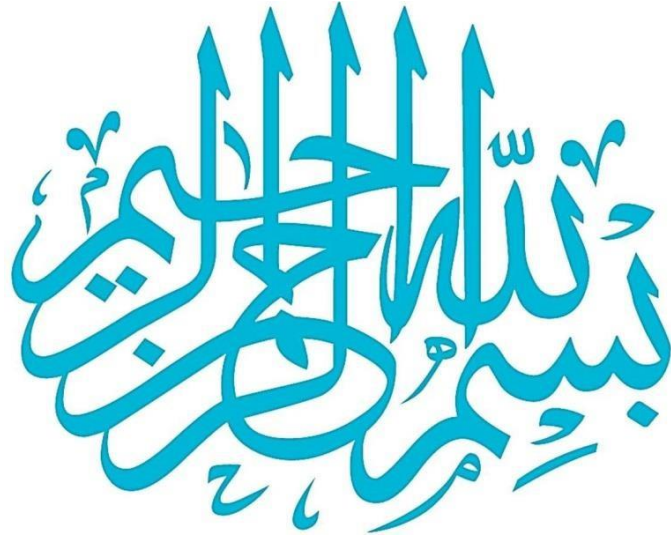








Block 12
Study Guide 2026
4TH Year MBBS
Islam Medical College
Sialkot–Pakistan

Table of Contents

Section	Content	PageNo.
1	CurriculumFramework	6
2	Year-4Modules	9
	<u>Block-11</u>	11
	24) Neurosciences-II	12
	25) Psychiatry&BehavioralSciences	22
	26) Renal-II	40
	27) Eye&ENT-II	55
	<u>Block-12</u>	56
	28) Endocrinology&Reproduction-II	67
	29) Dermatology	81
	30) Eye&ENT-III	95
3	TableofSpecifications	158
4	C-FRC-IV	163
5	PERLs-IV	200
	StudentPortfolio	209
6	Expository-IV	251
7	Electives	258
8	SkillAcquisitionWorkshops	278

BLOCK LEAD DETAILS

Hello, I am Dr. Rana Muhammad Asad Khan working as a Assistant Professor in Pathology department of Islam Medical and Dental College, Sialkot and now acting as **Lead of Block 12**. I completed my graduation from Islam Medical and Dental College, Sialkot in 2019, and MPhil Microbiology in 2024 at Institute of Molecular Biology and Biotechnology, Lahore. You can come to meet me in Pathology department office, Academic Block 2 from 08:00 – 15:00 hours on weekdays. You can also contact me freely on my email assadmanj786@gmail.com.

THE UNIVERSITY OF HEALTH SCIENCES

VISION

UHS is a leading University aiming to keep its graduates apt with the ever-emerging global health challenges, evolving educational methodologies and emerging technological advancements to maintain its distinguishable position as a Medical University.

(<https://www.uhs.edu.pk/vision-mission.php>)

ISLAM MEDICAL COLLEGE VISION AND MISSION

VISION

"To be a globally recognized center of excellence, where Islam Medical College empowers competent and ethical healthcare professionals through holistic education, innovative teaching, and groundbreaking research."

MISSION

"Islam Medical College is dedicated to comprehensive medical education that instills values of integrity, empathy, and professionalism. We empower our Students with knowledge, skills, and a patient-centered attitude for lifelong learning."



Modular Integrated Curriculum 2K23 MBBS Year-04

BLOCK-12



BLOCK-12

**Modular Integrated
Curriculum 2K23**
Volume-04

MODULE

31

**ENDOCRINOLOGY &
REPRODUCTION-II**





MODULERATIONALE
Endocrinology and Reproduction II builds upon the foundation laid in Endocrinology and Reproduction I (Block 5), in which the anatomy and physiology of the endocrine organs and the functionalbiochemistryoftheirhormonesweretaughtin an integrated fashion with reference to common diseases occurring in the Pakistani community. This second module advances from normal physiology to the study of pathology, related pharmacology, and clinical aspects of endocrine, gynecological, and urological disorders. It emphasizes integration of basic sciences withclinicalapplicationto strengthendiagnostic reasoningand therapeutic decision-making. In addition to patient-level care, the module incorporates community medicine and public health perspectives, focusing on prevention, early detection, and health promotion strategies for prevalent conditions such as diabetes, thyroid disorders, infertility, menstrual health problems, and reproductive cancers. Through this integration, students will develop a holisticunderstandingofendocrineandreproductivehealth,equippingthemtoaddress these issues bothinclinicalpracticeandatthepopulationlevel.
MODULEOUTCOMES
• Explainthepathophysiologyofcommonendocrine,gynecological,andurologicaldisorders. • Correlatepathology,pharmacology,andclinicalfeaturesofendocrineandreproductivesystem disorders to strengthen diagnostic reasoning. • Demonstrateanunderstandingofpharmacologicalprinciplesinthemanagementofendocrine, gynecological, and urological conditions. • Perform focused clinical assessments, including history taking and physical examination, to evaluate endocrine and reproductive health problems. • Interpretessentiallaboratoryandimaginginvestigationsinthediagnosisofcommon conditions. Demonstrateprofessionalcommunicationandcounselingskillsbyeducatingpatientsand familiesaboutdisease,treatmentoptions,andpreventivemeasures
• SUBJECTSINTEGRATEDINTHEMODULE
• Endocrinology/Medicine Gynecology PharmacologyPathology Urology

- Explainthepathophysiologyofcommonendocrine,gynecological,andurologicaldisorders.
- Correlatepathology,pharmacology,andclinicalfeaturesofendocrineandreproductivesystem disorders to strengthen diagnostic reasoning.
- Demonstrateanunderstandingofpharmacologicalprinciplesinthemanagementofendocrine, gynecological, and urological conditions.
- Perform focused clinical assessments, including history taking and physical examination, to evaluate endocrine and reproductive health problems.
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- Demonstrateprofessionalcommunicationandcounselingskillsbyeducatingpatientsand familiesaboutdisease,treatmentoptions,andpreventivemeasures.

SUBJECTSINTEGRATEDINTHEMODULE					
Endocrinology/Medicine Gynecology					
PharmacologyPathology Urology					
THEORY					
CODE	SPECIFICLEARNINGOUTCOMES	DISCIPLI NE	TOPI C	TEACHING/ LEARNING	ASSESSMENT TOOLS
HYPOTHALAMICANDPITUTARYDISORDERS					
EnR- En - 00 1	Diagnose diabetes insipidus on the basis of characteristic symptoms and clinical presentation. Differentiate between central and nephrogenic types. Outline the investigations to reach the diagnosis. Formulateamanagementplanforcentraland nephrogenic cases. Identifypotentialcomplicationsifleftuntreated.	Endocrinolo gy/ Medicine	Diabet es Insid us	LIGS	MCQS
EnR- En - 00 2	Describe the clinical features of precocious puberty. Differentiatebetweenitscentralandperipheralcause s. Developastepwisediagnosticandmanagementplan forapatientpresentingwithprecociouspuberty.	Gynaecolog y/ Endocrinolo gy	Precocio us Pubert y	LIGS	MCQS
EnR- En - 00 3	Diagnosedelayedpubertybasedonabsenceof secondary sexual characteristics by expected age. Explain the pathophysiology of GnRH deficiency. Develop a stepwise diagnostic and management plan forapatientpresentingwithprecociouspuberty.	Gynaecolog y/ Endocrinolo gy	Delaye d Pubert y	LIGS	MCQS
EnR-En- 004	Identify the clinicalfeatures of dwarfism dueto growth hormone deficiency. Explaintheunderlyingmechanismsleadingtothe disorder. List the investigations for diagnosing the condition. Plan the management of dwarfism caused by growth hormone deficiency. Identify possible complications associated with untreatedcases.	Endocrinology/ Medicine	Dwarfism	LIGS	MCQS
EnR-En- 005	Diagnosegigantismonthebasisofcharacteristic signsandsymptoms.	Endocrinology/ Medicine	Gigantism& Acromegaly	LIGS	MCQS

RECOMMENDED BOOKS

1. Kanski's Clinical Ophthalmology: A Systematic Approach - Bowling
2. Scott-Brown's Otorhinolaryngology, Head and Neck Surgery
3. Parson's Diseases of the Eye
4. Logan Turner's Diseases of the Nose, Throat and Ear
5. Harrison's Principles of Internal Medicine

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1. Kanski's Clinical Ophthalmology: A Systematic Approach - Bowling
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4. Logan Turner's Diseases of the Nose, Throat and Ear
5. Harrison's Principles of Internal Medicine

	Describe its etiology. Outline investigation and discuss management plan. Identify potential complications. Diagnose acromegaly on the basis of characteristic signs and symptoms. Differentiate acromegaly from gigantism. Describe the underlying etiology. Outline the approach to investigation and discuss management strategies. List complications.			LIGS	MCQS
EnR-Pa-006	Classify pituitary adenomas. Describe etiopathogenesis of pituitary adenomas. Describe their gross and microscopic pathological features. Correlate the clinical features with the type of hormone secreted (prolactinoma, somatotroph adenoma, corticotroph adenoma). Discuss the complications. Outline the diagnostic approach including hormonal assays, imaging findings, and histopathology.	Pathology	Pituitary Adenomas	LIGS	MCQS
EnR-En-007	Diagnose SIADH based on signs and symptoms. Explain underlying mechanism leading to List the potential complications of SIADH.	Endocrinology/ Medicine	SIADH	LIGS	MCQS

EnR- En - 00 8	Describe the role of melatonin in regulating circadian rhythm. Recognize clinical implications of Outline the use of melatonin in supplements in clinical practice.	Endocrinology /Medicine	Pineal Dysfunction and Sleep Disorders	LIGS	MCQS
EnR- Ph - 00 9	Classify hypothalamic and pituitary hormones and state their functions. Describe the pharmacokinetics of pituitary and hypothalamic hormones.	Pharmacology	Hypothalamic and Pituitary Hormones	LIGS	MCQS

	Explain the mechanism of action of these hormones. Discuss the pharmacological effects of pituitary and hypothalamic hormones. Identify their clinical uses. List potential adverse effects. Describe drug interactions involving hypothalamic and pituitary hormones. Enlist contraindications for the use of hypothalamic and pituitary hormones.			LIGS	MCQS
EnR-Ph-010	Enlist prolactin antagonists (dopamine agonists). Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, effects, drug interactions, and contraindications.	Pharmacology	Prolactin Antagonists (Dopamine Agonists)	LIGS	MCQS
EnR-Ph-011	Describe the pharmacokinetics, mechanism of action, pharmacological effects, oxytocin.	Pharmacology	Oxytocin	LIGS	MCQS
EnR-Ph-012	Describe the pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions, and contraindications of vasopressin. Enumerate vasopressin antagonists and describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions, and contraindications.	Pharmacology	Vasopressin and Vasopressin Antagonists	LIGS	MCQS

THYROIDANDPARATHYROIDDISORDERS					
CODE	SPECIFICLEARNINGOUTCOMES	DISCIPLIN E	TOPIC	TEACHI NG/ LEARNI NG	ASSESSM ENT TOOL S
EnR- En - 01 3	Enlistcausesofhypothyroidism. Discuss thepathophysiologyofdecreasedthyroid hormone production. Identifytheclinicalfeaturesandcomplicationsof hypothyroidism. InterpretdiagnostictestsofTSH,T₃,T₄.	Endocrinolog y /Medicine	Hypothyroi dis m	LIGS	MCQS

