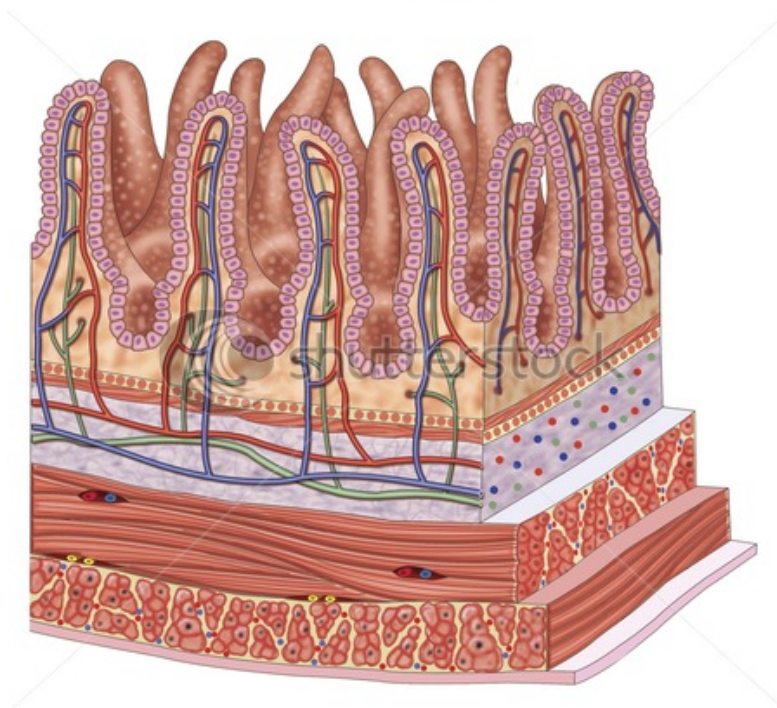
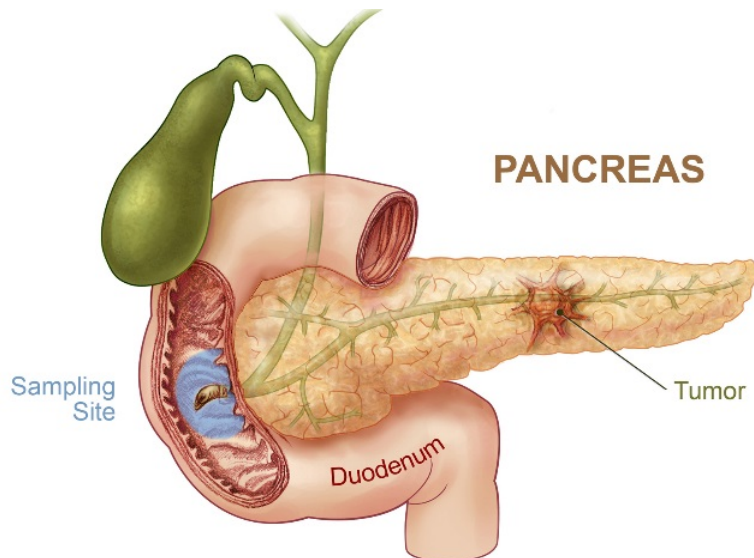


AJK Medical College, Muzaffarabad

STUDY GUIDE GIT & NUTRITION (GIT-0109) Module Class of 2014-2019 (2nd Year)



Department of Medical Education

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Caution

80% mandatory attendance to appear in Modular / Professional / University Examination as per Pakistan Medical and Dental Council (PM&DC) regulation.

Module development Team

Name	Role
Prof. Dr. Muhammad Ayub	Team Leader
Dr. Zahid Azeem	Coordinator
Prof. Sarosh Majid Salaria	Member
Dr. Ali Arshad Abbasi	Member
Dr. Fouzia Hameed	Member
Dr. Farzana	Member
Dr. Sarmad Latif Awan	DME

INTRODUCTION

Gastrointestinal (GIT) module is an ideal blend of basic and clinical sciences. As you know, GIT is an important system of the body and its diseases are among the most common cause of death in developing and developed countries. Hence, a good understanding of this important system will help you a lot in your future clinical training years. So, be alert and try to learn as much as possible during this 8-weeks period.

This module has been integrated around gastrointestinal system with relevant concepts, principles and skills from anatomy, physiology, biochemistry, embryology, pathophysiology, surgery and general medicine. The course has been structured as an integrated study of the human gastrointestinal system. It provides insight into the mechanisms of operation of the human gastrointestinal system and the skills needed to evaluate them.

GIT module core content includes themes and clinical cases; developed to create clinical relevance to whatever is being learned in different sessions.

Your time table will guide you through the module and will also tell you about the learning strategy being used during that very session.

