

WAH MEDICAL COLLEGE

2020-2024

A photograph of the Wah Medical College building, a large, modern structure with a brown facade. The words "Wah Medical College" are printed in white on the building's exterior. A flagpole with a blue flag stands in front of the building. The image is partially obscured by a large blue diagonal graphic element.

Wah
Medical
College

Department of Medical Education

STUDY GUIDE
4TH YEAR MBBS
Y4B3

2020-2024

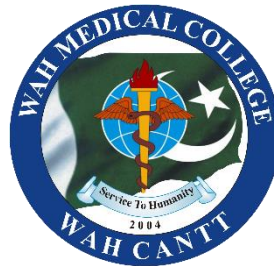
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1. VISION

National University of Medical Sciences envisions a world with a better quality of life for all by enhancing our contribution to healthcare, education, innovation and research.



2. MISSION

“To produce competent medical professional graduates equipped with sound knowledge & research capabilities based on scientific principles, imbued with ethics and moral values primed to serve the community through the profession and pursue research & advanced training in any branch of medicine”.

1. Outcomes of WMC MBBS Program:

At the end of our five-year MBBS program, the graduates should be able to:

- 1. Independently manage common, non-critical clinical problems.**
- 2. Assist in the management of critically ill patients & demonstrate competency in life saving procedures.**
- 3. Exhibit the attributes of an ethical professional.**
- 4. Conduct research which brings relevance to health care practices.**
- 5. Act as an efficient community health promoter.**
- 6. Exhibit scientific knowledge in all professional activities.**
- 7. Demonstrate clear and efficient written & verbal communication skills.**
- 8. Exhibit the habits of a lifelong learner.**

2. Introduction to the Study Guide:

I. Objectives of the Study Guide

Dear Students,

We, at the Department of Medical Education, Wah Medical College, have developed this study guide especially for you. This study guide aims to:

- Inform you about the organization of learning programs in this block which will help you to contact the right person in case of any difficulty.
- Help you in organizing and managing your studies throughout the block
- Guide you on assessment methods, rules, and regulations.
- Define the outcomes which are expected to be achieved at the end of the block.
- Identify the learning strategies that will be implemented to achieve the block outcomes such as lectures, small group discussions, clinical skills, demonstration, tutorial, and case-based learning
- Provide a list of learning resources such as books, and journals for students to consult to maximize their learning.

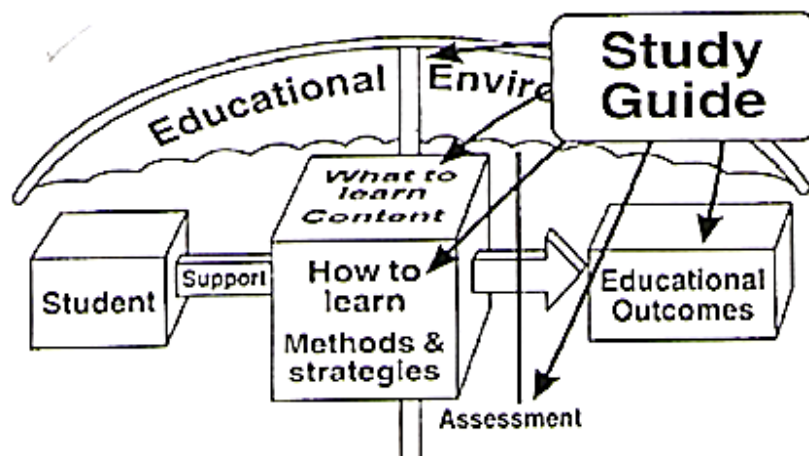


Figure 1.

Objectives of the study Guide(HARDEN, J.M. LAIDLAW, E.A. HESKETH, 1999)


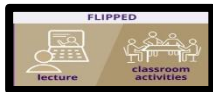







II. Commonly used abbreviations & Logos in the study guide

Learning Outcomes:

Learning outcomes are statements that define the expected goal of your course, lesson, or activity in terms of demonstrable skills or knowledge that will be acquired by you as a result of instruction. In simple words, these are the things that you must be able to tell or do with the required attitude after learning a particular topic.

Educational Strategies:

These are the methodologies through which you will be taught by your instructors. These can include.

Abbreviation	Logos
LGIS: Large Group interactive session/Lecture	
Flipped Classroom	
CBL: Case based learning.	
Practicals	
Demonstrations	
SGD: Small group discussions	
BST: Bed Side Teaching	
Skill Lab	
Clinical Teaching (OPD/ OT/ IPD)	

Large Group Interactive Sessions

In a large group, the lecturer introduces a topic or common clinical condition and explains the underlying phenomena through questions, pictures, videos of patient's interviews, exercises, etc. Students are actively involved in the learning process.

Flipped classroom

A pedagogical approach in which the conventional notion of classroom-based learning is inverted: students are introduced to the learning material before class with classroom time then being used to deepen understanding through discussion with peers and problem-solving activities facilitated by teachers.

Small Group Discussion

This format helps students to clarify concepts, acquired skills or attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews, or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials, and self-study. The facilitator's role is to ask probing questions, summarize, or rephrase to help clarify concepts.

Case-Based Learning

This is a small group discussion format where learning is focused around a series of questions based on a clinical scenario. Specifically designed case scenarios and the learning outcomes to be achieved are shared with the student before the session. Students prepare for the CBL and during class they discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the block. Faculty members are present as a guide and an assessor.

Self-Directed Study

Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from the Learning Resource Center, teachers, and resource persons within and outside the college. Students can utilize the time within the college schedule hours for self-study under supervision.

Bedside teaching

Students learn clinical case scenarios/ patient examination firsthand at the patient's bedside with the help of the instructor in case of online teaching, the same cases will be shown to you online with the help of videos and live clinical teaching.

i. Internal Assessment.

During the block the students will be continually formatively assessed. The weightage of internal assessment will be 20 % in final professional MBBS Examination. There will be two EOB and one pre-annual examination. There will also be end of rotation exams at the end of each clinical rotation. The scores of the EOB assessment, clinical rotation assessment and pre-annual examination will be used for calculation of the internal assessment. Students must pass at least 50% of all the formal formative assessments conducted during the year to become eligible to sit in the send-up exam. It is mandatory for MBBS students to appear and pass the pre-annual exam with at least 33% marks in each subject as per PMC rules, failing which student is not eligible to appear in the university exam.

ii. Annual Professional Examination.

The University will take the 4th professional Examination as per PMC guidelines at the end of the academic year. Annual Theory & Practical Examination will be of 300 marks each in Special Pathology & Community Medicine & 200 marks each in ENT & Ophthalmology. The pass score will be 50% in theory and practical separately. However, in clinical subjects, students should pass in clinical exams / OSCE (with 50% marks) and unobserved stations (with 50% marks) separately.

1. Scheme of Assessment:

SPECIAL PATHOLOGY, COMMUNITY MEDICINE

Marks of theory paper = 120

Time Allowed = 3 hours

Total Marks = 150

MCQs: 40% (150 x 0.4=60 marks)

SEQs: 40% (150 x 0.4= 60 Marks)

IA: 20% (150 x 0.2=30 Marks)

Pass Marks = 75

Paper-1:

80 MCQs, Time =80 min

*Marks of MCQ components shall be rationalized to 40% weightage out of 150.

*If a candidate obtains 70 marks in MCQs it will be rationalized as: $(70/80 \times 60 = 52.50)$

Paper-2:

9x SEQs: 7 questions x 6 Marks each + 2 questions x9 Marks each= 60 Marks

Time = 100 min

ENT & EYE

Marks of theory paper = 80 marks, Internal Assessment = 20 marks

Time Allowed = 3 hours

Total Marks= MCQs:40% (40 marks) +SEQs:40% (40 marks) +IA:20%(20 marks)

Pass Marks = 50

Paper-1: 60 MCQs = 40 marks

Time = 60 min

*Marks of MCQ components shall be rationalized to 40% weightage. *If a candidate obtains 50 marks in MCQs it will be rationalized as: $(50/60*40=33.33)$

Paper-2:

Time = 120 min

8x SEQs = 05 Marks Each = 40 Marks

INTERNAL ASSESSMENT - THEORY	
INTERNAL ASSESSMENT WEIGHTING: 20%	
Exams	Weightings
Attendance in Lectures: a. $\geq 90\%$ = 10% b. 80-89% = 7% c. 75-79% = 5%	10%
End of Block/ clinical rotation (theory) Examination	45%
Continuous assessment (average score of all tests attempted after every learning session during the academic year)	20%
Pre-Annual Exam	25%
Total	100%
INTERNAL ASSESSMENT STRUCTURE - PRACTICAL	
INTERNAL ASSESSMENT WEIGHTING: 20%	
Exams	Weightings
Attendance in Practicals: a. $\geq 90\%$ = 10% b. 80-89% = 7% c. 75-79% = 5%	10%
*End of Block/ clinical rotation (OSCE) Examination	45%
*Continuous assessment of practical/ clinical skills and attitude	20%
Pre-Annual Exam	25%
Total	100%