	Outline treatment plan and long-term follow-up.			LIGS	MCQS
EnR-En-014	Explain the pathophysiology of excessive thyroid hormone production and its systemic effects. Enlist etiology of hyperthyroidism. Explain the autoimmune mechanism and clinical triad of Graves' disease. Diagnose hyperthyroidism based on the symptoms and signs, laboratory and imaging diagnostic findings. Discuss medical and surgical management strategies. Explain the pathophysiology, precipitating factors, clinical features, and emergency management of thyroid storm. Explain the importance of long-term monitoring and patient education regarding medication adherence and follow-up.	Endocrinology / Medicine	Hyperthyroidism	LIGS	MCQS
EnR-Pa-015	Classify thyroid tumors based on histopathological types: papillary, follicular, medullary, anaplastic. Identify clinical presentation, risk factors, and diagnostic approaches including molecular testing. Identify prognostic indicators and requirements.	Pathology	Thyroid Neoplasms	LIGS	MCQS

EnR- Ph- 01 6	Describe different thyroid preparations. Describe the pharmacokinetics, mechanism of thyroid preparations.	Pharmacology	Thyroid Preparations	LIGS	MCQS
EnR- Ph- 01 7	Classify anti-thyroid drugs. Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions, and contraindications.	Pharmacology	Anti-Thyroid Drugs	LIGS	MCQS
EnR- Ph- 01 8	Describe the Jod-Basedow phenomenon caused by iodides.	Pharmacology	Iodides and Related Phenomena	LIGS	MCQS

EnR-Ph-019	Explain the use of beta-blockers in the treatment of hyperthyroidism. Explain the rationale for the use of different drugs in thyroid storm.	Pharmacology	Adjuvant Drugs in Hyperthyroidism	LIGS	MCQS
EnR-En-020	Identify the clinical features of hyperparathyroidism. Interpret biochemical findings in hyperparathyroidism. Explain the pathophysiological basis of symptoms in relation to calcium and bone metabolism. Discuss the complications of hyperparathyroidism. Outline the management plan.	Endocrinology / Medicine	Hyperparathyroidism	LIGS	MCQS
EnR-En-021	Explain the causes of hypoparathyroidism. Describe the pathophysiology of hypocalcemia due to PTH deficiency. Identify clinical features such as tetany, Chvostek's and Trousseau's signs. Interpret laboratory findings. Outline acute and chronic management plan.	Endocrinology / Medicine	Hypoparathyroidism	LIGS	MCQS
EnR-Ph-022	Enumerate vitamin D preparations. Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses,	Pharmacology	Vitamin D Preparations	LIGS	MCQS

EnR-Ph-023	Enumerate drugs used for the treatment of hypercalcemia. Describe their mechanism of action, clinical uses, and adverse effects (e.g., calcitonin, bisphosphonates, corticosteroids).	Pharmacology	Drugs Used in the Treatment of Hypercalcemia	LIGS
EnR-Ph-024	Enlist bisphosphonates. Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions, and contraindications.	Pharmacology	Bisphosphonates	LIGS

PANCREATIC DISORDERS					
CODE	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC	TEACHING/ LEARNING	ASSESSMENT TOOLS
EnR-En-025	Describe the underlying pathophysiology of pancreatic β-cells leading to insulin deficiency. Diagnose Type 1 Diabetes Mellitus based on clinical presentation and diagnostic findings. Identify acute complications of T1DM. Describe the pathophysiology, clinical manifestations, and laboratory findings of diabetic ketoacidosis. Outline the management principles of Type 1 Diabetes Mellitus, focusing on	Endocrinology/ Medicine/ Pathology	Diabetes Mellitus Type 1	LIGS	MCQS
EnR-En-026	Identify clinical presentation of Type 2 Diabetes and differentiate it from type 1 diabetes. Describe the pathophysiology of insulin resistance and relative insulin deficiency. Identify risk factors. Discuss diagnosis and monitoring. Outline management strategies and counselling.		Diabetes Mellitus Type 2	LIGS	MCQS
EnR-Ph-027	Classify oral antidiabetic drugs	Pharmacology	Oral Antidiabetic Drugs	LIGS	MCQS

EnR-Ph-029	Classifyinsulins. Describethepharmacokineticsofdifferentinsulinpreparati ons. Explainthemechanismofactionofinsulin. Describe the pharmacological effects and efficacy of insulin. Enumeratetheclinicalusesofinsulin. Discussadverseeffects,druginteractions,andcontraindic ations of insulin.	Pharmacology	Insulin	LIGS
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	Describe the concept and causes of insulin resistance.			LIGS	MCQS
EnR-Ph-030	Classify sulfonylureas. Explain the mechanism of action of sulfonylureas. Enumerate their clinical uses. Describe their adverse effects.	Pharmacology	Sulfonylureas	LIGS	MCQS
EnR-Ph-031	Classify biguanides. Explain the mechanism of action of biguanides. Enumerate their clinical uses. Describe their adverse effects.	Pharmacology	Biguanides	LIGS	MCQS
EnR-Ph-032	Classify thiazolidinediones. Explain the mechanism of action of thiazolidinediones. Enlist their clinical uses and adverse effects.	Pharmacology	Thiazolidinediones	LIGS	MCQS
EnR-Ph-033	Classify alpha-glucosidase inhibitors and amylin analogues. Explain their mechanism of action. Enlist their clinical uses and adverse effects.	Pharmacology	Alpha-Glucosidase Inhibitors and Amylin Analogues	LIGS	MCQS
EnR-Ph-034	Classify incretin-based drugs and SGLT2 inhibitors. Explain their mechanism of action. Enumerate their clinical uses and adverse effects.	Pharmacology	Incretin-Based Drugs and SGLT2 Inhibitors	LIGS	MCQS

EnR- En - 03 5	Explain the pathophysiology of insulinoma. Identify clinical features of hypoglycemia. Describe Whipple's triad and its clinical significance. Outline investigations and discuss management.	Endocrinology/ Medicine	Insulinoma	LIGS	MCQS
EnR- En - 03 6	Explain the pathophysiology of glucagonoma. Diagnose glucagonoma based on its clinical presentation and specific diagnostic findings. Discuss its management plan.	Endocrinology/ Medicine	Glucagonoma	LIGS	MCQS
ADRENAL GLAND DISORDERS					
CODE	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC		

EnR- En- 037	Describe the pathophysiology of Cushing's Syndrome. Differentiate between Cushing's syndrome and Cushing's disease. Diagnose Cushing's syndrome based on key clinical features. Interpret relevant diagnostic investigations including cortisol levels and dexamethasone suppression test. Outline the principles of management, including surgical and medical options.	Endocrinology / Medicine	Cushing's Syndrome	LIGS	MCQS
EnR- En- 038	Explain the pathophysiology of adrenal insufficiency leading to Addison's disease. Diagnose Addison's disease based on key clinical presentation. Interpret diagnostic tests including serum cortisol, ACTH, and electrolyte levels. Outline the management plan.	Endocrinology / Medicine	Addison's Disease	LIGS	MCQS
EnR- En- 039	Explain the underlying pathophysiology of Conn's Syndrome. Identify the key clinical manifestations and correlate them with the underlying biochemical changes. Interpret the laboratory findings and diagnostic tests used to confirm Conn's syndrome. Outline the principles of management, including medical and surgical treatment options.	Endocrinology / Pathology	Conn's Syndrome	LIGS	MCQS

EnR-Pa-040	Classify adrenaltumors. Describe the etiopathogenesis of pheochromocytoma. Explain the morphological features of pheochromocytoma. Describe the clinical manifestations due to excess catecholamine secretion. Interpret relevant laboratory and imaging findings used in the diagnosis of adrenaltumors.	Pathology/ Endocrinology	Tumors of the adrenal cortex and medulla	LIGS
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	Outline the principles of management, including surgical, medical, and supportive treatment approaches.			LIGS
EnR-Ph-041	Classify corticosteroids. Describe the pharmacokinetics, mechanism of action, pharmacological effects, clinical uses, adverse effects, drug interactions, and contraindications of corticosteroids. Justify the tapering off of corticosteroids to prevent adrenal suppression and withdrawal effects.	Pharmacology	Corticosteroids	LIGS
EnR-Ph-042	Classify corticosteroid antagonists (e.g., receptor antagonists and synthesis inhibitors). Describe their pharmacokinetics, mechanism of action, pharmacological effects, clinical uses, adverse effects, drug interactions, and contraindications.	Pharmacology	Corticosteroid antagonists	LIGS

EnR-Ph-043	Identify the clinical indications for Hormone Replacement Therapy (HRT) and evaluate its potential risks and benefits for post-menopausal women. Discuss the patient education aspects regarding HRT, including lifestyle modifications and alternative therapies. Enlist estrogen antagonists including SERMs and describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions, and contraindications.	Pharmacology	Hormone replacement therapy	LIGS	MCQS
BREAST AND REPRODUCTIVE DISORDERS					
CODE	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC		
EnR-Ph-044	Classify benign epithelial lesions for breast . Describe morphological changes of non proliferative and proliferative diseases of breast.	Pathology	Breast	LIGS	MCQS

	Classify benign, premalignant, and malignant tumors of breast. Enumerate molecular types of breast carcinoma. Describe the incidence, epidemiology, risk factors, pathogenesis, and morphology of breast carcinomas. Describe the prognostic and predictive factors for invasive carcinoma of breast. Describe grading and staging of breast carcinoma. Describe the role of Describe the morphology of fibroadenoma and Phyllodes tumors.			LIGS	MCQS
EnR-En-045	Describe causes of Hyperprolactinemia. Explain the pathophysiology of hyperprolactinemia. Identify clinical presentation and interpret diagnostic tests. Outline management plan.	Endocrinology/ Medicine	Hyperprolactinemia	LIGS	MCQS
EnR-Pa-046	Describe the morphological features of uterine fibroids. Classify the types of fibroids based on location: submucosal, intramural, subserosal, and pedunculated. Explain the pathogenesis of fibroid development, including hormonal influences (estrogen and progesterone) and genetic factors.	Pathology	Uterine Fibroids	LIGS	MCQS

EnR- Gyn- 04 7	Define female Subfertility and its significance in reproductive health Describe type of Subfertility (primary, secondary). Describe the common causes of female Subfertility, including ovulatory disorders, structural abnormalities, and endocrine issues. Discuss the impact of lifestyle factors on female fertility.	Gynaecology	Female Subfertility	LIGS	MCQS
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EnR-Ph-048	Classify drugs used for treatment of subfertility. Enlist progesterone antagonists. Describe pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions and contraindications of progesterone antagonists. Enlist androgen and antiandrogen preparations. Describe pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions and contraindications. Enumerate estrogen & progestogen preparations. Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, effects, drug interactions and contraindications. Classify Contraceptives. Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, effects, drug interactions and contraindications. Enlist estrogen antagonists. Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, effects, drug interactions and contraindications. Describe use of Clomiphene in treatment of Subfertility. Describe the use of Anti Estrogen (Letrozole) in the treatment of Subfertility.	Pharmacology	Treatment of subfertility	LIGS	MCQS
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	Tabulate differences between Clomiphene and Letrozole.			LIGS	MCQS
	Explain the pathophysiology of male subfertility, including the role of testosterone			LIGS LIGS	MCQS MCQS

EnR - P h- 04 g	hormones.	Urology/ Endocrinolo gy	Male Subfertilit y		C2K23Year-04
	Discuss the clinical features associated with				
	male				
	subfertility and hypogonadism, including sy				
	mptoms				
	and signs.				

