagonist. <p>Differentiate between various types of agonists used in therapeutics.</p> <ul style="list-style-type: none"> Differentiate between various types of antagonists used in therapeutics. Define graded dose response and quantal dose response curve. Define therapeutic index and therapeutic window. <p>Define potency and Efficacy.</p>
PHARMACOLOGY OF CHEMICAL MEDIATORS & ERGOT ALKALOIDS	Lecture # 9	0.75	<ul style="list-style-type: none"> Classify chemical mediators & ergot alkaloids. Explain mechanism of action of Misoprostol, Latanoprost and Ergotamine. <p>List the pharmacokinetic properties of these drugs.</p> <p>List common adverse effects and contraindications of these drugs.</p> <p>List the clinical uses of these drugs.</p>
HISTAMINE AND ANTIHISTAMINES	Lecture # 10	0.75	<ul style="list-style-type: none"> Define histamine and its role as a chemical mediator. List types of histamine receptors with their distribution.

			<ul style="list-style-type: none"> • Explain the mechanism of action of Chlorpheniramine, Cyclizine and Cetirizine. • List the pharmacokinetic properties of these drugs. • List the common adverse effects and contraindications of these drugs.
SEROTONIN AGONISTS & ANTAGONISTS	Lecture # 11	0.75	<ul style="list-style-type: none"> • Define serotonin and its role as a chemical mediator. • List types of serotonin receptors with their distribution. • Classify serotonin receptors agonists and Antagonists with examples. • List the clinical uses of Sumatriptan & Ondansetron. • List the common adverse effects and contraindications of these drugs.
PHARMACOLOGY OF ANTI-INFLAMMATORY DRUGS (NSAIDS)	Lecture # 12	0.75	<ul style="list-style-type: none"> • Outline the pathophysiology of Inflammation • Define NSAIDs. • Classify NSAIDS. • Explain the mechanism of action of Ibuprofen, Aspirin, Celecoxib and Acetaminophen. • List the pharmacokinetic properties of these drugs. • List the clinical uses of these drugs. <p>List common adverse effects and contraindications of these drugs.</p>

MANAGEMENT OF SALICYLATE AND ACETAMINOPHEN POISONING	Lecture # 13	0.75	<ul style="list-style-type: none"> • Define salicylate. • List the pharmacological effects of Salicylate toxicity. • Explain the management of acute and chronic salicylate poisoning. • Explain the role of N-Acetyl cysteine for the management of Acetaminophen poisoning
ADVERSE DRUG REACTIONS	Lecture # 14	0.75	<ul style="list-style-type: none"> • Define adverse drug reactions. • Classify adverse drug reactions. • Compare predictable and unpredictable drug reactions with examples. • Outline the general management of adverse drug reactions. • List factors affecting susceptibility to adverse drug reactions.
DRUG-DRUG INTERACTIONS	Lecture # 15	0.75	<ul style="list-style-type: none"> • Define drug-drug interactions • Classify different categories of drug interactions on the basis of pharmacodynamics and pharmacokinetics • Define the terms synergism, addition, summation and antagonistic drug interaction • List commonly encountered drug interactions. Explain the consequences of drug interactions
PHARMACOGENETICS	Lecture # 16	0.75	<ul style="list-style-type: none"> • Define Pharmacogenetics • Identify the genetic variations in enzyme that influence drug effect. • Explain the genetic variations in transporters that influence drug effects • Describe the importance of Pharmacogenetics in clinical practice. • Discuss the genetic variations in immune system functions that influence drug effect.

<p>INTRODUCTION TO ANS PHARMACOLOGY</p>	<p>LECTURE # 17</p>	<p>0.75 hours</p>	<ul style="list-style-type: none"> • Classify ANS. • List different autonomic nutrients with examples. Classify cholinergic & adrenergic receptors according to their site of action. • List the steps of synthesis of neurotransmitter at cholinergic neurons. • List the steps of synthesis of neurotransmitter at adrenergic neurons.
<p>CHOLINERGIC AGONISTS</p>	<p>LECTURE # 18</p>	<p>0.75 hours</p>	<ul style="list-style-type: none"> • Classify cholinergic agonists with examples. Explain the mechanism of action of Bethanechol, Pilocarpine, Nicotine, & Neostigmine. • List the pharmacokinetic properties of these drugs. • List the clinical uses of these drugs • List the adverse effects and contraindications of these drugs
<p>CHOLINERGIC ANTAGONISTS</p>	<p>LECTURE # 19</p>	<p>0.75 hours</p>	<ul style="list-style-type: none"> • Classify cholinergic antagonists with examples. • Explain the mechanism of action of Atropine and Pralidoxime. • List the pharmacokinetics properties of these drugs. • List the clinical uses of these drugs • List the adverse effects and contraindications of these drugs

