



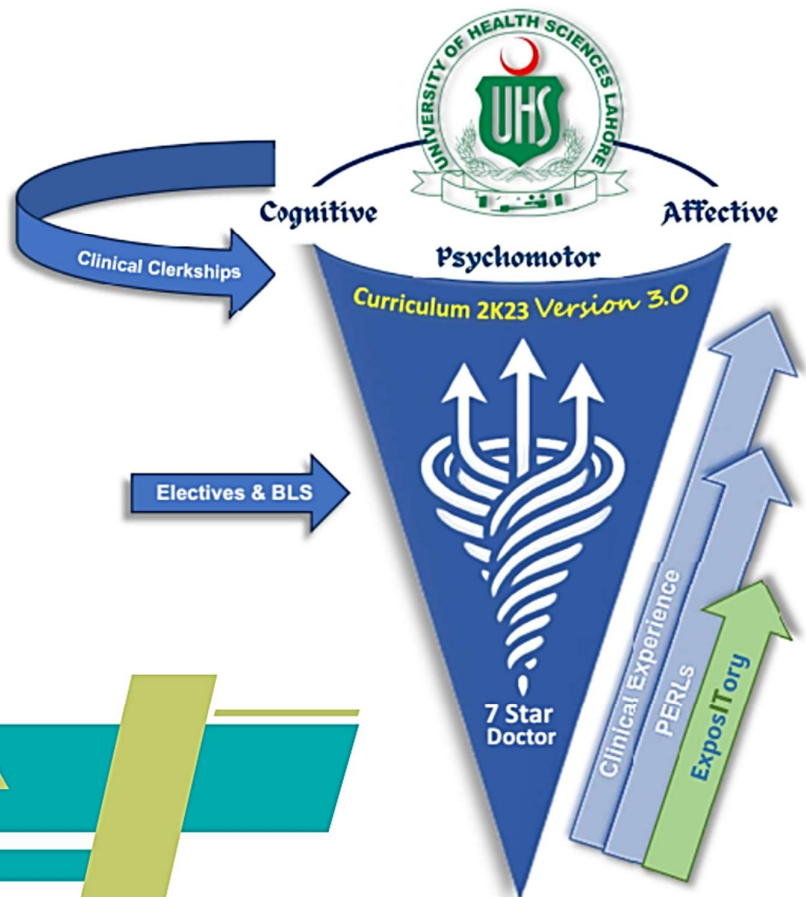
STUDY GUIDE BLOCK 5

Sialkot Medical College, Sialkot



Modular Integrated Curriculum 2K23 *version 3.0*

BLOCK-05





MODULE-08 ENDOCRINOLOGY & REPRODUCTION-I

Modular Integrated
Curriculum 2K23
version 3.0



MODULE RATIONALE

Endocrinal system is a unique system consists of glands which control body systems through its secretions known as hormones. These chemical compounds known as hormones play an integral role in maintaining cell activity and organ functions through biochemical signals. Human reproduction is controlled by hormones released by gonads.

Changes in hormonal levels can affect human fertility.

In this module the anatomy and physiology of the endocrine organs, functional biochemistry of the hormones secreted will be taught in integrated fashion with reference to common disease occurring in Pakistani community.

MODULE OUTCOMES

- Explain Development, structure, hormones and regulation of pituitary gland, thyroid gland, parathyroid gland, endocrine pancreas, adrenal glands, testes and ovaries.
- Describe the etiology, pathophysiology, relevant clinical features and common investigations of disorders of these glands.
- Apply levels of prevention for common endocrinal public health issues in Pakistan.
- Elaborate events in normal pregnancy and principles of genetics.

THEMES

- Introduction to Endocrinology, Mechanism of action, Second messenger, measurements
- Pituitary gland
- Thyroid Gland & Parathyroid Gland
- Adrenal glands
- Pancreatic Hormones
- Reproduction & Genetics

CLINICAL RELEVANCE

- Diabetes
- Hypothyroidism & Hyperthyroidism
- Cushing Syndrome & Addison's disease
- Dysfunctional Uterine Bleeding
- Infertility

IMPLEMENTATION TORs

- The time calculation for completion of modules and blocks is based on 35 hours per week. Total hours of teaching, learning and formative/summative internal assessment to be completed in a year are 1200.
- The hours mentioned within each module are the mandatory minimum required. The rest of the hours are left to the discretion of the institution that can be used in teaching, learning and assessment as per decision of the institutional academic council.
- The content and the intended learning outcomes written are mandatory, to be taught, at the level required, as the end year assessment will be based on these.
- However, the level of cognition can be kept at a higher level by the institution.
- The Table of Specifications provided will be used for the three papers of the Second professional examination. The same table of specifications should be used for the respective three block exams for internal assessment.



NORMAL STRUCTURE			
THEORY			
CODE	GROSS ANATOMY	TOTAL HOURS = 35	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
EnR-A-001	Describe the location, anatomy blood supply and functions of pituitary gland	Anatomy	Diencephalon (Endocrinology)
EnR-A-002	Describe the Thyroid, Parathyroid with their type, Relations, blood supply, and nerve supply.	Anatomy	Thyroid & Parathyroid gland
	Explain the anatomical basis for surgical removal of the glands of neck with special emphasis on the complications that can be encountered	Anatomy	
	Identify the Thyroid with their type, relations, blood supply, and nerve supply.	Anatomy	
EnR-A-003	Describe the structure, fascia, coverings, blood and nerve supply of testis	Anatomy	Testis
EnR-A-004	Describe the gross anatomical features and neuro-vasculature of epididymis and vas deferens, Seminal vesicles, Bulbourethral gland	Anatomy	Accessory Male organs
EnR-A-005	Describe the morphological features and neurovascular supply of prostate. Describe, Draw & Label Lobes of prostate gland Correlate the clinical manifestations of prostate with lobes and/or zones of prostate		Prostate
EnR-A-006	Describe the anatomical basis and manifestations of the following conditions: 1) Hydrocele of spermatic cord and/or testes 2) Hematocele of testes 3) Torsion of the spermatic cord 4) Varicocele Vestigial remnants of embryonic genital duct	Anatomy	Testis clinical conditions
	Describe the anatomical basis of vasectomy, & metastasis of cancer of testis and scrotum	Anatomy	

EnR-A-007	Describe shape, relations blood supply & nerve supply of suprarenal gland	Anatomy	Supra-Renal Gland
	Explain the anatomical causes of Adrenal Abnormalities	Anatomy	
EnR-A-008	Define Bony Pelvis (Girdle) and describe the structures forming it.	Anatomy	Pelvic Girdle
	Describe the bones and salient anatomical features of Bony pelvis (girdle)	Anatomy	
EnR-A-009	Describe the type, articulations and mechanics of movements {axes and planes} of the following joints: 1) Sacro-Iliac 2) Pubic Symphysis 3) Lumbosacral 4) Sacrococcygeal	Anatomy	Sacroiliac-Joint
EnR-A-010	List the contents of True and False Pelvis	Anatomy	Bony Pelvis (Girdle)
	Tabulate the differences between male and female pelvis	Anatomy	
	Describe different types of pelvises	Anatomy	
	Describes different diameters of pelvis and their application in obstetric practice	Anatomy (Obs & Gynae)	
EnR-A-011	Describe the anatomical basis of pelvic fractures and their consequences	Anatomy	Pelvic Girdle
	Describe the topographical anatomy of pelvic walls and its components	Anatomy	
	Describe the mechanics of changes occurring in pelvic ligaments and joint mobility in late pregnancy	Anatomy (Obs & Gynae)	
EnR-A-012	Describe the topographical anatomy of pelvic floor.	Anatomy	Pelvic floor
	Describe origin, insertion, nerve supply and actions of muscle forming pelvic floor	Anatomy	
EnR-A-013	Tabulate the attachments, innervations and actions of muscles forming the pelvic walls and floor	Anatomy	Pelvic Muscles
EnR-A-014	Describes injury to pelvic floor during child birth and its complications	Anatomy (Obs & Gynae)	Pelvic Girdle
EnR-A-015	Describe the peritoneal reflections in the male and female pelvis	Anatomy	Peritoneum peritoneal cavity of pelvis

EnR-A-016	Describe the gross anatomical features of Sacrum	Anatomy	Sacrum
EnR-A-017	Describe the gross anatomical features of pelvic fascia	Anatomy	Pelvic Fascia
EnR-A-018	Describe the boundaries of pelvic outlet and inlet	Anatomy	Pelvic Outlet and inlet
	Enumerate the structures passing through the pelvic inlet and pelvic outlet	Anatomy	
EnR-A-019	Tabulate the differences in peritoneal reflections in male and female pelvis	Anatomy	Peritoneal Reflection in Pelvis
EnR-A-020	Describe the origin, course, branches and distribution of common iliac artery	Anatomy	Pelvic Vessels
	Describe the origin, course, branches and distribution of external and internal iliac arteries	Anatomy	
	Describe the origin, course, tributaries and area of drainage of pelvic veins	Anatomy	
EnR-A-021	Describe the location, afferents and efferent of pelvic lymph nodes	Anatomy	Pelvic Lymph Nodes
EnR-A-022	Tabulate the origin, course, distribution and anastomosis of arteries of the pelvis	Anatomy	Pelvic Vessels & Pelvic nerves
	Describe the origin, root value, course, relations, branches and distribution of Pelvic nerves	Anatomy	
	Describe the anatomical basis and clinical picture for ligation of internal iliac artery and collateral circulation in pelvis	Anatomy	
	Describe the clinical picture and anatomical basis for the injury to pelvic nerves	Anatomy	
	Give anatomical justification for pelvic nerve blocks	Anatomy	
EnR-A-023	Describe the morphological features of urethra (male and female)	Anatomy	Pelvis
	Tabulate the parts of the male urethra with their location and salient features	Anatomy	
	Describe the clinical picture and anatomical justification for Ureteric Calculi, Cystocele, Suprapubic Cystotomy, Rupture of Bladder	Anatomy	

	Describe the clinical picture and anatomical justification for Hypertrophy of Prostate	Anatomy	
	Describe the gross anatomical features of Ovaries and Fallopian Tubes with their relations, blood supply, nerve supply and lymphatic drainage	Anatomy	
	Describe related clinical conditions: 1) Positions of ovaries 2) Cysts of ovaries 3) Ectopic pregnancy 4) Tubal ligation 5) Salpingitis		
	Describe the gross anatomical features, parts, peritoneal ligaments, blood supply, nerve supply & lymphatic & clinical aspects of Uterus and Vagina		
	Describe related clinical conditions 1. Prolapse of uterus 2. Vaginal trauma 3. culdocentesis	Anatomy	
	Describe, identify, justify and demonstrate the supports of uterus	Anatomy	
EnR-A-024	Describe the gross anatomical features of Boundaries & divisions of perineum	Anatomy	Perineum
	Draw and label the boundaries of perineum	Anatomy	
	List the contents of perineum	Anatomy	
	Tabulate the differences between the Male and female perineum	Anatomy	
	Describe the attachments of the perineal membrane and list its relations	Anatomy	
	Discuss the formation of Superficial and Deep Perineal Pouches	Anatomy	
	List the contents of Superficial and Deep Perineal Spaces	Anatomy	

	Tabulate the attachments, actions and nerve supply of muscles of perineum	Anatomy	
	Describe the topographical anatomy and neuro-vasculature of Penis	Anatomy	
	Tabulate the muscles forming the perineal body with their attachments and nerve supply	Anatomy	
EnR-A-025	Describe the clinical presentation and anatomical justification for: 1) Hypospadias 2) Phimosis 3) Circumcision 4) Erectile Dysfunction 5) Internal Hernias 6) Suprapubic Cystotomy 7) Rupture Of Bladder 8) Rectal Examination 9) Disposition Of Uterus	Anatomy	Pelvis
EnR-A-026	Describe the extent, structure, vascular supply, lymphatic drainage of Breast (Mammary Glands)	Integrate with Medicine	Mammary Gland
	Demonstrate palpation of breast and define its relation to the Fibrous septa in Carcinoma of Breast	Integrate with Surgery	
	Explain the anatomical basis of position adopted for breast examination and mammography.	Integrate with Radiology	
CODE	EMBRYOLOGY & POST-NATAL DEVELOPMENT	TOTAL HOURS = 14	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
EnR-A-027	Describe the contributing factors, histogenesis and sequence of events of the development of Thyroid gland	Anatomy	Development of Thyroid gland
	Explain the embryological basis of the Thyroglossal Cyst	Anatomy	
	Draw a concept map highlighting the development of thyroid gland	Anatomy	
EnR-A-028	Describe the development of para-thyroid glands	Anatomy	Development

	Draw a concept map highlighting the development of para-thyroid gland	Anatomy	Of Parathyroid glands
EnR-A-029	Anatomically justify the clinical presentation of: 1. Ectopic Parathyroid 2. Aberrant Thyroid	Anatomy	Development of Thyroid, Parathyroid
EnR-A-030	Describe the development of pituitary gland Describe the embryological basis for the congenital anomalies of pituitary development	Anatomy	Development of Pituitary Gland
EnR-A-031	Describe the contributing factors, histogenesis and the development of adrenal gland	Anatomy	Development Of Adrenal Gland
	Draw a concept map for the development of adrenal gland	Anatomy	
	Describe the embryological basis for the congenital anomalies of adrenal development	Anatomy	
EnR-A-032	Identify the stages in the development of the adrenal gland	Anatomy	Adrenal Gland
EnR-A-033	Describe the indifferent gonads	Anatomy	Development of Reproductive system
	List and describe the Factors influencing the differentiation of gonads		
	Evaluate the role of the factors influencing Sex determination and differentiation		
	Describe the Development and descent of testis	Anatomy	
EnR-A-034	Describe the embryological basis and locations of undescended testes	Anatomy	Testis
EnR-A-035	Draw a concept map highlighting the development of testis	Anatomy	Development of Reproductive system
	Explain the Development and descent of ovaries	Anatomy	
	Draw a concept map highlighting the development of ovaries	Anatomy	
	Describe the anatomical basis for indifferent gonads, Klinefelter, turner syndromes & androgen insufficiency	Anatomy	
	Describe the Formation of Genital Ducts In different stage (paramesonephric and mesonephric ducts)	Anatomy	

	Development of Mammary gland. Describe related clinical anomalies.		
	Describe the development of female genital ducts and glands, Development of uterus & Vagina. Describe related clinical anomalies: 1) Uterus Arcuatus 2) Uterus septus 3) Uterus Bicornis Bicolis 4) Uterus Bicornis Unicollis 5) Uterus Unicornis 6) Atresia of vagina 7) Double vagina 8) Imperforate hymen	Anatomy	
	Describe the development of male genital ducts and glands	Anatomy	
	Discuss the Development of male external genitalia	Anatomy	
	Describe the Development of female external genitalia	Anatomy	
	Explain the anatomical basis for the Associated congenital anomalies of male and female external genitalia (Hyposidiasis, Epispidiasis)	Anatomy	
	Describe the development of inguinal canal and descent of testis and embryological basis for Cryptorchidism, Ectopic Testis, Congenital Inguinal Hernia, Hydrocele	Anatomy	
	Klinefelter, turner syndromes & androgen insufficiency Describe the embryological basis for the coverings of testis	Anatomy	
CODE	MICROSCOPIC STRUCTURE (HISTOLOGY & PATHOLOGY)	TOTAL HOURS = 14	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
EnR-A-036	Describe the histological basis and manifestation of Gastric Carcinoid Tumors	Anatomy/ Pathology	Stomach
	Classify the principal Enteroendocrine Cells on the basis of type, location, hormone produced and Actions	Anatomy	
EnR-A-037	Describe microscopic structure of Pituitary gland.	Anatomy	Pituitary Gland

	Classify pituitary gland on the basis of cell type, hormone produced and functions	Anatomy	
	Explain the histological basis and manifestation of Pituitary Adenomas	Anatomy	
EnR-A-038	Describe the light microscopic structure of Adrenal Gland	Anatomy	Adrenal Gland
	Explain the histological basis and manifestation of Addison disease	Anatomy	
EnR-A-039	Describe the light microscopic structure of endocrine pancreas	Anatomy	Pancreas
	Classify the pancreatic islets on the basis of cell type, hormone produced and functions	Anatomy	
	Explain the histological basis and manifestation of Diabetes Mellitus	Anatomy	
	Explain the components and functions of neuroendocrine system	Anatomy	
EnR-A-040	Describe the light microscopic structure of Thyroid Gland	Anatomy	Thyroid Gland
	Describe the light microscopic structure of Parathyroid Gland	Anatomy	
	Describe the light microscopic structure of Pineal gland	Anatomy	
EnR-A-041	Describe the light and ultramicroscopic structure of Testes, structure & function of Sertoli cells. Describe Blood testes Barrier	Anatomy	Testes
	Describe the histological basis and manifestation of Orchitis, Cryptorchidism	Anatomy Pathology	
EnR-A-042	Describe the light microscopic structure of Epididymis	Anatomy	Epididymis
EnR-A-043	Describe the light microscopic structure of vas deferens	Anatomy	Vas deferens
EnR-A-044	Describe the light microscopic structure of seminal vesicle	Anatomy	Seminal Vesicle
EnR-A-045	Describe the light microscopic structure of Prostate Gland	Anatomy	Prostate gland
	Describe the lobes of prostate and correlate with the pathologies of prostate	Anatomy pathology	
EnR-A-046	Describe the light microscopic structure of ovaries	Anatomy	Ovaries

	Describe the light microscopic structure of ovarian follicles in different stages of menstrual cycle.	Anatomy	
	Describe the histological basis and manifestation of Polycystic Ovary Syndrome	Anatomy Pathology	
EnR-A-047	Discuss the light microscopic structure of uterus	Anatomy	Uterus
	Describe the light microscopic structure of different stages of Menstrual cycle	Anatomy	
	Describe the histological basis and manifestation of Endometriosis	Anatomy Gynae & Obs.	
EnR-A-048	Describe the light microscopic structure of Fallopian Tube.	Anatomy	Fallopian Tube
EnR-A-049	Describe the light microscopic structure of Cervix	Anatomy	Cervix
	Describe the histological basis and manifestation of Cervical Carcinoma	Anatomy Pathology	
EnR-A-050	Describe the light microscopic structure of Vagina	Anatomy	Vagina
EnR-A-051	Describe light microscopic structure of mammary gland (inactive, during pregnancy, after lactation) Discuss histological basis of Breast cancer	Anatomy pathology	Mammary Gland

PRACTICAL

CODE	HISTOLOGY	TOTAL HOURS = 11	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
EnR-A-052	Identify draw & Label the Pituitary gland under light microscope	Anatomy	Pituitary gland
EnR-A-053	Identify draw & label the Thyroid & Parathyroid glands under light microscope	Anatomy	Thyroid & Parathyroid
EnR-A-054	Identify draw & Label the Adrenal gland under light microscope	Anatomy	Adrenal Gland
EnR-A-055	Identify draw & Label Testes, Epididymis & Vas deferens under the light Microscope	Anatomy	Testes Epididymis Vas Deferens

EnR-A-056	Identify draw & label the seminal vesicle & prostate gland under light Microscope	Anatomy	Seminal Vesicle Prostate Gland
EnR-A-057	Identify, draw and label the ovaries under light microscope	Anatomy	Ovaries
EnR-A-058	Identify, draw and label the slide of different phases of uterus under light microscope	Anatomy	Uterus
EnR-A-059	Identify, draw and label the fallopian tube under light microscope	Anatomy	Fallopian Tube
EnR-A-060	Identify, draw and label the cervix under light microscope	Anatomy	Cervix
EnR-A-061	Identify, draw and label the vagina under light microscope	Anatomy	Vagina
EnR-A-062	Identify, draw and label the mammary gland (different stages) under light microscope	Anatomy	Mammary gland

NORMAL FUNCTION

THEORY

CODE	MEDICAL PHYSIOLOGY	TOTAL HOURS = 59	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
EnR-P-001	Define different chemical messengers. Enlist endocrine organs and hormones of the body. Enlist the hormones on the basis of chemical nature. Discuss the feedback control of hormone secretion. Explain the up and down regulation of receptors. Enlist the location of hormone receptors. Explain the mechanism of intracellular signaling after hormone receptor activation. Name the hormones that use enzyme-linked hormone receptors signaling. Explain the mechanism of enzyme linked receptors. Enlist second messenger mechanisms for mediating intracellular hormonal functions. Define second messenger system. Explain the adenylyl cyclase– cAMP Second Messenger System.	Physiology	Introduction to Endocrinology