4. Block Development Committee

Chairperson	Prof. Muhammad Akmal Khan
Block In charge	Dr. Yaseen Lodhi
Members/ Resource persons	Community Medicine : Dr. Khola Waheed Khan Pathology : Dr. Lubna Ehtizaz ENT : Col (R)Prof. Asad Chughtai Ophthalmology : Dr Yaseen Lodhi Medicine : Dr. Syed Asim Ali Shah Surgery : Brig.Prof. Manan Masood Gynecology : Dr. Shabana Kalsoom Pediatrics : Dr. Tahir Mahmood PCMILE : Dr. Ambreen Ansar
Study guide developed by	Department of Medical Education Wah Medical College under Supervision of Prof. Dr. Musarat Ramzan
Resource person for study guide	Dr. Ambreen Ansar

5. Structured Summary of Y4B3

Block	Y4B3
Duration	10 weeks
Prerequisite Block	Y4B2
Special Pathology	Endocrine System/ Short stature, Central & Peripheral Nervous System, White blood cells, Red blood cells and bleeding disorders
Community Medicine	MCH (Reproductive Health, Preventive Pediatrics, Geriatrics), Genetics & Health, Health Education, Nutrition, non-communicable diseases, Snake bite, Military Hygiene and Camp Sanitation, School and Dental Health Service, Occupational Health, Snake bite, Personal hygiene & Islam and public health, unsafe injection / infection control & Patient safety, Health management
ENT	Oropharynx, larynx, tracheostomy, esophagus
Ophthalmology	Retinal diseases, strabismus, amblyopia, ocular injuries, neuro-ophthalmic conditions
Obstetrics & Gynecology	Medical disorders in pregnancy (diabetes, anemia, thyroid disorders, renal disorders), Preterm labour & PPRM ,Postpartum haemorrhage, Miscarriage`
Surgery	Neurosurgery, vascular surgery, Surgical Gastrointestinal Pathologies, Aneesthesia, Radiological Diagnosis.
Medicine	Common Nephrology, Rheumatology, Dermatology and Psychiatry disorders, management of critically ill patients in the A & E department

6. Course content

Community Medicine

After completion of Community Medicine 3rd block the students would be able to:

- Formulate relevant health message and educate community effectively
- Recognize reproductive, child related, nutritional and occupational health issues at household and community levels and recommend appropriate interventions to control them.
- Explain epidemiology of non-communicable diseases in the global and local context and apply knowledge for control and prevention of diseases.

Learning outcomes of skills and attitude

- Demonstrate computing and soft skills
- Write a comprehensive report on assigned tasks.
- Demonstrate professional behavior in all learning activities.

The following educational and Assessment strategies will be used to achieve the block learning outcomes

S #	Topic	Educational Strategies	Names of Instructor	Importance Must Know Should know Could know
1.	Reproductive Health	Flipped class room	Prof Musarat Ramzan	Must know
<p>Learning Outcomes: By the end of unit, the 4th Year MBBS students should be able to:</p> <ul style="list-style-type: none"> ● Interpret risk associated with pregnancy, causes of maternal mortality and relevant indicators of Reproductive Health in the given scenario ● Describe components of RH, safe motherhood and post-natal care. ● Calculate Maternal Mortality Rate and Ratio in the given scenarios ● Recommend relevant actions in the given RH scenarios ● Educate women regarding antenatal care in the given scenario 				
2.	Preventive Pediatrics and Geriatrics	Flipped class room	Dr. Khola Waheed Khan	Must know
<p>Learning Outcomes: By the end of unit, the 4th Year MBBS students should be able to:</p> <ul style="list-style-type: none"> ● Justify the role of screening during pregnancy and in infants ● Interpret growth pattern by plotting given information on the growth chart ● Educate the mothers about benefits of breastfeeding and weaning ● Recommend relevant preventive measures to control infant and children mortality. 				

- Manage common health issues of infants and children.
- Suggest measures catering to the geriatric problems.
- Prepare ORS according to the protocol

3.	Health Education	Flipped class room	Dr. S. Sabah Imran	Must know
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Learning Outcomes:

By the end of unit, the 4th Year MBBS students should be able to:

- Identify communication process, its barriers, stages, best methods and approaches of health education
- Explain functions, models, scope of health education; planning of health education program and reasons of failure of the program.
- Construct health education message
- Implement principles of health education for running health education program
- Demonstrate professionalism to educate community effectively.

4.	Nutrition	Flipped class room	Dr. Robina Mushtaq	Must know
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Learning Outcomes:

By the end of unit, the 4th Year MBBS students should be able to:

- Differentiate major nutritional problems of public health importance
- Recommend preventive and corrective measures against nutritional problems
- Educate community regarding dietary preventive measures and food safety
- Assess nutritional status of the community
- Identify various food practices and food borne diseases

5.	Occupational Health	LGIS	Dr. Sadia Nadeem	Must know
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- Identify occupational diseases on the basis of clinical and laboratory findings.
- Suggest preventive measures for Occupational Diseases.
- Educate industrial workers and owners about prevention of occupational diseases

6.	Snake bite	Flipped Classroom	Dr. Khola Waheed Khan	Must know
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Learning Outcomes:

By the end of lecture, 4th Year MBBS students should be able to:

- Identify a snake bite and snake type on the basis of signs and symptoms.
- Suggest appropriate First Aid that should be given to a snake bite victim
- Educate individuals about Public Health measures to prevent snake bites.

7.	Non-communicable diseases	Seminar	All faculty member	Must know
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Learning Outcomes:

By the end of lecture, 4th Year MBBS students should be able to:

- Identify epidemiological determinants of common non-communicable diseases
- Suggest preventive measures for these diseases in at-risk individuals and populations
- Impart health education to prevent these diseases.

8.	Environment	Flipped Classroom / LGIS	Dr. Robina Dr. Sadia Dr. Khola Dr. Saleh	Must Know
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Learning Outcomes:
By the end of lecture, 4th Year MBBS students should be able to:

- Describe the functions of slow and rapid sand filters
- Relate different health hazards with water pollution/contamination
- Explain modifications for prevention of water related problems
- Explain effects of physical environment on human health
- Suggest control measures for different physical environmental problems.
- Describe the importance and ways of excreta disposal in sewerred and unsewerred areas
- Interpret the values of BOD, COD & suspended solids
- Explain Sources of health care waste and its disposal.
- Educate individuals/communities on promoting environmental measures to maintain good health

9.	Health Planning, Policy and Management	Flipped Classroom	Dr. Sabah Imran	Need to know
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Learning Outcomes:
By the end of lecture, 4th Year MBBS students should be able to:

- Explain Planning cycle and types of plans.
- Differentiate between goal, target and objectives
- Describe the context and salient features of national health policy
- Appraise the efficiency of a health system/health outlet
- Describe Principals, functions and elements of management in health care settings
- Explain management techniques

Field Visit

- Visit to Water Filtration Plant
- Visit to Sewage Treatment plant
- Visit to incinerator

Learning Resources:

Reference Books

3. Text Books

- Park's Textbook of Preventive and Social Medicine
- Public Health and Community Medicine (Shah, Ilyas, Ansari, Irfan's)

4. Reference Books/ Library resources

- Population Reference Bureau's Population Handbook
- Handouts/SDL prepared by faculty

5. Online resources

- Diabetes prevention
- Protein Energy Malnutrition
- Growth monitoring
- Communication for health education

Teaching faculty:

Name	Email address
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Prof. Dr. S. Sabah Imran	sabahimran@wahmedicalcollege.edu.pk
Dr. Robina Mushtaq Rizvi	robinamushtaq@wahmedicalcollege.edu.pk
Dr. Khola Waheed Khan	kholawaheed@wahmedicalcollege.edu.pk
Dr. Sadia Nadeem	sadianadeem@wahmedicalcollege.edu.pk
Dr. Saleh Ahmed	s.ahmed.2345@gmail.com

Assessment formats

Assessment Strategies (Formative)	Assessment Strategies (Summative)
MCQs, Home assignments, SAQs/SEQs	MCQs, SAQs/SEQs, OSPE, Viva

Special Pathology

Learning Outcomes:

At the end of third module, the student of 4th year MBBS should be able to:

- Describe the etiology, clinical features, pathogenesis, laboratory findings, morphological features and clinico-pathological consequences of major diseases related to:
 - Endocrine System,
 - Central & Peripheral Nervous System,
 - White blood cells,
 - Thymus and Lymph nodes,
 - Red blood cells and bleeding disorders

S. No	Topic	Educational Strategies	Name of Instructor/	Importance Must know Should Know Could Know
1.	Endocrinology: Thyroid gland disorders	LGIS/ Practical	Asstt Prof. Dr. Lubna Ehtizaz	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Describe the structure and function of the thyroid gland. ● Enlist the congenital anomalies of thyroid gland. ● List the hormones synthesized by the thyroid gland and state their functions. ● Describe the synthesis, regulation, and metabolism of thyroid hormones. ● Describe the conditions associated with the effects of increased and decreased concentrations of thyroid hormone and their diagnosis based on laboratory investigations. ● Compare the different forms of thyroiditis based on incidence, pathogenesis, and morphology. ● Enumerate the tumors of thyroid gland and differentiate based on their incidence, pathogenesis, and morphological features. 				
2.	Pituitary gland/Short Stature/Parathyroid gland disorders	LGIS/ Practical	Asstt Prof. Dr. Lubna Ehtizaz	Must know

Learning Outcomes:

- Describe the structure and function of pituitary gland.
- Interpret the effects caused by the increased and decreased secretion of the individual hormones of the anterior as well as posterior pituitary gland.
- Define short stature.
- Define a normal childhood growth pattern.
- Enlist laboratory tests for screening of children with short stature.
- Describe some specific causes of short stature including constitutional delay of growth and puberty, familial short stature, endocrine diseases, chromosomal abnormalities or syndromes, skeletal dysplasia and chronic diseases or malnutrition.
- Plan a workup of short stature keeping in view its differential diagnosis.
- Explain the difference between Diabetes Insipidus and SIADH.
- Describe the incidence, risk factors, pathogenesis, and morphology of Hypothalamic and pituitary tumors.
- Appreciate the structure and functions of Parathyroid gland.
- Explain the etiology, types, and pathogenesis of hypo and hyper parathyroidism.
- Discuss the gross and morphological features of hypo and hyper parathyroidism.
- Describe the pathogenesis of Hypercalcemia of malignancy.
- Elaborate the clinical features and laboratory investigations in parathyroid disorders.
- Describe the etiology and lab diagnosis of Pseudohypoparathyroidism

3.	Diabetes Mellitus (I)	LGIS/ Practical	Asstt Prof. Dr. Lubna Ehtizaz	Must know
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Learning Outcomes:

- Define and classify diabetes mellitus based on etiology.
- Describe the pathogenesis, clinical features, diagnostic criteria, management and complications of Type 1 and Type 2 diabetes mellitus.

4.	Diabetes Mellitus (II)	LGIS/ Practicals	Asstt Prof. Dr. Lubna Ehtizaz	Must know
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Learning Outcomes:

- Plan a diagnostic approach and further work up for each.
- Interpret different investigations to confirm the diagnosis of each.

5.	Diabetes Mellitus (III)	LGIS/ Practicals	Asstt Prof. Dr. Lubna Ehtizaz	Must know
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Learning Outcomes:

- Define gestational diabetes mellitus, its etiology, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.

<ul style="list-style-type: none"> Plan and interpret laboratory investigations to confirm the diagnosis and its management. 				
6.	Lymphoid System Disorders	LGIS/ Practical	Asstt Prof. Dr. Syed. Sarwar Ali	Must know
Learning Outcomes: <ul style="list-style-type: none"> Enlist the diseases of thymus and spleen. Explain the etiology, classification, and morphology of thymic tumors. Describe the classification of lymphoid neoplasms. Differentiate between Hodgkin's and Non- Hodgkin's lymphoma. Discuss Plasma cell neoplasms and related disorders. Explain Non-neoplastic white cells disorders (infections, inflammation). 				
7.	Leukemias	LGIS/ Practical	Asstt Prof. Dr. Syed. Sarwar Ali /Prof. Dr. Jamila	Must know
Learning Outcomes: <ul style="list-style-type: none"> Enlist Non neoplastic white cells disorders (infections, inflammation). Classify leukemias. (FAB classification) Classify acute leukemias. Discuss the clinical presentation of patient with leukemia, peripheral and bone marrow findings, and lab diagnosis. Name special stains used for diagnosis of leukemias. Name chronic Leukemias (Myeloid & Lymphoid). Discuss the peripheral and bone marrow findings in chronic leukemias. Define Myelodysplastic syndrome. Enumerate etiological factors of MDS. Discuss the diagnosis of MDS. 				
8.	Adrenal Gland (I) Adrenal Gland (II) / Adrenal Gland (III)	LGIS/ Practicals	Asstt Prof. Dr. Lubna Ehtizaz	Must know
Learning Outcomes: <ul style="list-style-type: none"> Identify the clinical presentation, causes and functional pattern of lesions of adrenal cortex / medulla. Describe the clinico-pathological consequences of each lesion. Plan a diagnostic approach and further work up for each lesion. Interpret different investigations to confirm the diagnosis of each lesion. 				
9.	Infertility 1/ Infertility 2	LGIS/ Practicals	Asstt Prof. Dr. Lubna Ehtizaz	Must know

Learning Outcomes:

- Common terms associated with infertility.
- Different causes of infertility both in males and females.
- Discuss the specific methods of evaluation to diagnose infertility in both male and female patients.
- Discuss therapeutic management of infertility.
- Comprehend the available infertility treatment options.
- Identify common assisted reproductive techniques

10.	Hematology: Anemias/ Platelet Disorders	LGIS/ Practicals	Prof. Dr. Jamila/ Asstt Prof. Maj. Dr. Nabeela Khan	Must know
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Learning Outcomes:

- Define anemia and give the classification of anemia based on the size of the red blood cells and the etiology.
- Outline the nutritional and metabolic aspects of iron metabolism, including dietary iron, iron absorption, body iron distribution and transport.
- Enlist common causes of iron deficiency anemia.
- Describe the signs and symptoms of iron deficiency anemia and diseases associated with it.
- Differentiate by laboratory tests, anemia due to iron deficiency from other causes of microcytic anemia.
- Outline the concept of anemia of chronic disease/inflammation and describe the pathogenesis.
- Describe the common causes of macrocytic anemia.
- Describe the concept of megaloblastic anemia and the effect of vitamin B12 and folate deficiency on inhibition of DNA synthesis. Compare megaloblastic to non-megaloblastic anemia.
- Describe the signs and symptoms and laboratory diagnosis of macrocytic anemia.
- Enumerate aplastic anemia, its causes, peripheral and bone marrow findings, and complications.
- Outline a simplified classification for the hemolytic anemias.
- Describe additional clinical signs in a patient with hemolytic anemia and explain how these may differ from those caused by anemia due to other causes.
- Describe the mechanism involved in the development of anemia in congenital spherocytosis and in G6PD.
- Outline the clinical consequences of Hemolysis.
- Describe the pathological mechanism that leads to autoimmune hemolytic anemia and discuss warm and cold hemolytic anemia.

- Outline the laboratory diagnosis of a hemolytic process and discuss the concept of extravascular and intravascular hemolysis.
- Describe the investigations of a patient with hemolytic anemia.
- Enlist the complications of hemolytic anemias.
- Classify autoimmune hemolytic anemia (AIHA).
- Enlist the secondary causes of AIHA.
- Enlist the lab findings seen in AIHA.
- Name the typical autoantibodies in warm autoimmune hemolytic anemia.
- Briefly explain G6PD.
- Enlist the salient features of hereditary Spherocytosis with respect to cause, sign and symptoms and laboratory diagnosis.
- Explain the pathophysiology, Hemoglobin defect and genetics in Sickle Cell Disease.
- Discuss the clinical features and complications of Sickle Cell Disease.
- Name the tests for prenatal screening of Sickle Cell Disease.
- Enlist the lab tests for the diagnosis of Sickle Cell Anemia.
- Classify thalassemia.
- Explain pathophysiology of β thalassemia.
- Enlist the sign and symptoms, complications, and lab diagnosis of β Thalassemia.
- Discuss the importance of cross matching.
- Describe the Rh incompatibility.

11.	Red blood cells and bleeding disorders	LGIS/ Practical	Prof. Dr. Jamila/ Asst Prof. Maj Dr. Nabeela	Must know
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Learning Outcomes:

- Enumerate Red blood cells and bleeding disorders.
- Enlist different kinds of bone marrow transplant indications and complications.
- Describe different phases of hemostasis.
- Enlist causes of vascular abnormalities, platelet disorders and clotting factor abnormalities
- Name the coagulation disorders.
- Discuss idiopathic thrombocytopenic purpura.
- Discuss the causes & pathophysiology of DIC.
- Briefly discuss the Thrombotic thrombocytopenic Purpura and HUS.
- Name Myeloproliferative disorders, causes and lab diagnosis of Myeloproliferative Disease.

12.	Central & Peripheral Nervous System	LGIS/ Practical	Prof Brig (R)Tariq	Must know
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Learning Outcomes:

- Discuss the diseases of neuromuscular junction / diseases of skeletal muscle / disorders of peripheral nerves.
- Tell the etiology, pathogenesis, and diagnosis of cerebrovascular diseases / malfunctions & developmental disorders / infections / traumatic injury / prion diseases / demyelinating diseases.
- Discuss Neurodegenerative disorders / CNS tumors.

Practicals

Learning outcomes:

At the end of third module, the student of 4th year MBBS should be able to

- Establish diagnosis of given slides of Special Pathology lesions included in the module, correlating histopathological findings.

S. No	Topic	Educational Strategies	Name of Instructor	Important Must know/ Should know/ Could know
1	Endocrine System	Demonstration/ Practical	All Lecturers	Must know

Learning Outcomes:

After the completion of demonstration /performance in practical class, students will be able to elucidate the microscopic features of

- Multinodular goiter
- Follicular Adenoma
- Papillary Carcinoma thyroid and convey the findings to the patient and attendants in simple words.

2.	Bones and joint diseases	Demonstration / Practical	All Lecturers	Must know
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Learning Outcomes:

After the completion of demonstration /performance in practical class, students should be able to elucidate the histological features of:

- Giant cell tumor, Osteosarcoma

3.	White Blood cells	Demonstration / Practical	All Lecturers	Must know
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Learning Outcomes:

After the completion of demonstration in practical class, students should be able to elucidate the following lesions and convey the findings to the patient/attendants in simple words.