<p>ADRENERGIC AGONISTS</p>	<p>LECTURE # 20</p>	<p>0.75 HOURS</p>	<ul style="list-style-type: none"> • Classify adrenergic agonists. • Explain mechanism of action of Epinephrine, Dobutamine, Amphetamine and Ephedrine. • List the pharmacokinetics properties of these drugs. • List the clinical uses of these drugs • List the adverse effects and contraindications of these drugs
<p>ADRENERGIC ANTAGONISTS</p>	<p>LECTURE # 21</p>	<p>0.75 HOURS</p>	<ul style="list-style-type: none"> • Classify adrenergic antagonists. • Explain mechanism of action of Phenoxybenzamine, Prazosin and Labetalol. • List the pharmacokinetics properties of these drugs. • List the clinical uses of these drugs • List the adverse effects and contraindications of these drugs

PRACTICALS

By the end of each practical (TASK BASED LEARNING) Session, the students of 3rd year MBBS will be able to:

Laboratory Equipment	Practical # 1 (TASK BASED LEARNING)	2	<ul style="list-style-type: none">● Identify various instruments used in Pharmacology Lab● List the uses of each instrument.● List various safety measures used in handling of laboratory equipment
Demonstration of the effects of miotics & mydriatics on Rabbit's eye	Practical # 2 (TASK BASED LEARNING)	2	<ul style="list-style-type: none">● Differentiate between miotics and mydriatics.● List various miotics and mydriatics.● Demonstrate the various reflexes affected by using normal saline, Atropine and Pilocarpine on eye of a rabbit.

TUTORIALS

(TASK BASED LEARNING)

By the end of each tutorial (TASK BASED LEARNING) session, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Overview of Pharmacology	Tutorial # 1 (TASK BASED LEARNING)	2	<ul style="list-style-type: none">List various branches of Pharmacology. <p>List the different sources of drugs with examples.</p> <ul style="list-style-type: none">Define Drug Nomenclature with examples.
Pharmaceutical Preparations	Tutorial # 2 (TASK BASED LEARNING)	2	<ul style="list-style-type: none">List different pharmaceutical preparationsCorrelate the use of different pharmaceutical preparations according to needs of a patient
IV Infusions	Tutorial # 3 (TASK BASED LEARNING)	2	<ul style="list-style-type: none">List different Intravenous InfusionsCorrelate the use of different IV infusions according to needs of a patientList precautions related to these IV infusions
Rate of IV flow Calculations & International System of Units	Tutorial # 4 (TASK BASED LEARNING)	2	<ul style="list-style-type: none">List various formulas used to calculate rate of flow, infusion time and total volume of infusionInterpret the given clinical scenarios related to rate of flow. <p>Define International system of units with help of examples.</p> <p>List different ways of conversions used in pharmaceutical practicals.</p> <p>List different household measurements.</p>

Introduction to prescription writing	Tutorial # 5 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Define Prescription. • List different parts of Prescription. • Correlate the use of abbreviations in Prescription Writing.
Anti-histamines	Tutorial # 6 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Write down the prescription of given case of Allergic Urticaria. • Discuss the rationale of prescribing Anti- histamines in Allergic Urticaria.

NSAIDs	Tutorial # 7 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Discuss the adverse effects of NSAIDs through the given case. • Explain the pharmacological management of given case of Reye Syndrome.
Organophosphate poisoning	Tutorial # 8 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Discuss the sign and symptoms of Organophosphate poisoning • Discuss the rationale for using anti-cholinergics in Organophosphate poisoning.
Anaphylaxis	Tutorial # 9 (TASK BASED LEARNING)	2	<ul style="list-style-type: none"> • Discuss the sign and symptoms of Anaphylaxis • Discuss the rationale for using Epinephrine in Anaphylaxis