Rationale:

GIT module has been designed to understand the basic structures and functions of the alimentary system along with its embryological development and anomalies. The composition of the food is complex and little of it is water soluble. Therefore it cannot enter body fluids. Hence it needs to be broken down into its chemical components before it can be absorbed. Four activities of the GIT tract can be identified for this Process to occur. Disruption of any of its activities can lead to disease states such as pain, peptic ulceration, diarrhea & constipation. Coordination of all these functions is brought about by neuro-transmitters and hormones of GIT and related organs like Gallbladder, liver and pancreas.

Organization of Module

The module consists of 8 themes, each based on a real life situation. The module will employ different modes of instruction, briefly described below. Major emphasis will be on discussion, analysis and deductions; all by the students and guided by the faculty.

Teaching Strategies

The content of this module will be delivered by a combination of different teaching strategies. These include small group discussions (SGD), large group interactive sessions (LGIS), demonstrations in dissection hall, lab practical and clinical skill sessions at skill lab. Moreover, you will be given a group project which will be assessed at the end of the block.

Entire curriculum will be delivered by clinical case scenarios each related to a theme. Read the cases and the learning objectives of the theme which you are supposed to encounter next day. Understand and explain the case to yourself and read the relevant information. Following learning/teaching strategies will be employed to discuss the cases:

Small Group Discussion

Main bulk of the course content will be delivered in small group sessions. Each theme has an associated case. The case will be the centre around which learning will take place. Depending on the case you might be required to deduce objectives and learning issues OR only learning issues. Every group will have a facilitator assigned to it. The facilitator will be there to keep you on track, giving you maximum liberty to discuss and achieve the objectives as a group. Small groups in some cases may be followed by a wrap up session. Rest of the information will be there in the schedule.

Large group

Large group instruction will be employed at times sparingly. Attend large group sessions with the following focus

- a. Identify important points
- b. Ask questions of points not well understood in the text
- c. Measure your learning comprehension

Videos

Video demonstrations on history taking and clinical examination will be shown to give you an idea into the disease process, testing and practical aspect of communicating with the patients.

Hands-on Activities/ Practical

Practical activities, linked with the case, will take place.

Lab:

Attend your scheduled lab and take advantage of open times to continue to study. Use your labs to correlate text structures to actual specimens in lab Practice.

Self Directed Learning

A few SDLs have been added in between to create an environment for you to search literature as well as to deduce and synthesize information from different sources to meet the learning objectives. It will also help in breaking the monotonous / strenuous schedule and make you life- long learner.

Journal Club Meeting

Few journal club meetings are also scheduled in the module.

Assessment

In this 8-weeks duration module, you will have surprise quizzes and intermittent short tests. A full-fledged formative assessment will be taken at the middle of module. This will give you an idea about the format of the examination that you will go through at the end of the module. Of course, this will be followed by feedback on your performance in the exam.

Comprehensive end of module exam will comprise of:

Marks obtained in the module examination will contribute 30% (internal assessment) towards end of year Professional University Examination.

**TABLE OF SPECIFICATIONS (TOS)
GIT Module Class of 2018**

#	Themes	%
1	Dysphagia	10
2	Dyspepsia	15
3	Jaundice	15
4	Acute Pancreatitis	10
5	Acute Abdomen	25
6	Diarrhea	10
7	Lower GIT bleed	10
8	Inguino-scrotal swellings	5
	Grand Total	100%

Learning Outcomes

THEME 1 : DYSPHAGIA

1. Describe the structural organization of the GIT.
2. Overview of biochemical aspects of GIT.
3. Describe the overall role of the GIT with respect to the Homeostasis including the process of swallowing, digestion, secretion, absorption & excretion of the food.
4. Enlist types of smooth muscles and their characteristics. (Multiunit and Unitary)
5. Explain the chemical and physical basis of smooth muscle contraction under physiological conditions.
6. Compare the smooth muscle contraction & skeletal muscle contraction under normal conditions.
7. Describe the boundaries and structures in the oral cavity.
8. Identify the parts of palate (hard palate, floor of mouth)
9. Enumerate the vessels and nerves supplying the palate and its parts.
10. Describe the anatomy of pharynx and its parts: (soft palate, uvula, pillars) and comment on their gross structure.
11. Describe the structure, blood supply, nerve supply, lymphatic drainage and movements of tongue.
12. Enlist the five primary sensations of taste. (Bitter, sour, sweet, salty & umami).
13. Describe the two physiological functions of taste buds.
14. Differentiate between the mechanisms of stimulation of five primary tastes.
15. Explain the following in physiological mechanism of the taste pathway:
 - a) Generation of Nerve impulses by the taste buds
 - b) Transmission of taste signals into the CNS
 - c) Integration of taste impulses in the brain stem
 - d) Taste adaptation
16. Enumerate muscles of mastication, their location, nerve supply and actions.
17. Explain the mechanics of food ingestion:
 - o State the stimulus that initiates the swallowing sequence.
 - o Importance of chewing reflex in relation to digestion of food
18. Describe the 3 stages of swallowing :(voluntary stage, pharyngeal
19. stage & esophageal stage).
20. Describe the neural control of 3 stages of swallowing.
21. Contrast primary & secondary peristalsis based on initiating event, voluntary control, reflex propagation, and regions of the pharynx & esophagus involved.
22. Enumerate salivary glands and identify the locations of major and minor salivary glands.
23. Tabulate gross and histological differences between parotid, submandibular and sublingual salivary glands.
24. Enlist the nerve supply of major salivary glands.
25. Identify the parts of pharynx on a sagittal section (model /diagram).
26. Describe pharyngeal muscles, their innervations and actions
27. Describe the Structure (Gross), parts, blood supply, nerve supply and lymphatic drainage of esophagus
28. Identify histological features of esophagus
29. Identify the following on given slides and draw & label diagrams showing their sections:
 - o Parotid gland
 - o Submandibular gland
 - o Sublingual gland
 - o Esophagus
30. Discuss the secretion of salivary glands & characteristics of saliva.
31. Describe the functions of saliva.
32. Discuss the nervous regulation of salivary secretion.
33. Describe etio-pathogenesis of reflux esophagitis.
34. Given patient case descriptions determine the most common cause of reflux esophagitis.