- WBCs disorders (Leukemias)

- Multiple Myeloma.
- Hodgkin's lymphoma and non-Hodgkin's lymphoma, Tuberculous Lymphadenitis

4	Red blood cells & bleeding disorders	Demonstration / Practical	All Lecturers	Must know
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Learning Outcomes:

After the completion of demonstration in practical class, students should be able to:

- Explain principles of Leishman Stain
- Stain peripheral smear and identify reticulocytes.
- Perform blood grouping.
- Identify different blood groups.

5	Instruments: Spectrophotometer	Demonstration / Practical	All Lecturers	Must know
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Learning Outcomes:

After the completion of demonstration /performance in practical class, students should be able to:

- Identify the instrument.
- Identify the parts of the instrument and explain their functions.
- Explain the principle of operating the instrument.
- Explain Beer Lambert Law.
- Define absorbance.

Learning Resources:

Textbooks

- Robbins Atlas of Pathology 3rd edition
- Robbins Basic Pathology 10th edition

Reference Books/ Library resources:

- Hoff brand Essential Haematology 7th edition
- Zilva Clinical Chemistry in Diagnosis and Treatment 5th edition

Online resources:

www.pathologyoutlines.com

Teaching faculty:

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Dr. Hajira Aziz	Jiaaziz12@gmail.com

Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
Practical Logbook, SGD, SEQs, MCQS, OSPES and VIVA	SEQs, MCQS, OSPES and VIVA

Ophthalmology

Block Learning Outcomes:

Subject Learning Outcomes

The department of ophthalmology aims to equip medical students with essential knowledge, skills and attitude which will enable them to:

1. Provide primary eye care for various ophthalmic diseases including emergencies and if required, refer the patients to appropriate centers (PLO 1,6)
2. Perform various ophthalmic examination methods essential for all Practitioners (PLO 1,2,6)
3. Communicate effectively with the patient, family and community regarding eye diseases and their related issues (PLO 1,2,6)
4. Perform essential minor surgical procedures (PLO1,2)
5. Apply principles of medical ethics pertaining to Ophthalmology (PLO 3)
6. Provide awareness regarding prevention of common public ophthalmic health problems (PLO 5)

Block Learning Outcomes:

At the end of block-3 the students of 4th year MBBS should be able to:

1. Diagnose proptosis and its common causes like thyroid eye disease, orbital inflammatory disease and orbital tumors. Advice common investigations required for its evaluation. Summarize various medical and surgical management options. (SLOS 1,2,3,5,6)
2. Differentiate between various types of Glaucoma and suggest their management plan. (SLOS: 1,2,3,4,5,6)
3. Classify different ocular injuries and suggest management of different types of ocular injuries. (SLOS: 1,2,3,4, 5, 6)
4. Clinically diagnose strabismus and describe management of its different types. (SLOS: 2,3,5,6)
5. Describe different neuro-ophthalmic conditions and suggest their Management plan. (SLOS: 1,2,3,5,6)

S. #	Topic	Educational Strategies	Name of instructor	Importance Must Know Should Know Could Know
1.	Orbit I	LGIS	Maj. Haroon Sarfraz	Must Know
Learning outcomes:				

<ul style="list-style-type: none"> ● Recall and explain the anatomy of orbit. ● Correlate the clinical features of orbital diseases with its pathophysiology. ● Recognize proptosis and its common causes. ● Describe various orbital diseases like orbital infections and orbital tumors. 				
2.	Orbit II	LGIS	Maj. Haroon Sarfraz	Must Know
Learning outcomes: <ul style="list-style-type: none"> ● Describe different clinical pictures in Thyroid Ophthalmopathy. ● Advise the investigations required for orbital diseases. ● Summarize various medical and surgical management options. 				
3.	Glaucoma I	LGIS	Prof. M. Akmal Khan	Should know
Learning Outcomes: <ul style="list-style-type: none"> ● Recall related anatomy and physiology ● Explain pathogenesis of different types of glaucoma. ● Describe different open angle glaucomas and their treatment. 				
4.	Glaucoma II	LGIS	Prof. M. Akmal Khan	Should know
Learning Outcomes: <ul style="list-style-type: none"> ● Explain pathophysiology of angle closure glaucoma. ● Outline management plan for acute congestive glaucoma. 				
5.	Glaucoma III	LGIS	Prof. M. Akmal Khan	Should know
Learning Outcomes: <ul style="list-style-type: none"> ● Explain different features of congenital glaucoma. ● Appraise differential diagnosis of congenital glaucoma. 				
6.	Ocular Trauma: Blunt	LGIS	Dr. Marrium Shafi	Should know
Learning Outcomes: <ul style="list-style-type: none"> ● Classify different types of ocular injuries. ● Describe different presentations in blunt ocular trauma. ● Suggest management of cases of blunt ocular trauma. 				
7.	Ocular Trauma: Penetrating and IOFB	LGIS	Dr. Marrium Shafi	May know
Learning Outcomes:				

	<ul style="list-style-type: none"> ● Describe different types of penetrating ocular injuries. ● Suggest the management of different penetrating ocular injuries. ● Recognize features of different intraocular foreign bodies. 			
8.	Chemical injuries and Orbital fractures	LGIS	Dr. Marrium Shafi	Should know
Learning Outcomes:				
<ul style="list-style-type: none"> ● Describe the pathogenesis of chemical injuries. ● Recognize different grades of chemical injuries and suggest their management plan. ● Describe different types of orbital fractures and their management. 				
9.	Strabismus	LGIS	Prof. M. Akmal Khan	Should know
Learning Outcomes:				
<ul style="list-style-type: none"> ● Recall the anatomy of extraocular muscles. ● Explain different physiological phenomena in binocular muscular balance. ● Suggest management of different types of squint. ● Classify amblyopia and suggest its management plan. 				
10.	Visual loss	LGIS	Dr. Yaseen Lodhi	Should know
Learning Outcomes:				
<ul style="list-style-type: none"> ● Identify various causes of visual loss ● Diagnose most probable causes of visual loss on the basis of clinical presentation. 				
11.	Neuro-Ophthalmology: Introduction , Visual Pathway and Cranial Nerve pathways	Flipped Classroom	Dr. Asma Aftab	Should know
Learning Outcomes:				
<ul style="list-style-type: none"> ● Recall the visual pathway. ● Explain pathophysiology of different visual field defects. ● Recall pathways of cranial nerves supplying extraocular muscles. ● Recognize different clinical conditions of nerve palsies related to ophthalmology. 				
12.	Neuro-Ophthalmology: Pupil and Miscellaneous disorders	Flipped Classroom	Dr. Asma Aftab	Should know
Learning Outcomes:				
<ul style="list-style-type: none"> ● Recall the pupillary light reflex pathway. ● Explain different pupillary disorders and their pathogenesis. ● Classify optic neuritis and enumerate steps of its management. ● Explain papilloedema and identify its causes. 				

Learning Resources:

1. Text books:

- Clinical Ophthalmology, Jatoi S M
- Basic Ophthalmology, Jogi R

2. Reference Books:

- General Ophthalmology, Vaughan and Asbury
- Kanski's Clinical Ophthalmology A Systematic approach, Bowling

3. Online resources:

- <https://www.medscape.com/ophthalmology>

4. Library resources:

- Basic Ophthalmology, Jogi R
- General Ophthalmology, Vaughan and Asbury
- Clinical Ophthalmology, Jatoi S M
- Parson's Diseases of the eye, Sihota R
- Kanski's Clinical Ophthalmology A Systematic approach, Bowling

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Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
Quiz, Batch discussion, Google forms	MCQ's, SAQ's, OSCE & Viva

ENT

S. #	Topic	Educational Strategies	Name of instructor	Importance Must Know Should Know Could Know
1.	Common Disorders of Oral Cavity	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Differentiate between the common ENT disorders of the oral cavity. ● Advise management plan accordingly. 				
2.	Differential Diagnosis of white Patch Oral Cavity	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Summarize the normal anatomy and physiology of the tonsils and surrounding structures in the oropharynx. ● Differentiate between a white patch oral cavity. 				
3.	Tumors of Oral Cavity	LGIS	SR . Dr Anum Ajmal	
Learning Outcomes: <ul style="list-style-type: none"> ● Explain the basics of malignant disorders of the oral cavity. ● Differentiate various types of oral/ pharyngeal lesions on the basis of history and clinical examination. ● Suggest different treatment modalities. 				
4.	Acute & Chronic Tonsillitis	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Elaborate the etiology, pathophysiology, and risk factors associated with tonsillitis. ● Suggest appropriate treatment options for acute and chronic tonsillitis in the paper-based scenarios 				
5.	Acute & Chronic Pharyngitis	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Differentiate between different types of Pharyngitis. ● Suggest investigation, needed for diagnosis. 				