	Enumerate the hormones that use the adenylyl cyclase–cAMP Second Messenger System. Explain The cell membrane phospholipid second messenger System. Enumerate the hormones that use cell membrane phospholipid second messenger system. Explain the mechanism of calcium Calmodulin system.		
EnR-P-001	Name the hormones/ factors of hypothalamus. Name the hormones of anterior pituitary. Name the hormones of posterior pituitary. Describe the functional relationship between hypothalamus, anterior and posterior pituitary gland. Explain the significance of hypothalamic- hypophysial portal circulation. Explain the hypothalamic pituitary tract. Explain the mechanism of action of growth hormone. Explain the actions of Growth hormone on Carbohydrate. Discuss the actions of Growth hormone on protein metabolism. Describe the actions of Growth hormone on fat metabolism. Explain the effect of growth hormone on skeletal growth and age. Explain the significance of somatomedins in mediating the actions of growth hormone. Describe the regulation of Growth Hormone. Describe the causes and features and treatment of panhypopituitarism in adults and childhood. Define Sheehan's syndrome. Enlist the types of dwarfism according to cause. Explain the pathophysiology and features of gigantism and acromegaly. Explain the mechanism of action of antidiuretic hormone. Discuss the actions of antidiuretic hormone.	Physiology	Hypothalamus / Pituitary Gland

	Regulation of antidiuretic hormone production. Elaborate the mechanism of action of oxytocin. Discuss the actions of oxytocin.		
EnR-P-002	Discuss the transport of thyroid hormone Discuss the mechanism of action of thyroid hormone Explain the actions of thyroid hormone on carbohydrate metabolism Discuss the actions of thyroid hormone on protein metabolism Explain the actions of thyroid hormones on fat metabolism Explain the non-metabolic functions of thyroid hormone Explain the regulation of thyroid hormone Enumerate antithyroid substances and explain their mechanism of action Enumerate the causes of hyperthyroidism	Physiology	Thyroid gland
	Explain the features, pathophysiology and treatment of thyrotoxicosis/ grave's disease Explain the thyroid function test to investigate hypo and hyperthyroidism Enlist the causes of hypothyroidism Explain the pathophysiology of Hashimoto hypothyroidism Discuss the features and pathophysiology and treatment of myxedema Explain the pathophysiology and features of endemic colloid goiter Discuss the pathophysiology and features of nontoxic colloid goiter Enlist the causes of cretinism Discuss the features and pathophysiology of cretinism		
EnR-P-003	Name the hormones of adrenal cortex. Explain the physiological anatomy of adrenal cortex. Explain the cellular mechanism of Aldosterone action. Explain the effects of mineralocorticoid hormone.	Physiology & Pathology	Adreno cortical hormones

	Discuss the regulation of aldosterone secretion. Discuss the metabolic and non-metabolic functions of cortisol Explain the interconversion of active cortisol and inactive cortisone by the 2, 11 beta hydroxysteroid dehydrogenase isoform. Explain the mechanism for regulation of glucocorticoid secretion by hypothalamus and pituitary Name adrenal androgens and enlist the functions of adrenal androgens. Discuss the causes, features, pathophysiology and treatment of hypoadrenalism (Addison's disease). Enlist the causes of hyperadrenalism. Explain the features, pathophysiology and treatment of Cushing's syndrome. Differentiate between Cushing's syndrome and Cushing's disease Explain the clinical importance of dexamethasone suppression test to diagnose Cushing's syndrome. Discuss the features, pathophysiology and treatment of Conn's syndrome. Enlist the cause, features and pathophysiology of congenital adrenal hyperplasia/ Androgenital syndrome.		
EnR-P-004	Enumerate the types of pancreatic cells with their hormones. Explain the mechanism of action of insulin. Discuss the synthesis and mechanism of release of insulin. Explain the effects of insulin on carbohydrate, protein and lipid metabolism. Enlist the actions of insulin on liver, adipose tissue and skeletal muscle. Enlist the factors and conditions that increase or decrease insulin secretion.	Physiology	Pancreatic hormones

	Explain the role of insulin (and other hormones) in “switching” between carbohydrate and lipid metabolism. Discuss the effects of glucagon on carbohydrate and lipid metabolism. Explain the factors that regulate the secretion of glucagon. Explain the 24-hour regulation of glucose. Discuss the importance of blood glucose regulation. Explain the actions of somatostatin.		
EnR-P-005	Enlist the types of diabetes mellitus Explain the causes of Type I and type II diabetes mellitus Discuss the features and pathophysiology of diabetes mellitus Explain the role of insulin resistance, obesity and metabolic syndrome in developing type II diabetes mellitus Explain how to diagnose the diabetes mellitus Explain the treatment of type I and type II diabetes mellitus Explain the features, cause of insulinoma	Physiology	Abnormalities of Glucose regulation
EnR-P-006	Discuss the physiological anatomy of parathyroid gland Explain the rapid and slow mechanism of resorption of bone by parathyroid hormone Discuss the actions of parathyroid Explain the control of parathyroid secretion by calcium ion concentration	Physiology	Parathyroid hormones
EnR-P-007	Discuss the effects of Vitamin D Discuss the effects of calcitonin on calcium Discuss the regulation of calcium (the first & second line of defense) Explain the causes and features of hypoparathyroidism Explain the causes and the features of primary and secondary hyperparathyroidism Enumerate the causes and features of osteoporosis	Physiology	Regulation of calcium in body
EnR-P-008	Enlist the functions of adrenal medullary hormones and explain pheochromocytoma	Physiology	Adreno medullary hormones

EnR-P-009	Describe the hormonal factors that affect spermatogenesis Explain the maturation and storage of sperm in epididymis Discuss the structure and physiology of a mature sperm Describe the composition of semen Discuss the functions of prostate & seminal vesicles in the formation of semen Explain the phenomenon of capacitation and its significance Describe the acrosome Reaction and its significance Discuss the role of pineal gland in reproduction	Physiology	Spermatogenesis Capacitation & Acrosome reaction
EnR-P-010	Discuss the site of secretion of testosterone Name the active form of testosterone Explain the production of estrogen in males Describe the basic intracellular mechanism of action of testosterone Explain the functions of testosterone in intrauterine life and after birth Discuss the regulation of male sexual functions by hormones from the hypothalamus and anterior pituitary gland	Physiology	Testosterone
EnR-P-011	Enumerate and explain the phases of ovarian cycle along with the hormonal changes Explain the postulated mechanism of ovulation Explain the formation and involution of Corpus luteum Endometrial cycle Explain the structural and hormonal changes of endometrial cycle Explain the regulation of female monthly cycle Discuss the role of progesterone on female sexual organs	Physiology	Menstrual cycle
EnR-P-012	Enumerate the ovarian hormones Discuss the synthesis of estrogen and progesterone	Physiology	Female sexual hormones

	Describe the interaction of follicular theca and granulosa cells for production of estrogens with the help of a diagram Explain the functions of the estrogens on different organs Discuss the role of progesterone on female sexual organs		
EnR-P-013	Explain the physiological basis of puberty, menarche Define menopause Explain the cause of menopause Discuss the physiological changes in the function of the body at the time of menopause	Physiology	Puberty, menarche & menopause
EnR-P-014	Explain the non-hormonal functions of placenta Explain the hormonal factors in pregnancy/ hormones of placenta Explain the changes in non- placental hormones during pregnancy Response of the mother's body to pregnancy Explain the mechanical and hormonal factors that increase uterine contractility during parturition	Physiology	Normal Pregnancy
EnR-P-015	Explain the physiology of lactation Discuss the actions of prolactin Justify the suppression of ejection of milk during pregnancy Discuss the physiological basis of suppression of the female ovarian cycles in nursing mothers for many months after delivery	Physiology	Lactation
CODE	MEDICAL BIOCHEMISTRY	TOTAL HOURS = 35	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
EnR-B-001	Define different chemical messengers. Enlist endocrine organs and hormones of the body. Enlist the hormones on the basis of chemical nature. Discuss the feedback control of hormone secretion. Explain the up and down regulation of receptors. Enlist the location of hormone receptors.	Biochemistry	Introduction to Endocrinology

	Explain the mechanism of intracellular signaling after hormone receptor activation. Name the hormones that use enzyme-linked hormone receptors signaling. Explain the mechanism of enzyme linked receptors. Explain the mechanism of hormones that receptors present in cytoplasm and nucleus (act on genetic machinery). Enlist second messenger mechanisms for mediating intracellular hormonal functions. Define second messenger system. Explain the adenylyl cyclase– cAMP Second Messenger System. Enumerate the hormones that use the adenylyl cyclase– cAMP Second Messenger System. Explain The cell membrane phospholipid second messenger System. Enumerate the hormones that use cell membrane phospholipid second messenger system. Explain the mechanism of calcium Calmodulin system.		
EnR-B-002	Describe the features of Signal transduction Describe different types of receptors	Biochemistry	Signal Transduction
EnR-B-003	Discuss the classification of hormones	Biochemistry	Classification of hormones
EnR-B-004	Describe different types of second messengers Differentiate the G protein and non-G protein mediated pathways of signal transduction Discuss the hormones which act through: Cyclic AMP (Adenosine monophosphate) Discuss the hormones which act through: Cyclic GMP (guanosine monophosphate) Discuss the hormones which act through calcium phosphoinositol Describe the Receptor tyrosine kinase pathway of signal transduction	Biochemistry	Second messengers

	Explain the Serine threonine kinase pathway of signal transduction Discuss the Nuclear Receptor mediated pathway of signal transduction Describe the Receptor coupled to Jak Stat pathway of signal transduction		
	Explain the control and negative feedback mechanism of hormone regulation	Biochemistry	
	Discuss the biosynthesis, secretion, mechanism of action and metabolic functions of Insulin, glucagon, epinephrine, cortisol, thyroid and growth hormone with special reference to carbohydrate, protein and lipid metabolism	Biochemistry	
	Interpret disorders of hormones on the basis of sign, symptoms and given data	Biochemistry	
EnR-B-005	Explain the synthesis, secretion, transport and clearance of steroid and protein hormones.	Biochemistry	Synthesis of Hormones
EnR-B-006	Enlist the steps in the synthesis of adrenocortical hormone. Explain the synthesis and secretion of ACTH (Adrenocorticotrophic hormone) in association with melanocyte-stimulating hormone, lipotropin, and endorphin.	Biochemistry	Synthesis of ACTH & adrenocortical
EnR-B-007	Explain the structure, biosynthesis, secretion, transport, regulation, catabolism, mechanism of action and biochemical role of testosterone, progesterone and estrogen	Biochemistry	Synthesis of testosterone, progesterone and estrogen
EnR-B-008	Discuss the role of steroid hormones in oral contraception, Infertility	Biochemistry	Steroid in infertility
EnR-B-009	Define the following terms: chromosome, allele (dominant and recessive), gene, locus, heterozygote, homozygote, hemizygous, autosome, genotype, phenotype, haploid and diploid number of chromosomes, aneuploidy, proband, propoita, pedigree, propositus, penetrance, codominance and polygenic	Biochemistry	Nomenclature of genetics

EnR-B-010	Discuss the structures of genes, how they are organized and regulated.	Biochemistry	Genes
EnR-B-011	Describe Mendelian Law of Segregation and Law of Independent Assortment.	Biochemistry	Mendelian laws
EnR-B-012	Describe the patterns of inheritance characteristic of autosomal dominant, autosomal recessive, X- linked dominant, X-linked recessive and mitochondrial traits.	Biochemistry	Patterns of inheritance
EnR-B-013	Interpret genetic symbols as they appear in pedigrees.	Biochemistry	Pedigrees
EnR-B-014	Analyze pedigree to determine the mode of inheritance of following traits: 1) X-linked recessive (Duchenne Muscular dystrophy) 2) X-linked dominant (Rickets) 3) Autosomal recessive (Xeroderma Pigmentosum) 4) Autosomal dominant (Huntington's Disease)) Mitochondrial disorder (Mitochondrial diabetes)	Biochemistry	Mode of inheritance
EnR-B-015	Discuss different structural and numerical chromosomal abnormalities.	Biochemistry	Chromosomal abnormalities
EnR-B-016	Interpret the normal human karyotype in terms of number and structure of chromosomes.	Biochemistry	Karyotypes
EnR-B-017	Describe the effect of the following chromosomal mutations on a segment of DNA: point mutation, frameshift mutation, deletion, insertion, inversion, Robertsonian Translocation and mosaicism.	Biochemistry	Mutations
EnR-B-018	Discuss the concept of central dogma from gene to protein	Biochemistry	Central dogma
EnR-B-019	Describe in detail all the steps in prokaryotic DNA replication with emphasis on: Different proteins required, Primers, DNA polymerase; their different components and functions, Initiation, elongation and termination of replication, Topoisomerases	Biochemistry	Prokaryotic DNA replication
EnR-B-020	Describe in detail all the steps in Eukaryotic DNA replication with emphasis on differences between Pro- and Eukaryotes	Biochemistry	Eukaryotic DNA replication

EnR-B-021	Discuss telomeres and Telomerase and their clinical significance		Telomeres and Telomerase
EnR-B-022	Describe DNA repair, mutation and cancers		DNA Repair
	Interpret Xeroderma pigmentosa on basis of sign /symptoms and data		
EnR-B-023	Explain the transcription in prokaryotes focusing on the following key points; RNA polymerase, its components and functions, Initiation, elongation and termination of transcription.		Transcription in prokaryotes
EnR-B-024	Illustrate the transcription in eukaryotes focusing on the differences between pro- and eukaryotic replication		Transcription in Eukaryotes
EnR-B-025	Discuss post transcriptional modifications		post transcriptional modifications
EnR-B-026	Describe the role of Wobble hypothesis in codon recognition by tRNA	Biochemistry	Wobble hypothesis
EnR-B-027	Interpret the translation focusing on the following key points: Initiation, elongation and termination		Translation
EnR-B-028	Describe Post-translational modification of proteins		Post-translational modification
	Illustrate RNA dependent synthesis of RNA and DNA		
EnR-B-021	Discuss the gene expression especially Lac operon and Tryptophan operon	Biochemistry	Gene Expression
	Discuss the regulation of eukaryotic gene expression with special emphasis on iron metabolism and RNA interference		
EnR-B-022	Discuss the following Recombinant DNA techniques with reference to their principles, procedures and application: 1) PCR (Polymerase Chain Reaction) 2) RFLP (Restriction Fragment Length Polymorphism) 3) Cloning 4) Human Genome Project 5) Blotting Techniques 6) DNA (Deoxyribose Nucleic Acid) sequencing 7)	Biochemistry	Techniques

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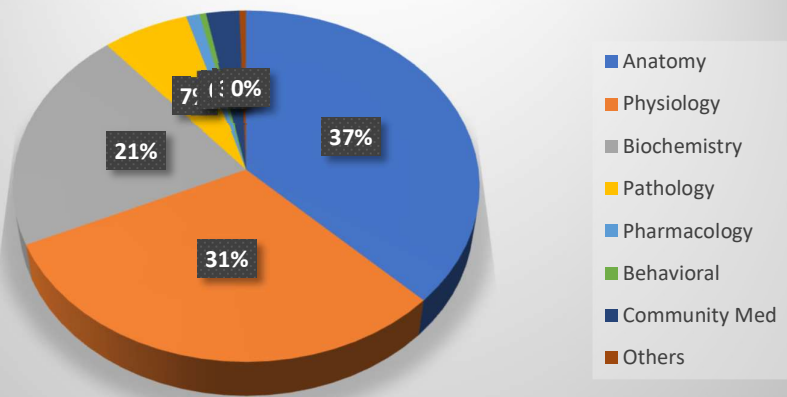
CODE	BIOCHEMISTRY	TOTAL HOURS = 06+02=08	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
EnR-B-023	Demonstrate DNA extraction	Biochemistry	DNA
EnR-B-024	Demonstrate Gel Electrophoresis	Biochemistry	Electrophoresis
EnR-B-025	Demonstrate PCR	Biochemistry	PCR
EnR-B-026	Demonstrate ELISA (enzyme-linked immunoassay) to measure concentration of hormones	Biochemistry	ELISA
EnR-P-016	Perform Pregnancy test	Physiology	Pregnancy test
PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 02	
		DISCIPLINE	TOPIC
EnR-Ph-001	Explain the mechanism of action of thyroxine	Pharmacology	Anti thyroid substance & MOA, uses, effects
	Explain Clinical uses and potential adverse effects with use of Thyroxine		
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 12	
		DISCIPLINE	TOPIC
EnR-Pa-001	Enumerate clinical manifestations along with hormone levels of anterior pituitary Classification of pituitary adenomas	Pathology	Pathology of Anterior Pituitary Gland
EnR-Pa-002	Enumerate and describe posterior pituitary syndromes (inappropriate ADH (Anti Diuretic Hormone) secretion, diabetes insipidus)	Pathology	Pathology of Posterior Pituitary Gland
EnR-Pa-003	Define thyroiditis Describe salient morphological features of clinically significant subtypes of thyroiditis i. Hashimoto Thyroiditis ii. Granulomatous Thyroiditis	Pathology	Thyroiditis

EnR-Pa-004	Describe the pathogenesis & salient morphological features of Grave's Disease Describe the pathogenesis & salient morphological features of Diffuse and Multinodular goiter	Pathology	Grave's Disease
EnR-Pa-005	Enumerate causes of hypo and hyperthyroidism along with levels of thyroid hormones	Pathology	Pathology of Thyroid Gland
EnR-Pa-006	Enumerate causes of hypercalcemia, hyper and hypoparathyroidism Describe the histopathological features of parathyroid hyperplasia	Pathology	Pathology of Parathyroid Gland
EnR-Pa-007	Give etiological Classification of DM (Diabetes Mellitus) Differentiating features of DM-I and DM-II on the basis of pathogenesis, clinical features, diagnosis and complications	Pathology	Pathology of Endocrine Pancreas Gland
EnR-Pa-008	Enumerate causes of Cushing syndrome with lab investigations Causes and clinical features of adrenocortical insufficiency (Addison disease)	Pathology	Pathology of Adrenal Gland
EnR-Pa-009	Describe the morphological features of inflammatory disorders of breast.		Breast
EnR-Pa-010	Enumerate the infectious agents that cause the lower genital tract infections and PIDs along with lab investigations	Microbiology	Female Reproductive Pathology
	Enumerate causes of infertility in females along with hormonal investigations	Pathology	
	Causes of dysfunctional uterine bleeding with histopathological features		
	Pathophysiology and lab diagnosis of eclampsia and preeclampsia		
	Causes of placental implantations (ectopic pregnancy)		

EnR-Pa-011	Enumerate causes of inflammation of male genital tract Causes of male infertility with semen analysis Describe pathological features of testicular torsion	Pathology	Male Reproductive Pathology
DISEASE PREVENTION AND IMPACT			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 05	
		DISCIPLINE	TOPIC
EnR-CM-001	Define Diabetes Mellitus according to WHO (World Health Organization) criteria Classify types of Diabetes Mellitus Describe epidemiological risk factors for Diabetes Epidemiological distribution & statistics of DM Screening of community for Diabetes Apply levels of prevention for control of Diabetes.	Community Medicine and Public Health	Diabetes
EnR-CM-002	Classify types of genetic disorders common in community. Describe health promotional measures to control genetic diseases. Describe screening programs for community to prevent genetic disorders. Apply levels of preventive and social measures for control of genetic abnormalities.	Community Medicine	Genetics
EnR-CM-003	Define women health and life cycle approach for health-related events. Highlight statistics related to human reproductive health issues.	Community Medicine	Reproductive health
	Enumerate health related problems across a woman's reproductive lifetime. Explain the components of reproductive health.		

CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 1	
		DISCIPLINE	TOPIC
EnR-BhS-001	Discuss common sexual dysfunctions and their prevalence, with emphasis on culture bound syndromes. Identify the various biological, psychological, and relational factors that can contribute to sexual difficulties. Discuss barriers to seek help. Discuss the importance of person centered and nonjudgmental approach when discussing sexual health concerns. Explain the ethical obligations of healthcare professionals in respecting patient confidentiality and informed consent when addressing sexual health issues.	Behavioral Sciences	Sexual difficulties and Medical Practices
AGING			
CODE	THEORY	TOTAL HOURS = 01	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
EnR-Ag-001	Enlist the changes that occur in female body after menopause.	Gynae/ OBS	Menopause

Endocrinology & Reproduction-I



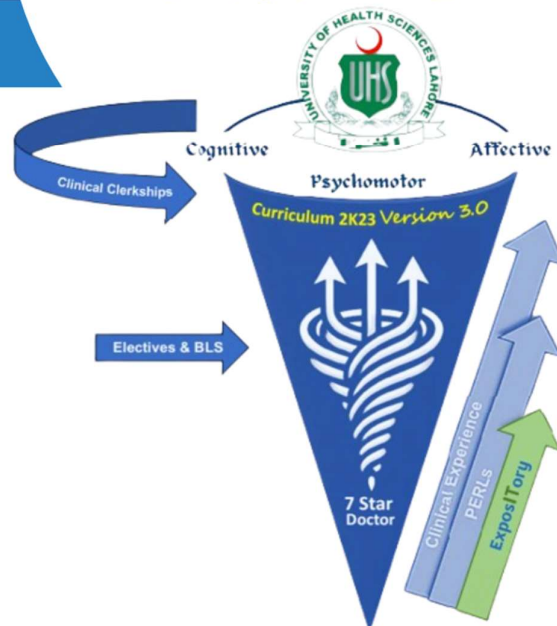
Module Weeks	Recommended Minimum Hours
07	197





MODULE-09 HEAD & NECK, SPECIAL SENSES

Modular Integrated Curriculum 2K23 *version 3.0*



MODULE RATIONALE

The second year MBBS students will have a detailed understanding of the anatomy, physiology, and clinical aspects of the Head and Neck, Special Senses. This knowledge is critical for the diagnosis and treatment of a wide range of diseases associated with these senses.

This module covers the important structures and functions of the Head & Neck, eye, ear, tongue, nose, as well as the pathologies and treatments associated with them. This includes common conditions such as cataracts, glaucoma, aging changes, hearing loss, tinnitus, otitis media, olfactory disorders.

Additionally, the special senses module includes training in relevant clinical examination skills, such as ophthalmoscopy, otoscopy, rhinoscopy, and vestibular testing. These skills are essential for identifying and diagnosing special senses conditions, and for monitoring the effectiveness of treatments.

An understanding of these structures is important for the general practice of medicine as they play a critical role in the overall health and well-being of patients. For example, vision and hearing loss can lead to a decline in cognitive function and social isolation, while smell and taste disorders can affect appetite and nutrition.

MODULE OUTCOMES

- Integrate the anatomical and pathophysiological aspects of the Head & Neck, eye, ear, nose, tongue, vestibular system and the neural pathways, receptors involved in their function with the clinical aspects.
- Develop the ability to identify and diagnose common pathologies such as cataracts, glaucoma, age-related degeneration, hearing loss, impacted wax, otitis media and olfactory disorders.
- Demonstrate the clinical examination (simulation) skills necessary for the assessment of special senses, such as ophthalmoscopy, otoscopy, rhinoscopy, and vestibular testing.
- Differentiate the differential diagnosis and options available for special senses conditions, including medical, surgical, and rehabilitative approaches.
- Illustrate awareness of the impact on overall health and well-being, the importance of preventing and early detection of related disorders.
- Develop the ability to communicate effectively with patients and their families, including explaining diagnosis and treatment options, and providing emotional support.
- Practice the attitude to work in a multidisciplinary team, collaborating with other healthcare professionals to provide comprehensive care for patients.

Equip themselves with the ability to appreciate the significance of lifelong learning and professional development to keep up with latest advances in the clinical field.

THEMES

- Vision
- Hearing
- Taste
- Olfaction
- Head & Neck

CLINICAL RELEVANCE

- Glaucoma
- Cataract
- Night Blindness
- Conjunctivitis
- Impacted Wax
- Otitis Media
- Otomycosis
- Glue Ear
- Rhinitis

IMPLEMENTATION TORs

- The time calculation for completion of modules and blocks is based on 35 hours per week. Total hours of teaching, learning and formative/summative internal assessment to be completed in a year are 1200.
- The hours mentioned within each module are the mandatory minimum required. The rest of the hours are left to the discretion of the institution that can be used in teaching, learning and assessment as per decision of the institutional academic council.
- The content and the intended learning outcomes written are mandatory, to be taught, at the level required, as the end year assessment will be based on these.
- However, the level of cognition can be kept at a higher level by the institution.
- The Table of Specifications provided will be used for the three papers of the Second professional examination. The same table of specifications should be used for the respective three block exams for internal assessment.



NORMAL STRUCTURE			
THEORY			
CODE	GROSS ANATOMY	TOTAL HOURS = 56	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
HNSS-A-001	Define the boundaries and openings of orbital cavity. List orbital contents and structures traversing these openings.	Human Anatomy	Vision
	In a tabulated manner list the extraocular and intraocular muscles of eyeball giving their nerve supply and actions		
	List and define the movements of eyeball with special reference to orbital and visual axis		
	Describe the functional modalities, course, distribution, branches of oculomotor, trochlear and abducent nerve. Describe the location, roots and distribution of ciliary ganglion.		
	Describe the course and distribution of optic nerve in reference to visual pathway. Give the effects of its lesions.		
	Give the clinical correlates of nerves supplying the eyeball and its muscles. Give anatomical justification for Horner's syndrome.		
	Describe the course and branches of ophthalmic artery mentioning its origin and termination.		
	Describe the structure of eyelids, conjunctiva and tarsal glands with their neurovascular supply		
	List the parts of Lacrimal apparatus giving their location and anatomical features. Describe the nerve supply of lacrimal gland.	Human Anatomy	
	Describe the location, roots and distribution of pterygopalatine ganglia.	Human Anatomy	
	Give the anatomical structure of eyeball emphasizing on its three coats and their neurovascular supply	Human Anatomy	

HNSS-A-002	Describe the boundaries of nasal cavity: nasal septum, lateral wall of nose, roof and floor. Give their anatomical features and neurovascular supply.	Human Anatomy	Olfaction
	Describe the anatomical features and neurovascular supply of external nose	Human Anatomy	
	List the paranasal sinuses giving their locations, openings, neurovascular supply and clinical significance.	Human Anatomy	
	Describe the course and distribution of olfactory nerve in reference to olfactory pathway. Give the effects of its lesions.	Human Anatomy	
	Describe the anatomical features and neurovascular supply of external ear	Human Anatomy	
HNSS-A-003	Describe the boundaries, contents, neurovascular supply and communications of middle ear cavity.	Human Anatomy	Hearing
	Describe the parts, anatomical features and neurovascular supply of internal ear.	Human Anatomy	
	Describe the course and distribution of vestibulocochlear nerve mentioning the effects of its lesion. Describe auditory pathway.	Human Anatomy	
HNSS-A-004	Describe the anatomical features of tongue with emphasis on its mucosa, attachments, musculature, vascular supply and lymphatic drainage.	Human Anatomy	Taste
	Describe the nerve supply of tongue (general sensory, special sensory and motor) with reference to their lesions and embryological basis.	Human Anatomy	
	List taste buds mentioning their structure, location and nerve supply. Describe the taste pathway.	Human Anatomy	
	Discuss lesions of motor and sensory nerves supplying the tongue. Discuss the anatomical correlates of lingual carcinoma in reference to lymphatic drainage of tongue.	Human Anatomy	

HNSS-A-005	Describe the features of Norma Frontalis, Norma Verticalis, Norma Parietalis, Norma occipitalis and Norma Basalis	Human Anatomy	Skull
	Describe the features of Norma lateralis: temporal, infratemporal & pterygopalatine fossae giving their boundaries, contents and communications.	Human Anatomy	
	Discuss the sutures and fontanelles of skull, their age changes and clinical significance.	Human Anatomy	
HNSS-A-006	List the layers of scalp and describe the anatomical features with neurovascular supply and lymphatic drainage of scalp.	Human Anatomy	Scalp
	Give anatomical justification of spread of scalp infections, profuse bleeding in superficial scalp lacerations, gaping of scalp wounds and black eye.	Human Anatomy	
HNSS-A-007	Enlist in tabulated manner the muscles of facial expression and mastication, giving their nerve supply and actions. Define modiolus.	Human Anatomy	Muscles of facial expressions
HNSS-A-008	Describe the functional modalities, course, branches, and distribution of cranial nerves innervating the face (sensory and motor): trigeminal and facial nerves	Human Anatomy	Neurovascular supply of face
	Describe the vascular supply and lymphatic drainage of face.	Human Anatomy	
	Draw a diagram to illustrate cutaneous innervation of face.	Human Anatomy	
	Discuss anastomoses of facial artery with contralateral vessels and branches of internal carotid artery with their clinical significance.	Human Anatomy	
HNSS-A-009	Describe the danger area of face with its clinical significance. Define the routes of spread of infection from face and scalp to intracranially.	Human Anatomy	Danger area
	Describe the bony features and muscle attachment of mandible.	Human Anatomy	Mandible.

HNSS-A-010	Classify temporomandibular joint mentioning its ligaments, relations, nerve supply and movements (with their mechanics and muscles producing them).	Human Anatomy	
HNSS-A-011	Describe anatomical features, relations and neurovascular supply of parotid gland and its duct, mentioning the structures entering and exiting the gland	Human Anatomy	Parotid gland
	Discuss the clinical correlates of parotid gland: parotiditis, Mumps, Frey's syndrome, parotid duct stones and parotid tumor surgery with its complications	Human Anatomy	
HNSS-A-012	Describe the parts and boundaries of oral cavity and give its relation to the Waldeyers' ring.	Human Anatomy	Waldeyers' ring
HNSS-A-013	Describe the anatomical features of hard and soft palate with their neurovascular supply.	Human Anatomy	Hard and soft
HNSS-A-014	Describe anatomical features, relations and neurovascular supply of submandibular and sublingual glands with their ducts.	Human Anatomy	Submandibular Sublingual glands
HNSS-A-015	Describe the location, roots and distribution of otic and submandibular ganglia.	Human Anatomy	Otic and Submandibular ganglia.
HNSS-A-016	Describe the anatomical features of Hyoid bone and give attachments on the bone.	Human Anatomy	Hyoid bone
HNSS-A-017	Enumerate the types of cervical vertebrae and list the differences between them. Describe the anatomical features and attachments on cervical vertebrae.	Human Anatomy	cervical vertebrae
	Classify the joints of cervical vertebrae mentioning their ligaments, movements with muscle producing them and neurovascular supply.	Human Anatomy	
HNSS-A-018	List the prevertebral muscles of cervical region. Describe their attachments, actions and innervation.	Human Anatomy	Prevertebral muscles
HNSS-A-019	Enumerate parts of deep cervical fascia with their respective extents, attachments, relations and contents.	Human Anatomy	Deep cervical fascia

HNSS-A-020	Describe the facial spaces in head and neck mentioning their communications and their relation to spread of infection.	Human Anatomy	Facial spaces
HNSS-A-021	Describe the attachments, actions and nerve supply of infrahyoid and suprahyoid muscles of neck.	Human Anatomy	Infrahyoid and suprahyoid muscles
HNSS-A-022	Describe the location, formation and distribution of ansa cervicalis.	Human Anatomy	Ansa cervicalis.
HNSS-A-023	Describe the attachments, actions and nerve supply of sternocleidomastoid and trapezius.	Human Anatomy	Sternocleidomastoid and trapezius
HNSS-A-024	Describe the boundaries and contents of suboccipital, anterior and posterior triangles of neck.	Human Anatomy	Triangles of neck
HNSS-A-025	Describe the cervical part of trachea and esophagus with their neurovascular supply.	Human Anatomy	Trachea and esophagus
HNSS-A-026	Describe the location, anatomical features and vascular supply of thyroid and parathyroid glands. List the variations in location of parathyroid glands.	Human Anatomy	Thyroid, Parathyroid glands
HNSS-A-027	Describe the carotid arteries mentioning their origin, course, branches, distribution and termination.	Human Anatomy	Carotid arteries
HNSS-A-028	Describe carotid body and carotid sinus and give their clinical significance.	Human Anatomy	Carotid body
HNSS-A-029	Give the venous drainage of Head and Neck region. Describe the formation, tributaries and area of drainage of vessels constituting jugular venous system.	Human Anatomy	Head & Neck venous supply
HNSS-A-030	Name the superficial and deep cervical lymph nodes and give their location and drainage areas	Human Anatomy	Lymphatics
HNSS-A-031	Describe the location, formation, branches, distribution and lesions of cervical plexus	Human Anatomy	Cervical plexus
HNSS-A-032	Name the parts of pharynx giving their extent, anatomical features, structure and neurovascular supply.	Human Anatomy	Pharynx
	Name the pharyngeal constrictor muscles defining their attachments, innervation and structure traversing the gaps between adjacent muscles.	Human Anatomy	

HNSS-A-033	Name the parts of larynx giving their extent, anatomical features, musculoskeletal framework and neurovascular supply.	Human Anatomy	Larynx
HNSS-A-034	Discuss the location, anatomical features, relations and vascular supply of tonsils: nasopharyngeal, palatine and lingual.	Human Anatomy	Tonsils
CODE	EMBRYOLOGY & POST-NATAL DEVELOPMENT	TOTAL HOURS = 15	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
HNSS-A-035	List the components of pharyngeal apparatus. Describe the development of pharyngeal arches, grooves, pouches and membrane and give derivatives and fate of each of them.	Embryology	Pharyngeal apparatus pharyngeal arches
HNSS-A-036	Describe the development and histogenesis of auditory tube, tympanic cavity, tonsils, thymus and parathyroid	Embryology	auditory tube, tympanic cavity, tonsils, thymus and parathyroid
HNSS-A-037	Discuss the embryological basis of congenital anomalies related to the development of pharyngeal arches, pharyngeal clefts and pharyngeal pouches: cervical sinus/fistula/cyst, 1 st arch syndrome, DiGeorge syndrome, congenital malformations of thymus and parathyroid glands	Embryology	Congenital anomalies
HNSS-A-038	Describe the development of face and nasolacrimal duct and their respective congenital anomalies.	Embryology	Face and nasolacrimal duct
HNSS-A-039	Describe the development of nasal cavity and paranasal sinuses. Give the associated congenital anomalies.	Embryology	Nose
HNS-A-040	Describe the development of lip and palate and their associated congenital malformations.	Embryology	Lips and palate
	Explain the types and embryologic basis of cleft lip and cleft palate.	Embryology	
HNSS-A-041	Describe the development of optic vesicle and retina.	Embryology	Eye & ear

	Describe the development of cornea, sclera, choroid, iris, ciliary body and lens and relate it to their respective congenital anomalies.	Embryology	
	Describe the development of internal ear and give the embryological basis of associated congenital anomalies.	Embryology	
CODE	MICROSCOPIC ANATOMY (HISTOLOGY & PATHOLOGY)	TOTAL HOURS = 08	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
HNSS-A-042	Describe the light and electron microscopic structure of tongue mentioning the histological structure of lingual papillae and taste buds.	Histology	Tongue
HNSS-A-043	Describe the histological structure of parotid, submandibular and sublingual glands.	Histology	Glands
	Compare and contrast the histological structures of parotid, submandibular and sublingual glands.	Histology	
HNSS-A-044	Differentiate between serous and mucous acini. Describe the structure and location of serous demilunes. Describe the serous and mucous acini and give histological differences between the two.	Histology	Head & Neck
HNSS-A-045	Describe the histological structure of layers of eyeball, eyelid and retina.	Histology	Eye
	Describe the light and electron microscopic structure of cornea.	Histology	
HNSS-A-046	Describe the histological and ultramicroscopic structure of internal ear with special reference to Organ of Corti.	Histology	Ear
			
CODE	HISTOLOGY	TOTAL HOURS = 09	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC

HNSS-A-047	Identify, draw and label diagrams to show histological structure of tongue, lingual papillae and taste buds.	Histology	tongue
HNSS-A-048	Draw and label diagrams to show histological structure of serous demilunes, serous and mucous acini.	Histology	Head & Neck
HNSS-A-049	Draw and label diagrams to show histological structure of eyelid and cornea.	Histology	Eye
	Draw and label a diagram to show histological structure of retina. List its histological layers and their respective components	Histology	
HNSS-A-050	Draw and label a diagram to show histological structure of internal ear.	Histology	Ear
NORMAL FUNCTION			
THEORY			
CODE	MEDICAL PHYSIOLOGY	TOTAL HOURS = 30	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
HNSS-P-001	Define and describe the visual acuity	Physiology	Visual Acuity
	Define Emmetropia	Physiology	
	Enlist the errors of refraction	Physiology	
	Explain the cause, features, physiological basis, and correction of Hyperopia	Physiology	
	Explain the cause, features, physiological basis, and correction of myopia	Physiology	
	Explain the cause, features, physiological basis, and correction of astigmatism	Physiology	
	Describe the pathophysiology and treatment of cataract	Integrate with Ophthalmology	
HNSS-P-002	Interpret common treatment modalities for Refractive errors	Integrate with Ophthalmology	Refractive Errors

HNSS-P-003	Describe the mechanism of formation and outflow of aqueous humor	Physiology	Fluid systems of the Eye
	Describe normal value of intraocular pressure and its regulation	Physiology	
	Describe the method for measuring the intraocular pressure	Integrate with Ophthalmology	
HNSS-P-004	Discuss the clinical features of Open Angle and Angle Closure Glaucoma Describe the causes and features and pathophysiology of glaucoma	Integrate with Ophthalmology	Glaucoma
HNSS-P-005	Describe the physiological anatomy and function of structural elements of retina	Physiology	Retina
	Enlist different layers of retina		
	Explain the significance of melanin pigment in retina		
	Describe macula and foveal region of retina and their significance		
	Describe the structure of rods and cones		
	Comment on the location of optic disc and its significance		
	Describe the cause, features, and treatment of retinal detachment		
	Differentiate the Visual Pathway from the Cones to the Ganglion Cells and from rods to the ganglion cells		
	Enlist the current investigations for Retinal Diseases	Integrate with Ophthalmology	
HNSS-P-006	Describe the rhodopsin-retinal visual cycle	Physiology	Photochemistry of vision
	Describe the mechanism of excitation of rods/ rods receptor potential	Physiology	
	Describe the causes and treatment of night blindness	Physiology	
	Define and describe different mechanisms of light adaptation	Physiology	Adaptation

HNSS-P-007	Define and describe different mechanisms of dark adaptation	Physiology	
	Enumerate the diseases leading to Night Blindness and retinal detachment	Integrate with Ophthalmology	
HNSS-P-008	Explain the tri color mechanism of color determination	Physiology	Color vision
	Define term protanopes, deuteranopes, tritanopes	Physiology	
	Enlist the types of color blindness and their causes	Physiology	
	Enlist clinical features of Color vision deficiencies	Integrate with Ophthalmology	
HNSS-P-009	Trace the visual pathway	Physiology	Visual Pathways
	Enlist and describe the abnormalities of visual pathway & visual field		
	Explain the effect of removal of primary visual cortex		
HNSS-P-010	Define the physiological blind spot and describe its location	Physiology	Field of vision
	Define scotoma/ pathological blind spot and enlist causes	Physiology	
HNSS-P-011	Illustrate the abnormalities of field of vision	Integrate with Ophthalmology	Visual fields
HNSS-P-012	Describe the muscular and neural control of eye movements	Physiology	Eye movements
HNSS-P-013	Define and enlist the types of Strabismus	Integrate with Ophthalmology	Strabismus
HNSS-P-014	Explain the mechanism of accommodation	Physiology	Accommodation
	Enlist the components of near response in accommodation	Physiology	
	Describe the neural pathway for accommodation reflex	Physiology	
	Describe the regulation of accommodation	Physiology	
	Enlist the clinical features of Presbyopia	Integrate with Ophthalmology	
HNSS-P-015	Trace the neural pathway for pupillary light reflex	Physiology	Pupillary light reflex
	Explain the pupillary light reflexes or reactions in CNS diseases	Physiology	

	Describe the cause and features of Horner syndrome	Physiology	
	Illustrate the differential diagnosis of Anisocoria	Integrate with Ophthalmology	
HNSS-P-016	Describe the physiological anatomy of outer and middle ear	Physiology	Sense of hearing
	Enlist the functions of middle ear	Physiology	
	Discuss clinical features and treatment of impacted wax	Integrate Otorhinolaryngology	
	Define causes and clinical features of Otomycosis	Integrate Otorhinolaryngology	
	Describe the mechanism of impedance matching and its significance	Physiology	
	Describe the mechanism of attenuation reflex and its significance	Physiology	
HNSS-P-017	Describe the physiological anatomy of inner ear	Physiology	Inner Ear/ Cochlea
	Describe the mechanism of transmission of sound waves in cochlea	Physiology	
HNSS-P-018	Describe the physiological anatomy and function of organ of Corti	Physiology	Organ of Corti
	Describe the mechanism of generation of endo-cochlear potential and its significance	Physiology	
HNSS-P-019	Write down the normal range of frequency for hearing	Physiology	Determination of sound frequency
	Describe the role of place principle in determination of sound frequency	Physiology	
	Describe the role of volleys principle in determination of sound frequency	Physiology	
HNSS-P-020	Discuss determination of loudness of sound		Determination of Loudness
HNSS-P-021	Trace the normal auditory nervous pathway	Physiology	Auditory pathway
	Describe the types of deafness	Physiology	
	Discuss the clinical features and investigations of Congenital and Acquired hearing loss	Integrate with Otorhinolaryngology	