	Enlist the investigations. Interpret the Semen Analysis parameter.			LIGS	MCQS
EnR- Ph - 05 0	Enumerate anabolic steroids. Describe pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions and contraindications of Testosterone	Pharmacology	Anabolic steroids	LIGS	MCQS
EnR- Pa - 05 1	Define premalignant uterine conditions, including endometrial hyperplasia and its types. Describe the pathophysiology and histological classification of endometrial hyperplasia. Describe the pathophysiology and histological features of Hydatidiform mole. Explain the pathological mechanisms underlying progression from atypical endometrial hyperplasia to endometrial carcinoma. Classify uterine carcinoma based on histological type (endometrial carcinoma, uterine sarcoma) and describe its pathophysiology and staging. Discuss the prognosis of uterine carcinoma based on stage, grade, and histological type.	Pathology	Premalignant and Malignant Conditions of Uterus	LIGS	MCQS

EnR-Pa-052	Define benign cervical lesions and CIN. Differentiate between benign and premalignant cervical lesions based on histopathology. Explain the principles of cervical cytology, including Pap smear technique, interpretation, and the Bethesda reporting system. Describe the pathological significance of HPV infection in cervical lesions. Identify indications for cervical biopsy during colposcopy.	Pathology	Benign and Premalignant Lesions of the Cervix	LIGS	MCQS
EnR-Pa-053	Define benign ovarian cysts and classify them (functional cysts, dermoid cysts). Describe the pathophysiology and histological features of functional ovarian cysts (follicular and corpus luteum cysts).	Pathology	Benign and malignant ovarian tumors	LIGS	MCQS

	Define malignant ovarian neoplasms and categorize them into epithelial, germ cell, and sex-cord stromal tumors. Explain the pathophysiology and molecular mechanisms involved in ovarian tumor development.			LIGS	MCQS
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PRACTICAL/ LAB WORK

CODE	SPECIFIC LEARNING OUTCOMES	INTEGRATING DISCIPLINE	TOPIC	TEACHING/ LEARNING	ASSESSMENT TOOLS
EnR-Pa-053	Identify classical microscopic features of papillary carcinoma of thyroid. Interpret the report of abnormal thyroid function test.	Pathology	Thyroid cancer & Thyroid function test	LGIS & SGD	VIVA OSPE
EnR-Pa-054	Diagnose Diabetes Mellitus on the basis of lab investigations.	Pathology	Lab investigations for Diabetes Mellitus	LGIS & SGD	VIVA OSPE
EnR-Pa-055	Identify classical gross and microscopic features of endometrial carcinoma and uterine fibroids. Identify classical gross and microscopic features of ovarian cyst (serous and mucinous), and ovarian teratoma.	Pathology	Female genital pathology	LGIS & SGD	VIVA OSPE
EnR-Pa-056	Identify classical gross and microscopic features of fibroadenoma and breast carcinoma.	Pathology	Breast tumors	LGIS & SGD	VIVA OSPE

**Modular Integrated
Curriculum 2K23**
Volume-04

MODULE

32

DERMATOLOGY



MODULENO.32:

Dermatology

MODULERATIONALE

Skin diseases are among the most common health problems and significantly impact patients' quality of life. A sound understanding of dermatological conditions is therefore essential for every medical graduate. This module is designed to provide medical students with fundamental knowledge and clinical skills in dermatology, integrated with related basic sciences. It emphasizes the recognition of common skin disorders, underlying pathophysiological mechanisms, and principles of management, while highlighting links with systemic diseases. Early clinical exposure, case-based discussions, and integration with disciplines such as microbiology, pathology, pharmacology, and internal medicine will prepare students to diagnose, manage, and appropriately refer patients with dermatological problems.

MODULE OUTCOMES

- Identify and describe common dermatological disorders and their clinical presentations.
- Correlate pathological features with clinical manifestations to formulate differential diagnoses.
- Develop basic management and treatment plans for common dermatological conditions.
- Provide patient counseling on disease course, prevention, and lifestyle modifications.
- Apply principles of referral and recognize cases requiring specialist intervention.

SUBJECTS INTEGRATED IN THE MODULE

Dermatology
 Pathology
 Microbiology
 Pharmacology
 Community Medicine

THEORY

DERMATOLOGY					
CODE	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC	TEACHING/LEARNING	ASSESSMENT TOOLS
Der m 2-00 1	Describe the morphological features of following skin lesions: Macule, Papule, Nodule, Plaque, Wheal, Vesicles and bullae, Pustule, Cyst, Scale, Crust, Fissuring, Erosion, Ulceration, Excoriation, Lichenification, Annular lesions, Discoid lesions, Atrophy, scar, and keloid. Describe and differentiate dermatological features including desquamation, burrow, comedone, telangiectasia, reticulate, petechiae, purpura, and ecchymosis.	Dermatology	Skin lesions	LIGS	MCQS
Der m 2-00 2	Describe the etiology and mode of transmission of <i>Sarcoptes scabiei</i> . Identify clinical presentation of scabies. Differentiate scabies from other pruritic dermatoses. Outline the treatment of scabies including preventive measures.	Dermatology/Community medicine	Scabies	LIGS	MCQS
Der m 2-00 3	Explain the etiology and types of lice infestation. Describe clinical presentation. Differentiate pediculosis from dandruff, scabies, and seborrheic dermatitis. Outline treatment strategies with preventive measures.	Dermatology/Community medicine	Pediculosis	LIGS	MCQS

Derm2-004	Classifydermatitis. Enlist the common forms of endogenous and exogenous eczema.	Dermatology	Eczema/dermatitis	LIGS
Derm2-005	Describe the etiology and predisposing factors of atopic dermatitis. Identifytheclinicalfeatures. Differentiate atopic dermatitis from seborrheic dermatitis, scabies, and contact dermatitis on basis of clinical features. Outlinetreatmentandpreventivestrategies.	Dermatology	Atopic Dermatitis	LIGS

RECOMMENDED BOOKS

1. Williams Textbook of Endocrinology - Melmed, Polonsky, Larsen & Kronenberg
2. Greenspan's Basic and Clinical Endocrinology
3. Robbins and Cotran Pathologic Basis of Disease - Kumar, Abbas & Aster
4. Katzung's Basic and Clinical Pharmacology
5. Shaw's Textbook of Gynaecology - Padubidri & Daftary

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Der m 2- 00 6	Explain the etiology and role of Malassezia, sebum, immune factors. Identify clinical features of seborrheic dermatitis. Differentiate seborrheic dermatitis from psoriasis, atopic dermatitis, and pediculosis. Outline treatment and preventive strategies for relapse control.	Dermatology	Seborrheic Dermatitis	LIGS	MCQS
Der m 2- 00 7	Differentiate between irritant and allergic contact dermatitis in terms of etiopathogenesis, and clinical features. Identify the clinical features of contact dermatitis. Differentiate contact dermatitis from atopic dermatitis, urticaria, and scabies. Outline treatment plan and preventive measures.	Dermatology	Contact Dermatitis	LIGS	MCQS
Der m 2- 00 8	Describe the etiology and pathophysiology of urticaria. Identify clinical features. Differentiate urticaria from contact dermatitis, scabies, and drug reactions on basis of sign and symptoms. Outline emergency management for angioedema/anaphylaxis.	Dermatology/ Medicine	Urticaria	LIGS	MCQS
	Define bullous disorders.			LIGS	MCQS

Der m2 - 00 9	Classify immune-mediated bullous disorders. Explain the pathogenesis of: i. Pemphigus vulgaris ii. Bullous pemphigoid iii. Dermatitis herpetiformis Describe the clinical presentation and lesion morphology of each disorder. Differentiate between these disorders on the basis of site, blister type, and mucosal involvement. Enlist appropriate diagnostic tests. Outline management plan. Enlist potential complications and their preventive measures.	Dermatology	Bullous disorders	LIGS	MCQS
	Define epidermolysis bullosa.	Dermatology		LIGS	MCQS

	Explain the underlying molecular and genetic mechanisms leading to skin fragility in EB. Describe the clinical features and complications associated with EB. Outline the diagnostic approaches and principles of management.			LIGS	MCQS
	Define infective bullous disorders. Classify them based on causative agents. Identify the etiological factors and common pathogens. Describe characteristic clinical features of major infective bullous disorders (bullous impetigo and staphylococcal scalded skin syndrome) with complications. Outline the principles of management.	Dermatology		LIGS	MCQS
Der m 2- 01 0	Explain the etiopathogenesis of acne vulgaris. Identify the clinical features and types of acne lesions. Differentiate acne vulgaris Outline the treatment plan including preventive and long-term management strategies. Explain mechanism of action and adverse effects of drugs used in acne.	Dermatology/ Pharmacology	Acne Vulgaris	LIGS	MCQS
Der m 2- 01 1	Describe the etiopathogenesis of psoriasis. Identify the clinical features and common variants. Outline treatment modalities with preventive and lifestyle strategies.	Dermatology	Psoriasis	LIGS	MCQS

Der m 2- 0 1 2	Describe the etiopathogenesis of lichen planus. Identify the classical clinical features. Enlist the differential diagnosis of lichen planus. Outline the treatment plan. Discuss preventive and long-term considerations, including malignant transformation risk.	Dermatol ogy/ Patholo gy	LichenPlan us	LIGS	MCQS
Der m 2- 0 1 3	Differentiate erythema multiforme and erythema nodosum interms of etiology, clinical features, morphology ,	Dermatolo gy	Erythema Multiforme and erythema nodosum	LIGS	MCQS

	distribution, associated conditions, and principles of management.			LIGS	MCQS
Der m 2- 01 4	Identify drug causing Stevens-Johnson syndrome. Describe the characteristic signs and symptoms. Outline management plan.	Dermatol ogy/ Pharmacol ogy	Steve ns- Johns on Syndr ome (SJS)	LIGS	MCQS
Der m 2- 01 5	Describe toxic epidermal necrolysis with its pathophysiology. Identify the common causative drugs and triggers of TEN. Identify the hallmark clinical features including extent of epidermal detachment and systemic involvement. Identify complications of TEN and their impact on prognosis. Outline the principles of intensive treatment and supportive care in TEN.		Toxic Epider mal Necrol ysis (TEN)	LIGS	MCQS
	Describe the role of Staphylococcus aureus as a causative organism in skin infections. Describe the clinical patterns including impetigo, bullous impetigo, boils (abscesses), bacterial folliculitis, and infected eczema. Outline the diagnostic considerations, complications, and management principles.	Dermatol ogy/ Microbiol ogy		LIGS	MCQS

Der m 2- 01 6	Identify acute bacterial skin infections Describe their clinical patterns including non-bullous impetigo, ecthyma, and erysipelas. Identify the role of group A β-hemolytic streptococci (and occasionally groups B, C, G) as causative organisms. Outline the clinical course, complications, and management including systemic antibiotics.	Dermatol ogy/ Microbiol ogy	Acute bacterial skin infection s	LIGS	MCQS
Der m 2- 01 7	Describe the etiologic agent and routes of infection of cutaneous tuberculosis. Identify the major clinical forms of cutaneous tuberculosis. Outline the diagnostic approach and treatment.	Dermatol ogy/ Microbiol ogy	Chronic bacterial skin infection s	LIGS	MCQS

	Describe the causative organism, transmission, and pathogenesis of leprosy. Identify the clinical spectrum of leprosy and cardinal signs of diagnosis. Explain the complications and deformities resulting from nerve involvement in leprosy. Outline the diagnostic approach and management principles.	Dermatology/ Microbiology		LIGS	MCQS
	Describe the etiology and types of warts. Identify the clinical presentation of warts. Enlist the differential diagnosis. Outline the management options with preventive measures.	Dermatology		LIGS	MCQS
	Explain the etiology and mode of transmission of molluscum contagiosum virus. Identify the clinical features and distribution of molluscum contagiosum lesions. Differentiate molluscum contagiosum from warts, milia, and basal cell carcinoma on basis of clinical features. Discuss treatment options and prevention strategies.	Dermatology/ Microbiology		LIGS	MCQS