<ul style="list-style-type: none"> ● Outline management plan. 				
6.	Head & Neck Space Infections	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Recall the applied anatomy of fascial planes of the neck ● Identify the abscesses around the pharynx on the clinical evaluation basis including Retropharyngeal, Paraharyngeal peritonsillar, submandibular (Ludwig`s angina). ● Suggest investigation and management. 				
7.	Tumors of Oropharynx	LGIS	SR . Dr Anum Ajmal	
Learning Outcomes: <ul style="list-style-type: none"> ● Listl different sites for tumor of oropharynx ● Diagnose tumor of oropharynx on clinical basis. ● Advise management plan. 				
8.	Diseases of Larynx & Trachea in Children	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Summarize the applied anatomy and physiology of the larynx, trachea in children. ● Differentiate between different types of laryngeal infection. ● Advise their management. 				
9.	Laryngo Tracheal Trauma	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Recall the surgical anatomy of the larynx. ● Explain different features of laryngeal trauma and its management. 				
10.	Tracheostomy & Airway Management	LGIS	Prof. Dr M. Asad Chughati	
Learning Outcomes: <ul style="list-style-type: none"> ● Explain indications, operative techniques, post-operative care and complications of tracheostomy. ● List the indications for percutaneous Tracheostomy and laryngeal mask applications 				
11.	Benign & malignant Tumor of Larynx	LGIS	SR . Dr Anum Ajmal	
Learning Outcomes:				

- Recall the applied anatomy of the larynx.
- Discuss diagnosis of laryngeal cancer on clinical basis
- Outline management plan in a case of carcinoma larynx.

12.	Diseases of Esophagus	LGIS	Prof. Dr M. Asad Chughati	
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Learning Outcomes:

- Differentiate between various types of dysphagia based on its etiology and pathophysiology.
- Plan investigation and management

13.	Neck Masses	LGIS	Prof. Dr M. Asad Chughati	
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Learning Outcomes:

- Identify different types of neck masses on a clinical basis.
- Order relevant investigations and management plans.
- Explain distribution and drainage area of cervical lymph nodes.

Learning Resources:

Text books:

- Ballenger's Otorhinolaryngology, Head & Neck Surgery 17th edition.
- Scott Brown's Otorhinolaryngology 8th edition.

Reference Books:

- Diseases of Ear, Nose, and Throat Head and Neck Surgery by PL Dhingra. Shruti Dhingra 8th Edition.
- Logan Turner's Diseases of the Nose Throat and Ear Head and Neck Surgery by S. Musheer Hussain 11th Edition.
- Essential of ENT Examination by JT Shah

Assessment formats:

Assessment tools (Formative)	Assessment Strategies (Summative)
MCQs, Home assignments, SAQs	MCQs, SEQs, OSPE, Viva

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Pediatrics

Learning Outcomes:

- Identify signs & symptoms, laboratory work-up and management outline of common endocrine diseases in children
- Identify signs & symptoms, laboratory work-up and management outline of common blood disorders in children
- Identify presentation, diagnostic work-up and management outline of common hematological malignancies in children
- Discuss common causes of fits with fever in children, necessary laboratory work-up and management outline.

S.#	Topic	Learning Objective	Educational Strategies	Instructor	Importance (Must Know Should Know Could Know)
ENDOCRINOLOGY					
1	Stature problems in children		LGIS	Dr Sohail Ashraf	Must Know
Learning Outcomes: <ul style="list-style-type: none"> ● Define stature, normal growth curves ● Define short and tall stature ● Common presenting features with targeted history ● List the Causes of short & tall stature in children ● outline the Investigation plan for short & tall stature ● Outline management plan of short / tall stature ● Discuss prognosis. 					
2	Thyroid problems in children		LGIS	Dr Saba Mushtaq	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Define Hypothyroidism & Hyperthyroidism ● Identify the clinical presentation of thyroid disorders in children ● Outline Investigation plan for Hypothyroidism & Hyperthyroidism ● Outline management plan ● Discuss prognosis. 					
3	Diabetes Mellitus in children		LGIS	Dr Sohail Ashraf	Must know

Learning Outcomes:

- Discuss normal blood glucose physiology
- Define Diabetes mellitus in children
- Discuss types of Diabetes mellitus in children and their presenting features
- Explain Pathophysiology of Diabetes mellitus in children
- Outline Diagnostic work-up for Diabetes mellitus in children
- Discuss Treatment / management plan
- Define DKA, its presentation, diagnosis, management & complications
- Discuss prognosis
- Parental counseling regarding diet and life style modification of the child

4	Adrenal disorders in children	LGIS	Dr Kiran Shah	Should know
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Learning Outcomes:

- Enlist common adrenal problems in children
- Identify the clinical presentation of common adrenal disorders in children
- Outline Investigation plan for adrenal disorders
- Outline management plan
- Discuss prognosis.

BLOOD

1	Leukemia in children	LGIS	Dr Sundus khan	Must know
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Learning Outcomes:

- Enlist common hematological malignancies in children
- Define Leukemia
- Classification of Leukemia, with definition of ALL, CLL, AML, CML
- Common presenting features with targeted history & clinical examination in suspected hematological malignancy
- Discuss investigation plan & work-up
- Outline management plan of Leukemias
- Discuss prognosis and complications.

2	Lymphoma in children	LGIS	Dr Sohail Ashraf	Must know
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Learning Outcomes:

- Enlist commonly occurring Lymphoid malignancies in children
- Define Lymphoma
- Classification of Lymphoma, with definition of Hodgkin & Non-Hodgkin's Lymphoma.

- Common presenting features with targeted history & clinical examination in suspected Lymphoid malignancy
- Discuss investigation plan & work-up
- Outline management plan of Lymphomas
- Discuss prognosis and complications.

3	Anemias	LGIS	Dr Saba Mushtaq	Must know
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Learning Outcomes:

- Define Anemia
- Enlist common causes of anemia in children
- Classification of Anemia
- Common signs & symptoms related to different anemias & clinical examination
- Discuss investigation plan & work-up
- Outline management plan of Anemias
- Discuss prognosis and complications.

4	Thalassemia in children	LGIS	Dr Quratul Ain	Must know
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Learning Outcomes:

- Define Hemolytic anemia
- Discuss common causes of hemolytic anemia in children
- Define Thalassemia, its classification & pathophysiology
- Common presenting features with targeted history & clinical examination in suspected case of hemolytic anemia
- Discuss investigation plan & work-up
- Outline management plan of thalassemia with its different types
- Discuss prognosis and complications.
- Parental & family counselling with future therapeutic options.

5	Platelet disorders in children	LGIS	Dr Quratul Ain	should know
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Learning Outcomes:

- Enlist common platelet disorders in children
- Define Thrombocytopenia & Thrombocytosis
- Identify common presenting features with targeted history & clinical examination in suspected platelet disorder
- Discuss investigation plan & work-up
- Outline management plan of common platelet disorders
- Discuss prognosis and complications.

CNS

1	Fever with fits in Children	LGIS	Dr Tahir Mahmood	Must Know
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Learning Outcomes:

- Enlist common conditions with fever & Fits in children
- Common presenting features with targeted history & clinical examination
- Define Febrile fits, its types & presentation
- Discuss investigation plan & work-up
- Outline management plan
- Discuss prognosis and complications

Learning Resources:

1. Reference Books

- Basis of Pediatrics by [Parvez Akbar Khan](#)

2. Online resources

- drtahirnoor@hotmail.com

3. Library resources

- Textbook of Pediatrics by PPA
- Current Pediatric Diagnosis & Treatment
- Harriet & Lane Handbook of Pediatrics
- Pediatrics illustrated text book by Tom Lissauer

Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
MCQ, SEQ, Mini CEX, CBL	MCQ, SEQ, Long case, short case

Gynecology

Learning Outcomes:

At the end of this block 4th year students should be able to

1. Identify the clinical presentation, diagnose and plan management of women with medical complications of pregnancy (diabetes, anemia, thyroid disorders), Rhesus isoimmunization and recognizes limitations and escalate care to senior colleagues and other specialties when appropriate
2. Understand the risk factors and manage patients who had obstetrical emergencies Antepartum hemorrhage, maternal collapse, Amniotic fluid embolism, Pulmonary embolism and postpartum hemorrhage (PPH)
3. Identify the causes and formulate a management plan of patients having common gynecological problems subfertility and miscarriage

S.#	Topic	Educational Strategies	Instructor	Importance Must Know Should Know Could Know
1	Antepartum haemorrhage	LGIS	Dr. Shabana Kalsoom	must know
Learning Outcomes: <ul style="list-style-type: none"> ● Define APH · ● Enlist causes of APH · ● Describe clinical presentation of placenta Previa & placental abruption ● Discuss diagnosis & management & complications of APH ● Differentiate between placenta Previa & abruption 				
2	Thyroid disorders in pregnancy	LGIS	Dr. Noreen Majeed	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Review the clinical presentation of Hypothyroidism and hyperthyroidism in pregnancy ● Discuss the effects of Hypothyroidism and hyperthyroidism on fetomaternal outcome ● Interpret the investigations done for thyroid disease and knows the pregnancy specific ranges ● Outline a management plan of pregnancy in women with thyroid disorders & thyroid storm ● Demonstrate the importance of multidisciplinary care in management of medical disorders in pregnancy. 				