HNSS-P-022	Enlist the primary taste sensations	Physiology	Sense of Taste	
	Define and explain the term taste blindness	Physiology		
	Describe the physiological anatomy and location of taste buds	Physiology		
HNSS-P-023	Describe the mechanism of stimulation of taste buds/ receptor potential	Physiology	Excitation of Taste buds	
	Trace the pathway of taste sensation	Physiology		
HNSS-P-024	Define and explain the terms: Ageusia, Hypergeusia, Hypogeusia and dysgeusia	Physiology	Abnormalities of Taste sensations	
	Describe the senile changes in taste buds			
HNSS-P-025	Explain the terms: Taste preference and taste aversion	Physiology	Taste preference and aversion	
HNSS-P-026	Enlist the primary sensations of smell	Physiology	Sense of smell	
	Describe the physiological anatomy and location of olfactory membrane	Physiology		
	Explain the mechanism of excitation of olfactory cells, membrane potential and action potential on olfactory cells			
	Discuss the Adaptation of olfactory sensations Discuss the transmission of smell signals in the the CNS			
HNSS-P-027	Enlist the causes and clinical features of Rhinitis	Integrate with Otorhinolaryngology	Rhinitis	
	Differentiate between viral and allergic Rhinitis	Integrate with Otorhinolaryngology		
CODE	MEDICAL BIOCHEMISTRY		TOTAL HOURS = 7	
	SPECIFIC LEARNING OBJECTIVES		DISCIPLINE	TOPIC
HNSS-B-001	Discuss the metabolism of mono and disaccharides	Biochemistry	Metabolism of mono and disaccharides	
	Interpret Hereditary fructose intolerance, fructosuria, galactosemia and lactose intolerance, in relevance to the clinical findings	Biochemistry		

	Explain the Polyol pathway and effect of hyperglycemia on sorbitol pathway	Biochemistry	
	Discuss the sources, metabolically active forms, biochemical role and clinical correlation of Vit-A with vision	Biochemistry	

PRACTICAL

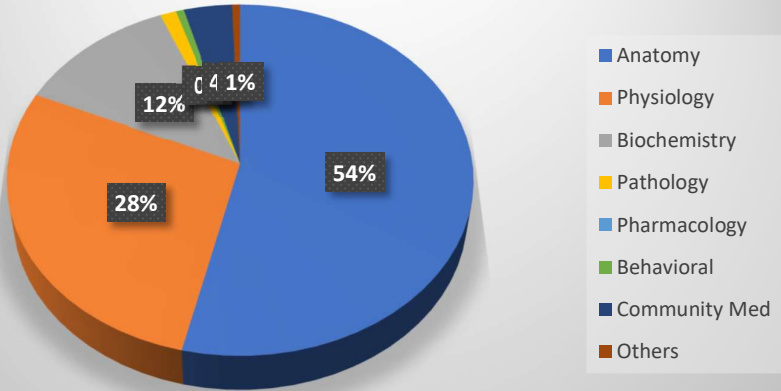
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 16+05=21	
		DISCIPLINE	TOPIC
HNSS-P-028	Examine the Second, Third, Fourth & Sixth Cranial Nerves	Physiology	Cranial Nerves
HNSS-P-029	Examination of Light Reflex		Light reflex
HNSS-P-030	Determine the Visual Acuity for Far and Near vision		vision
HNSS-P-031	Perform Ophthalmoscopy		ophthalmoscopy
HNSS-P-032	Examine Field of Vision and interpretation of visual field plotted	Physiology	Visual field
HNSS-P-033	Examine Color Vision		Color vision
HNSS-P-034	Perform Tuning fork test and audiometry, interpret the report		Ear
HNSS-B-002	Interpretation of insulin and C peptide	Biochemistry	Interpretation of results
HNSS-B-003	Demonstrate HbA1C		HbA1C
HNSS-B-004	Detect abnormal constituents in urine by chemical methods		Abnormal constituents in urine

PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS

CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 03	
		DISCIPLINE	TOPIC
	Enlist the common causative agents of Eye, Ear infections	Pathology (Microbiology)	Eye/Ear infections

HNSS-Pa-001	Discuss the pathogenesis and clinical features of common pathogens		
DISEASE PREVENTION AND IMPACT			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 06	
		DISCIPLINE	TOPIC
HNSS-CM-001	Identify factors leading to noise pollution	Community Medicine/ Otorhinolaryngology	Hearing loss
HNSS-CM-002	Describe the common causes of blindness in community	Community Medicine	Blindness
	Describe risk factors and preventive strategies for blindness at community level		
HNSS-BhS-001	At end of module the students will learn the psychosocial aspects of pain which will help in understanding the complex and multidimensional nature of pain.	Behavioral Sciences	Pain
AGING			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 03	
		DISCIPLINE	TOPIC
HNSS-Ag-001	Familiarize with the age-related hearing loss	Otorhinolaryngology	Deafness
HNSS-Ag-002	Discuss the age changes of mandible	Anatomy	Head & Neck

Head & Neck and Special Senses



Module Weeks	Recommended Minimum Hours
05	158



SKILL/ACTIVITY PERFORMED SATISFACTORILY	
Signatures of Supervisor	



BLOCK-05

ENDOCRINOLOGY & REPRODUCTION-1 MODULE		
Objectives	Skill	Miller's Pyramid Level Reflected
Examination of the thyroid gland	Thyroid examination	Shows
Examination for Acromegaly	Examination for acromegaly	Shows
Measurement of blood glucose levels	Blood sugar measurement	Shows
Suturing	Suturing	*Knows how

- ❖ These skills are at the 'Knows how' level of the miller's pyramid, meaning thereby that students need not perform them themselves but may develop a perception regarding them by observing performance/working on simulated patients/facilitation with videos.

Place a “✓” in case box if step/task is performed satisfactorily, an “X” if it is not performed satisfactorily, or N/O if not observed.

Satisfactory: Performs the step or task according to the standard procedure or guidelines

Unsatisfactory: Unable to perform the step or task according to the standard procedure or guidelines

Date Observed: _____

CHECKLIST FOR THYROID EXAMINATION (Some of the following steps/tasks should be performed simultaneously.)	CASES (Minimum 3 Entries)		
STEP/TASK			
GETTING READY: 1. Wash your hands and don PPE if appropriate 2. Introduce yourself to the patient including your name and role 3. Gain consent to proceed with the examination 4. Ask the patient to sit on a chair for the assessment 5. Adequately expose the patient's neck and upper sternum 6. Ask if the patient has any pain before proceeding			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			
THE PROCEDURE: 7. Inspect the patient whilst at rest, looking for clinical signs suggestive of underlying pathology 8. Inspect the patient's face for clinical signs suggestive of thyroid pathology (dry skin, excessive sweating, eyebrow loss) 9. Inspect the patient's eyes for evidence of lid retraction, inflammation and exophthalmos 10. Assess for eye movement abnormalities 11. Assess for lid lag			

12. Inspect the midline of the neck for evidence of thyroid enlargement, lumps or scars			
13. Ask the patient to protrude their tongue and repeat inspection			
14. Palpate the patient's thyroid gland assessing size, symmetry and consistency. Also note any masses present in the thyroid tissue.			
15. Ask the patient to protrude their tongue whilst you palpate			
16. Palpate local lymph nodes to assess for lymphadenopathy			
17. Inspect for tracheal deviation			
18. Percuss downwards from the sternal notch for evidence of retrosternal dullness			
19. Auscultate each lobe of the thyroid for a bruit			
20. Thank the patient			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			
Signatures of Supervisor			

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Date Observed: _____

CHECKLIST FOR ACROMEGALY (Some of the following steps/tasks should be performed simultaneously.)	CASES (Minimum 3 Entries)		
STEP/TASK			
THE PROCEDURE:			
1. Wash your hands and gain consent from the patient			
2. Ask the patient if he/she has any pain in any region			
3. Perform a brief general inspection of the patient, looking for clinical signs suggestive of acromegaly such as:			
a. Facial features: coarse features, such as prominent supraorbital ridges and prognathism, may be indicative of acromegaly.			
4. Hands and feet: may be enlarged.			
5. Skin: may display thickening in the hands and face and excess sweating or oiliness in acromegaly.			
6. Posture: patients with acromegaly can present with signs of osteoarthritis, especially in the weight-bearing joints (knees and hips).			

7. Hair growth: hirsutism in women and hypertrichosis may occur.			
8. Skin tags: acromegaly can cause an increase in the number of skin tags.			
9. Gait: acromegaly can cause a rolling gait or varus deformity.			
10. Clothes: clothes or jewellery may appear tight if significant weight gain has occurred.			
11. Hands: Inspect for: a. Enlargement: grossly increased size of the hands may be assessed by comparing your hands to the patient's, accounting for natural size differences. b. Wasting: thenar wasting can indicate untreated carpal tunnel syndrome. c. Scars: carpal tunnel release scar may indicate previous median nerve compression. d. Skin changes: skin thickening and excess sweating can occur in acromegaly. e. Finger pricks: finger prick marks on the tips of the fingers may indicate diabetes, which is linked to acromegaly f. Palpation g. Assess for thickening of the patient's skin by pinching the skin overlaying the third metacarpophalangeal joint. This can be compared with your own hand's skin to detect any differences.			
12. Axillae: Whilst supporting the patient's arm, inspect each axilla for the following: a. Acanthosis nigricans: darkening (hyperpigmentation) and thickening (hyperkeratosis) of the axillary skin which can be benign (most commonly in dark-skinned individuals) or associated with insulin resistance (e.g., type 2 diabetes mellitus) as a complication of acromegaly. b. Hypertrichosis: increased hair growth can occur as a result of the effects of growth hormone.			
13. Palpate for thyroid gland			
14. Look for raised JVP			
15. Face: a. General features:			

b. Inspect the general appearance face for coarse features associated with acromegaly: c. Frontal bossing: a prominent or protruding brow can occur with excess GH. d. Large nose, ears, and lower lip: aspects of soft-tissue overgrowth. e. Prognathism: overgrowth of the jaw can lead to a mandibular protrusion			
16. Mouth: Inspect the inside of the mouth for the following: a. Macroglossia: tongue enlargement may cause the tongue to appear large for the mouth or even cause visible partial airway obstruction in extreme cases. b. Wide spaced teeth: growth of the soft palate may cause interdental separation of the lower jaw. c. Prognathism: overgrowth of the jaw may only be discernible on closer inspection.			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			
Signatures of Supervisor			

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Date Observed: _____

CHECKLIST FOR EXAMINATION OF BLOOD GLUCOSE LEVELS (Some of the following steps/tasks should be performed simultaneously.)		CASES (Minimum 3 Entries)		
STEP/TASK				
THE PROCEDURE:				
1. Explain the procedure to the patient and get a verbal consent to proceed.				
2. Gather the relevant equipment and place in a clean tray: i. Non-sterile gloves ii. Blood glucose reader (a.k.a. glucometer): calibrate using calibration fluid if required. iii. Spring-loaded lancet: to obtain the blood sample. iv. Testing strips: make sure the expiry date is valid. v. Gauze vi. Tape				
3. Ensure the patient's finger is cleaned prior to measuring capillary blood glucose: i. It's important that the skin over the site being tested has been cleaned, as substances on the skin can affect the accuracy of capillary blood glucose results (e.g. substances containing sugar). ii. Ask the patient to wash their own hands or alternatively you can clean the site with an alcohol swab (70% isopropyl).				

iii. Make sure the skin over the testing site has dried completely before performing capillary blood glucose measurement.			
4. Turn on the capillary blood glucose monitor and ensure it is calibrated.			
5. Load a test strip into the glucose monitor.			
6. Don a pair of non-sterile gloves.			
7. Pick up the lancet and carefully remove the protective cap.			
8. Prick the side of the patient's finger with the lancet and gently squeeze the finger from proximal to distal to produce a droplet of blood. Some guides advise cleaning away the first drop of blood, however, there is no evidence that this significantly impacts the reliability of blood glucose results.			
9. Gently touch the tip of the test strip against the droplet of blood to allow it to be absorbed into the strip.			
10. Apply gauze or cotton wool to the puncture site to stop the bleeding and ask the patient to maintain pressure over the site			
11. Safely dispose of the lancet into a sharps bin.			
12. Dispose of the test strip and the cotton wool/gauze into a clinical waste bin. If the patient's finger is still bleeding, keep the cotton wool or gauze in place and secure with some tape.			
POST PROCEDURE:			
1. 'Wash your hands, thank the patient'			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			
Signatures of Supervisor			

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CHECKLIST FOR SIMPLE INTERRUPTED SUTURE (Some of the following steps/tasks should be performed simultaneously.)	CASES (Minimum 2 Entries)		
STEP/TASK			
EQUIPMENT: Collect a procedure trolley, and clean the top surface using an alcohol surface disinfectant wipe. Next obtain a plastic tray, and clean it in a similar manner. You will then need to collect a number of items. <u>For cleaning:</u> i. A pair of non-sterile gloves. ii. Five 10mL sachets of 0.9% sodium chloride (saline) solution. iii. Gauze. <u>For anaesthesia:</u> i. A pair of sterile gloves. ii. Alcohol wipe (2% chlorhexidine in 70% alcohol). iii. 20mL 1% lidocaine solution (with or without adrenaline). iv. Drawing up needle (≤ 18 gauge). v. Subcutaneous needle (25-27 gauge) and syringe (20mL). vi. Sharps bin. <u>For suturing:</u> i. Suture pack (containing needle holder, scissors, toothed forceps, non-toothed forceps). ii. A pair of sterile gloves. iii. Suture material. iv. Sterile drape. v. Sharps bin.			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			

THE PROCEDURE:			
i.	Explain the procedure to the patient and take consent		
Inspection:			
ii.	Assess the size and depth of the wound as well as the state of its border. Inspect for any pus inside which may suggest infection. Ensure that there are no foreign bodies present, such as glass. Finally, check the surrounding skin for any bruising or erythema which may suggest a cellulitis infection.		
Cleaning			
iii.	To clean the wound, take the gauze and soak it in saline solution. Carefully wipe the area starting from the centre of the wound and continuing outwards.		
Anaesthesia			
iv.	Before injecting the anaesthetic, confirm with the patient that they have had no previous reactions to local anaesthetic. Once this has been confirmed, clean the surrounding area using an alcohol wipe. Whilst waiting for the skin to dry, draw up the lidocaine solution into the syringe. a) Once ready to inject, switch the needle on the syringe and don some sterile gloves. Using proper technique, inject 2mL of lidocaine solution subcutaneously into the surrounding skin. After doing so, manoeuvre the needle and continue to inject small amounts of anaesthetic such that all of the surrounding skin is anaesthetised. For medium to large wounds, you will need to withdraw the needle and reinject at another area.		
v.	Wash and dry both your hands and the distal third of your forearms and then put the sterile gloves on using correct sterile technique. Allow the anaesthesia at least 5 minutes to work.		
vi.	Carefully position the part of the body with the wound and apply the sterile drape over it. At this point, explain to the patient that it is very important for them to keep still and not touch anything on the sterile field to avoid contamination. a) Using the toothed forceps, pinch the sides of the wound to test for numbness, and ask the patient whether they can feel any pain. Be sure to warn the patient before you do this. The patient may be able to feel a sense of pressure but should not feel any pain.		
vii.	Use the forceps to position the needle in the needle holder so that the needle holder is two-thirds of the way up from the tip of the needle.		

viii.	Hold the needle holder in your dominant hand and the toothed forceps in the other. Starting from the middle of the wound, use the forceps to pull the skin up on the wound side closest to your dominant hand. Insert the needle into the skin on the same side at a 90° angle, at least 5mm from the wound edge.			
ix.	Push the needle through the skin, supinating your forearm to follow the curvature of the needle as you do so. Remove the needle from the needle holder and pull the needle through that side of the wound using the forceps. a) Position the needle back into the needle holder and insert it into the dermis of the other side of the wound, around 5mm below the skin surface. Again, supinate your wrist such that the needle emerges to the skin surface. Pull the needle through such that only 15cm of thread remains on the other side.			
x.	To secure the suture in place, you will need to tie a surgical knot. This is achieved by tying three smaller “throw” knots.			
xi.	1 st throw: Hold the needle holder directly above and parallel to the wound. Wrap the longer end of the thread around the needle holder twice in a clockwise direction and then use the tip of the needle holder to grasp the shorter end of the thread and pull in opposite directions, tying the first throw.			
xii.	2 nd throw: Once again wrap the longer end of the thread around the needle holder, however this time, do so only once and in an anticlockwise direction. Then, as before, use the tip of the needle holder to grasp the shorter end of the thread. Pull the suture material through, tying another throw.			
xiii.	3 rd throw: Tie this throw in a clockwise direction in a similar manner to the 1 st . However, only wrap the thread once around the needle holder.			
xiv.	Once you have completed the three throws, you should have a strong surgical knot. Try to position the knot on one side of the wound. Next, cut both ends of the suture such that there is 5mm of thread on either side. This is so that it is easy to identify the suture. Insert more sutures as required about 5-10mm apart.			
xv.	Once you are finished, dispose of the needle in the sharps bin.			
xvi.	Press lightly on the sides of the wound to stop any bleeding. Once satisfied, remove the drape and your gloves. Arrange for the wound to be dressed using a non-adherent dressing.			
SKILL/ACTIVITY PERFORMED SATISFACTORILY				
Signatures of Supervisor				

HEAD AND NECK, SPECIAL SENSES MODULE		
Objectives	Skill	Miller's Pyramid Level Reflected
Examination of the nose	Nasal examination	Shows
Examination of neck lumps	Neck lump examination	Shows

- ❖ These skills are at the 'Knows how' level of the miller's pyramid, meaning thereby that students need not perform them themselves but may develop a perception regarding them by observing performance/working on simulated patients/facilitation with videos.

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Date Observed: _____

CHECKLIST FOR EXAMINATION OF THE NOSE (Some of the following steps/tasks should be performed simultaneously.)	CASES (Minimum 3 Entries)		
STEP/TASK			
THE PROCEDURE: 1. Explain the procedure to the patient and get a verbal consent to proceed. <u>Inspection:</u> 2. Inspect the external surface of the nose from the front, side and behind the patient to identify any abnormalities. 3. Skin changes: I. Inspect for skin lesions: i. Basal cell carcinoma: pearly lesions with telangiectasia and rolled edges. ii. Squamous cell carcinoma: scaly lesions, sometimes with associated ulceration and hyperpigmentation. iii. Keratoacanthoma: raised lesions with a core of scaly keratin. II. Deformity i. Inspect for any deviation in the nasal bones or cartilage suggestive of a fracture. This is best performed by standing behind the patient with their head tilted slightly backwards.			