DEPT. OF FORENSIC MEDICINE
LEARNING OBJECTIVES OF FOUNDATION MODULE –II
(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Introduction to Forensic Medicine	Lecture#1	1	<ul style="list-style-type: none"> • Distinguish between Forensic Medicine, Medical Jurisprudence, Legal Medicine, Forensic Pathology, State Medicine, Forensic Science. • Detail Major Subdivisions/Firm Pillars of Forensic Medicine • Describe Inquest & its Types • Learn about Medico-legal Systems • Define Law with the mention of its Types
Introduction to Forensic Medicine	Lecture#2	0.75	<ul style="list-style-type: none"> • Explain Organization of Law Courts in Pakistan Enlist Punishments/ Sentences authorized by Law as per PPC. • Describe Oath / Solemn Affirmation. • Explain Recording of Evidence of a Witness in a Court of Law. • Describe Medical Evidence & its Types
Introduction to Forensic Medicine	Lecture#3	0.75	<ul style="list-style-type: none"> • Detail Kinds of Witnesses • Interpret documents prepared by a medical man • Differentiate between Dying Declaration & Dying Deposition • Describe Pakistan Penal Code (PPC), Criminal Procedure Code (CPC), etc., their execution and delivery.
Introduction to Forensic Medicine	Lecture#4	0.75	<ul style="list-style-type: none"> • Explain Systems of Medical Practice (Allopathic, Homeopathic, etc.). • Learn about Composition of PMC (Pakistan Medical Commission)/Ex PM&DC. • Define Ethics & Medical Ethics with mention of Basic Ethical Principles
Introduction to Forensic Medicine	Lecture#5	0.75	<ul style="list-style-type: none"> • Describe Professional Negligence/ Medical Negligence / Malpraxis, Res- Ipsa-Loquitur, Novus Actus Interveniens. • Explain Professional Secrets / Medical Secrecy / Legal Obligation of Confidentiality • Discuss Privileged Communication • Explain Professional Misconduct (Infamous Conduct). • Define Consent, its Types & the Role of Consent in Medical Examination.
Autopsy	Lecture# 6	0.75	<ul style="list-style-type: none"> • Define Autopsy • List the Aims & Objectives of Autopsy • Discuss the Types of Autopsies • Differentiate between Medico - legal & Pathological Autopsy

Autopsy	Lecture# 7	0.75	<ul style="list-style-type: none"> Enumerate the Autopsy Protocol / Rules / Precautions. Enlist Instruments required for Autopsy. List the Autopsy Incisions for opening Cranial, Thoracic & Abdominal cavities, & Vertebral Column / Spinal Cord.
Autopsy	Lecture# 8	0.75	<ul style="list-style-type: none"> Describe the Techniques of Autopsy Describe the Procedure of Dissection of Neck Structures, Respiratory Tract, Heart, Abdominal Viscera & Pelvic Organs Detail Fetal Autopsy

By the end of each practical, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Personal Identity	Practical#1	2	<ul style="list-style-type: none"> Define Personal Identity with mention of its Types. Discuss Factors / Parameters establishing Personal Identity Determine Sex by Microscopic Study of Sex Chromatins Explain Intersex States
Personal Identity	Practical#2	2	<ul style="list-style-type: none"> Determine Sex by Examination of Bones Determine Age by examination of Teeth Determine Age by examination of Lower Jaw
Personal Identity	Practical#3	2	<ul style="list-style-type: none"> Determine Age by Ossification Activity Detail the ML importance of Age. Define Dactylography
Personal Identity	Practical#4	2	<ul style="list-style-type: none"> Describe Poroscopy, Foot Prints & Lip Prints Discuss the ML Importance of Hair, Tattoo Marks Describe Anthropometry / Bertillon System
Personal Identity	Practical#5	2	<ul style="list-style-type: none"> Categorize Identification in “Mass Disasters” according to World Health Organization. Describe various methods to identify dead bodies in mass disasters
Personal Identity	Practical#6	2	<ul style="list-style-type: none"> Enumerate the specialized techniques used for identification of human remains in mass disasters
Personal Identity	Practical#7	1.5	<ul style="list-style-type: none"> Describe DNA Fingerprinting / Profiling / Testing / Patterning, & PCR Process. Describe Parts of Firearms Weapons & their Cartridges.

DEPT. OF COMMUNITY MEDICINE
LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

INTRODUCTION TO COMMUNITY MEDICINE			
TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Introduction to Community Medicine	Lecture # 1	0.75	<ul style="list-style-type: none"> • Define Community Medicine. • Differentiate between clinical medicine & community medicine. • Describe the Mc Keown's concept. • Enlist the qualities of a five-star doctor.
Concepts of Health & Disease	Lecture # 2	0.75	<ul style="list-style-type: none"> • Define accurately health & disease. • Define ecological triad. • Describe the level of preventions.
	Lecture # 3	0.75	<ul style="list-style-type: none"> • Summarize the ice berg phenomenon. • Explain its relevance with natural history of disease. • Discuss concepts of causation including the ecological triad.