3	Diabetes in pregnancy	LGIS	Prof. Kinza Alam	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Classify types of diabetes in pregnancy. ● State and interpret tests done for diagnosis of gestational diabetes. ● Enlist maternal and fetal complications of diabetes. ● Formulate a management plan for diabetes in pregnancy. 				
4	Subfertility	LGIS	Dr. Iram Mushtaq	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Define subfertility ● Describe causes of subfertility ● Enlist and interpret investigations of subfertile couple ● Formulate a management plan for subfertile couple 				
5	Sudden maternal collapse (Amniotic fluid embolism and pulmonary embolism)	LGIS	Prof. Humaira Nasir	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Explain the assessment of pregnant women with collapse ● Describe the CPR of pregnant women ● Analyze the difference of CPR of pregnant and non pregnant women ● Describe the incidence and risk factor for amniotic fluid embolism and pulmonary embolism ● Explain the clinical presentation of amniotic fluid embolism and pulmonary embolism ● Outline the management plan of pregnant women with amniotic fluid embolism and pulmonary embolism 				
6	Anemia in pregnancy	LGIS	Dr. Ayesha Irfan	Must know
Learning Outcomes: <ul style="list-style-type: none"> ● Define anemia in pregnancy and its incidence ● Describe the common causes of anaemia in pregnancy ● Describe symptoms and signs of anemia ● Discuss different types of anemia and how to investigate ● Formulate a management plan for anaemic women in pregnancy ● Demonstrate the importance of multidisciplinary care in management of medical disorders in pregnancy. 				
7	Rhesus isoimmunization	LGIS	Dr. Shabana Kalsoom	Must know

Learning Outcomes:

- Summarize the etiology of rhesus disease .
- Enlist potential sensitizing events for rhesus disease .
- Describe management of sensitizing events in Rh – ve women .
- Outline a management plan of pregnancy in a non- sensitized woman .
- Suggest a management plan of pregnancy in a sensitized woman .
- Interpret ultrasound features of hydrops fetalis

8	Postpartum Haemorrhage (PPH)	LGIS	Prof. Mehreen Mehdi	Must know
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Learning Outcomes:

- Define postpartum hemorrhage (PPH) and its type
- Identify risk factors for PPH
- Enlist causes of PPH
- Discuss clinical presentation of various causes of PPH
- Formulate a management plan (general & specific) for PPH

9	Miscarriage (spontaneous & recurrent)	LGIS	Dr. Khair-Un-Nisa	Must know
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Learning Outcomes:

- Define miscarriage.
- Discuss common causes of miscarriages.
- Enlist different types of miscarriages.
- Differentiate clinically different types of miscarriages.
- Interpret ultrasound findings in a case of miscarriage.
- Outline a management plan according to types of miscarriage.
- Counsel a patient of miscarriage
- Define recurrent miscarriage.
- Discuss causes of recurrent miscarriage.
- Enlist investigations for a case of recurrent miscarriage.
- Manage a case of recurrent miscarriage.

Learning Resources:**1. Reference Books**

- Obstetrics by ten teachers 20th edition
- Gynaecology by ten teachers 20th edition

3. Library resources

- Hacker and Moore's essential obstetrics 6th edition
- High Risk pregnancy 5th edition
- Shaw's text book of gynaecology 17th edition

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Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
SEQ, MCQ, MINICEX	SEQ, MCQ, OSPE

Medicine

Block Learning Outcomes:

By the end of this block students should know:

- Identify Clinical features, Correlate pathophysiology, Diagnose, investigate and plan management of common Acute and chronic infections, Pituitary / CNS Disorders Hematological disorders. Dermatology and Psychiatry disorders (SLO1,3, 5,6).
- Recognize complications & advise preventive measures and discuss prognosis of these disorders (SLO1, 2,4, 5).
- Diagnose, investigate and plan management of critically ill patients in A&E department (SLO 1, 3, 4, 5).

S.#	Topic	Educational Strategies	Instructor	Importance (Must Know Should Know Could Know)
1	Pituitary Disorders	LGIS	Dr. Rifat Yasmin	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Define criteria for diagnosing acromegaly & growth hormone deficiency. ● Recall pathophysiology of central precocious puberty, acromegaly and growth hormone deficiency. ● Discuss functions of anterior and posterior pituitary hormones and hypothalamic hormones. ● Suggest investigations for diagnosis by oral glucose tolerance test and GH levels. Propose surgical, medical and radiotherapy management. 				
2	Extra Pulmonary Tuberculosis	LGIS	Dr. Asim Ali shah	MUST KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Define Extra pulmonary Tuberculosis ● Describe etiology, pathogenesis of Extra Pulmonary Tuberculosis. ● Clinical manifestations and complications ● Diagnose extra pulmonary Tuberculosis ● Give Treatment plan of Extra Pulmonary Tuberculosis 				
3	Malaria	LGIS	Dr. Asim Ali shah	MUST KNOW
Learning Outcomes:				

- Discuss the etiology and Enumerate the Symptoms and signs of the disease
- Elaborate Modes of transmission and the causative organism
- Identify Susceptible individuals
- Diagnose various stages of disease and complications based on clinical and characteristic features.
- Suggest Diagnostic modalities and treatment options.
- Propose prevention option.

4	Typhoid Fever	LGIS	Dr. Rifat Yasmin	MUST KNOW
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Learning Outcomes:

- Discuss the etiology and Enumerate the Symptoms and signs of the disease
- Elaborate Modes of transmission and the causative organism
- Identify Susceptible individuals
- Diagnose various stages of disease and complications based on clinical and characteristic features.
- Suggest Diagnostic modalities and treatment options.
- Propose prevention options including vaccination.

5	HIV	LGIS	Prof. Sohail Iqbal Bhutta	Should Know
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Learning Outcomes:

- Discuss etiology, Symptoms and signs of the disease
- Diagnose the patient on the basis of presenting complaints and clinical examination
- Interpret relevant Investigations and laboratory findings.
- Recognize complications and their management options

6	Introduction to Diabetes - Clinical Manifestation and Diagnosis	LGIS	Prof. Muzamil Jamil	MUST KNOW
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Learning Outcomes:

- Discuss etiology, Symptoms and signs of the disease
- Diagnose the patient on the basis of presenting complaints and clinical examination
- Interpret relevant Investigations and laboratory findings.
- Recognize complications and their management options

7	Hodgkin's Lymphoma	LGIS	Prof. Sohail Iqbal Bhutta	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
8	Epilepsy	LGIS	Prof. Sohail Iqbal Bhutta	MUST KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
9	Non Hodgkin's Lymphoma	LGIS	Prof. Sohail Iqbal Bhutta	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
10	Disorder of Plasma cells - Multiple Myeloma	LGIS	Prof. Muzamil Jamil	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
11	Chronic Leukemia	LGIS	Prof. Muzamil Jamil	COULD KNOW
Learning Outcomes:				

- Discuss etiology, Symptoms and signs of the disease
- Diagnose the patient on the basis of presenting complaints and clinical examination
- Interpret relevant Investigations and laboratory findings.
- Recognize complications and their management options

12	Blood & blood product transfusion and related problems	LGIS	Dr. Rifat Yasmeen	MUST KNOW
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Learning Outcomes:

- Elaborate the generic prerequisites and modes of transfusion.
- Correlate the pathophysiology of blood reactions to the Requirement & safety protocol Follow through
- Outline step by step management of different types of transfusion reactions

Endocrinology

13	Approach to a patient with Anemia	LGIS	Dr. Asim Ali Shah	MUST KNOW
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Learning Outcomes:

- Differentiate between various types of anemia based on etiology, underlying pathology, symptoms and signs.
- Evaluate the patient on the basis of signs and symptoms and differential diagnosis
- Interpret appropriately ordered laboratory investigation to reach a final diagnosis
- Devise plan for treatment of disease and complications of the condition if it remains untreated
- Monitor treatment of anemia

14	Iron Deficiency Anemia	LGIS	Dr. Asim Ali Shah	MUST KNOW
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Learning Outcomes:

- Discuss etiology, Symptoms and signs of the disease
- Diagnose the patient on the basis of presenting complaints and clinical examination
- Interpret relevant Investigations and laboratory findings.
- Recognize complications and their management options

15	Common Cranial Nerve Disease	LGIS	Dr. Ayesha Rani	Should Know
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Differentiate among lower motor neuron and upper motor neuron lesion based on signs and symptoms and pathology. ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
16	Hemolytic Anemia		Prof. Sohail Iqbal Bhutta	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
17	Approach to a patient with Bleeding Disorder	LGIS	Dr. Rifat Yasmin	Must Know
Learning Outcomes: <ul style="list-style-type: none"> ● Correlate abnormalities in physiology of coagulation with etiology, Symptoms and signs of ITP/ Bleeding Disorders/ DIC ● Devise plan for investigating, diagnosing and treating Bleeding disorders and their complications. 				
18	Cerebrovascular Disease	LGIS	Dr. Ayesha Rani	Must Know
Learning Outcomes: <ul style="list-style-type: none"> ● Classify stroke ● Correlate pathophysiology of stroke to its causes and risk factors ● Outline early evaluation and management of stroke patients ● Emphasize the importance of early symptom recognition and prompt reaction ● Justify the role of thrombolytic therapy and administration of tPA ● Explain the pathophysiological basis of Transient Ischemic Attack (TIA) ● Evaluate stroke risk after transient ischemic attack (TIA) 				