THEME 2: DYSPEPSIA

1. Topographic anatomy of stomach, liver and small intestines
2. Describe the development of foregut.
3. Describe physiological herniation.
4. Identify the parts and position of stomach in the abdominal cavity and describe the omentum attached to it.
5. Enumerate the structures lying in stomach bed
6. Discuss the blood supply, nerve supply and lymphatic drainage of stomach.
7. Describe the physiological anatomy of enteric nervous system.
8. Differentiate between the Myenteric and Submucosal plexuses.
9. Enumerate important neurotransmitters released by Enteric/ autonomic nervous system.
10. Identify the histological layers & cells of various parts of stomach under microscope
11. Draw & label a diagram showing its section (Fundus, body & antrum).
12. Relate the histological features of the stomach to its function.
13. Describe the 6 functions of stomach in relation to food:
 - Secretion
 - Digestion
 - Mixing
 - Absorption
 - Storage
 - And the vital role of Intrinsic factor released by parietal cells of stomach.
14. Relate the 6 functions of stomach with:
 - Basic electrical rhythm
 - Peristaltic waves.
15. Define receptive relaxation of the stomach. Describe the mechanism of receptive relaxation.
16. Describe the regulation of stomach emptying under physiologic conditions.
17. Relate the gastric and duodenal factors that promote and inhibit stomach emptying under physiologic conditions.
18. Enumerate the anatomical types of cells present in stomach mucosa.
19. Enlist the components of Gastric mucosal barrier.
20. Describe function of the components of the gastric barrier.
21. Define peptic ulcer. Enlist most common locations of peptic ulcer.
22. Illustrate diagrammatically causes of, and defense mechanisms against peptic ulceration.
23. Correlate normal defense mechanism with offensive factors.

THEME 3: JAUNDICE

1. Identify the position, size, shape, coverings and ligaments of liver
2. Describe the concept of lobes and segments in liver
3. Describe the dual blood supply of liver
4. Describe the gross Anatomy, relations and blood supply of gall bladder
5. Comment on the formation, course and termination of common bile duct.
6. Explain the gross Anatomy, relations and blood supply of pancreas and pancreatic duct.
7. Describe the gross Anatomy, relations and blood supply of spleen.
8. Describe the formation of portal venous system
9. Identify the histological structure of liver, gall bladder and pancreas under microscope and label diagrams showing sections of these.
10. Describe the functional anatomy of liver.
11. Outline the functions of liver.
12. Classify Liver Function Tests and Enlist Routine LFTs.
13. Discuss the composition of pancreatic Juice and bile.
14. Enumerate functions of pancreatic juice and bile.
15. Discuss the composition, structure & synthesis of bile acids & bile salts.
16. Describe the Entero-Hepatic circulation of bile salts.
17. Describe the catabolism of Hemoglobin including jaundice.
18. To estimate total serum bilirubin by Jendrassiki Grof's method :

- a. Describe the principle of the method
 - b. Perform the procedure along with calculations.
 - c. Name the normal values.
19. To estimate serum ALT by UV method:
- a. Describe the principle of the method.
 - b. Perform the procedure along with calculations.
 - c. Name the normal values.
20. Perform steps of Abdominal Examination on a SP.