DEPT. OF RESEARCH & EVIDENCE BASED
MEDICINE
LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

DEPT. OF RESEARCH & EVIDENCE BASED MEDICINE			
TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Introduction to evidence-based medicine	Lecture # 1	0.75	<ul style="list-style-type: none"> • Define and discuss the development and spread of EBM. • Identify the five steps of practicing EBM and its benefits and limitation.
Topic Selection (Research Lect)	Lecture # 2	1	<ul style="list-style-type: none"> • Identify a pertinent topic for research project • Utilize appropriate search engine

DEPT. OF BEHAVIORAL SCIENCES
LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Stress in patients and attendants	Lecture # 1	0.75	<ul style="list-style-type: none"> • Stress in patients • Causes of stress in patients • Result of increase stress in patient and their attendants • Factors that increase stress in patients • How health worker can reduce their client's stress
Personality	Lecture # 2	0.75	<ul style="list-style-type: none"> • Define personality • Theories of personality development • What is the psychosexual theory of personality development? • What is cognitive theory of personality development

PEARLS

LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

By the end of each session, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Emotional Intelligence	Lecture # 1	0.75	<ul style="list-style-type: none"> • Define Emotional Intelligence (EI) or Emotional Quotient (EQ) • Differentiate between IQ & EQ. • Discuss components of EI • Identify factors that affect EI • Discuss "Amygdala Hijack" • Discuss ways to develop EI
Know your leadership style	Flipped Classroom	0.75	<ul style="list-style-type: none"> • Define leadership in healthcare • Discuss different leadership styles • Identify strengths and limitations of different leadership style. • Identify one's own style.
Well-being Action Plans	Hands on Activity	1	<ul style="list-style-type: none"> • Discuss mental, emotional and physical well being • Develop a well-being action plan.

DEPT. OF SURGERY
LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Shock and haemorrhage	Lecture # 1	1	<ul style="list-style-type: none"> • Define Shock • Understand the pathophysiology of shock at • Cellular level • Micro vascular level • Systemic level (Cardiovascular, Respiratory, Renal, Endocrine) • Classify shock • Understand Clinical consequences of shock • A) Unrequitable shock • B) Ischemia–reperfusion and the systemic inflammatory response syndrome (SIRS) • Multiple organ failure • Understand Compensated,Uncompensated,Mild, Moderate and severe shock • Understand Pathophysiology of Haemorrhage • Revealed and concealed haemorrhage • Primary, reactionary and secondary haemorrhage
Wound healing	Lecture # 2	0.75	<ul style="list-style-type: none"> • Normal wound healing in skin • Normal wound healing in bone, tendon and nerve • Abnormal wound healing • Types of wound healing • Classification of wounds

DEPT. OF MEDICINE
LEARNING OBJECTIVES OF FOUNDATION MODULE - II
(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Introduction of inflammatory disease	Lecture # 1	0.75	<ul style="list-style-type: none"> • Recall mechanism of acute and chronic inflammation • define disorder of innate immune system • summarize symptoms causes by inflammatory disorder • define autoimmune diseases • paraphrase factors that trigger autoimmune diseases • identify areas commonly affected by autoimmune diseases • list few examples of common autoimmune diseases • Discuss common autoimmune diseases • list and discuss workup of autoimmune diseases • Discuss treatment option in autoimmune diseases
Clinical Presentation of drug Allergies	Lecture # 2	0.75	<ul style="list-style-type: none"> • Define drug allergies • Recall mechanism of Drug Allergies • Describe association of Immune system and inflammation in drug allergies • Identify differences between side effects and a drug allergy • Record list of common medicine associated with drug allergy • Discuss risk factors of having a drug reaction • list methods to diagnose drug allergy • report methods to prevent drug allergies • Discuss treatment options available to deal with drug allergies

DEPT. OF GYNAECOLOGY & OBSTETRICS

LEARNING OBJECTIVES OF FOUNDATION MODULE - II

(3rd year MBBS)

By the end of each lecture, the students of 3rd year MBBS will be able to:

TOPIC	MODE OF TEACHING	TIME (hours)	LEARNING OBJECTIVES
Reproductive medicine	Lecture # 1	0.75	<ul style="list-style-type: none">• Define reproductive health and reproductive Medicine.• Identify the components of reproductive Medicine.• Describe the Factors affecting reproductive health.• Endocrinological evaluation of reproductive health
Concept of high-risk pregnancy	Lecture # 2	0.75	<ul style="list-style-type: none">• Define high risk pregnancy.• Classify the high-risk pregnancy.• Explain the role of preconception care and counselling.
Termination of Pregnancy & Abortion law of Pakistan Penal code	Lecture # 3	1	<ul style="list-style-type: none">• Define termination of pregnancy.• Classify the methods used for termination of pregnancy according to gestation period.• Explain the Pakistan Penal Code Law for termination of pregnancy.