<ul style="list-style-type: none"> ● Order Investigations for diagnosis of stroke ● List the complications of stroke ● Identify various prevention strategies pertaining to stroke ● Outline management of ischemic and hemorrhagic stroke 				
19	Pyogenic Meningitis	LGIS	Dr. Asim Ali Shah	MUST KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Discuss etiology, Symptoms and signs of the disease ● Diagnose the patient on the basis of presenting complaints and clinical examination ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
Psychiatry				
20	Organic Psychiatric I	LGIS	Dr. Faheem Qasim	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Give overview regarding Phenomenology and Psychiatry disorders ● Classify Psychiatric disorders ● Elaborate epidemiological and etiological basis of psychiatric disorders ● Outline diagnostic plan for Psychiatry disorders . 				
21	Organic Psychiatric II	LGIS	Dr. Fatima Amir	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Give overview regarding Phenomenology and Psychiatry disorders ● Classify Psychiatric disorders ● Elaborate epidemiological and etiological basis of psychiatric disorders ● Outline diagnostic plan for Psychiatry disorders 				
22	Dissociative Disorders	LGIS	Dr. Faheem Qasim	SHOULD KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Give an overview of dissociative disorders ● Discuss common presentation ● Give management options for these disorders 				

23	Reactions to Stressful Experiences	LGIS	Dr. Fatima Amir	SHOULD KNOW
Learning Outcomes:				
<ul style="list-style-type: none"> Classify Anxiety Disorders Discuss the Management of Anxiety Disorders 				
Dermatology				
24	Fungal Infections	LGIS	Brig(R). Naveed Akhtar Malik	SHOULD KNOW
Learning Outcomes:				
<ul style="list-style-type: none"> Differentiate between different fungal infections of the skin based on their clinical features and Management plan. Take history of a patient Perform clinical examination of a patient with fungal infections of skin 				
25	Acne Vulgaris	LGIS	Brig(R). Naveed Akhtar Malik	SHOULD KNOW
Learning Outcomes:				
<ul style="list-style-type: none"> Clinically assess Acne vulgaris Diagnose acne vulgaris based on clinical features and investigations Suggest treatment options for Acne vulgaris 				
26	Psoriasis and Lichen Planus	LGIS	Brig(R). Naveed Akhtar Malik	SHOULD KNOW
Learning Outcomes:				
<ul style="list-style-type: none"> Explain the etiology and precipitating factors Discuss general and specific treatment of psoriasis and Lichen planus Describe the role of ultraviolet and PUVA therapy and its uses in Psoriasis Propose systemic treatment of psoriasis and Lichen planus 				
Emergency Medicine				
27	Heat Related Illness	LGIS	Dr. Turab F. Abidi	MUST KNOW
Learning Outcomes:				
<ul style="list-style-type: none"> Discuss etiology, Symptoms and signs of the disease Diagnose the patient on the basis of presenting complaints and clinical 				

examination <ul style="list-style-type: none"> ● Interpret relevant Investigations and laboratory findings. ● Recognize complications and their management options 				
28	Envenomation - Snake Bite	LGIS	Dr. Turab F. Abidi	MUST KNOW
Learning Outcomes: <ul style="list-style-type: none"> ● Classify Snake bite, based on animal and time duration and type of wound. ● List the immediate management and long term management ● Discuss the antivenom type and dosing and the criteria of administering antivenom ● Enumerate the various complications 				
29	Approach to a stroke patient.	LGIS	Dr. Turab F. Abidi	SHOULD KNOW
Learning Outcomes Classify stroke <ul style="list-style-type: none"> ● Correlate pathophysiology of stroke to its causes and risk factors ● Outline early evaluation and management of stroke patients ● Emphasize the importance of early symptom recognition and prompt reaction ● Justify the role of thrombolytic therapy and administration of tPA ● Explain the pathophysiological basis of Transient Ischemic Attack (TIA) ● Evaluate stroke risk after transient ischemic attack (TIA) ● Order Investigations for diagnosis of stroke ● List the complications of stroke ● Identify various prevention strategies pertaining to stroke ● Outline management of ischemic and hemorrhagic stroke 				

Learning Resources:

1. Reference books:

- a. Davidson's Principals & Practice of Medicine 23th Edition Elsevier
- b. Current Medical diagnosis & treatment (Latest Edition 2022)

2. Online resources

- a. www.medscape.com

3. Library resources

- a. Harrison's Principles of Internal Medicine 20th Edition (2018). McGraw Hill Education

Teaching faculty

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Dr. Turan F. Abidi	
Dr. Muhammad Fahim Qasim	drmuhammadfahim@yahoo.com

Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
In class discussions SGD	Practical Clinical Exam (Short & Long Cases) MCQs at the end of block

Surgery

Learning Outcomes:

At the end of this block, final year student will be able to:

1. Describe the common surgery related, cardiovascular diseases and their clinical presentation; and outline the basic principles of their management. (SLO 1,2,3,4)
2. Discuss the common gastrointestinal pathologies and Rationalize appropriate management plans. (SLO1,3,4)
3. Diagnose the common and Outline the management upper/Lower limb fractures (SLO 2,3,4,5)
4. Describe principles and types of Anesthesia.
5. Describe principles of trauma management.
6. Describes common neurosurgery related cases & their management

(Details of skill related Outcomes can be found in surgery Logbooks.)

S.#	Topic	Educational Strategies	Instructor	Importance (Must Know Should Know Could Know)
1.	Chest Trauma	LGIS	Asstt. Prof. Brig Dr. Muhammad Ali	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Differentiate between different types of chest injuries based on mechanism of pathophysiology findings, and management. 				
2.	Chest Trauma II	LGIS	Asstt. Prof. Brig Dr. Muhammad Ali	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Differentiate between types of parapneumonic abscess on the basis of etiology. ● Generate differential diagnosis of empyema thoracic ● Explains the role of radiographic, endoscopic and laboratory evaluation in the diagnosis. ● Devise a proper management plan including pharmacotherapy and need for surgical intervention. ● Discuss the complications of disease and of surgical procedures for empyema thoracic. ● Propose postoperative follow up plan for the patient. 				

3.	Abdominal trauma I	LGIS	Assoc. Prof. Dr. Naeem Akhtar	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Discuss the mechanism of injury and clinical presentation of different type of blunt abdominal injuries ● Enlist the common organ injuries in blunt abdominal trauma ● Outline the basic principles of management 				
4.	Abdominal trauma II	LGIS	Assoc. Prof. Dr. Naeem Akhtar	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Discuss the mechanism of injury and clinical presentation of different type of penetrating abdominal injuries ● Enlist the common organ injuries in penetrating abdominal trauma ● Outline the basic principles of management 				
5.	Ruptured diaphragm, Extremity trauma	LGIS	Prof. Dr. Naeem Ashraf	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Describe the physiology response to injury. ● State the principles of surgical treatment in a multi injured patient. Differentiate between primary and secondary surveys. ● Define triage and its importance. ● State the importance of analgesia in the management of the patients. 				
6.	Arterial Disorders		Prof. Dr. Naeem Ashraf	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Identify clinical manifestations and etiology of acute limb ischemia. ● Relate the major risk factors to the etiology and pathophysiology of acute limb ischemia. ● Suggest appropriate investigations to make the diagnosis. ● Discuss the medical and Surgical management of acute limb ischemia. ● Plan appropriate nursing care for the patient of acute limb ischemia. ● Elaborate significance of baseline glycemic control required for surgical procedure. ● Discuss the complications of diabetes mellitus in surgical patient. ● Identify the signs and symptoms of uncontrolled DM in patients. ● Develop pre-op, and post-op management plan for a diabetic patient. 				
7.	Venous Disorders	LGIS	Prof. Brig (R). Dr. Muhammad Parvez	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Elaborate clinical presentation, etiology and pathophysiology of varicose veins. 				

	<ul style="list-style-type: none"> ● Suggest differential diagnosis based on assessment of patients. ● Classify varicose veins. ● Rule out the diagnosis of DVT using appropriate investigations. ● Suggest conservative or surgical management of varicose veins where indicated. 			
8.	Lymphatic Disorder	LGIS	Prof. Brig(R). Dr. Muhamamd Parvez	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Describe the pathogenesis and natural history of disease. ● Select appropriate diagnostic tools to interpret the results. ● Identify the patient's problems using appropriate clinical examination and radiological studies. ● Apply evidence based decision making for the management of the patient. ● Manage patient with lymphatic obstruction 				
9.	Plastic, Reconstructive Smg+ flaps	LGIS	Asstt. Prof. Dr. Munawer Latif	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Describe different types of skin flap & indication 				
10.	Disaster surgery , triage damage control surgery	LGIS	Prof. Brig (R). Dr. Mannan Masud	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Describe principles of triage & damage control surgery 				
11.	Stomach and stomach care	LGIS	Professor Dr. Mannan Masud	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Discuss the causes, the presenting complaints & the warning signs of CA stomach. ● List the investigations needed to diagnose the case. ● Describe the staging and grading of cancer. ● Describe the management plan for the patient with Ca stomach. 				
12.	Oncology, Screening, risk factors, prevention	LGIS	Assoc. Prof. Dr. Muhammad Azhar	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Discuss the principles of prevention & screening 				
13.	Radiotherapy, chemotherapy	LGIS	Asstt. Prof. Dr. Sadia Farhan	
Learning Outcomes:				
<ul style="list-style-type: none"> ● Describe principles of radio / chemotherapy 				

14.	Surgical Skills , sutures, anastomosis, staplers	LGIS	Assoc. Prof. Dr. Muhammad Azhar	
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Learning Outcomes:

- Describe different variety of sutures & their indication in surgery

Anaesthesia

15.	Analgesia, Narcotics & Perioperative pain management	LGIS	Prof. Brig (R). Dr. Imran ul Haq	
16.	Post operative Care , Recovery from anesthesia	LGIS	Prof. Brig (R). Dr. Imran ul Haq	
17.	ICU & Essential monitoring , ventilator care	LGIS	Prof. Brig (R). Dr. Imran ul Haq	
18.	Interpretation of arterial blood gasses/ indication of ventilatory support	LGIS	Prof. Brig (R). Dr. Imran ul Haq	

Learning Outcomes:

- Differentiate between different techniques of anesthesia and airway maintenance.
- Elaborate the methods of providing pain relief.
- Devise a plan for management of chronic pain and pain from malignant disease.
- Relate different types of pain to its pathophysiology .
- Outline various methods for pain relief in benign and malignant disease.
- Discuss the various methods used for pain relief in different diseases

Neurosurgery

19.	CNS Tumors	LGIS	Asstt. Prof. Dr. M. Mehboob Alam	
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Learning Outcomes:

- State relative incidence and location of the major types of primary and secondary brain tumors and space occupying lesions.
- Differentiate brain tumors based on their locations: Cerebellum, brainstem and pituitary etc.
- Describe the surgical indications for the most common benign and malignant tumors and also space occupying lesions of brains.
- List the major differences between the diagnosis and management of brain tumors and abscesses.