Der m 2- 01 8	Explain the etiopathogenesis of herpes zoster (Shingles) including reactivation of varicella-zoster virus. Describe the clinical features, dermatomal distribution, and prodromal symptoms. Differentiate herpes zoster from HSV, contact dermatitis, and impetigo on basis of clinical features. Outline management and prevention strategies.	Dermatology/ Microbiology	Viral skin infections	LIGS	MCQS
	Identify the etiology and types of herpes simplex. Discuss the clinical presentation of primary and recurrent HSV infections. Discuss differential diagnosis of herpes simplex. Outline the management plan.	Dermatology/ Microbiology		LIGS	MCQS
Der m 2- 01 9	Describe the etiology of tinea. Discuss the clinical features of different types of tinea.	Dermatology	Fungal skin infections	LIGS	MCQS

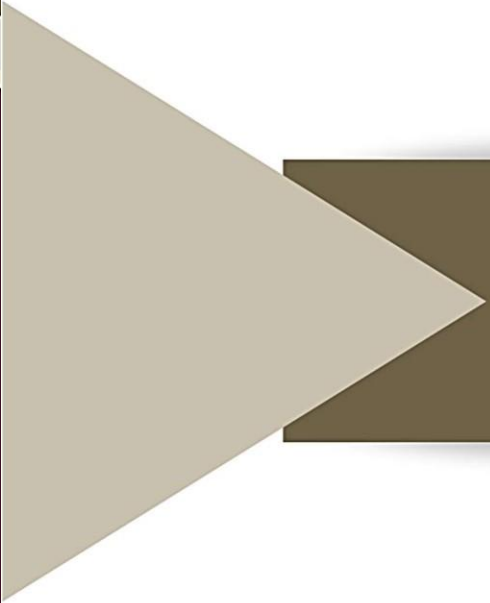
	Differentiate tinea from eczema, psoriasis, seborrheic dermatitis, and candidiasis. Outline the diagnostic approach, treatment options, and preventive measures.			LIGS	MCQS
	Explain the etiology of Pityriasis Versicolor and predisposing factors. Describe the clinical presentation. Differentiate pityriasis versicolor from vitiligo. Outline diagnostic tests and management plan.	Dermatology		LIGS	MCQS
Der m 2- 02 0	Classify the types of leishmaniasis. Describe the clinical features of Leishmaniasis complications. Outline the diagnostic methods, treatment options and preventive measures.	Parasitology/ Dermatology	Protozoal skin infection	LIGS	MCQS
Der m 2- 02 1	Define vitiligo and describe its epidemiology. Explain the underlying pathogenetic mechanisms. Describe its clinical features. Make differential diagnosis of hypopigmented skin lesions. Discuss the management options. Outline the psychosocial impact of vitiligo.	Dermatology	Pigmentation Disorders	LIGS	MCQS
	Define melasma and describe its etiology and epidemiology. Describe the clinical features with its treatment options. Describe adverse effects of depigmenting agents.	Dermatology		LIGS	MCQS

	Define albinism and explain its genetic basis. Describe the clinical features. Outline management plan.	Dermatology		LIGS	MCQS
Der m2 - 02 2	Describe the role of sunscreen in protecting skin. Explain the importance of Sun Protection Factor (SPF) and choosing an appropriate SPF for daily use. Describe the correct method of applying sunscreen, including quantity, timing, and reapplication.	Dermatology	Use of sunscreen	LIGS	MCQS

Der m 2- 02 3	Describe the clinical features of onychomycosis and paronychia. Describe nail changes in psoriasis and lichen planus. Identify common traumatic nail changes. Describe systemic associations of nail changes. Describe the importance of emollients	Dermatol ogy/ Medici ne	Disorde rs of nail s	LIGS	MCQS
Der m 2- 02 4	Define alopecia areata. Explain the etiological and immunological basis of alopecia areata. Describe the clinical features and outline the differential diagnosis. Discuss the management options for alopecia areata.	Dermatology	Disorders of hairs	LIGS	MCQS
	Define and classify androgenic alopecia. Explain the hormonal and genetic factors contributing to androgenic alopecia. Describe the clinical features and diagnostic criteria. Outline the management plan.	Dermatology		LIGS	MCQS
	Define hirsutism and differentiate it from hypertrichosis. Identify the common causes of hirsutism. Outline the diagnostic workup for hirsutism. Discuss medical, cosmetic, and lifestyle-based management strategies.	Dermatol ogy/ Medici ne		LIGS	MCQS

Der m 2- 0 2 5	Discuss types of naevi with reference to clinical and morphological features. Differentiate benign nevus from malignant melanoma on the basis of clinical signs.	Pathology/ Dermatology	Naevi	LIGS	MCQS
Der m 2- 0 2 6	Describe the signs and symptoms of melanoma. Enlist the risk factors. Outline the diagnostic investigations and management. Explain the importance of early detection for survival outcomes.	Pathology/ Dermatology	Cutaneous tumors	LIGS	MCQS

	Describe the clinical features of basal cell carcinoma. Discuss diagnostic methods and outline the management.	Pathology/ Dermatology		LIGS	MCQS
	Enlist the predisposing factors for squamous cell carcinoma.	Pathology/ Dermatology		LIGS	MCQS
	Describe the clinical presentation.			LIGS	MCQS
	Identify diagnostic approaches with treatment options.			LIGS	MCQS



ENT-III

MODULE OUTCOMES

- Explain the pathophysiology and clinical features of common ear, nose, and throat disorders.
- Identify and diagnose prevalent otorhinolaryngological conditions through history-taking and clinical evaluation.
- Perform basic otorhinolaryngological examination techniques competently.
- Initiate appropriate first-line management for common ENT conditions and determine indications for timely referral to specialist care.
- Recognize and provide initial stabilization for otorhinolaryngological emergencies, such as airway obstruction and severe epistaxis, followed by appropriate referral.
- Communicate effectively with patients regarding ENT conditions, management options, and preventive strategies, ensuring clarity and patient-centered care.
- Demonstrate professionalism, ethical conduct, and a respectful attitude in the care of patients with otorhinolaryngological conditions.

SUBJECTS INTEGRATED IN THE MODULE

Anatomy
 Physiology
 Pathology
 Pharmacology
 Oncology
 Forensic Medicine

THEORY

ENT-III(THROAT)

CODE	SPECIFIC LEARNING OUTCOMES	INTEGRATING DISCIPLINE	TOPIC	TEACHING LEARNING
ENT-Throat-001	Enlist cystic lesions of oral cavity. Discuss differential diagnosis of following cystic lesions of oral cavity and their treatment - Mucocoeles - Ranula - Dermoid cyst	ENT	Cystic lesions of oral cavity	LIGS
ENT-Throat-002	Identify the clinical features and order investigations of sialadenitis, sialolithiasis, and sialectasis. Outline the treatment plan for sialadenitis, sialolithiasis, and sialectasis		Salivary Gland Disorders	LIGS
ENT-Throat-003	Describe the etiology and risk factors of aphthous ulcer. Explain the morphological features of aphthous ulcer. Differentiate aphthous ulcers from other oral ulcers. Outline the management plan of aphthous ulcer.		Aphthous ulcer	LIGS

ENT- Throat- 004	Describe the etiology, predisposing factors, and clinical features of Vincent's angina. Differentiate Vincent's angina from diphtheria. Discuss the diagnostic approach, including clinical examination and smear findings. Enlist the complications associated with Vincent's angina. Outline the management plan of Vincent's angina.		Vincent's angina	LIGS
ENT- Throat- 005	Describe the clinical features, differential diagnosis, and management of leukoplakia and erythroplakia of the tongue.		Leukoplakia and erythroplakia	LIGS
ENT- Throat- 006	Describe the surgical anatomy of the nasopharynx, oropharynx, and hypopharynx. Identify important anatomical relations and structures at risk during surgery.	ENT/Anatomy	Surgical anatomy and physiology of pharynx	LIGS

RECOMMENDED BOOKS

1. Rook's Textbook of Dermatology - Griffiths, Barker, Bleiker et al.
2. Andrews' Diseases of the Skin: Clinical Dermatology - Elston, Furrer et al.
3. Fitzpatrick's Dermatology in General Medicine
4. Lippincott's Pharmacology - Whalen, Finkel & Panavelil (Dermatology chapters)
5. Color Atlas and Synopsis of Clinical Dermatology - Fitzpatrick & Johnson

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5. Color Atlas and Synopsis of Clinical Dermatology - Fitzpatrick & Johnson

ENT- Throat- 007	Describe predisposing factors and the clinical presentations and treatment of acute & chronic pharyngitis.	ENT	Pharyngitis	LIGS	MCQS
ENT- Throat- 008	Enumerate the disorders that may present with a white patch or membrane over the tonsils. Identify the clinical features and order investigations required for diagnosis of diphtheria. Discuss the possible complications resulting from diphtheria and its prevention. Plan the management of faucial diphtheria.	ENT/Paediatrics	Membranous pharyngitis/ Diphtheria	LIGS	MCQS
ENT- Throat- 009	Describe the clinical features of acute and chronic tonsillitis. Outline the treatment of acute & chronic tonsillitis. Enlist the tonsillectomy. Discuss the pre-operative preparation, post-operative care, and management of complications in tonsillectomy. Identify the clinical signs and symptoms of peritonsillar abscess and outline its management	ENT	Tonsillitis	LIGS	MCQS
ENT- Throat- 010	Enlist the etiology of adenoid hypertrophy. Identify the clinical features and describe the management of adenoiditis. Enlist the indications, contraindications and complications of adenoidectomy		Adenoids	LIGS	MCQS

ENT- Throat - 0 1 1	Describe the clinical features, investigations, and surgical management of juvenile nasopharyngeal angiofibroma. Explain the clinical presentation, diagnostic work-up, and treatment of nasopharyngeal carcinoma.	ENT/Oncology	Neoplasms of nasopharynx	LIGS	MCQS
ENT- Throat - 01 2	Define Plummer-Vinson syndrome and its classical triad.	ENT/Pathology	Plummer-Vinson syndrome	LIGS	MCQS

	Explain the pathophysiological role of iron deficiency in the development of mucosal atrophy and esophageal webs. Describe the clinical features and possible complications of PVS. Outline the management plan of PVS.			LIGS	MCQS
ENT-Throat-013	Describe the causes, clinical features, and management of acute laryngitis. Discuss the etiology, clinical features, and treatment of chronic laryngitis.	ENT	Acute and chronic laryngitis	LIGS	MCQS
ENT-Throat-014	Describe the etiology and pathophysiology of acute laryngo-tracheobronchitis. Identify its clinical. Differentiate from other causes of stridor. Outline the management plan. Describe the emergency measure in acute laryngo-tracheobronchitis.	ENT/Paediatrics	Stridor/Croup	LIGS	MCQS
ENT-Throat-015	Enumerate the causes of vocal cord paralysis. Identify the clinical features of unilateral and bilateral abductor paralysis. Diagnose the unilateral and bilateral. Discuss the principles of management of vocal cord paralysis. Explain the role of speech therapy in the management of vocal cord paralysis.	ENT	Hoarseness-vocal cord paralysis	LIGS	MCQS

ENT- Throat- 01 6	Describe the etiology of vocal nodules. Explain the pathophysiology of vocal nodules. Identify the clinical features of vocal nodules. Outline the management principles of vocal nodules. Describe the etiology of vocal polyps. Explain the pathophysiology of vocal polyps. Recognize the clinical features of vocal polyps. Discuss the management of vocal polyps.		Hoarseness-Vocal nodules Vocal polyps	LIGS	MCQS
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ENT- Throat- 01 7	Describe the clinical presentation of acute Epiglottitis. Enumerate the complications of Acute Epiglottitis. Outline the principles of emergency management of acute epiglottitis with emphasis on airway protection. Describe the role of antibiotics and supportive care in Acute Epiglottitis.		Acute Epiglottitis	LIGS	MCQS
ENT- Throat- 01 8	Enlist congenital disorders of Larynx. Describe the clinical features, diagnosis, and natural course of laryngomalacia. Discuss the presentation, complications, and management of juvenile recurrent papillomatosis.		Congenital conditions of Larynx	LIGS	MCQS