III. Palpation: i. Warn the patient that you will be applying some pressure to their nose and ask them to let you know if they experience any pain. 4. Palpate the nasal bones assessing: i. Alignment ii. Tenderness iii. Irregularity (suggestive of fracture) 5. Palpate the nasal cartilage assessing: i. Alignment ii. Tenderness 6. Palpate the infraorbital ridges and assess eye movement if there is a history of trauma to screen for an orbital blowout fracture.			
*An orbital blowout fracture is a fracture of the orbital floor or medial wall resulting from blunt trauma to the eye socket (e.g., tennis ball). Typical findings on clinical examination include infraorbital tenderness, epistaxis and restricted eye movement (usually on vertical gaze).			
7. The correct method for using a nasal speculum is slightly counter-intuitive, however, it does allow the best visualization of the nasal mucosa: i. Insert your index finger into the bend of the speculum and support it above with the thumb. ii. The middle and ring fingers are used to manipulate the prongs of the speculum. iii. You will be aiming to look at the gap between these two fingers. iv. Press the prongs of the speculum together to allow them to be placed within the nostril and then reduce your grip on the speculum to widen the prongs until an optimal view of the nasal cavity is achieved.			
a) Nasal vestibule: inspect for inflammation, ulceration or oedema affecting the nasal mucosa. b) Nasal septum: note any polyps, deviation, perforation, haematoma, superficial vessels or areas of cautery.			

c) Inferior turbinates: note any asymmetry, inflammation or polyps.			
8. Place a cold shiny surface, such as a metal tongue depressor under the nose.			
9. Observe for misting of the metal surface as the patient breathes and compare the misting pattern of the two nostrils.			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			
Signatures of Supervisor			

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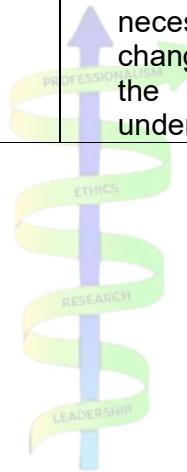
Date Observed: _____

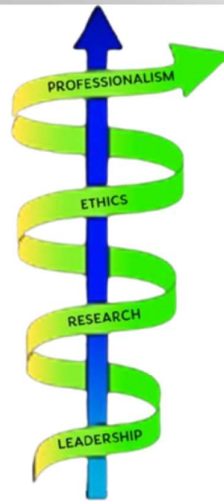
CHECKLIST FOR EXAMINATION OF NECK LUMPS (Some of the following steps/tasks should be performed simultaneously.)	CASES (minimum 2 entries)		
STEP/TASK			
THE PROCEDURE: 1. Explain the procedure to the patient and get a verbal consent to proceed. 2. Inspect the patient, looking for clinical signs suggestive of underlying pathology: i. Scars: may indicate previous neck surgery (e.g. thyroidectomy, lymph node biopsy/excision, radiotherapy related scarring). ii. Cachexia: ongoing muscle loss that is not entirely reversed with nutritional supplementation. Cachexia is commonly associated with underlying malignancy. iii. Hoarse voice: caused by compression of the larynx due to thyroid gland enlargement (e.g. thyroid malignancy). iv. Dyspnoea or stridor: may indicate compression of the upper respiratory tract by a neck mass. v. Behaviour: anxiety and hyperactivity are associated with hyperthyroidism (due to sympathetic overactivity). Hypothyroidism is more likely to be associated with low mood. vi. Clothing: may be inappropriate for the current temperature. Patients with hyperthyroidism suffer from heat intolerance whilst patients with hypothyroidism experience cold intolerance. vii. Exophthalmos: bulging of the eye anteriorly out of the orbit associated with Graves' disease.			

3. Ask the patient to point out the neck lump's location if relevant. i. Inspect the neck lump from the front and side, noting its location (e.g. anterior triangle, posterior triangle, midline).			
4. If a midline mass is identified during the initial inspection, perform some further assessments to try and further narrow the differential diagnosis.			
<u>Swallowing</u>			
Ask the patient to swallow some water and observe the movement of the mass: i. Thyroid gland masses (e.g. a goitre) and thyroglossal cysts typically move upwards with swallowing. ii. Lymph nodes will typically move very little with swallowing. iii. An invasive thyroid malignancy may not move with swallowing if tethered to surrounding tissue.			
<u>Tongue protrusion</u>			
Ask the patient to protrude their tongue: i. Thyroglossal cysts will move upwards noticeably during tongue protrusion. ii. Thyroid gland masses and lymph nodes will not move during tongue protrusion.			
<u>Further Assessment</u>			
i. If you identify a midline neck lump or systemic signs indicative of thyroid disease, ask the examiner if a full thyroid status examination should be performed.			
5. Palpate the neck lump assessing the following: i. Site: assess the lump's location in relation to other anatomical structures (e.g. anterior triangle, posterior triangle, midline). ii. Size: assess the size of the lump. iii. Shape: assess the lump's borders to determine if they feel regular or irregular. iv. Consistency: determine if the lump feels soft (e.g. cyst), hard (e.g. malignancy) or rubbery (e.g. lymph node). v. Mobility: assess if the lump feels mobile or is tethered to other local structures. Asking the patient to turn their head as you			

palpate, the mass can reveal if it is tethered to the underlying muscle (e.g. malignant tumour). vi. Fluctuance: hold the lump by its sides and then apply pressure to the centre of the mass with another finger. If the mass is fluid-filled (e.g. cyst) then you should feel the sides bulging outwards. vii. Temperature: increased warmth may suggest an inflammatory or infective cause (e.g. infected epidermoid cyst). viii. Overlying skin changes: note any overlying skin changes such as erythema (e.g. inflammatory/infective aetiology) or a punctum (a pore in the epidermis indicative of an underlying epidermoid cyst). ix. Pulsatility: suggests vascular origin (e.g. carotid body tumour, aneurysm). x. Tenderness: may indicate infective and/or inflammatory aetiology (e.g. ruptured epidermoid cyst, infected cyst).			
Other characteristics of the lump may include: i. Transillumination: apply a light source to the lump, if it is illuminated it suggests the lump is fluid-filled (e.g. cystic hygroma). ii. Vascular bruit: auscultate the lump to listen for a bruit suggestive of vascular aetiology (e.g. carotid artery aneurysm).			
6. Assess cervical lymph nodes and thyroid gland as explained in previous checklists			
7. Assess the submandibular gland if a swelling is found in that area. Each submandibular gland can be palpated inferior and posterior to the body of the mandible. Move inwards from the inferior border of the mandible near its angle with the patient's head tilted forward. To assess the gland thoroughly, you should perform bimanual palpation with one gloved finger palpating the floor of the mouth whilst the other palpates externally underneath the mandible. ❖ Submandibular gland swellings are usually singular, whereas lymphadenopathy typically involves multiple nodes). Salivary duct calculi are relatively common and may be felt as a firm mass within the gland.			
SKILL/ACTIVITY PERFORMED SATISFACTORILY			
Signatures of Supervisor			

			ensuring they provide clear explanations of the risks, benefits, and alternatives, and confirming patient understanding.	
	Leadership	Patient Counselling about disease	Discuss the principles of effective patient counseling, focusing on clear and empathetic communication to explain disease conditions, treatment options, and lifestyle modifications, ensuring patient understanding and engagement in their care. Practice counseling a simulated patient about a disease, using clear, empathetic communication to explain the diagnosis, treatment options, and necessary lifestyle changes, while ensuring the patient's understanding.	Create and submit a poster illustrating the key steps involved in patient counseling for a specific disease, including how to explain the diagnosis, treatment options, and lifestyle modifications. Highlight strategies to ensure patient comprehension and engagement in the decision-making process.





ENDOCRINOLOGY & REPRODUCTION-I

**Proposed Sequence of Topics Mentioned below. Medical Colleges are at liberty to manage according to their resources. Topics can switch within each Block*

Total Hours = 09

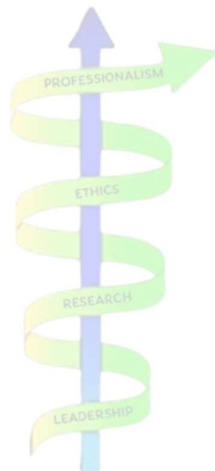
Code	Domain	Topic	Specific Learning Objectives	Proposed Portfolio Entry
	Professionalism	Task Management & Productivity	- Discuss the principles of effective task management and productivity, focusing on setting priorities, managing workloads, and maintaining efficiency in both academic and clinical settings. - Create a task list for an academic week, prioritizing tasks based on deadlines and importance, and reflecting on strategies to enhance productivity and efficiency.	Submit a weekly task management plan, detailing how you organized and prioritized your tasks to maximize productivity. Reflect on how this approach helped improve your efficiency and ability to meet academic or clinical deadlines.
	Research	Literature Search Strategy	- Discuss the principles of developing a literature search strategy, including identifying relevant databases, using appropriate keywords, and refining search criteria to gather evidence for research purposes. - Design and implement a literature search strategy for a given medical topic, selecting appropriate databases and refining search terms to find relevant articles.	Submit a summary of your literature search strategy, including the databases used, search terms, and filters applied. Reflect on how you refined your search to gather the most relevant and high-quality articles for your research.
	Research	Literature Summary	Discuss steps for summarizing research findings and effectively organizing literature	Submit a completed literature matrix that includes a summary of key studies related

			using a literature matrix, enabling better comparison and synthesis of information across studies. • Create a literature matrix for a selected topic, summarizing key findings, methodologies, and conclusions from relevant articles to facilitate analysis and comparison.	to your chosen topic. Include columns for author, year, study design, findings, and relevance.
	Leadership	Taking Evidence based Informed Consent	• Discuss principles of taking informed consent in a manner that incorporates evidence-based information, ensuring patients are fully informed about their treatment options, risks, and benefits. • Practice taking informed consent from a simulated patient, using evidence-based information to explain the procedure, risks, benefits, and alternatives, ensuring the patient's understanding and comfort	Submit a reflection on a simulated informed consent session. Discuss how you communicated evidence-based information to the patient, how you ensured their understanding, and the importance of respecting their autonomy in the decision-making process
	Professionalism	Respect for Diversity	• Appreciate the importance of respecting diversity in healthcare, including sensitivity and responsiveness to patients' culture, age, gender, and disabilities, while applying principles of inclusion and equity.	Create a simple poster or a one-page reflection outlining key strategies for respecting diversity in patient care. Include examples of how to communicate effectively with patients from different backgrounds and

				ensure that care is inclusive and equitable.
	Leadership	Conflict Resolution	- Discuss the principles and strategies of effective conflict resolution focusing on communication, negotiation, and collaboration to achieve positive outcomes. - Participate in a role-playing exercise to navigate a conflict scenario, practicing conflict resolution techniques such as active listening, empathy, and problem-solving.	Submit a reflection on the conflict resolution exercise. Discuss the strategies you used, how effective communication played a role, and what you learned about resolving conflicts in a healthcare environment.
HEAD AND NECK & SPECIAL SENSES				
<i>*Proposed Sequence of Topics Mentioned below. Medical Colleges are at liberty to manage according to their resources. Topics can switch within each Block</i>				Total Hours = 06
Code	Domain	Topic	Specific Learning Objectives	Proposed Portfolio Entry
	Research	Literature Reviews	- Discuss the purpose and methodology of conducting a literature review, including how to synthesize existing research, identify gaps in the literature, and establish a framework for future research. - Conduct a literature review on a specific medical topic, summarizing key findings, identifying trends, and highlighting gaps in current research.	Submit a poster showing steps in conducting literature review.
	Leadership	Work-Life Balance	Appreciate the importance of maintaining a healthy	Submit a reflection on your work-life balance plan. Include

			work-life balance, focusing on strategies for managing personal well-being while fulfilling professional commitments to ensure optimal mental and physical health. • Create a personal plan that outlines strategies for achieving work-life balance, including time management, self-care practices, and setting boundaries between personal and professional life	specific strategies you intend to implement to manage stress and maintain your well-being while meeting your academic and professional responsibilities.
	Professionalism	Digital representation	• Discuss principles of digital representation in a professional context, focusing on how to effectively present an e-portfolio, wiki page, or blog page that reflects one's skills, experiences, and professional identity. • Create and present a digital representation of their professional achievements, utilizing platforms such as e-portfolios, wiki pages, or blogs to showcase their skills, projects, and reflections.	Submit a link to your e-portfolio, wiki page, or blog page along with a brief reflection on the choices you made in its design and content. Discuss how this digital representation aligns with your professional goals and identity.
	Ethics	Patient autonomy in sensory disabilities	• Discuss the ethical principles surrounding patient autonomy, particularly in the context of individuals with sensory disabilities, focusing on their right to make informed decisions about their healthcare. • Analyze a case study involving a patient with	Create a presentation or infographic that highlights key strategies for supporting patient autonomy in individuals with sensory disabilities. Include information on effective

			sensory disabilities, discussing how healthcare providers can support and respect the patient's autonomy while ensuring they have access to the necessary information to make informed choices.	communication techniques, adaptations to enhance understanding, and ways to ensure informed consent.
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Internal Assessment Theory

	Scoring Parameter	Marks out of 20%	Marks Distribution
1	Attendance in Lectures	85-90%=1% , > 90%=2%	85-90%= 01 mark > 90%= 02 marks
		Remedial classes – re-sit examination allowed only after case endorsed and submitted by the college Principal and approval given by the Competent Authority . However, no marks given	
		Remedial classes – re-sit examination allowed only in genuine cases after approval from Competent Authority . However, no marks given	
2	Block Examination	15%	22
3	Continuous Internal Assessment/Class Quiz/Class participation/ Professional Behaviour/ Ethical practices/ Leadership traits/ Module Exam Discipline/Punctuality	3%	06

Internal Assessment Practical & Behavioral

	Scoring Parameter	Marks out of 20%	Marks Distribution
1	Attendance in Practicals & Rotations	85-90%=1% , > 90%=2%	85-90%= 01 mark > 90%= 02 marks
		Remedial classes – re-sit examination allowed only after case endorsed and submitted by the college Principal and approval given by the Competent Authority . However, no marks given	
		Remedial classes – re-sit examination allowed only in genuine cases after approval from Competent Authority . However, no marks given	
2	Block Examination (OSPE/OSCE/OSVE)	15%	26
3	CFRC Log Book / PERLs Portfolio	04%	07

MBBS 2nd Professional**Block-5**

Theme	Subject	Written Exam			Oral/Practical/Clinical Exam			
		MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE (8 marks each observed)	OSCE (5 marks each observed)	OSVE (14 marks each observed)	Marks
Normal Structure	Anatomy applied/clinical	30	04	50	04	-	01	46
Normal Function	Physiology applied/clinical	20	04	40	03	-	01	38
	Biochemistry applied/clinical	14	01	19	01	-	01	22
Disease Burden & Prevention	Community Medicine & Public Health	07	-	07	-	-	-	0
	Behavioral Sciences	04	-	04	-	-	-	0
Pathophysiology & pharmacotherapeutics	Pathology	13	01	18	2	-	-	16
	Pharmacology	02	-	02	1	-	-	08
CFRC	CF-2	-	-	-	-	01	-	05
PERLs	PERLs-2	-	-	-	-	01	-	05
Total		90	10x5=50	140	11 stations x 08 = 88	02 stations x 05 = 10	03 stations x 14=42	140



Sialkot Medical College

ENDOCRINOLOGY & REPRODUCTION -I Module

From: Module organizer: ENDOCRINOLOGY & REPRODUCTION-I

To: All HODs

Subject: Nomination of Module representatives

Respected Faculty,

I am writing to request your assistance in nominating potential module representative from your respective departments for the upcoming **ENDOCRINOLOGY & REPRODUCTION -I Module** (Block-5), which will be for the duration of 7 weeks.

Department	Name of representative	Signature
Physiology	Dr. Sawana Pamiel	
Biochemistry	Dr. Maleeha Aslam	Maleeha
Anatomy	Dr. Zainab Javed	
Pharmacology	Dr. Aqsa Rashid	
Pathology	Dr. Mamoonah	
Gynae/Obs	Dr. Areeha	FOR Maleeha
Community medicine	Dr. Ayesha Saif	
Medical education	Dr. Sadiq	
Behavioural Sciences	Reeha Sarwar	

Kind Regards,

Cc;

- Academic Supervisor
- All HODs
- DME, Block Organizer

Date: 26-03-25

Maleeha
Dr. Maleeha Aslam
Module Organizer
Endocrinology & reproduction -I
Module



SIALKOT MEDICAL COLLEGE



ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-1)

(Theme: Introduction to Endocrine Hormones)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 12-05-25	BLOCK EXAM 4 (BATCH-B & BATCH- C)							
TUE 13-05-25								
WED 14-05-25	Welcome Address & Feedback Session (Block-04) <i>Block/Module Organizer</i>	L9 ENR-P-001 Introduction To Endocrinology-I <i>Physiology</i>	SDL	L10 ENR-P-001 Introduction To Endocrinology-II <i>Physiology</i>	L11 EnR-A-027 Development of Thyroid Gland <i>Embryology</i>	L12 EnR-A-002 Thyroid And Parathyroid Gland-I <i>Gross Anatomy</i>	PRAYER BREAK	SGD 01 A - Biochemistry B - Physiology
THU 15-05-25	LAB SESSION 01 A - Biochemistry B - Clinical Skills C - Histology	L13 EnR-P-001 Introduction To Endocrinology-III <i>Physiology</i>	SDL	L14 EnR-A-002 Thyroid And Parathyroid Gland-II <i>Gross Anatomy</i>	L15 EnR-B-002 Signal transduction <i>Biochemistry</i>	L16 EnR-P-001 Hypothalamus/Pituitary Gland-I <i>Physiology</i>	PRAYER BREAK	SGD 01 A - Physiology B - Biochemistry
FRI 16-05-25	LAB SESSION 01 A - Histology B - Biochemistry C - Clinical Skills	L17 Perls-1 TASK MANAGMENT <i>PERLS</i>	SDL	L18 EnR-B-003 Classification Of Hormones <i>Biochemistry</i>	L19 HOLY QURA'AN / ISLAMIAT / PAK STD	L20 EnR-P-001 Hypothalamus/Pituitary Gland-II <i>Physiology</i>	JUMA'A PRAYER	SGD 01 EnR-A-008 Pelvic Girdle-I <i>Gross Anatomy</i>

Version 0

Lab Histology:
Lab Physiology:

Maleeha
Dr. Maleeha Aslam
MODULE ORGANIZER

Pituitary, thyroid, parathyroid, adrenal glands

Dr. Ali Talat
Dr. Ali Talat
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Clinical Skills:
Lab Biochemistry:

Suturing
Perform DNA extraction

Prof. Dr. Muhammad Sabir
Prof. Dr. Muhammad Sabir
PRINCIPAL



SLALKOT MEDICAL COLLEGE



ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-2)

(Theme: Pituitary & Thyroid Gland)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 19-05-25	ASSESSMENT - 01 (Module Organizer)	L13 EnR-P-001 Hypothalamus\Pituitary Gland-III Physiology	SDL	L14 EnR-B-004 Second Messenger-I Biochemistry	L15 EnR-A-030 Development of Pituitary Gland Embryology	L16 EnR-P-001 Hypothalamus\Pituitary Gland-IV Physiology	PRAYER BREAK	PBL 1 Young marketing executive is fatigued & gaining weight Session I
TUE 20-05-25	LAB SESSION 01 A - Clinical Skills B - Histology C - Biochemistry	L17 EnR-P-001 Hypothalamus\Pituitary Gland-V Physiology	SDL	L18 EnR-A-029 Development of Thyroid\Parathyroid Embryology	L19 EnR-B-004 Second Messenger-II Biochemistry	L20 EnR-Pa-001, 002 Pathology Of Ant & Post Pituitary Gland Pathology	PRAYER BREAK	SGD 02 A - Physiology B - Biochemistry
WED 21-05-25	LAB SESSION 02 A - Clinical Skills B - Histology C - Biochemistry	L21 EnR-P-001 Hypothalamus\Pituitary Gland-VI Physiology	SDL	L22 EnR-A-028 Development of Parathyroid Glands Embryology	L23 EnR-B-004 Second Messenger-III Biochemistry	L24 EnR-P-002 Thyroid Hormones-I Physiology	PRAYER BREAK	SGD 02 A - Biochemistry B - Physiology
THU 22-05-25	LAB SESSION 02 A - Biochemistry B - Clinical Skills C - Histology	L25 EnR-A-032 Development of Adrenal Gland Embryology	SDL	L26 EnR-P-002 Thyroid Hormones-II Physiology	L27 EnR-B-004 Second Messenger-IV Biochemistry	L28 EnR-P-002 Thyroid Hormones-III Physiology	PRAYER BREAK	SGD 02 Pelvic Girdle I Gross Anatomy
FRI 23-05-25	LAB SESSION 02 A - Histology B - Biochemistry C - Clinical Skills	L29 EnR-A-038-040 Adrenal, pancreas, thyroid glands Histology	SDL	L30 Perls-2 LITERATURE SEARCH PERLS	L31 HOLY QURA'AN / ISLAMIAT / PAK STD	L32 EnR-P-002 Thyroid Hormones-IV Physiology	JUMA'A PRAYER	SGD 03 Pelvic Girdle II Gross Anatomy

Version 0

Lab Histology:

Lab Physiology:

Dr. Maleeha Aslam
MODULE ORGANIZER

1. Pituitary, thyroid, testes, epididymus, vas deferens
2. Testes, epididymus, vas deferens

Dr. Ali Talat
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Clinical Skills:
Lab Biochemistry:

1. suturing
2. Examination of the thyroid gland
2. Perform electrophoresis.
1. DNA extraction

Prof. Dr. Muhammad Sabir
PRINCIPAL



SIALKOT MEDICAL COLLEGE

ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-3)