20.	Cervical + Lumbar disc prolapsed/ Backache	LGIS	Asstt. Prof. Dr. M. Mehboob Alam	
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Learning Outcomes:

- Relate functional anatomy of mechanisms for pain production.
- Differentiate between different types of low back pain based on signs and symptoms.
- Develop a management plan for a patient with lower back pain.
- Justify physical therapy as management options.

21.	6. Spinal Injuries / Peripheral nerve injuries	LGIS	Asstt. Prof. Dr. M. Mehboob Alam	
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Learning Outcomes:

- Differentiate between compression and laceration in nerve injury on the basis of pathology presentation.
- Identify historical and current concepts of sensibility retraining in nerve injury.
- Identify common nerve palsies, rehabilitation phases, treatment approaches and associated problems.
- Discuss common nerve compression syndromes, anatomical features, provocative tests, differential diagnosis and therapeutic interventions

Radiology

22.	Imaging of Hepatobiliary	LGIS	Assoc. Prof. Dr. Nadia Gull	
23.	Imaging of genitourinary	LGIS	Assoc. Prof. Dr. Nadia Gull	
24.	Imaging of neuroradiology	LGIS	Assoc. Prof. Dr. Nadia Gull	
25.	Imaging of Chest	LGIS	Assoc. Prof. Dr. Nadia Gull	

Learning Outcomes:

- Demonstrate knowledge, clinical and technical skills and decision- making capabilities with respect to diagnostic imaging pertinent to the practice of general surgery
- State the basic principles of radiation protection and law in relating to use ionizing radiation
- Justify use of relevant imaging techniques in various clinical scenarios reference to advantages and disadvantages.
- Differentiate between normal and pathological findings of Chest X Ray.
- Differentiate between normal and different pathological conditions on x-ray.

Learning Resources:

1. Reference Books

- Bailey & Loves, Norman brows, clinical method, Anesthesia for medical students & Chapman & Nakielny's Aids to radiological differential Diagnosis.

2. Online Resources

- Zoom/ G Class Room

3. Library resources

Teaching Faculty:

Name	Email Address
Prof. Brig (R). Dr. Muhammad Parvez	dr_m_parvez@yahoo.com
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Assoc. Prof. Dr. Nadia Gull	

7. Rules & regulations:

I. Student's code of conduct

The Student Code of Conduct sets out the standards of conduct expected of students. It holds individuals and groups responsible for the consequences of their actions. Failure to fulfill these responsibilities may result in the withdrawal of privileges or the imposition of sanctions.

Wah Medical College is a community of students, faculty and staff involved in learning, teaching, research and other activities. All members of WMC community are expected to conduct themselves in a manner that contributes positively to an environment in which respect, civility, diversity, opportunity and inclusiveness are valued, so as to assure the success of both the individual and the community. The Student Code of Conduct reflects a concern for these values and tries to ensure that members of the WMC can make use of and enjoy the activities, facilities and benefits of WMC without undue interference from others.

WMC student code of conduct

- Discipline
- Decent dress
- Good Manners
- Smart Turn Out
- Healthy Activities
- No smoking
- No Abusive Language
- Cooperative Attitude
- Respect for All

II. Attendance policy:

- a. Students are required to mark attendance for every class.
- b. The attendance is compiled by the respective department and submitted to student affairs by the 10th of each month.
- c. The Students Affairs Department will compile the absent report and a fine of Rs. 500/- for a lecture or for the whole day will be imposed on absent students. It is pertinent to mention here that a fine is imposed on students to compel them to attend classes regularly and not to generate the funds.
- d. A compiled attendance state of all students along with those having attendance less than 75% duly highlighted will be submitted to the Students Affairs Department on monthly as well as quarterly basis by the concerned departments.
- e. At the end of the academic year, a consolidated state of attendance of students will be submitted to the Students Affairs Department.
- f. Departments will submit the list of those students having attendance less than 75% at the end of academic year.
- g. Admission forms of students having attendance less than 75% will NOT be submitted to NUMS for appearing in Annual University Exams.

8. Study tips

Dear Students,

Becoming a doctor is a tough job, but you can make it easier for yourself by adopting some time-tested techniques or habits. It's never too early – or too late – to develop good study habits. The sooner you get into a good self-study pattern, the easier everything will be and the more your chances of getting good marks will improve. Here are our top tips for getting the most out of your self-directed study time. And remember Perseverance is the Key to Success!



Review the material regularly, create a study schedule

Write it down



Test yourself

Find an effective learning environment with limited distractions and some fresh air



Improve memorization with Mnemonics

Incorporate auditory methods; use online podcasts



Use visuals, images, concept maps & illustration charts

Consider forming a study group or find an accountability buddy



TAKE A STUDY BREAK!

Take strategic breaks

9. Feedback on the study guide

We value your feedback and will use it for improvement of this Study guide. Kindly provide feedback for this study guide. At the email:

dme@wahmedicalcollege.edu.pk

dmewahmedicalcollege@gmail.com

10. References:

HARDEN, J.M. LAIDLAW, E.A. HESKETH, R. M. (1999). AMEE Medical Education Guide No 16: Study guides-their use and preparation. *Medical Teacher*, 21(3), 248–265.
<https://doi.org/10.1080/01421599979491>

11. Time Table Template



Theme: _____

Wab Medical College
4th Year MBBS Session 2021-2022
Time Table

Course Code: Y4B1
Academic Work: _____

Day, Date & Time	8:00-8:55	8:55-9:50	9:50-10:45	10:45-11:40	11:40-12:00	12:00-12:30	12:30-1:00	1:00-1:30	1:30-2:00	
Monday 08-12-2021	Medicine LGIS	Surgery LGIS	Community Medicine	Pathology LGIS	Break	CLINICAL ROTATION (at Hospital)	24 Hour Rotation	Medicine	A	POF Hospital
	Eye LGIS	Medicine LGIS	Pathology LGIS	Community Medicine				Surgery	B	POF Hospital
Tuesday 07-12-2021	Low Mail	Low Mail	Low Mail	Low Mail	Break	CLINICAL ROTATION (at Hospital)	24 Hour Rotation	Gynaecology / OBS	C	POF Hospital
	Surgery LGIS	Gynaecology LGIS	Community Medicine	Flipped Pathology LGIS				ENT	D	POF Hospital
Wednesday 08-12-2021	Low Mail	Low Mail	Low Mail	Low Mail	Break	CLINICAL ROTATION (at Hospital)	24 Hour Rotation	ETE	E	POF Hospital
	Low Mail	Low Mail	Low Mail	Low Mail				Medi Surgery	F	POF Hospital
Thursday 09-12-2021	8:00-8:55 Pathology LGIS	8:55-9:50 ENT LGIS	9:50-10:40 Pathology Practical (D, E, F)	9:50-10:40 Community Medicine CBL	Break	CLINICAL ROTATION (at Hospital)	24 Hour Rotation	11:20-1:00 Community Medicine CBL (D, E, F)	1:00-1:30 Practical (at P.O.)	1:30-2:00 CBL/SGD
	Low Mail	Low Mail	Low Mail	Low Mail				11:20-1:00 Community Medicine CBL (D, E, F)	1:00-1:30 Practical (at P.O.)	1:30-2:00 CBL/SGD
Friday 10-12-2021	8:00-8:55 Medicine LGIS	8:55-9:40 Medicine LGIS	9:40-10:30 Surgery	10:30-11:20 LGIS	Break	CLINICAL ROTATION (at Hospital)	24 Hour Rotation	11:20-1:00 Community Medicine CBL (D, E, F)	1:00-1:30 Practical (at P.O.)	1:30-2:00 CBL/SGD
	Low Mail	Low Mail	Low Mail	Low Mail				11:20-1:00 Community Medicine CBL (D, E, F)	1:00-1:30 Practical (at P.O.)	1:30-2:00 CBL/SGD

Professor
Dr. Sahab Imran
Teacher Y4B1

Professor Dr. Musarrat Ramzan
Dean/Vice Principal
Wab Medical College