ENT- Throat- 01 9	Describe the etiology and predisposing factors of following neck infections: - Cervical lymphadenitis and abscess - Cold abscess - Ludwig's angina - Parapharyngeal abscess - Retropharyngeal abscess - Peritonsillar abscess Describe the clinical presentation of neck space infections including warning signs. Interpret investigations (laboratory and imaging) required for the diagnosis of neck infections. Formulate a management plan for neck space infections. Explain the potential complications of untreated neck infections.	ENT	Infections of Head and Neck Spaces	LIGS	MCQS
ENT- Throat- 02 0	Enlist the common types and sources of aero-digestive tract foreign bodies. Describe the clinical presentation of Discuss the diagnostic approach in a patient with suspected aero-digestive tract foreign bodies.	ENT/ Emergency medicine	Aero-digestive tract foreign bodies.	LIGS	MCQS

	Outline the initial emergency measures definitive management of aero-digestive tract foreign bodies with possible complications of delayed diagnosis or mismanagement.			LIGS	MCQS
ENT- Throat- 02 1	Identify common signs and symptoms of laryngeal tumors. Describe appropriate Explain basic management options.	ENT	Laryngeal tumors	LIGS	MCQS
ENT- Throat- 02 2	Enlist indication of tracheostomy Describe pre-procedure assessment and preparation. Outline the steps of tracheostomy. Describe postoperative care and monitoring. Identify common complications of tracheostomy.	ENT	Tracheostomy	LIGS	MCQS

MODULERATIONALE

Ophthalmology is a vital medical specialty dedicated to the diagnosis, treatment, and prevention of eye diseases. It is essential for medical students to have a thorough understanding of the eye's basic anatomy, physiology, and pathology in order to manage common ocular conditions effectively. This module aims to equip medical students with the knowledge and clinical skills necessary to identify and manage a wider range of ophthalmic conditions frequently encountered in general practice and emergency settings.

MODULE OUTCOMES

- Identify common ophthalmic diseases and disorders encountered in OPD, IPD, multi-disciplinary and emergency settings.
- Apply fundamental clinical skills in the examination of the eye and adnexa, including visual acuity assessment and basic use of ophthalmic instruments.
- Formulate differential diagnosis and initial management plans for common ophthalmic conditions, including appropriate referral when necessary.
- Integrate knowledge of ophthalmic health into the broader context of systemic diseases and public health considerations.

SUBJECTS INTEGRATED IN THE MODULE

Medicine Oncology
Pharmacology
Forensic Medicine
Rheumatology

THEORY

EYE-III

COD E	SPECIFIC LEARNING OUTCOMES	INTEGRATING DISCIPLINE	TOPIC	TEACHING/ LEARNING	ASSESSMENT TOOLS
Eye 3-001	Define and classify strabismus. Classify Concomitant (non-paralytic) squint Explain the causes and types of non-paralytic squint. Recognize the clinical presentation and diagnostic signs of non-paralytic squint. Plan a management strategy for non-paralytic squint, including medical and surgical correction.	Ophthalmology	Squint/ Strabismus	LIGS	MCQS
	Classify In-Concomitant (paralytic) squint. Describe the etiology and pathophysiology of paralytic squint. Identify the clinical features and diagnostic signs of paralytic squint. Differentiate paralytic/In-Concomitant squint from non-paralytic/Concomitant squint based on history and examination. Outline the management plan for paralytic squint, including medical and surgical options. Describe the ocular manifestation of Myasthenia gravis.				
	Describe the underlying pathophysiology of papilledema in relation to raised intracranial pressure. List common causes of papilledema.			LIGS	MCQS

Eye3-002	Describe the clinical features of papilledema, including fundoscopic signs. List the differential diagnosis of papilledema. Discuss the principles of management of papilledema, including treating the underlying cause, reducing intracranial pressure, and preventing permanent vision loss.		Neuro-ophthalmology	LIGS
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Describe the underlying pathophysiology of papilledema in relation to raised intracranial pressure. List common causes of papilledema. Describe the clinical features of papilledema, including fundoscopic signs. List the differential diagnosis of papilledema. Discuss the principles of management of papilledema, including treating the underlying cause, reducing intracranial pressure, and preventing permanent vision loss.	Ophthalmology		LIGS	MCQS
Define optic atrophy. Describe the etiology and classification of optic atrophy. Explain the underlying pathophysiology leading to optic nerve degeneration. Identify the clinical features and fundoscopic findings of optic atrophy. Discuss the relevant investigations used to diagnose optic atrophy. Formulate a differential diagnosis for optic atrophy.			LIGS	MCQS

	Define optic neuritis. List the causes and types of optic neuritis. Identify the signs and symptoms of optic neuritis. Outline the key investigations including fundoscopy, visual field testing, MRI, and blood tests for systemic associations. Describe the principles of management of optic neuritis.			LIGS	MCQS
Eye-3-003	List the common causes and clinical features of oculomotor, trochlear, and abducens nerve palsies. Discuss the clinical significance of pupil involvement in oculomotor nerve palsy. Describe the ocular manifestations of facial nerve (VII) palsy such as lagophthalmos, impaired blink reflex, and exposure keratitis.		Visual pathways and visual field defects	LIGS	MCQS

RECOMMENDED BOOKS

1. Kanski's Clinical Ophthalmology: A Systematic Approach - Bowling
2. Parson's Diseases of the Eye
3. Scott-Brown's Otorhinolaryngology, Head and Neck Surgery
4. Logan Turner's Diseases of the Nose, Throat and Ear
5. Cummings Otolaryngology: Head and Neck Surgery

	Identify ocular complications that may arise from cranial nerve palsies. Outline the management plan and strategies to protect the eye in these nerve palsies.			LIGS	MCQS
Eye-3-004	Describe the anatomical course of the visual pathway. Correlate lesions at different levels of the visual pathway with characteristic visual field defects. Differentiate common visual field defects based on lesion location.	Ophthalmology/ Emergency Medicine/ Forensic Medicine	Ocular trauma	LIGS	MCQS
Eye-3-005	Describe the clinical manifestations of different types of ocular trauma. (burns, chemical injuries, blunt trauma, penetrating trauma) Discuss the early and late complications of ocular trauma. Describe the management plan for corneal and conjunctival foreign bodies. Describe the indications for referral of ocular injuries. Discuss the management plans for ocular burns and chemical injuries. Explain the medicolegal responsibilities of physicians in documentation, reporting, and evidence preservation (including photographs and medico-legal certificates) in cases of ocular trauma related to assault, accidents, and occupational injuries.	Ophthalmology/ Medicine	Systemic diseases	LIGS	MCQS

Enlist the symptoms and signs of thyroid eye disease. Explain its underlying pathophysiology. Discuss possible complications of thyroid eye disease. Outline relevant investigations, including blood tests, eye-related tests, and imaging. Formulate a comprehensive treatment plan for a patient with thyroid eye disease, including medical treatment and ocular interventions.	Ophthalmology/ Nutrition	LIGS	MCQS
Describe the ocular manifestations of vitamin A deficiency including night blindness, conjunctival and	Ophthalmology/ Medicine	LIGS	MCQS

	corneal xerosis, Bitot's spots, keratinization defects. Identify the methods of diagnosis including clinical signs. Discuss the management plan and prevention of ocular disease due to vitamin A deficiency.			LIGS	MCQS
	Describe the ocular manifestations of hypertension and diabetes. Differentiate the vascular changes in hypertensive retinopathy from those in diabetic retinopathy. Describe stages of hypertensive retinopathy. Describe stages of diabetic retinopathy. Outline the management plan for ocular complications in hypertension and diabetes.	Ophthalmology/ Rheumatology		LIGS	MCQS
	Enlist the common collagen vascular diseases (e.g., rheumatoid arthritis, systemic lupus erythematosus, ankylosing spondylitis, Wegener's granulomatosis) associated with ocular involvement. Describe the ocular manifestations of collagen vascular diseases.	Ophthalmology/ Oncology		LIGS	MCQS

Eye 3-006	Describe epidemiology and risk factors of retinoblastoma. Identify the common clinical signs and symptoms of retinoblastoma. Explain the diagnostic methods used in retinoblastoma, including fundoscopy and imaging. Discuss the available treatment options (enucleation, chemotherapy, radiotherapy, focal therapy, and intra-arterial chemotherapy). Outline the prognosis and long-term outcomes of retinoblastoma. Counsel patients and families regarding genetic counseling, risk of bilateral disease, and the importance of early detection.	Ophthalmology/ Oncology	Ophthalmic Oncology	LIGS	MCQS
Eye3-006	Identify the risk factors and common signs and symptoms of (eyelid tumors including basal cell carcinoma, squamous cell carcinoma, sebaceous gland carcinoma, melanoma) ocular squamous cell carcinoma. Discuss the treatment plan for eyelid tumors.	Ophthalmology/ Pharmacology	Ophthalmic Therapeutics	LIGS	LIGS

Ey e 3- 0 0 7	Antibiotics,Antivirals,andAntifungals: - Listcommonlyusedtopicalandsyst emic agents in ophthalmology. - Describe their indications in eye infections (e.g., conjunctivitis, keratitis, endophthalmitis). - Discusscontraindications,dos ageforms,and common adverse effects. LocalAnesthetics: - Explain the mechanism of action of ocular local anesthetics. - Identifytheirclinicaluses(e.g.,ton ometry, minor surgical procedures). - Recognizeadverseeffectsand precautionsin ophthalmic use. FluoresceinDye: - State the uses of fluorescein in ophthalmology(e.g., corneal ulcer, angiography). - Recognizeadversereactionsandlimit ations. MydriaticsandCycloplegics: - Differentiate between mydriatics and cycloplegics. - Discussindicationsfortheiruse (e.g.,refraction, uveitis, fundoscopy). - Identifycontraindications(e.g., narrow-angle glaucoma) and adverse effects. Corticosteroids: - Describetherolesoftopicalsteroidsinoc ular inflammation.	Ophthalmolo gy	Diagnostic s	LIGS	LIGS
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	Discuss indications, contraindications, and potential complications (e.g., cataract, glaucoma, infections).			LIGS	MCQS
	Explain the principle and clinical applications of visual field testing. Describe the procedure and diagnostic value of fundus fluorescein angiography (FFA). Explain the principle of optical coherence tomography (OCT) and its role in anterior segment, retinal and optic nerve disorders. Describe the principle of corneal topography and its applications in corneal and refractive conditions. Explain the principle and use of ultrasound A scan Describe the principle of ultrasound B scan and its applications in diagnosing posterior segment diseases.				

ASSESSMENT TOOLS

ASSESSMENT TOOLS

Students will be assessed by the following methods

1. **Fortnightly assessments**

Assessments will be conducted every Monday covering all the lectures conducted in the previous week consisting of MCQs only.

2. **Assignments/CBLs:**

Assignments/CBLs will be given monthly.

3. **End of Module Exam:**

At the end of Foundation and H&L module, end of module exam covering all the LOs of the module consisting of MCQs would be conducted.

4. **Block Exam:**

At the end of block, an exam will be conducted comprising of theory (MCQs) and practical/OSPE content.

5. **Departmental quizzes, presentations & group projects:**

Above mentioned can be the assessment tools for different departments on their will.