(Theme: Adrenal Gland)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 26-05-25	ASSESSMENT - 02 (Module Organizer)	L33 EnR-Pa-003 Pathology OF Thyroid Pathology	SDL	L34 EnR-A-010,011 Bony pelvis, Pelvic girdle Gross Anatomy	L35 EnR-Ph-001 Antithyroid Substance, MoA, Uses Pharmacology	L36 EnR-P-002 Thyroid Hormones-IV Physiology	PRAYER BREAK	PBL 1 Young marketing executive is fatigued & gaining weight Session II
TUE 27-05-25	LAB SESSION 03 A - Histology B - Biochemistry C - Clinical Skills	L37 EnR-P-003 Thyroid Hormones-V Physiology	SDL	L38 EnR-A-012-014 Pelvic floor, Muscles & girdles Gross Anatomy	L39 EnR-Pa-006 Pathology of Adrenal Gland Pathology	L40 EnR-B-004 Second Messenger-V Biochemistry	PRAYER BREAK	SGD 01 01:35pm - 02:20pm A - Physio B - Biochem SGD 01 02:20pm - 03:00pm A - Biochem B - Physio
WED 28-05-25	YOUM-E-TAKBEER							
THU 29-05-25	LAB SESSION 03 A - Biochemistry B - Clinical Skills C - Histology	L41 EnR-P-003 Thyroid Hormones-VI Physiology	SDL	L42 EnR-A-019 Peritoneal Reflection in Pelvis Gross Anatomy	L43 EnR-A-020 Pelvic Vessels Gross Anatomy	L44 EnR-B-004 Second Messenger-VI Biochemistry	PRAYER BREAK	SGD 04 EnR-A-009 Sacroiliac Joint Gross Anatomy
FRI 30-05-25	LAB SESSION 03 A - Clinical Skills B - Histology C - Biochemistry	L45 EnR-P-003 Adrenocortical Hormones-I Physiology	SDL	L46 Perls-3 EVIDENCE BASD INFORMED CONSENT PERLS	L47 HOLY QURA'AN / ISLAMIAI / PAK STD	L48 EnR-A-022 Pelvic vessels & pelvic nerves-I,II Gross Anatomy	JUMA'A PRAYER	SGD 05 EnR-A-010 bony pelvis Gross Anatomy

Version 0

Lab Histology:
Lab Physiology:

Maleeha
Dr. Maleeha Aslam
MODULE ORGANIZER

Seminal vesicles, prostate

Ali Talat
Dr. Ali Talat
BLOCK ORGANIZER

Muhammad Shamaun Razi
Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Clinical Skills:
Lab Biochemistry:

Examination for Acromegaly
Perform PCR

Muhammad Sabir
Prof. Dr. Muhammad Sabir
PRINCIPAL



SLALKOT MEDICAL COLLEGE



ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-4)

(Theme: ADRENAL GLAND)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 02-06-25	ASSESSMENT - 03 (Module Organizer)	L45 EnR-A-022 Pelvic vessels & pelvic nerves-I,II Gross Anatomy	SDL	L46 EnR-P-003 Adrenocortical Hormones-I Physiology	L47 EnR-PA-006 Pathology of Adrenal Gland Pathology	L48 EnR-P-003 Adrenocortical Hormones-II Physiology	PRAYER BREAK	PBL 2 A boy with increased thirst & urination Session I
TUE 03-06-25	LAB SESSION 04 A - Histology B - Biochemistry C - Clinical Skills	L49 EnR-Pa-004 Pathology OF Parathyroid Gland Pathology	SDL	L50 EnR-P-003 Adrenocortical Hormones-III Physiology	L51 EnR-B-018,019 Prokaryotic DNA replication Biochemistry	L52 EnR-A-023 Pelvis-I,II Gross Anatomy	PRAYER BREAK	SGD 04 A - Physiology B - Biochemistry
WED 04-06-25	LAB SESSION 04* A - Clinical Skills B - Histology C - Biochemistry	L53 EnR-A-023 Pelvis-III Gross Anatomy	SDL	L54 EnR-P-003 Adrenocortical Hormones-IV Physiology	L55 EnR-B-020 Eukaryotic DNA replication Biochemistry	L56 EnR-P-003 Adrenocortical Hormones-V Physiology	PRAYER BREAK	SGD 04 A - Biochemistry B - Physiology
THU 05-06-25	LAB SESSION 04 A - Biochemistry B - Clinical Skills C - Histology	L57 EnR-P-006 Parathyroid Hormones -I Physiology	SDL	L58 EnR-B-21 telomerase and telomers Biochemistry	L59 EnR-P-006 Parathyroid Hormones II Physiology	L60 EnR-A-023 Pelvis-IV Gross Anatomy	PRAYER BREAK	SGD 05 EnR-A-010 BONY PELVIS Gross Anatomy
FRI 06-06-25	EID UL AZHA AND SUMMER BREAK							

Version 0

Lab Histology:

Lab Physiology:

ovaries, (seminal
vesicles, prostate)*

-

Clinical Skills:

Lab Biochemistry:

measurement of blood glucose, (acromegaly)*

perform ELISA, (perform PCR)*

Maleeha
Dr. Maleeha Aslam
MODULE ORGANIZER

Dr. Ali Talat
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Prof. Dr. Muhammad Sabir
Prof. Dr. Muhammad Sabir
PRINCIPAL



SIALKOT MEDICAL COLLEGE



ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-5)

(Theme: Reproduction & Genetics)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 07-07-25	ASSESSMENT - 04 (Module Organizer)	L61 EnR-P-009 Spermatogenesis-I Physiology	SDL	L62 EnR-A-024 Perineum-I Gross Anatomy	L63 EnR-Pa-008 Male Reproductive Pathology Pathology	L64 EnR-B-005 Synthesis OF Hormones Biochemistry	PRAYER BREAK	PBL 2 A boy with increased thirst & urination Session II
TUE 08-07-25	LAB SESSION 05 A - Histology B - Biochemistry C - Clinical Skills	L65 EnR-A-024 Perineum-II Gross Anatomy	SDL	L66 EnR-P-009 Spermatogenesis-II Physiology	L67 EnR-B-007, 008 Synthesis OF Testosterone, Progesterone Biochemistry	L68 EnR-A-033 Development of Reproductive System Embryology	PRAYER BREAK	SGD 05 A - Physiology B - Biochemistry
WED 09-07-25	LAB SESSION 05 A - Clinical Skills B - Histology C - Biochemistry	L69 EnR-A-034 Testis Embryology	SDL	L70 EnR-P-010 TESTOSTERONE-I Physiology	L71 EnR-B-015 Chromosomal Abnormalities Biochemistry	L72 EnR-A-041-045 Testis, epididymus, vas deferens, seminal vesicle, prostate Histology	PRAYER BREAK	SGD 05 A - Biochemistry B - Physiology
THU 10-07-25	LAB SESSION 05 A - Biochemistry B - Clinical Skills C - Histology	L73 EnR-P-010 TESTOSTERONE-II Physiology	SDL	L74 EnR-A-024 Perineum-III Gross Anatomy	L75 EnR-A-025 Pelvis Gross Anatomy	L76 Student Activity	PRAYER BREAK	SGD 06 EnR-A-016 Sacrum Gross Anatomy
FRI 11-07-25	Feedback Session for Block & All Assessments Module Organizer	L77 EnR-P-012 Female Sexual Hormones Physiology	SDL	L78 EnR-CM-002 Genetics Community Medicine	L79 HOLY QURA'AN / ISLAMIAT / PAK STD	L80 EnR-B-008 Steroids in infertility Biochemistry	JUMA'A PRAYER	SGD 07 EnR-A-015 Peritoneal cavity of pelvis Gross Anatomy

Version 0

Histology:

Lab Physiology:

Maleeha
Dr. Maleeha Aslam
MODULE ORGANIZER

Uterus, fallopian tubes

Dr. Ali Talat
Dr. Ali Talat
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Clinical Skills:

Lab Biochemistry:

Revision

Revision

Prof. Dr. Muhammad Sabir
Prof. Dr. Muhammad Sabir
PRINCIPAL



SLALKOT MEDICAL COLLEGE



ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-6)

(Theme: Reproduction & Genetics)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 14-07-25	ASSESSMENT - 05 (Module Organizer)	L 01 EnR-B-017,018 mutation and central dogma <i>Biochemistry</i>	SDL	L 02 EnR-P-011 Menstrual Cycle-I <i>Physiology</i>	L 03 EnR-A-025 Pelvis <i>Gross Anatomy</i>	L 04 EnR-P-011 Menstrual Cycle-II <i>Physiology</i>	PRAYER BREAK	PBL 3 A couple trying to have a baby Session I
TUE 15-07-25	LAB SESSION 06 A - Histology B - Physiology C - Clinical Skills	L 05 EnR-A-046,047 Ovaries/Uterus <i>Histology</i>	SDL	L 06 EnR-P-011 Menstrual Cycle-III <i>Physiology</i>	L 07 EnR-B-022 DNA repair <i>Biochemistry</i>	L 08 EnR-P-013 Puberty, Menarche, Men opause <i>Physiology</i>	PRAYER BREAK	SGD 06 A - Physiology B - Biochemistry
WED 16-07-25	LAB SESSION 06 A - Clinical Skills B - Histology C - Physiology	L 09 EnR-P-014 Pregnancy & Placenta-I <i>Physiology</i>	SDL	L 10 EnR-B-023 transcription in prokaryotes and eukaryotes <i>Biochemistry</i>	L 11 EnE-A-001 Diencaphlon <i>Gross Anatomy</i>	L 12 EnR-P-014 Pregnancy & Placenta- II <i>Physiology</i>	PRAYER BREAK	SGD 06 A - Biochemistry B - Physiology
THU 17-07-25	LAB SESSION 06 A - Physiology B - Clinical Skills C - Histology	L 13 EnR-P-014 Pregnancy & Placenta- III <i>Physiology</i>	SDL	L 14 EnR-P-015 Lactation-I <i>Physiology</i>	L 15 EnR-A-048-050 Fallopian Tube, cervix, vagina <i>Histology</i>	L 16 Student Activity	PRAYER BREAK	SGD 08 EnR-A-017 Pelvic Fascia <i>Gross Anatomy</i>
FRI 18-07-25	Feedback Session for Assessment - 05 <i>Block Organizer</i>	L 17 EnR-P-015 Lactation-II <i>Physiology</i>	SDL	L 18 Perls-4 RESPECT FOR DIVERSITY <i>PERLS</i>	L 19 HOLY QURA'AN / ISLAMIAT / PAK STD	L 20 EnR-CM-003 Reproductive Health <i>Community Medicine</i>	JUMA'A PRAYER	SGD 09 EnR-A-018 Pelvic Outlet & Inlet <i>Gross Anatomy</i>

Version 0

Histology:

Lab Physiology:

Maleeha
Dr. Maleeha Aslam
MODULE ORGANIZER

Cervix, vagina, mammary glands

Pregnancy test

Ali Talat
Dr. Ali Talat
BLOCK ORGANIZER

Clinical Skills:

Lab Biochemistry:

Dr. Muhammad Shamaun Razi
Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Revision

Prof. Dr. Muhammad Sabir
Prof. Dr. Muhammad Sabir
PRINCIPAL



SIALKOT MEDICAL COLLEGE



ENDOCRINOLOGY & REPRODUCTION-I MODULE (2K25) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-7)

(Theme: Pancreas & Reproduction)

	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 21/7/2025	ASSESSMENT - 06 (Module Organizer)	L101 EnR-Ag-001 Menopause <i>Aging/Gynae/Obs</i>	SDL	L102 EnR-P-004 Pancreatic Hormones-I <i>Physiology</i>	L103 EnR-A-050 Mammary glands <i>Histology</i>	L104 EnR-P-004 Pancreatic Hormones-II <i>Physiology</i>	PRAYER BREAK	PBL 3 A couple trying to have a baby Session II
TUE 22/7/2025	LAB SESSION 07 A - Histology B - Physiology C - Clinical Skills	L105 EnR-BhS-001 Sexual Difficulties and Medical Practices <i>Behavioral Sciences</i>	SDL	L106 EnR-Pa-007 Pathology of endocrine pancreas gland <i>Pathology</i>	L107 EnR-B-025,026 Post-transcriptional modifications <i>Biochemistry</i>	L108 EnR-P-004 Pancreatic Hormones-III <i>Physiology</i>	PRAYER BREAK	SGD 07 A - Physiology B - Biochemistry
WED 23/7/2025	LAB SESSION 07 A - Clinical Skills B - Histology C - Physiology	L109 EnR-P-007 Regulation Of Calcium & Phosphate-1 <i>Physiology</i>	SDL	L110 EnR-A-029 Development of Pituitary Gland <i>Embryology</i>	L111 EnR-B-029 Gene EXPRESSION <i>Biochemistry</i>	L112 EnR-P-007 Regulation Of Calcium & Phosphate-1 <i>Physiology</i>	PRAYER BREAK	SGD 07 A - Biochemistry B - Physiology
THU 24/7/2025	LAB SESSION 07 A - Physiology B - Clinical Skills C - Histology	L113 EnR-P-005 Abnormalities Of Glucose Regulation <i>Physiology</i>	SDL	L114 EnR-CM-001 Diabetes <i>Community Medicine</i>	L115 Perls Evidence based informed consent <i>PERLS</i>	L116 Student Activity	PRAYER BREAK	SGD 10 EnR-A-017 Pelvic Fascia <i>Gross Anatomy</i>
FRI 25/7/2025	Feedback Session for Assessment - 06 Block Organizer	L117 EnR-A-026 Mammary Gland <i>Gross Anatomy</i>	SDL	L118 Perls Conflict resolution <i>PERLS</i>	L119 HOLY QURA'AN / ISLAMIAT / PAK STD	L120 EnR-B-029 Gene EXPRESSION <i>Biochemistry</i>	JUMA'A PRAYER	SGD 11 EnR-A-018 Pelvic Outlet & Inlet <i>Gross Anatomy</i>

Version 0

Histology:
Lab Physiology:

Dr. Maleeha Aslam
MODULE ORGANIZER

Revision
Revision

Dr. Ali Talat
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Clinical Skills:
Lab Biochemistry:

Revision

Prof. Dr. Muhammad Sabir
PRINCIPAL



SIALKOT MEDICAL COLLEGE



HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-1)

(Theme: Vision)

WEEK 1	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 28-07-25	Welcome Address <i>Block/Module Organizer</i>	L1 HNSS-A-001 Orbital Cavity & EOM <i>Anatomy</i>	SDL	L2 HNSS-A-045 Eye-1 <i>Histology</i>	L3 HNSS-P-001 Physical principles of optics Physiology	L4 HNSS-A-001 Optic nerve, Ophthalmic Artery & Pterygopalatine <i>Anatomy</i>	PRAYER BREAK	PBL 01 Blurring boundaries <i>Session-01</i>
TUE 29-07-25	LAB SESSION 01 A - Histology B - Biochemistry C - Physiology	L5 HNSS-P-001 Visual Acuity-1 <i>Physiology</i>	SDL	L6 HNSS-A-041 Eye-1 <i>Embryology</i>	L7 HNSS-A-001 Eyeball-1 <i>Anatomy</i>	L8 HNSS-P-001 Visual Acuity-2 <i>Physiology</i>	PRAYER BREAK	SGD 01 A - Physiology B - Biochemistry
WED 30-07-25	LAB SESSION 01 A - Physiology B - Histology C - Biochemistry	L9 HNSS-P-003&012 Fluid System of Eye & Eye Movement <i>Physiology</i>	SDL	L10 HNSS-A-041 Eye-2 <i>Embryology</i>	L11 HNSS-A-001 Eyeball-2 <i>Anatomy</i>	L12 HNSS-P-5,6&7 Retina & Adaptation <i>Physiology</i>	PRAYER BREAK	SGD 02 A - Biochemistry B - Physiology
THU 31-07-25	LAB SESSION 01 A - Biochemistry B - Physiology C - Histology	L13 HNSS-P-006,008 Photochemistry of Vision & Colour Vision <i>Physiology</i>	SDL	L14 HNSS-A-001 Eyelid & Lacrimal Apparatus <i>Anatomy</i>	L15 HNSS-B-001 Metabolism of Mono & Disaccharides-1 <i>Biochemistry</i>	Student's activity	PRAYER BREAK	SGD 01 3rd, 4th & 6th cranial Nerves & Ciliary Ganglion <i>Anatomy</i>
FRI 01-08-25	Mentoring Session	L16 HNSS-P-01,2,3,4,5,7 Clinical Correlation of Eye-1 <i>Physio/Ophthalmology</i>	SDL	L17 HNSS-P-006,8 Photochemistry of Vision & Colour Vision <i>Physiology</i>	L18 HOLY QURA'AN / ISLAMIAT / PAK STD	L19 HNSS-CM-003 Blindness <i>Community Med</i>	JUMA'A PRAYER	SGD 02 Skull-1 <i>Anatomy</i>

Version 0

Lab Histology:

Eye

Lab Physiology:

Cranial nerves+ visual field

Lab Biochemistry:

Interpretation of results + HbA1c

Dr. Ayesha Riaz
MODULE ORGANIZER

Dr. Ali Talat
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Prof. Dr. Muhammad Sabir
PRINCIPAL



SIALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-2)

(Theme:Hearing)

WEEK 2	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 04-08-25	ASSESSMENT - 01 (Module Organizer)	L20 HNSS-P-009 &010 Visual Pathways & Field of Vision <i>Physiology</i>	SDL	L21 HNSS-A-045 Eye-2 <i>Histology</i>	L22 HNSS-A-041 Ear-1 <i>Embryology</i>	L23 HNSS-A-002 Paranasal Sinuses & Olfactory Nerve <i>Anatomy</i>	PRAYER BREAK	PBL 01 Blurring boundaries Session-02
TUE 05-08-25	LAB SESSION 02 A - Clinical Skills B - Physiology C - Histology	L24 HNSS-P-014 & 015 Accommodation & Pupillary Light Reflex <i>Physiology</i>	SDL	L25 HNSS-A-003 External & Middle Ear Cavity <i>Anatomy</i>	L26 HNSS-P-8,11 to 15 Clinical Correlation of Eye-2 <i>Physio/Ophthalmology</i>	L27 HNSS-A-003 Internal Ear, 8th Nerve & Auditory Pathway <i>Anatomy</i>	PRAYER BREAK	SGD 02 A - Physiology B - Biochemistry
WED 06-08-25	LAB SESSION 02 A - Histology B - Clinical Skills C - Physiology	L28 HNSS-P-016 Sense of Hearing-1 <i>Physiology</i>	SDL	L29 HNSS-A-041 Ear-2 <i>Embryology</i>	L30 HNSS-A-046 Ear-1 <i>Histology</i>	L31 HNSS-CM-001 Noise Pollution <i>Community Med</i>	PRAYER BREAK	SGD 02 A - Biochemistry B - Physiology
THU 07-08-25	LAB SESSION 02 A - Physiology B - Histology C - Clinical Skills	L32 HNSS-P-016 Sense of Hearing-2 <i>Physiology</i>	SDL	L33 HNSS-Pa-001 Eye & Ear Infection-1 <i>Pathology</i>	L34 HNSS-CM-002 Hearing Loss <i>Community Med</i>	Student's Activity	PRAYER BREAK	SGD 03 External Nose & Nasal Cavity Gross Anatomy
FRI 08-08-25	Feedback Session ASSESSMENT - 01 Module Organizer	L35 PERLs- 2-11 Professionalism <i>PERLs</i>	SDL	L36 HNSS-P-017 &018 Inner Ear/ Cochlea & Organ of corti 1 <i>Physiology</i>	L37 HOLY QURA'AN / ISLAMIAT / PAK STD	L38 HNSS-P-017 &018 Inner Ear/ Cochlea & Organ of corti 2 <i>Physiology</i>	PRAYER BREAK	SGD 04 Skull-2 Gross Anatomy

Version 0

Lab Histology - :

Ear

Clinical Skills lab :

Nasal Examination

Lab Physiology :

Light Reflex+ Ophthalmoscopy

Dr. Ayesha Riaz
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SIALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-3)

(Theme: Taste + Head & neck)