Assessment

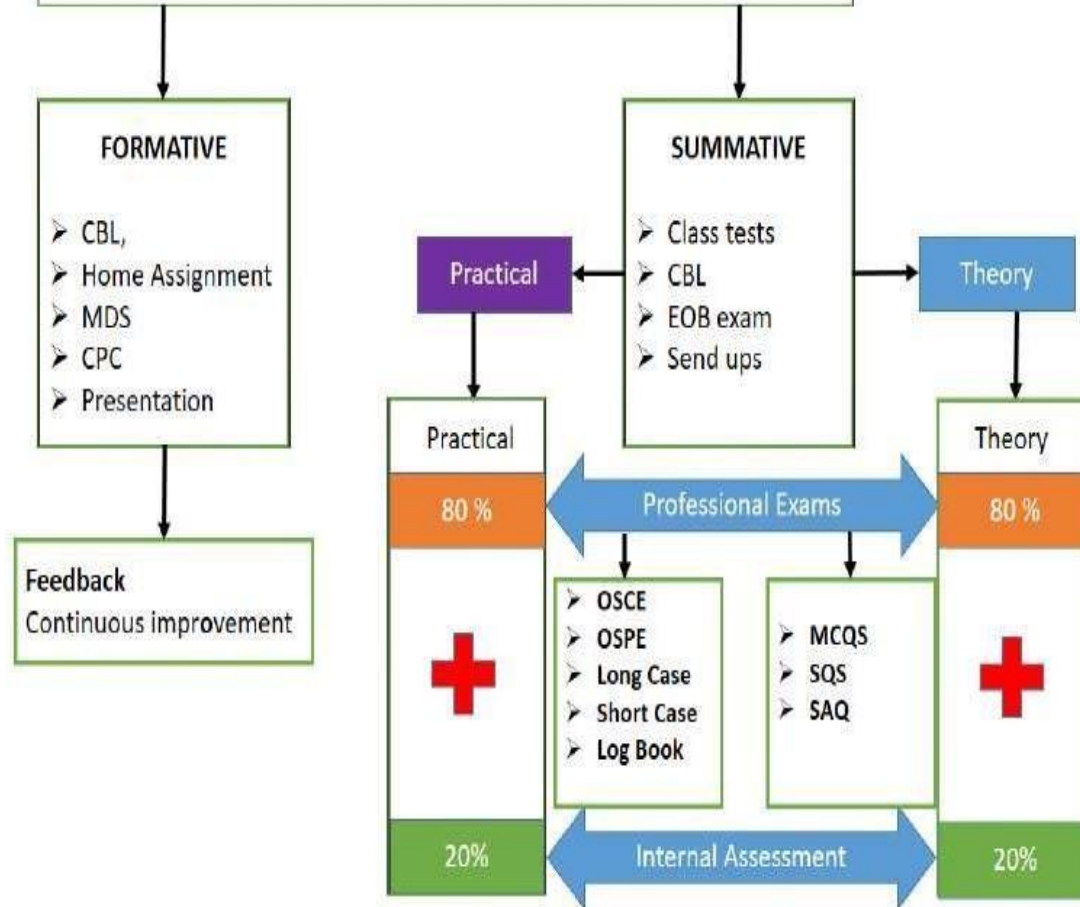




Table of Specifications (ToS)

Block-XII

Modules	Theory		Practical			
	MCQs (1 mark each)	Marks	OSCE (8 marks each)	OSVE (10marks each)	Short Case (20marks each)	Marks
Endocrine & Reproduction-II	47	47	2	2	-	36
Dermatology	23	23	2	-	-	16
Eye-III	35	35	3	-	1	44
ENT-III	35	35	3	-	1	44
Total	140MCQs	140Marks	10stationsx8 = 80Marks	2stationsx10 = 20Marks	2shortcases x20=40 Marks	140Marks
GrandTotal=280Marks						



CLINICAL
ROTATIONS



C-FRC-04

YEAR-04

Clinical Rotations



MODULENO:31

ENDOCRINOLOGY&REPRODUCTION-II

Code	Skills/Task
CFRC 4- EnR2- 001	Obtain and document clinical history and physical findings in patients with thyroid disorders, Diabetes Mellitus, Cushing's syndrome, menstrual disorders, and infertility.
CFRC 4- EnR2- 002	Thyroid examination Examine the thyroid gland for size, shape, nodules, tenderness, and movement with deglutition. Assess for signs of hypothyroidism and hyperthyroidism through pulse rate, tremor, reflexes, and eye signs. Interpret thyroid function tests (T_3 , T_4 , TSH).
CFRC 4- EnR2- 003	Adrenal Function Assessment Perform examination for adrenal disorders, including assessment of blood pressure (lying and standing), skin pigmentation, and muscle power.
CFRC 4- EnR2- 004	Diabetic Foot Examination Perform foot examination in a diabetic patient to assess for neuropathy, ulcers, and vascular insufficiency.
CFRC 4- EnR2- 005	Bedside Glucose Monitoring Measure and interpret capillary blood glucose levels using a glucometer during patient assessment. Demonstrate urine testing for glucose and ketone bodies using dipsticks.
CFRC 4- EnR2- 006	Diagnostic Tests for Diabetes Mellitus Interpret laboratory results of fasting, postprandial, random blood glucose, HbA1c, and oral glucose tolerance tests in relation to normal reference ranges and diagnostic criteria for diabetes mellitus.
CFRC 4- EnR2- 007	Insulin Administration Demonstrate proper insulin administration technique using a syringe or insulin pen. Counsel the patient on insulin handling, injection sites, foot care, and dietary compliance.
CFRC 4- EnR2- 008	Assessment of Calcium Imbalance Perform bedside assessment for calcium imbalance (Chvostek's and Trousseau's signs).

MODULE NO:32	
DERMATOLOGY	
	Skills/Task
CFRC 4- Derm- 001	Take history of the patients with acne vulgaris, eczema, psoriasis, fungal infections, bacterial infections, scabies, urticaria, warts, vitiligo, herpes zoster, or pediculosis.
CFRC 4- Derm- 002	Identification of skin lesions Identify and differentiate skin lesions in patients.
CFRC 4- Derm- 003	Use of Magnification in Dermatological Examination Demonstrate the use of magnifying glass in examination of a patient with dermatological disease.
CFRC 4- Derm- 004	Use of Wood's lamp in Dermatological Examination Demonstrate the use of Wood's lamp in examination of a patient with dermatological diseases.
CFRC 4- Derm- 005	Skin biopsy Observe the steps of performing a skin biopsy.
CFRC 4- Derm- 006	Microscopic Examination for Fungal Infections Demonstrate the preparation and microscopic examination of skin/nail scrapings for fungal infection.
CFRC 4- Derm- 007	Skin Scraping for Scabies Perform the preparation and microscopic examination of skin scrapings for scabies mite.
CFRC 4- Derm- 008	Skin Therapeutic procedures Observe and describe the steps of common therapeutic procedures including electrosurgery, cryosurgery, phototherapy, and intralesional injections.
CFRC 4-	Assist in electrosurgical procedures.

Derm-009	
CFRC 4-Derm-010	Phototherapy Assist in the preparation and patient counseling for phototherapy.
CFRC 4-Derm-011	Use of topical medication Counsel patients regarding proper use of topical medication, particularly topical anti-scabies medication and topical steroids.
CFRC 4-Derm-012	Safe Use of Topical Skin Products Counsel patients regarding hazards of whitening creams and topical self-medication.
CFRC 4-Derm-013	Demonstrate the ability to counsel patients with stigmatizing skin conditions with empathy, focusing on disease understanding, treatment adherence, and psychosocial support.

MODULE NO:33	
EYE&ENT-III	
Code	THROAT
	Skills/Task

CFRC 4- Throat-001	• Historytaking • Takeafocusedhistoryfrompatientspresentingwithpharyngealand laryngeal complaints • Clinicalexamination/managementskills • Identifytrismususingclinicalmethods. • Inspecttheoralcavity,pharynx,andlaryngealarea. • Performindirectlaryngoscopy. • Palpateneck. • ExaminecranialnervesIX,X,XI,XII. • Performinspection,palpation,andauscultationofnecklumps. • Palpateforlaryngealcrepitusandtrachealdeviation. • Observeandnarratethesteptsofendotrachealintubation. • Observeandassistintracheostomy,cricothyroidotomy. • Observeandassistintonsillectomy. • Identifywarningsymptomsandsignsofairwayobstructionrequiring urgent intervention. • IdentifyanddescribetheuseofcommonENTinstrumentsusedin both outpatient and operative settings. • Demonstrate back blow technique for foreign body airway obstructionon a mannequin. • Protocols for Collection, Transport and Storage of Nasopharyngeal/Throat/EarswabforCulture&Sensitivity.(SeeAnnexureIV)
Code	EYE-III
	Skills/Task
CFRC 4-	• Eyexaminationskillsandprocedures • Performasquintexamination.(Hirschbergtest,cover-uncovertest.

eye3-001	Extraocular movements). • Perform II, III, IV, V and VI cranial nerve examinations. • Operation theatre exposure • Observe in first aid management of ocular trauma. • Integration with systemic illnesses • Identify ocular findings of Thyroid eye disease. • Eye diagnostic machines • Observe OCT, Bscan, Perimetry. • Counselling • Counsel for different vision threatening, congenital, chronic, genetic eye diseases • Medicolegal Aspects of eye trauma (Forensic Medicine) Describe the medicolegal implications of ocular trauma with proper documentation, and reporting of evidence collection, preservation, and dispatch. • Assess the extent of injury (life threatening or otherwise). • Identify manner (self-inflicted, fabricated, homicidal, suicidal or non-suicidal), dating, causative weapon/agent, and impairment from injury for legal implications. • MLC report (as per Punjab Government) should be timely, credible, factual, and relevant. • Issuance of report to police/relatives. • Application of Qisas & Diyat law.
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ANNEXURE IV

Collection, Transport and Storage of Nasopharyngeal/Throat Swab for Culture & Sensitivity

The **collection and transport of a Nasopharyngeal Swab/Throat swab** is a critical step in diagnosing respiratory infections, including those caused by bacteria (e.g., *Streptococcus pyogenes*) and viruses (e.g., SARS-CoV-2, Influenza). Proper technique ensures accurate test results.

Patient Preparation:

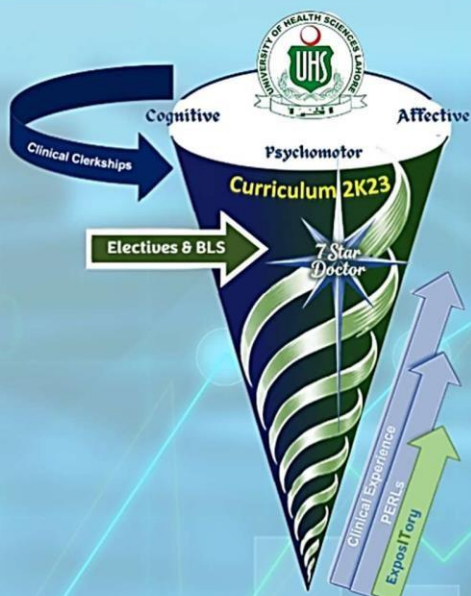
1. Explain the procedure to the patient.
2. Have the patient blow their nose if there's excess mucus.
3. Position the patient with their head tilted slightly back.



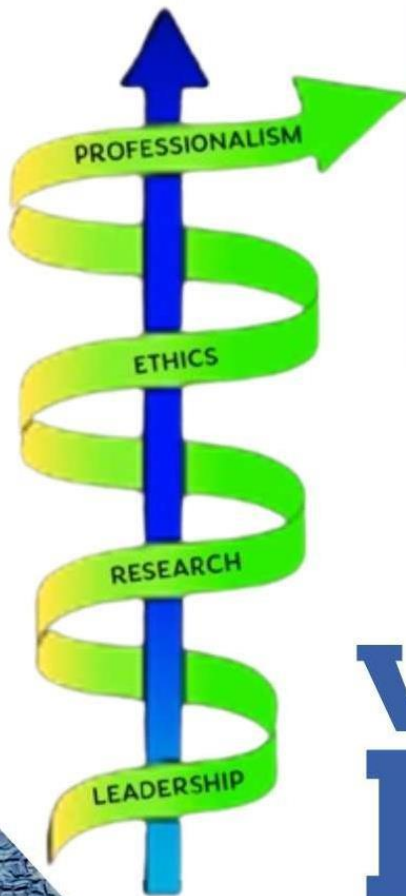
University of Health
Sciences Lahore

**Modular Integrated
Curriculum 2K23**
MBBS Year-04

YEAR-4



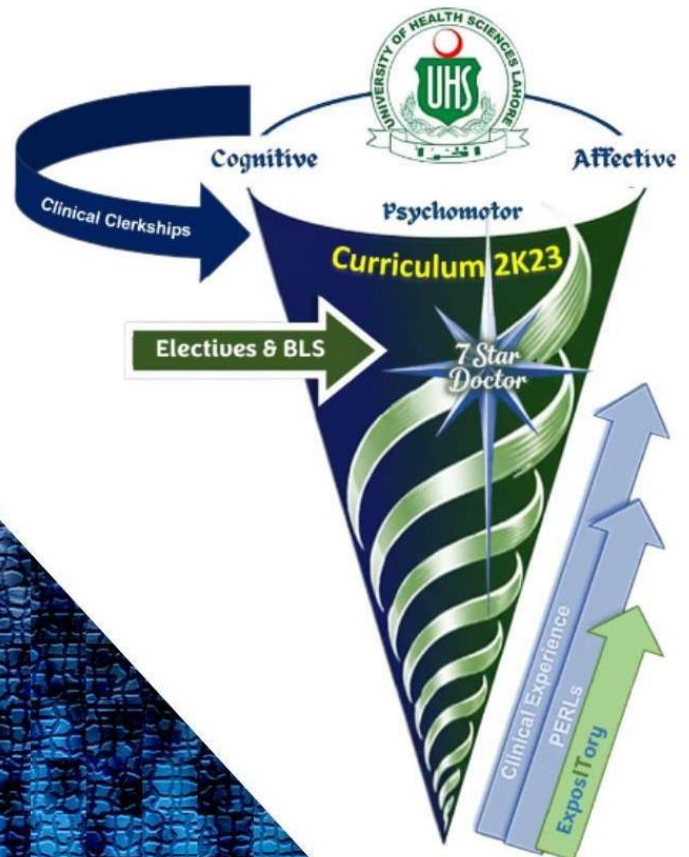
PERLS



Modular Integrated Curriculum 2K23

MBBS Year-4

Volume-4 PERLs-4



	Compassion and Empathy in Health Profession	Discuss the importance of compassion and empathy in patient care and how these qualities enhance the patient-provider relationship and improve health outcomes.	
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		Describe strategies for building empathy and compassion, e.g. active listening, perspective-taking, mindfulness training, and reflective practice.	
XII	Providing information for Elective Procedures	Provide accurate and clear information to patients regarding elective procedures, ensuring informed understanding of indications, benefits, risks, alternatives, and post-procedure expectations.	Interactive lecture/small group discussion
		Evaluate a clinical scenario in maternal or neonatal care, identifying how patient-centred care principles were applied to ensure the patient's preferences and needs were respected throughout the treatment process.	Students presentations on said topics.

ETHICS			
Block	Topic	Learning Objectives	Teaching mode/ Task
XI	Autonomy in dialysis, Renal transplant ethics	Analyze a case study for the ethical principles of autonomy as they relate to patient decision-making in dialysis and renal transplantation, including the challenges and implications of these principles in clinical	Case based discussion

		practice	
--	--	----------	--

	Informed Consent and Patient Autonomy	Describe ethical principles of informed consent and patient autonomy in ENT care, focusing on ensuring patients are fully informed and empowered to make decisions about their treatment.	Casebaseddiscussion
		Analyze a case about preprocedural informed consent.	
XII	Ethical Issues in Infertility & Abortions	Understand the ethical challenges surrounding infertility treatments and abortion, including patient autonomy, religious and cultural considerations, and the ethical responsibilities of healthcare providers.	Interactive lecture/ case based discussion
		Analyze cases related to infertility or abortion, identifying the ethical dilemmas involved, such as patient autonomy, consent, and cultural or religious beliefs, and propose ethical solutions based on professional guidelines.	

	Autonomy in cosmetic surgery, consent in elective procedures	Critically evaluate case studies involving autonomy and consent in cosmetic surgery and elective procedures, analyzing the ethical dilemmas that arise and proposing solutions to enhance patient autonomy and informed consent processes.	Interactive lecture/ case based discussion
--	--	--	--

RESEARCH			
Block	Topic	Learning Objectives	Teaching mode/ Task
XI	Research manuscript writing	Write a complete scientific article (Introduction, Methods, Results, Discussion).	Groupwork (dedicated time slot in timetable to complete the task in current block)
XII	Proofreading and submission of research article	Prepare tables, graphs, and reference lists using referencing software.	Group work under supervision of supervisor
		Revise and proofread drafts with peer and mentor feedback.	
		Select a relevant journal. Submit research to a journal or conference. Prepare and deliver an oral/poster presentation at institutional/research day.	

LEADERSHIP

Block	Topic	LearningObjectives	Teachingmode/ Task
XI	Digital Transformation in Healthcare	Explore the impact of digital transformation in healthcare, including the roles of telemedicine, digitalhealth tools,AI, and the importanceofdataprivacyinmodern healthcaredelivery.	Studentpresentations
	Public Trust andLeadership in Society	Explore the role of healthcare professionals as leaders in society, focusing on how building public trust is essential for effective leadership and the responsibilities of healthcareprofessionalsinmaintainingthis trust.	
		Explore the role of healthcare professionals asleadersinsociety,focusingonhow buildingpublictrustisessentialforeffective	Studentpresentations

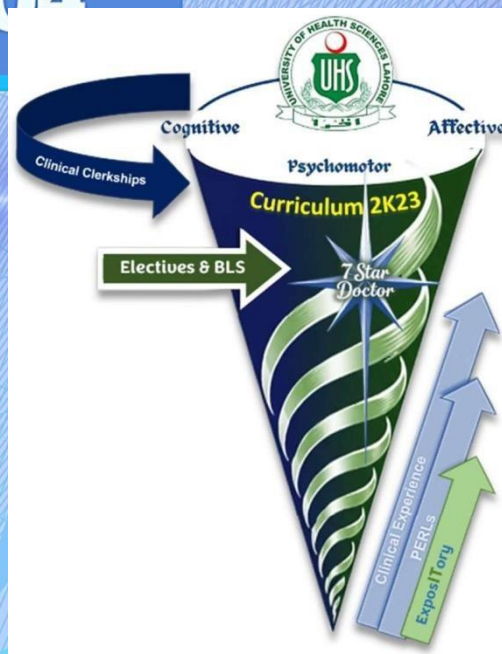
		leadership and the responsibilities of healthcare professionals in maintaining this trust.	
		Analyze a case where public trust in healthcare leadership was challenged, identifying key leadership strategies that could rebuild trust and strengthen the healthcare professional's role in society, identifying key leadership strategies that couldrebuildtrustandstrengthenethe healthcareprofessional'sroleinsociety.	Casebaseddiscussion/ student presentations
XII	Role Modelling/ Mentoring SessionVIII	Participate in a mentoring session where they will discuss their strengths and weaknesses with their mentor, receive feedback, and collaboratively create an actionplanforpersonalandprofessional development	Mentoringession

Volume-04



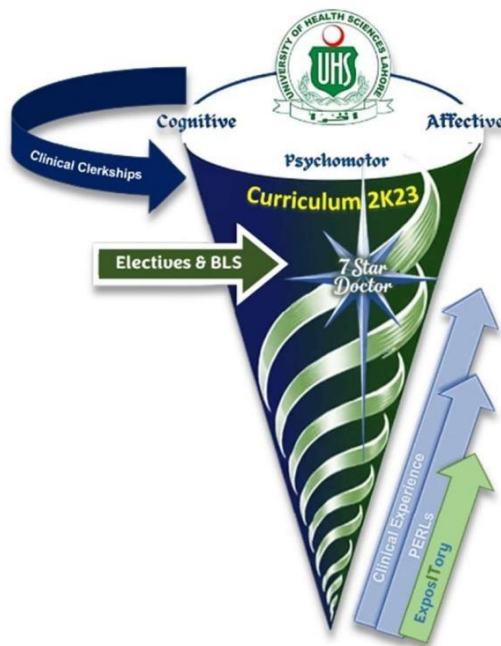
STUDENT PORTFOLIO

YEAR-04





Curriculum2K23Year-04



MODULE:ENDOCRINOLOGY&REPRODUCTION-II

DATEFROM: _____

DATETO: _____

CHECKEDBY: _____

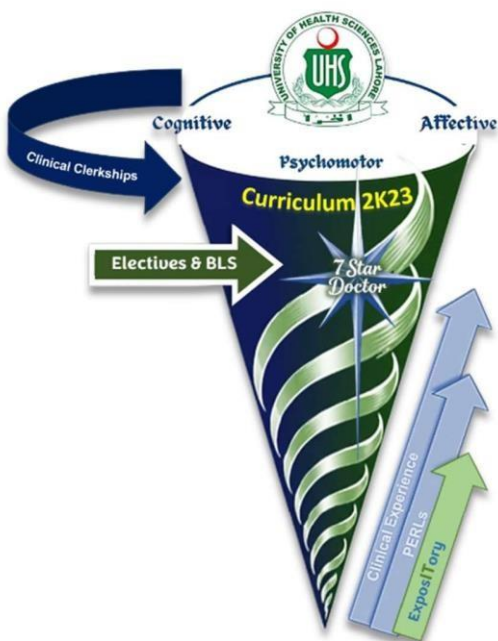
RollNo: _____

AssignmentTopic:	
Date:	
SubmitaResearchManuscriptforyourresearch.	
FacilitatorRemarks:	
RollNo:	

AssignmentTopic:	
Date:	
Submitareflectivecaseanalysisdiscussingtheethicalissuessurroundingacaseofinfertility treatmentorabortion.Focusonhowhealthcareproviderscannavigatethesechallengeswhile respectingpatientautonomy,legalconsiderations,andculturalsensitivities	
FacilitatorRemarks:	



Curriculum2K23Year-04



MODULE:DERMATOLOGY

DATEFROM: _____

DATE TO: _____

CHECKEDBY: _____

RollNo:	
AssignmentTopic:	
Date:	

Submit a reflective analysis of a case involving autonomy in cosmetic surgery or consent in an elective procedure. Discuss how ethical principles were applied or challenged, the impact on patient care, and strategies for improving the informed consent process.

Facilitator Remarks:

Roll No:

Assignment Topic:

Date:

Submit a summary of your mentoring session, including feedback, areas identified for improvement, and the action plan you developed with your mentor to enhance your professional growth.