WEEK 3	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 11-08-25	ASSESSMENT - 02 (Module Organizer)	L39 HNSS-A-012&013 Oral Cavity (Hard & Soft Palate, Tongue & Fossils) Anatomy	SDL	L40 HNSS-A-046 Ear-2 Histology	L41 HNSS-Pa-001 Eye & Ear Infection-2 Pathology	L42 HNSS-P-019 & 020 Determination of Sound Frequency & Loudness Physiology	PRAYER BREAK	PBL 02 Session 01
TUE 12-08-25	LAB SESSION 03 A - Histology B - Biochemistry C - Physiology	L43 HNSS-P-021 Auditory Pathway Physiology	SDL	L44 HNSS-A-040 Lips And Palate Embryology	L45 HNSS-A-004 Tongue & Taste Buds Anatomy	L46 HNSS-A-038 Face & Nasolacrimal Duct Embryology	PRAYER BREAK	SGD 05 Skull-3(Scalp) Gross Anatomy
WED 13-08-25	LAB SESSION 03 A - Physiology B - Histology C - Biochemistry	L47 HNSS-P-016,021,27 Ent Clinical Correlation Physiology	SDL	L48 HNSS-P-022 & 023 Sense of Taste & Excitation of Taste Buds Physiology/ENT	L49 HNSS-A-008&009 Face & Danger Area Anatomy	0 PERLs- 2-12 Professionalism PERLs	PRAYER BREAK	SGD 06 Mandible & Temporomandibular Joint Gross Anatomy
THU 14-08-25	LAB SESSION 03 A - Biochemistry B - Physiology C - Histology	0 HNSS-A-024,25&26 Triangles of Neck & Contents of Neck Anatomy	SDL	0 PERLs- 2-13 Ethics PERLs	0 HNSS-A-027&028 Blood Supply & Lymphatic Drainage of Anatomy	0	PRAYER BREAK	SGD 03 A - Physiology B - Biochemistry
FRI 15-08-25	Feedback Session ASSESSMENT - 02 Module Organizer	L50 HNSS-A-011&014 Salivary Glands Anatomy	SDL	L51 HNSS-P-024 & 025 Abnormalities of Taste Sensations & Taste Physiology	L52 HOLY QURA'AN / ISLAMIAT / PAK STD	L53 HNSS-A-042,043,044 Head & Neck (Glands) Histology	JUMA'A PRAYER	SGD 03 A - Biochemistry B - Physiology

Version 0

Lab Histology :

Tongue

Lab Biochemistry :

Abnormal constituents in urine

Lab Physiology :

Cranial nerves+visual field

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SLALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-3)

(Theme: Taste & Head & Neck)

WEEK 3	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 11-08-25	ASSESSMENT - 02 (Module Organizer)	L39 HNSS-A-012&013 Oral Cavity (Hard&Soft Palate,Tongue & Anatomy	SDL	L40 HNSS-A-046 Ear-2 Histology	L41 HNSS-Pa-001 Eye & Ear Infection-2 Pathology	L42 HNSS-P-019 & 020 Determination of Sound Frequency & Physiology	PRAYER BREAK	PBL 02 Sounds of silence Session 01
TUE 12-08-25	LAB SESSION 03 A - Histology B - Biochemistry C - Physiology	L43 HNSS-P-021 Auditory Pathway Physiology	SDL	L44 HNSS-A-040 Lips And Palate Embryology	L45 HNSS-A-004 Tongue & Taste Buds Anatomy	L46 HNSS-A-038 Face & Nasolacrimal Duct Embryology	PRAYER BREAK	SGD 03 A - Physiology B - Biochemistry
WED 13-08-25	LAB SESSION 03 A - Physiology B - Histology C - Biochemistry	L47 HNSS-P-016,021,27 Ent Clinical Correlation Physiology	SDL	L48 HNSS-P-022 & 023 Sense of Taste & Excitation of Taste Physiology/ENT	L49 HNSS-A-008&009 Face & Danger Area Anatomy	Students' Activity	PRAYER BREAK	SGD 03 A - Biochemistry B - Physiology
THU 14-08-25	Independence Day							
FRI 15-08-25	LAB SESSION 03 A - Biochemistry B - Physiology C - Histology	L50 HNSS-A-011&014 Salivary Glands Anatomy	SDL	L51 HNSS-P-024 & 025 Abnormalities of Taste Sensations & Taste Physiology	L52 HOLY QURA'AN / ISLAMIAT / PAK STD	L53 HNSS-A-042,043,044 Head & Neck (Glands) Histology	JUMA'A PRAYER	SGD 05 Skull-3(Scalp) Gross Anatomy

Version 0

Lab Histology : Tongue
Lab Physiology : Visual acuity+colour vision

Lab Biochemistry : Abnormal constituents in urine

Dr. Ayesha Riaz
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SIALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-4)

(Theme: Head &)

WEEK 4	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 18-08-25	ASSESSMENT-03 (Module Organizer)	L54 HNSS-A-008 Facial Nerve <i>Anatomy</i>	SDL	L55 PERLs- 2-13 Ethics <i>PERLs</i>	L56 HNSS-A-008 Facial Artery <i>Anatomy</i>	L57 HNSS-BhS-001 Pain-1 <i>Behavioral Sciences</i>	PRAYER BREAK	PBL 2 Sounds of silence Session 02
TUE 19-08-25	LAB SESSION 04 A - Physiology B - Histology C - Clinical Skills	L58 HNSS-A-017 Cervical Vertebrae <i>Anatomy</i>	SDL	L59 HNSS-A-035,036 &037 Meningeal Apparatus, Pharyngeal Arches And their Derivatives <i>Embryology</i>	L60 HNSS-A-018 Prevertebral Muscles <i>Anatomy</i>	L61 HNSS-B-001 Metabolism of Mono & Disaccharides-2 <i>Biochemistry</i>	PRAYER BREAK	SGD 04 A - Physiology B - Biochemistry
WED 20-08-25	LAB SESSION 04 A - Clinical Skills B - Physiology C - Histology	L62 HNSS-A-035,036 &037 Congenital Anomalies <i>Embryology</i>	SDL	L63 HNSS-A-019 & 020 Deep Cervical Fascia& Fascial Spaces <i>Anatomy</i>	L64 PERLs- 2-15 Leadership <i>PERLs</i>	L65 HNSS-A-022&023 Neck Muscles & Ansa Cervicalis <i>Anatomy</i>	PRAYER BREAK	SGD 04 A - Biochemistry B - Physiology
THU 21-08-25	LAB SESSION 04 A - Histology B - Clinical Skills C - Physiology	L66 HNSS-A-024,25&26 Meninges of Neck & Contents of Neck (Trachea, Esophagus) <i>Anatomy</i>	SDL	L67 HNSS-A-008 Trigeminal Nerve <i>Anatomy</i>	L68 HNSS-Ag-002 Head & Neck (Age Changes of Mandible) <i>Aging/Anatomy</i>	Student's Activity	PRAYER BREAK	SGD 06 Mandible & Temporomandibular Joint <i>Gross Anatomy</i>
FRI 22-08-25	Feedback Session ASSESSMENT -02, 03 Module Organizer	L69 HNSS-B-001 Metabolism of Mono & Disaccharides-3 <i>Biochemistry</i>	SDL	L70 HNSS-A-027&028 Blood supply & Lymphatic Drainage of Head & Neck <i>Anatomy</i>	L71 HOLY QURA'AN / ISLAMIAT / PAK STD	L72 HNSS-A-007 Muscles of Facial Expression <i>Anatomy</i>	JUMA'A PRAYER	SGD 07 Hyoid bone, Suprahyoid & infrahyoid Muscles <i>Gross Anatomy</i>

Version 0

Lab Histology : Head & neck
Lab Physiology : Ear

Clinical Skills: neck lump examination

Dr. Ayesha Riaz
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Dr. Ali Talat
BLOCK ORGANIZER

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PRINCIPAL



SIALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-5)

(Theme: Head & Neck)

WEEK 5	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 25-08-25	ASSESSMENT - 04 (Module Organizer)	L73 HNSS-A-018 Prevertebral Muscles <i>Anatomy</i>	SDL	L74 PERLs- 2-12 Professionalism <i>PERLs</i>	L75 HNSS-A-012&013 Oral Cavity (Hard & Soft Palate, Tongue & Tonsils) <i>Anatomy</i>	L76 HNSS-B-001 Metabolism of Mono & Disaccharides-4 <i>Biochemistry</i>	PRAYER BREAK	PBL 03 When sweet becomes sour <i>Session-01</i>
TUE 26-08-25	LAB SESSION 05 A - Clinical Skills B - Physiology C - Histology	L77 HNSS-A-039 Nose <i>Embryology</i>	SDL	L78 HNSS-A-017 Cervical Vertebrae <i>Anatomy</i>	L79 HNSS-A-024,25&26 Triangles of Neck & Contents of Neck <i>Anatomy</i>	L80 HNSS-B-001 Metabolism of Mono & Disaccharides-5 <i>Biochemistry</i>	PRAYER BREAK	SGD 05 A - Physiology B - Biochemistry
WED 27-08-25	LAB SESSION 05 A - Histology B - Clinical Skills C - Physiology	L81 HNSS-A-035,036 &037 Congenital Anomalies <i>Embryology</i>	SDL	L82 HNSS-A-024,25&26 Triangles of Neck & Contents of Neck <i>Anatomy</i>	L83 SDL	L84 HNSS-A-032&034 Pharynx <i>Anatomy</i>	PRAYER BREAK	SGD 05 A - Biochemistry B - Physiology
THU 28-08-25	LAB SESSION 05 A - Histology B - Clinical Skills C - Physiology	L85 HNSS-A-029,030&031 Cervical Plexus <i>Anatomy</i>	SDL	L86 HNSS-Ag-001 Deafness (ENT) <i>Aging/ENT</i>	L87 HNSS-A-033 Larynx <i>Anatomy</i>	Students' Activity	PRAYER BREAK	SGD 08 Blood Supply, Lymphatic Drainage & Nerve Supply of Head & Neck <i>Anatomy</i>
FRI 29-08-25	Feedback Session ASSESSMENT -04 Module Organizer	L88 HNSS-P-026 Physiology of Smell <i>Physiology</i>	SDL	L89 PERLs- 2-14 Research <i>PERLs</i>	L90 HOLY QURA'AN / ISLAMIAT / PAK STD	L91 HNSS-BhS-001 Pain-2 Behavioral Sciences	JUMA'A PRAYER	PBL 03 When sweet becomes sour <i>Session-02</i>

Version 0

Lab Histology : Revision

Lab Physiology : Revision

Lab Clinical Skill : Revision

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SLALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-6)

(Theme: Head & Neck)

WEEK 6	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 01-09-24	Feedback Session For Module Assessments <i>Module Organizer</i>	L81 Anatomy <i>Revision</i>	 SDL 	L82 Physiology <i>Revision</i>	L83 Biochemistry <i>Revision</i>	L84 Anatomy <i>Revision</i>	 PRAYER BREAK 	PBL 04 Revision <i>Session-01</i>
TUE 02-09-24	Feedback Session For Module Assessments <i>Medical education</i>	L85 Physiology <i>Revision</i>	 SDL 	L86 Anatomy <i>Revision</i>	L87 Biochemistry <i>Revision</i>	0 Physiology <i>Revision</i>	 PRAYER BREAK 	SGD 06 A - Physiology B - Biochemistry <i>Revision</i>
WED 03-09-24	LAB SESSION 06 A - Histology B - Clinical Skills C - Physiology <i>Revision</i>	L88 Biochemistry <i>Revision</i>	 SDL 	L89 Physiology <i>Revision</i>	L90 Anatomy <i>Revision</i>	L91 Biochemistry <i>Revision</i>	 PRAYER BREAK 	SGD 06 A - Biochemistry B - Physiology <i>Revision</i>
THU 04-09-24	LAB SESSION 06 A - Physiology B - Histology C - Clinical Skills <i>Revision</i>	L92 Anatomy <i>Revision</i>	 SDL 	L93 Biochemistry <i>Revision</i>	L94 Physiology <i>Revision</i>	L95 Student activity <i>Revision</i>	 PRAYER BREAK 	SGD 09 Anatomy <i>Revision</i>
FRI 05-09-24	LAB SESSION 06 A - Clinical Skills B - Physiology C - Histology <i>Revision</i>	L108 Biochemistry <i>Revision</i>	 SDL 	L109 Physiology <i>Revision</i>	L110 SDL 	L111 Anatomy <i>Revision</i>	 JUMA'A PRAYER 	SGD 10 Anatomy <i>Revision</i>

Version 0

Histology:

Revision

Clinical Skills:

Revision

Lab Physiology:

Revision

-

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SLALKOT MEDICAL COLLEGE

HEAD & NECK, SPECIAL SENSES MODULE (2K24) - YEAR - II MBBS WEEKLY SCHEDULE

(WEEK-7)

(Theme: Head & Neck)

WEEK 7	08:00am – 09:25am	09:25am – 10:15am	10:15am - 10:35am	10:35am – 11:25am	11:25am – 12:15pm	12:15pm – 01:05pm	01:05pm - 01:35pm	01:35pm – 03:00pm
MON 23-09-24	BLOCK 05 Examination							
TUE 24-09-24								
WED 25-09-24								
THU 26-09-24								
FRI 27-09-24								

Version 0

Histology: Revision
Lab Physiology: -

Clinical Skills: Revision
Lab Biochemistry: Revision

Dr. Ayesha Riaz
MODULE ORGANIZER

Dr. Muhammad Shamaun Razi
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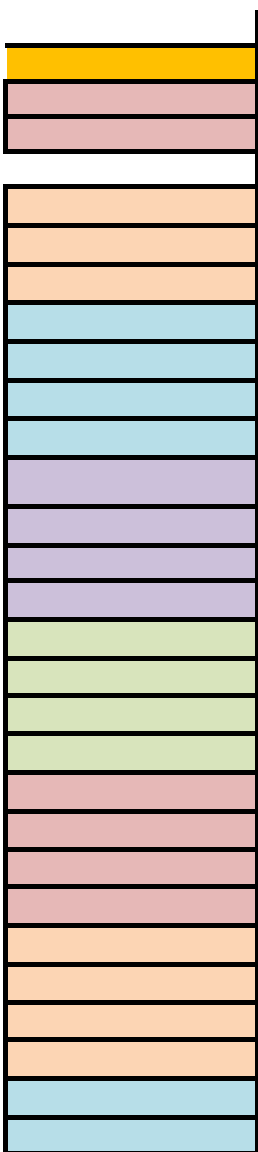
Lect No.	Code	Title
L1	HNSS-A-001	Orbital Cavity &EOM
L2	HNSS-A-045	Eye-1
L3	HNSS-P-001	Physical priciples of optics
L4	HNSS-A-001	Optic Nerve, Ophthalmic Artery & Pterygopalatine ganglion
L5	HNSS-P-001	Visual Acquity-1
L6	HNSS-A-041	Eye-1
L7	HNSS-A-001	Eyeball-1
L8	HNSS-P-001	Visual Acquity-2
L9	HNSS-P-003&012	Fluid System of Eye & Eye Movement
L10	HNSS-A-041	Eye-2
L11	HNSS-A-001	Eyeball-2
L12	HNSS-P-5,6&7	Retina & Adaptation
L13	HNSS-P-006,008	Photochemistry of Vision & Colour Vision 1
L14	HNSS-A-001	Eyelid & Lacrimal Apparatus
L15	HNSS-B-001	Metabolism of Mono & Disaccharides-1
STUDENT ACTIVITY		
L16	HNSS-P-01,2,3,4,5,7	Clinical Correlation of Eye-1
L17	HNSS-P-006,8	Photochemistry of Vision & Colour Vision 2
L18		HOLY QURA'AN / ISLAMIAT / PAK STD
L19	HNSS-CM-003	Blindness
L20	HNSS-P-009 &010	Visual Pathways & Field of Vision
L21	HNSS-A-045	Eye-2
L22	HNSS-A-041	Ear-1
L23	HNSS-A-002	Paranasal Sinuses & Olfactory Nerve
L24	HNSS-P-014 & 015	Accomodation & Pupillary Light Reflex
L25	HNSS-A-003	External &Middle Ear Cavity
L26	HNSS-P-8,11 to 15	Clinical Correlation of Eye-2
L27	HNSS-A-003	Internal Ear, 8th Nerve & Auditory Pathway
L28	HNSS-P-016	Sense of Hearing-1
L29	HNSS-A-041	Ear-2
L30	HNSS-A-046	Ear-1
L31	HNSS-CM-001	Noice Pollution
L32	HNSS-P-016	Sense of Hearing-2
L33	HNSS-Pa-001	Eye & Ear Infection-1
L34	HNSS-CM-002	Hearing Loss
Student's Activity		
L35	PERLs- 2-11	Professionalism
L36	HNSS-P-017 &018	Inner Ear/ Cochlea & Organ of corti 1
L37		HOLY QURA'AN / ISLAMIAT / PAK STD
L38	HNSS-P-017 &018	Inner Ear/ Cochlea & Organ of corti 2
L39	HNSS-A-012&013	Oral Cavity (Hard&Soft Palate,Tongue & Tonsils)
L40	HNSS-A-046	Ear-2

L41	HNSS-Pa-001	Eye & Ear Infection-2
L42	HNSS-P-019 & 020	Determination of Sound Frequency & Loudness
L43	HNSS-P-021	Auditory Pathway
L44	HNSS-A-040	Lips And Palate
L45	HNSS-A-004	Tongue & Taste Buds
L46	HNSS-A-038	Face & Nasolacrimal Duct
L47	HNSS-P-016,021,027	Ent Clinical Correlation
L48	HNSS-P-022 & 023	Sense of Taste & Excitation of Taste Buds
L49	HNSS-A-008&009	Face & Danger Area
		Students' Activity
		independence day
L50	HNSS-A-011&014	Salivary Glands
L51	HNSS-A-024 & 025	Abnormalities of Taste Sensations & Taste Preference & Aversion
L52		HOLY QURA'AN / ISLAMIAT / PAK STD
L53	HNSS-A-042,043,044	Head & Neck (Glands)
L54	HNSS-A-008	Facial Nerve
L55	PERLs- 2-13	Ethics
L56	HNSS-A-008	Facial Artery
L57	HNSS-BhS-001	Pain-1
L58	HNSS-A-017	Cervical Vertebrae
L59	HNSS-A-035,036 & 037	Pharyngeal Apparatus, Pharyngeal Arches And their Derivatives
L60	HNSS-A-018	Prevertebral Muscles
L61	HNSS-B-001	Metabolism of Mono & Disaccharides-2
L62	HNSS-A-035,036	Congenital Anomalies
L63	HNSS-A-019 & 020	Deep Cervical Fascia& Fascial Spaces
L64	PERLs- 2-15	Leadership
L65	HNSS-A-022&023	Neck Muscles & Ansa Cervicalis
L66	HNSS-A-024,025&026	Triangles of Neck & Contents of Neck (Trachea, Esophagus & Thyroid Gland)
L67	HNSS-A-008	Trigeminal Nerve
L68	HNSS-Ag-002	Head & Neck (Age Changes of Mandible)
		Student's Activity
L69	HNSS-B-001	Metabolism of Mono & Disaccharides-3
L70	HNSS-A-027&028	Blood Supply & Lymphatic Drainage of Head & Neck
L71		HOLY QURA'AN / ISLAMIAT / PAK STD
L72	HNSS-A-007	Muscles of Facial Expression
L73	HNSS-A-018	Prevertebral Muscles
L74	PERLs- 2-12	Professionalism
L75	HNSS-A-012&013	Oral Cavity (Hard&Soft Palate,Tongue & Tonsils)
L76	HNSS-B-001	Metabolism of Mono & Disaccharides-4
L77	HNSS-A-039	Nose
L78	HNSS-A-017	Cervical Vertebrae
L79	HNSS-A-024,025&026	Triangles of Neck & Contents of Neck (Trachea,
L80	HNSS-B-001	Metabolism of Mono & Disaccharides-5
L81	HNSS-A-035,036 & 037	Congenital Anomalies

[illegible]

Discipline
Anatomy
Histology
Physiology
Anatomy
Physiology
Embryology
Anatomy
Physiology
Physiology
Embryology
Anatomy
Physiology
Physiology
Anatomy
Biochemistry
Physio/Ophthalmolo
Physiology
Community Med
Physiology
Histology
Embryology
Anatomy
Physiology
Anatomy
Physio/Ophthalmolo
Anatomy
Physiology
Embryology
Histology
Community Med
Physiology
Pathology
Community Med
PERLs
Physiology
Physiology
Anatomy
Histology

Pathology
Physiology
Physiology
Embryology
Anatomy
Embryology
Physiology
Physiology/ENT
Anatomy
Anatomy
Physiology
Histology
Anatomy
PERLs
Anatomy
Behavioral Sciences
Anatomy
Embryology
Anatomy
Biochemistry
Embryology
Anatomy
PERLs
Anatomy
Anatomy
Anatomy
Aging/Anatomy
Biochemistry
Anatomy
Anatomy
Anatomy
PERLs
Anatomy
Biochemistry
Embryology
Anatomy
Anatomy
Biochemistry
Embryology



Subjects	UHS Hours	Weightage	SMC Hours	Practicals
Anatomy	56	40%	37	
Histology	8	6%	5	7
Embryology	15	11%	10	
Physiology	30	22%	20	7
Biochemistry	7	5%	5	3
Community Medicine	7	5%	5	
Behavioral Sciences		0%	0	
Pathology	9	6%	6	
Pharmacology		0%	0	
Aging	3	2%	2	
PERLs	4	3%	3	
Clinical Skills				2
	139		91	19

SGDs	Practical SMC		
8		139	91
	6	139	91
		139	91
4	6	139	91
4	4	139	91
		139	91
		139	91
		139	91
		139	91
		139	91
		139	91
		139	91
	2		
16	18		

Sialkot Medical College
TABLE OF SPECIFICATION - ASSESSMENT 01

(04-07-24)

Head & NECK
YEAR-II, MBBS

No.	Disciplines	# of Lectures	Weightage	MCQs	SAQs
1	Anatomy	5	29%	10.3	0.9
	Histology	1	6%	2.1	
	Embryology	2	12%	4.1	
2	Physiology	6	35%	12.4	1.1
	Physiology/Ophthalmology	1	6%	2.1	
	Physiology/ENT	0	0%	0.0	
3	Biochemistry	1	6%	2.1	0.2
4	Pathology	0	0%	0.0	0.0
5	Community Medicine	1	6%	2.1	0.2
6	Behavioral Sciences	0	0%	0.0	0.0
7	Aging/Anatomy	0	0%	0.0	0.0
8	Aging/ENT	0	0%	0.0	0.0
	<u>Assessment 01</u>	17	100%	35	2
	Total Marks = (50)			(35)	(15)

(Note: Course contents are of Week 01)

(Version 01)

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Dr. Ayesha Riaz
Module Organizer

Dr. Muhammad Shamaun Razi
Academic Coordinator

Sialkot Medical College
TABLE OF SPECIFICATION - ASSESSMENT 01

(04-07-24)

Head & NECK
YEAR-II, MBBS

No.	Disciplines	# of Lectures	Weightage	MCQs	SAQs
1	Anatomy	5	29%	10.3	0.9
	Histology	1	6%	2.1	
	Embryology	2	12%	4.1	
2	Physiology	6	35%	12.4	1.1
	Physiology/Ophthalmology	1	6%	2.1	
	Physiology/ENT	0	0%	0.0	
3	Biochemistry	1	6%	2.1	0.2
4	Pathology	0	0%	0.0	0.0
5	Community Medicine	1	6%	2.1	0.2
6	Behavioral Sciences	0	0%	0.0	0.0
7	Aging/Anatomy	0	0%	0.0	0.0
8	Aging/ENT	0	0%	0.0	0.0
	<u>Assessment 01</u>	17	100%	35	2
	Total Marks = (50)			(35)	(15)

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TABLE OF SPECIFICATION - ASSESSMENT 01

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Sialkot Medical College
TABLE OF SPECIFICATION - ASSESSMENT 01

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(Note: Course contents are of Week 01)

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Dr. Ayesha Riaz
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Sialkot Medical College
TABLE OF SPECIFICATION - ASSESSMENT 01

(04-07-24)

Head & NECK
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	<u>Assessment 01</u>	17	100%	35	2
	Total Marks = (50)			(35)	(15)

(Note: Course contents are of Week 01)

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Dr. Ayesha Riaz
Module Organizer

Dr. Muhammad Shamaun Razi
Academic Coordinator

Module Name:

RENAL-I MODULE (2K24)**Lectures:**

Wks	Day	Lect No.	Code	Title	Discipline
Wk 01	Mon			GIT&N	
	Tue				
	Wed	L1	R-A-008		Development of urinary system I
		L2	R-P-001	Body fluid compartment I	Physiology
		L3	R-B-001, R-B-002	Protein digestion and absorption, reabsorption,	Biochemistry
	Thu	L4	R-P-001	Body fluid compartment II	Physiology
		L5	R-A-001	Kidney I	Gross Anatomy
		L6	R-P-003	Functions of kidneys	Physiology
		L7	R-B-003, RB-004	Protein Metabolism/ Amino acid pool and nitrogen balance,	Biochemistry
	Fri	L8	R-A-009, R-A-010	Structure of kidney, Juxtaglomerular apparatus	Histology
		L9	R-P-006	Renal blood flow - Urine formation I	Physiology
L10		R-B-005, RB-006	Protein Metabolism/Transamination, Protein	Biochemistry	
L11		THE HOLY QURAN / ISLAMIAT / PAK STUDIES / CIVICS			
Wk 02	Mon	L12	R-A-001	Kidney II	Gross Anatomy
		L13	R-A-001	Kidney III	Gross Anatomy
		L14	R-P-006	Renal blood flow - Urine formation II	Physiology
		L15	R-B-007, R-B-008	Protein Metabolism/Deamidation,Decarboxylation	Biochemistry
		L16	R-P-007	Glomerular filtration I	Physiology
	Tue	L17	R-A-002	Ureter	Gross Anatomy
		L18	R-P-007	Glomerular filtration II	Physiology
		L19	R-Pa-001	Renal Stones	Pathology
		L20	R-Pa-004	Glomerulonephritis I	Pathology
	Wed			LABOUR DAY	
	Thu	L21	R-P-007		Glomerular filtration III
		L22	R-B-010	Protein Metabolism/ Urea cycle, ammonia	Biochemistry
		L23	R-Pa-004	Glomerulonephritis II	Pathology
		L24	R-P-008	Reabsorption - tubular processing - I	Physiology
Fri	L25	R-Pa-002	Hydronephrosis	Pathology	
	L26	R-P-008	Reabsorption - tubular processing - II	Physiology	
	L27	THE HOLY QURAN / ISLAMIAT / PAK STUDIES / CIVICS			
Wk 03	Mon	L28	R-P-009, 010	Clearance method, Transport maximum	Physiology
		L29	R-P-011	Urine concentration and dilution (Countercurrent)	Physiology
		L30	R-A-008	Development of urinary system II	Embryology
		L31	R-B-009, R-B-011	Protein Metabolism/ Sources and transport of	Biochemistry
		L32	R-P-012, 013	Obligatory urine volume, Disorders of	Physiology
	Tue	L33	R-A-011, R-A-012	Structure of ureter, Structure of urinary bladder	Histology
		L34	R-P-015	Osmoreceptor ADH Feedback System	Physiology
		L35	R-B-012	Protein Metabolism/ Degradation of	Biochemistry
		L36	R-P-016, 018, 019, 021, 022	Thirst, Control of ECF osmolarity	Physiology

Wk 03	Wed	L37	R-P-017	Renal regulation of electorlytes (potassium)	Physiology	
		L38	R-CM-001	Quality of life	Community	
		L39	R-A-003	Urinary bladder	Gross Anatomy	
		L40	R-P-020	Renal regulation of electrolytes (calcium, phosphate)	Physiology	
	Thu	L41	PERLs- 2-07	Evidence Based Practitioner	PERLs	
		L42	R-B-014 - R-B-018	Water, pH, Buffers/ Ionization of water,pH and pH scale,	Biochemistry	
		L43	R-A-005	Urinary retention	Gross	
		L44	R-P-023	Acid base balance-I	Physiology	
	Fri	L45	R-P-023	Acid base balance-II	Physiology	
		L46	R-B-013	Protein Metabolism/ inborn errors of	Biochemistry/Pedria	
L47		THE HOLY QURAN / ISLAMIAT / PAK STUDIES / CIVICS				
Mon	L48	R-A-007	Urethra	Gross Anatomy		
	L49	R-P-024	Acid base disturbance	Physiology		
	L50	R-BhS-001	Dementia, uremic encepharopathy, delusion, muscle paralysis & Societal impact	Behaviour sciences		
	L51	R-B-019	Water, pH, Buffers/ HH equation and its	Biochemistry		
	L52	R-P-025	Anion gap	Physiology		
Wk04	Tue	L53	R-P-004	Micturition reflex	Physiology	
		L54	R-B-020, R-B-021	Acid Base balance and imbalance/ Renal	Biochemistry	
		L55	R-A-006	Radiograph	Gross	
	Wed	L56	R-Pa-003	UTI causative agents I	Pathology	
		L57	R-Ag-001	Disease prevention	Community	
		L58	R-Pa-003	UTI causative agents II	Pathology	
	Thu	L59	R-B-022	Acid Base balance imbalance/ Types of acid	Biochemistry/Medic	
		L60	R-P-005	Abnormalities of micturition	Physiology/Patholo	
		L61	R-P-002, 014	Edema & Diabetes insipidus	Physiology/Medicin	
		L62	R-B-023	Acid Base balance imbalance/ Tetany in	Biochemistry	
L63		R-Ph-001	Diuretics I	Pharmacology		
Fri	L64	PERLs- 2-08	Resilient & Adaptable	PERLs		
	L65	R-Pa-005, R-Pa-006	Acute kidney injury, Urinary tract infection, Urinary incontinence	Pathology/Medicine		
	L66	R-P-025	Renal failure, dialysis & transplantation	Physiology		
	L67	THE HOLY QURAN / ISLAMIAT / PAK STUDIES / CIVICS				
	L68	R-Ph-001	Diuretics II	Pharmacology		
Wk 05	Mon	L69	RL-Rev-01	Revision	Anatomy	
		L70	RL-Rev-02	Revision	Physiology	
		L71	RL-Rev-03	Revision	Embryology	
		L72	RL-Rev-04	Revision	Biochemistry	
		L73	RL-Rev-05	Revision	Histology	
	Tue	L74	RL-Rev-06	Revision	Gross Anatomy	
		L75	RL-Rev-07	Revision	Physiology	
		L76	RL-Rev-08	Revision	Embryology	
	Wed	L77	RL-Rev-09	Revision	Biochemistry	
		L78	RL-Rev-10	Revision	Histology	
L79		RL-Rev-11	Revision	Anatomy		
L80		RL-Rev-12	Revision	Physiology		
Fri	Thu	L81	RL-Rev-13	Revision	Embryology	
		L82	RL-Rev-14	Revision	Biochemistry	
		L83	RL-Rev-15	Revision	Histology	
		L84	RL-Rev-16	Revision	Anatomy	
	Fri	L85	RL-Rev-17	Revision	PERLs	
		L86	RL-Rev-18	Revision	Biochemistry	
		L87	THE HOLY QURAN / ISLAMIAT / PAK STUDIES / CIVICS			
		L88	RL-Rev-19	Revision	Physiology	



SLALKOT MEDICAL COLLEGE

BLOCK - 03 EXAMINATION (2K23)



MODULES:

CARDIOVASCULAR-I & RESPIRATORY-I MODULES

WEEK 1	09:00am – 12:pm	
MON 04-09-23	BLOCK - 3 EXAMINATION (Written) - 120 Marks Paper-I : MCQs (One Best Type with 5 options) - 85 MCQs (110 min) - 85 Marks (1 Mark/MCQ) Paper-II : SEQs (with no sections) - 7 SEQs (70 min) - 35 Marks (5 Marks/SEQ)	LECTURE HALL # 4 : Roll #: 1-50 LECTURE HALL # 5 : Roll #: 51-101
TUE 05-09-23	BLOCK - 3 EXAMINATION (Practical / Clinical Examination) - 120 Marks OSPE (Observed) : 07 Stations - 56 Marks (8 marks/station) - (8 min/station) OSCE (Observed) : 02 Stations - 16 Marks (8 marks/station) - (8 min/station)	OSPE/OSCE (Anat Lab) : Batch - A OSPE/OSCE (Physio Lab) : Batch - B OSPE/OSCE (Bio Lab) : Batch - C
WED 06-09-23	BLOCK - 3 EXAMINATION (Oral Examination) - 120 Marks STRUCTURED VIVA : 03 Stations - 48 Marks (16 marks/station) - (10 min/station)	STRUCTURED VIVA (Anatomy) : Batch - A STRUCTURED VIVA (Physiology) : Batch - B STRUCTURED VIVA (Biochemistry) : Batch - C
THU 07-09-23		STRUCTURED VIVA (Anatomy) : Batch - B STRUCTURED VIVA (Physiology) : Batch - C STRUCTURED VIVA (Biochemistry) : Batch - A
FRI 08-09-23		STRUCTURED VIVA (Anatomy) : Batch - C STRUCTURED VIVA (Physiology) : Batch - A STRUCTURED VIVA (Biochemistry) : Batch - B

Version 0

(Batch-A: 1-33)

(Batch-B: 34-66)

(Batch-C: 67-100)

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Dr. Sadia Zaheer
BLOCK ORGANIZER

Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Prof. Dr. Muhammad Sabir
PRINCIPAL



SLALKOT MEDICAL COLLEGE

YEAR-I MBBS WEEKLY SCHEDULE



WEEK-SPORTS:

4/22/2024 TO 4/26/2024

SPORTS WEEK	08:00am – 03:00Pm
MON 22-04-24	SPORTS DAY 01
TUE 23-04-24	SPORTS DAY 02
WED 24-04-24	SPORTS DAY 03
THU 25-04-24	SPORTS DAY 04
FRI 26-04-24	SPORTS DAY 05

<	>	Apr
Su	Mo	Tu
31	1	2
7	8	9
14	15	16
21	22	23
28	29	30

Version 03

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Dr. Ayesha Riaz
MODULE ORGANIZER

Dr. Muhammad Shamaun Razi
ACADEMIC COORDINATOR

Prof. Dr. Muhammad Sabir
PRINCIPAL

#REF!

#REF!

CARDIOVASCULAR SYSTEM (CVS 224) – Academic Activities



Lectures:				
No.	Title	Discipline	Faculty - Male	Faculty - Female
#REF!	Orbital Cavity &EOM	Anatomy	Dr. Gamal Alsayed	Dr. Hanan Elgendy
#REF!	Physical priciples of optics	Physiology	Dr. Abdelnaser	Dr. Manal
#REF!	#REF!	#REF!	Dr. Gamal Alsayed	Dr. Hanan Elgendy
#REF!	Optic Nerve, Ophthalmic Artery & Pterygopalatine ganglion	Anatomy	Dr. Ashfaque Memon	Dr. Eman Zakariya
#REF!	Visual Acquity-1	Physiology	Dr. Ashfaque Memon	Dr. Eman Zakariya
#REF!	Eye-1	Embryology	Dr. Gamal Alsayed	Dr. Hanan Elgendy
#REF!	Visual Acquity-2	Physiology	Dr. Gamal Alsayed	Dr. Hanan Elgendy
#REF!	Fluid System of Eye & Eye Movement	Physiology	Dr. Abdelnaser	Dr. Manal
#REF!	#REF!	Embryology	Dr. Abdelnaser	Dr. Manal
#REF!	Eyeball-2	Anatomy	Dr. Hafeezullah Wazir	Dr. Sanchita Chakravarti
#REF!	Photochemistry of Vision & Colour Vision 1	Physiology	Dr. Saad Elshafey	Dr. Naglaa Ahmed
L1	Clinical Correlation of Eye-1	Physio/Ophthalmology	Dr. Gamal Alsayed	Dr. Hanan Elgendy
L2	Eyelid & Lacrimal Apparatus	Anatomy	Dr. Farmanullah Wazir	Dr. Sanchita Chakravarti
L3	Metabolism of Mono & Disaccharides-1	Biochemistry	Dr. Saad Elshafey	Dr. Naglaa Ahmed
L4	#REF!	#REF!	Dr. Shamaun Razi	Dr. Sanchita Chakravarti
L5	#REF!	#REF!	Dr. Jawed Aziz	Dr. Afaf
L6	#REF!	#REF!	Dr. Romany	Dr. A'asha Mohammad
L7	#REF!	#REF!	Dr. Hafeezullah Wazir	Dr. Mona Abdelazim
L8	Photochemistry of Vision & Colour Vision 2	Physiology	Dr. Jawed Aziz	Dr. Hala
L9	#REF!	#REF!	Dr. Romany	Dr. A'asha Mohammad
L10	#REF!	#REF!	Dr. Gamal Alsayed	Dr. Hanan Elgendy
L11	Visual Pathways & Field of Vision	Physiology	Dr. Shamaun Razi	Dr. Sanchita Chakravarti
L13	Ear-1	Embryology	Dr. Gamal Alsayed	Dr. Saima Shahbaz
#REF!	#REF!	#REF!	Dr. Hafeezullah Wazir	Dr. Nagwa Fathi
L14	Determination of Sound Frequency & Loudness	Physiology	Dr. Sajid H. Shah	Dr. Afaf
L15	External &Middle Ear Cavity	Anatomy	Dr. Hafeezullah Wazir	Dr. Nagwa Fathi
0	Accomodation & Pupillary Light Reflex	Physiology	Dr. Amgad Abou Ouf	Dr. Amgad Abou Ouf
L16	#REF!	#REF!	Dr. Sajid H. Shah	Dr. Hala
#REF!	#REF!	#REF!	Dr. Amgad Abou Ouf	Dr. Amgad Abou Ouf
L17	Internal Ear, 8th Nerve & Auditory Pathway	Anatomy	Dr. Hafeezullah Wazir	Dr. Nagwa Fathi
No.	Title	Discipline	Faculty - Male	Faculty - Female

L18	Sense of Hearing-1	Physiology	Mr. Hassan Hussein	Dr. Eman Zakariya
#REF!	#REF!	#REF!	Dr. Farmanullah Wazir	Dr. Mona Abdelazim
#REF!	Professionalism	PERLs	Dr. Mohamed Soliman	Dr. Soha Ibraheim
L23	Inner Ear/ Cochlea & Organ of corti 1	Physiology	Dr. Farmanullah Wazir	Dr. Mona Abdelazim
L25	Inner Ear/ Cochlea & Organ of corti 2	Physiology	Dr. Gamal Alsayed	Dr. Saima Shahbaz
L26	Oral Cavity (Hard&Soft Palate,Tongue & Tonsils)	Anatomy	Dr. Farmanullah Wazir	Dr. Sanchita Chakravarti
L27	Ear-2	Pathology	Dr. Anil Mohen	Dr. Hala
L28	Eye & Ear Infection-2	#REF!	Dr. Farmanullah Wazir	Dr. Nagwa Fathi
#REF!	Tongue & Taste Buds	Anatomy	Dr. Sajid H. Shah	Dr. Afaf
#REF!	Face & Nasolacrimal Duct	Embryology	Mr. Hassan Hussein	Dr. A'asha Mohammad
L35	Ent Clinical Correlation	Physiology	Dr. Shamaun Razi	Dr. Mona Abdelazim
L36	Sense of Taste & Excitation of Taste Buds	Physiology/ENT	Dr. Hafeezullah Wazir	Dr. Mona Abdelazim
L37	Face & Danger Area	Anatomy	Dr. Shamaun Razi	Dr. Mona Abdelazim
L38	Professionalism	PERLs	Mr. Hassan Hussein	Dr. Eman Zakariya
#REF!	#REF!	#REF!	Dr. Ahmed Hammad	Dr. Sharouq Awad
#REF!	#REF!	#REF!	Dr. Ahmed Hammad	Dr. Shireen Olama
#REF!	#REF!	#REF!	Dr. Abdelnaser	Dr. Manal
#REF!	#REF!	#REF!	Dr. Omer Afzal	Dr. Rasha Abdul

Practicals:

No.	Title	Discipline	Faculty - Male	Faculty - Female
#REF!	#REF!	#REF!	Dr.Konsua, Dr.Amjad, Mr.Hassan	Dr.Hanan, Dr.Saima
#REF!	#REF!	#REF!	Dr.Konsua, Dr.Amjad, Mr.Hassan	Dr.Hanan, Dr.Saima
#REF!	#REF!	#REF!	Dr. Saad Elshafey	Dr. Naglaa / Ms. Nermeen
#REF!	#REF!	#REF!	Mr. Hussein	Dr. Manal
#REF!	#REF!	#REF!	Dr. Sajid, Dr. Anil, Dr. Iqbal, Dr. Rashad	Dr.Hala, Dr.Afaf
#REF!	#REF!	#REF!	Dr.Hafeezullah, Mr.Zulfiqar	Dr. Nagwa, Ms. Saima
#REF!	#REF!	#REF!	Dr. Sajid, Dr. Anil, Dr. Iqbal, Dr. Rashad	Dr.Hala, Dr.Afaf
#REF!	#REF!	#REF!	Dr. Sajid, Dr. Anil, Dr. Iqbal, Dr. Rashad	Dr.Hala, Dr.Afaf
#REF!	#REF!	#REF!	Dr.Farmanullah, Mr.Zulfiqar	Dr. Sanchita, Ms. Saima
#REF!	#REF!	#REF!	Mr. Hussein	Dr. Manal

Tutorials:

No.	Title	Discipline	Faculty - Male	Faculty - Female
#REF!	#REF!	#REF!	Dr. Jawed, Dr. Sajid, Dr. Anil, Dr. Rashad	Dr. Hala, Dr. Afaf
#REF!	#REF!	#REF!	Dr. Shamaun, Dr. Hafeezullah, Dr. Farmanullah	Dr. Mona, Dr. Sanchita, Dr. Nagwa