**Facilitator
Remarks:**

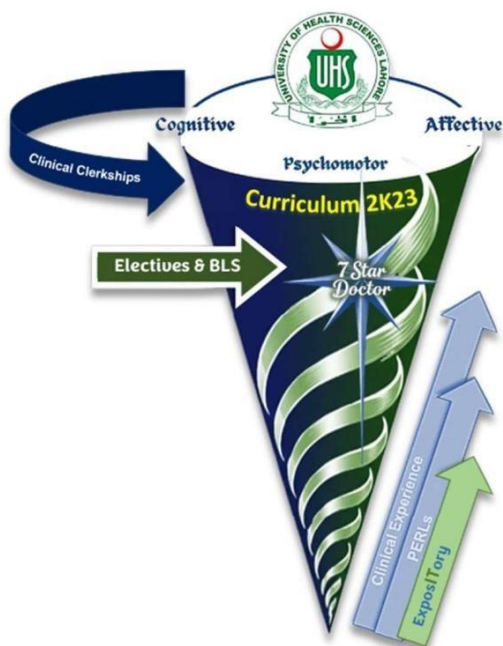
Roll No:

Assignment Topic:

Date:	
As a team, create a simple poster or video presentation on how you managed team dynamics to achieve project goals. Focus on key takeaways and provide basic recommendations for effective team leadership in healthcare settings.	
Facilitator Remarks:	



Curriculum2K23Year-04



MODULE:EYE&ENT-III

DATEFROM: _____

DATETO: _____

CHECKEDBY: _____

RollNo: _____

FacilitatorRemarks:	

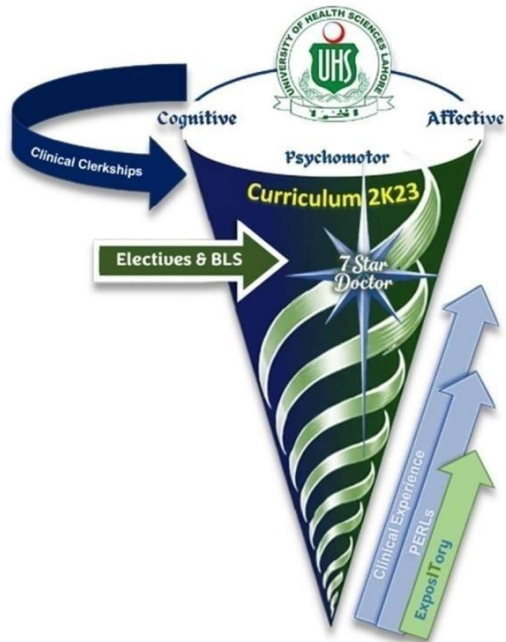
RollNo:	
AssignmentTopic:	
Date:	
EvidenceofObtainedEthicalApprovalAttached	

FacilitatorRemarks:	

RollNo:	
AssignmentTopic:	
Date:	
EvidenceofObtainedEthicalApprovalAttachedSubmitasummaryofyourmentoringsession, includingfeedback,areasidentifiedforimprovement,andtheactionplanyoudevelopedwith your mentor to enhance your professional growth.	

FacilitatorRemarks:	





MODULE: Expository Writing IV
Capstone in Expository Writing & Advanced Research I
Tools

DATE FROM: _____

DATE TO: _____

Roll No:	
Assignment Topic:	Abstract and Manuscript Preparation
Date:	
Attach a reflective entry detailing the process, challenges faced in condensing research, and how feedback was incorporated into the final version.	

FacilitatorRemarks:	

RollNo:	
AssignmentTopic:	ShortCommunicationorLettertotheEditor
Date:	
Includeacompletedshortcommunicationpieceoralettertotheeditoraddressingacurrent medicalorcommunityissue.Demonstratetheprocessfromideagenerationtofinalsubmission.	

FacilitatorRemarks:	

RollNo:	
AssignmentTopic:	PatientEducationMaterial
Date:	
Attach a colored scanned copy of patient education brochures or leaflets created with digital tools like Canva or Microsoft Publisher. Ensure these materials are clear, informative, and patient- friendly.	

FacilitatorRemarks:	

RollNo:	
AssignmentTopic:	LettertoEditorGroupProject
Date:	
Workcollaborativelyonagroupprojecttowriteandsubmitalettertotheeditor.Useonline tools(e.g.,GoogleDocs)toshowcollaborativewriting.	



**Modular Integrated
Curriculum 2K23
MBBS Year-04**

A stylized, 3D purple and blue letter 'F' with a small sphere at the top left, positioned behind the word 'EXPOS'.

EXPOS

ATORY

Volume: 04

Modular Integrated

Curriculum 2K23



Module Rationale

To integrate Expository Writing with an Introduction to Information Technology (IT) course for undergraduate medical students, we can align the IT skills taught each year with the writing tasks and objectives. The aim is to enhance students' digital literacy and writing skills, which is crucial for modern medical practice.

This integrated spiral of Expository Writing and IT ensures that as students advance in their medical education, they also develop digital literacy skills. These skills complement their writing abilities and prepare them for modern medical practice, where digital communication, research, and data management are essential. By the end of the 4-year program, students will be proficient in writing and using technology to support their work as healthcare professionals.

Year 4: Capstone: Medical Expository Writing and Scholarly Projects + IT: Advanced Research and Publishing Tools

THEORY

Code	Subject: Expository writing & IT		Total Hours = 10
	Specific Learning Outcome	Integrating Disciplines	Topics
EXP-04	Expository Writing Focus: - To write full-length research papers and case studies. - To prepare abstracts and manuscripts for submission to journals or conferences. - To create patient education materials.	PERLS, Pharmacology, Community Medicine, Pathology, Forensic	i. Writing and formatting full-length research papers ii. Preparing abstracts and manuscripts iii. Statistical analysis (SPSS, R) - Introduction to LaTeX for journal formatting iv. Design patient education materials (Canva)
	IT Integration: IT Skills: To use advanced research tools (PubMed, EndNote), medical data analysis (SPSS, R), and digital publishing (LaTeX for formatting research articles). Writing Application:		



ELECTIVES

Curriculum
2K23



**ELECTIVES
PROGRAM**

- ContactNumber:_____
- EmailAddress:_____

SectionB:ElectiveDetails

- ElectiveType: Clinical ☐ Non-Clinical ☐ Mixed(2+2weeks) ☐
- Duration: From _____ to _____ (total 4 weeks)
- Proposed Host Institution: _____
- Department / Specialty / Unit: _____
- Supervisor's Name & Designation (if known): _____

SectionC:StudentStatementofPurpose

(Attach a one-page Motivation Letter outlining your reasons for choosing this elective and expected learning outcomes.)

SectionD:RequiredAttachments

- CV ☐
- Academic Transcript ☐
- Motivation Letter ☐
- Health Clearance Certificate ☐
- Consent Form (Parent/Guardian) ☐
- Insurance Document (for overseas electives) ☐

SectionE:LearningAgreement

The undersigned agree to the following terms for the elective period:

1. **Student Responsibilities:** Attend regularly, follow institutional policies, maintain professionalism, complete logbook and report.
2. **Host Institution Responsibilities:** Provide supervised learning opportunities, mentorship, feedback, and certificate of completion.
3. **Parent/College Responsibilities:** Facilitate application, maintain communication with host institution, ensure student preparedness.
4. **UHS Responsibilities:** Approve elective placements, oversee quality, and record completion in transcript.

Signatures:

- Student: _____ Date: _____

- ParentCollegeFocalPerson: _____ Date: _____
- HostInstitutionSupervisor: _____ Date: _____
- Dean/Principal(ParentCollege): _____ Date: _____
- UHS Approval: _____ Date: _____

Annexure II

ElectiveLogbookTemplate

UniversityofHealthSciences,Lahore Elective Logbook & Portfolio

(Tobemaintainedbythestudentduringelectiveandsubmittedtoparentcollegeatcompletion.)

StudentInformation

- Name: _____
 - RollNumber: _____
 - Parent College: _____
 - HostInstitution: _____
 - ElectiveType: Clinical ☐ Non-Clinical ☐ Hybrid ☐
 - ElectiveDuration: From _____ to _____
-

SectionA:WeeklyActivityRecord

WeekDatesActivitiesUndertakenSkillsObserved/PracticedSupervisor'sFeedback&Signature

1
2
3
4

SectionB:DailyReflectionNotes

(Studentstowriteshortreflectivenoteseachdayfocusingonwhattheylearned,challengesfaced,andhowthe experience contributes to their professional growth.)

Date: _____

Reflection:

Section C: Midpoint Review (End of Week 2)

Supervisor Feedback:

Student Comments:

Section D: Final Supervisor Evaluation

- Attendance: Satisfactory ☐ / Unsatisfactory ☐
- Professionalism: Satisfactory ☐ / Unsatisfactory ☐
- Engagement & Participation: Satisfactory ☐ / Unsatisfactory ☐
- Overall Performance: Satisfactory ☐ / Unsatisfactory ☐

Supervisor Name & Signature: _____ Date: _____

Section E: Student Final Reflection

In 2000 words, reflect on your elective experience covering:

- Key learning outcomes achieved.
- Skills and insights gained.
- Challenges and how they were addressed.
- How this elective influences your future career pathway.

Student Signature: _____ Date: _____

Section F: Completion Certificate

This is to certify that Mr./Ms. _____ successfully completed a 4-week elective rotation at _____ from _____ to _____.

Supervisor Name: _____ Signature: _____ Date: _____

Seal/Stamp of Host Institution

Annexure III

Types of Non-Clinical Electives for MBBS Students

1. Basic Medical Sciences

- Anatomy(advanceddissectiontechniques,radiologicalanatomy,clinicalcorrelations)
- Physiology(experimentalphysiology,exercisephysiology,neurophysiology)
- Biochemistry(clinicalbiochemistry,molecularbiology,laboratorymedicine)
- Pharmacology(drugtrials,pharmacogenomics,rationalprescribing)
- Pathology(histopathologytechniques,hematology,cytogenetics)
- ForensicMedicine&Toxicology(forensiccasestudies,toxicologylabs,medicolegaletics)

2. Research-OrientedElectives

- ClinicalResearchMethodology
- EpidemiologyandBiostatistics
- Evidence-BasedMedicine(systematicreviews,meta-analysis)
- TranslationalMedicine(bench-to-bedsideresearch)
- LaboratoryResearchinGenetics,Immunology,orMicrobiology

3. Public&CommunityHealth

- CommunityMedicineandPublicHealthProjects
- HealthPromotion&DiseasePreventionPrograms
- MaternalandChildHealthInterventions
- Non-communicableDiseases(NCDs)preventionstrategies
- RuralorUnderservedCommunityHealthPrograms
- NGO/CommunityOrganizationFieldwork

4. MedicalEducation&Leadership

- CurriculumDevelopment&InstructionalDesign
- StudentMentorship&Peer-AssistedLearning
- Assessment&EvaluationinMedicalEducation
- EducationalTechnologyinMedicine(simulation,e-learning)
- LeadershipandManagementinHealthcare

5. HealthSystems,Policy&Management

- HealthPolicyandSystemsResearch
- HospitalAdministrationandQualityAssurance
- HealthcareFinancingandInsuranceModels
- GlobalHealthPolicy&ComparativeHealthSystems
- HealthInformaticsandDigitalHealth

6. Ethics,Humanities&ProfessionalDevelopment



SKILL ACQUISITION WORKSHOPS



3.	CardiacFirstResponse	3 rd Year/ 4 th Year	1day	Eligibility requirement for appearing in the Medicine Clerkship examination
4.	Traumafirstresponders	3 rd Year/ 4 th Year	1day	Eligibility requirement for appearing in the Surgical Clerkship examination
5.	Emergency Neonatal Resuscitation	3 rd Year/ 4 th Year	1day	Eligibility requirement for appearing in the Pediatrics Clerkship examination
6.	Emergency Obstetrics Resuscitation	3 rd Year/ 4 th Year	1day	Eligibility requirement for appearing in the Gynecology / Obstetrics Clerkship Examination