THEME 4: Acute Pancreatitis

1. Describe the development of Pancreas
2. Identify the position, size and shape of Pancreas
3. Describe the gross Anatomy, relations and blood supply of Pancreas and pancreatic duct.
4. Identify the histological structure of pancreas under microscope and label diagrams showing its sections.
5. Discuss the composition of pancreatic Juice.
6. Enumerate functions of pancreatic juice.
7. Describe the digestion, absorption & metabolism of proteins, fats & CHO
8. Describe the Imaging of Extra-Hepatic Biliary Apparatus & Pancreatic duct
9. Describe the peritoneal ligaments, Blood supply & venous drainage of pancreas and spleen

THEME 5 ACUTE ABDOMEN

Learning Objectives

1. Describe the development of midgut.
2. Describe the development anomalies.
3. Identify the position and parts of duodenum and describe their relations
4. Describe the openings in the duodenum
5. Enumerate the blood vessels supplying the duodenum
6. Describe the gross Anatomy of jejunum, ileum and their mesentery
7. Enumerate the vessels supplying jejunum and ileum and the manner in which arcades are formed in each
8. Tabulate the gross and microscopic differences between jejunum and ileum
9. Identify the histological features of duodenum, jejunum & ileum under microscope. Draw and label these structure on a sketch book
10. Enumerate the muscles forming anterior and lateral abdominal walls from outward to inward along with the arrangement of their fibers leading to the formation of linea alba
11. Identify the nerve supply of anterior and lateral abdominal walls.
12. Describe the formation of rectus sheath and its contents.
13. Define peritoneum and enumerate the parts of peritoneal cavity.
14. Describe the boundaries and contents of lesser and greater sacs and foramen of Winslow. Enumerate retroperitoneal structures and point out their location in relation to abdominal walls.
15. Tabulate the gross and microscopic differences between small and large intestine
16. Describe the Digestion & absorption in small intestine
17. metabolism of proteins, Hemoglobin & CHO in Small intestine
18. Compare & contrast the two types of gut motor activity.

THEME 6: Diarrheas

1. Describe the development of hindgut.
2. Describe the development anomalies
3. Identify the position and parts of Large intestine and describe their relations
4. Identify the histological features of colon, appendix, and rectum under microscope. Draw and label a diagram showing these structures.
5. Identify parts of colon, their position, peritoneal attachments, blood and nerve supply
6. Describe ileocecal valve. Identify different positions of appendix along with percentage of each.
7. Describe the lymphatic drainage of small and large intestine.

8. Identify histological structure of appendix, colon and rectum under microscope.
9. Draw and label diagrams showing their sections.
10. Define the law of the movement of the gut.
11. Contrast the patterns of the intestinal motility seen in the absorptive phase with that of the post absorptive phase.
12. Enumerate and recognize :
13. The clinical symptoms and signs caused by deficiency of Vit A, B, C, D, and K.
14. The clinical features of deficiency of iron, folic acid, zinc and calcium
15. The clinical features of marasmus and kwashiorkor.
16. Describe the digestion and absorption of proteins.
17. Describe the digestion and absorption of fats
18. Describe the digestion and absorption of CHO
19. Define defecation reflex. Describe the sequence of events occurring during reflexive defecation.
20. Differentiate defecation reflex under voluntary control and under intrinsic control.
21. Enlist the secretions of large gut.
22. Describe the mechanism of intestinal Putrefaction & fermentation.
23. Enlist the components of feces
24. Demonstrate Counseling of a family having children with frequent diarrhea

THEME 7: LOWER GIT BLEED

1. Describe the development of Rectum and Anal canal
2. Describe the development of cloacae and urogenital sinus
3. Describe high and low ano-rectal anomalies
4. Describe the blood supply, venous and lymphatic drainage of anal canal
5. Enlist causes of bleeding per rectum
6. Describe the boundaries of ischio-rectal fossa
7. Demonstrate History taking on a SP with lower GIT bleed
8. Demonstrate examination of a SP with lower GIT bleed.

THEME 8: INGUINOSCROTAL SWELLINGS

1. Describe the development of inguinal canal
2. Describe the boundaries of inguinal canal
3. Enlist the contents of inguinal canal
4. Describe the congenital anomalies of processes virginals
5. Demonstrate History taking on a SP with inguino-scrotal swelling
6. Demonstrate examination of a SP with inguino-scrotal swelling.

#	List of PBLs
1	Dyspepsia / peptic Ulcer
2	Jaundice
3	Acute abdomen/ Pancreatitis
4	Intestinal obstruction/ Malabsorption syndrome
5	Haemorrhoids
6	Hernia

PBL-4A

A 60 year old female Hypertensive patient comes to emergency department with 3 days history of severe colicky abdominal pain + abdominal distension + vomiting + bloody loose motions initially. Constipation for two days, with no history of diabetes and smoking. On examination, abdomen was mildly distended, soft and mildly tender all over with flank dullness and hyper resonant percussion notes and absent bowel sounds.

X-ray erect abdomen showed multiple air fluid levels and US abdomen showed mild free fluid in the peritoneal cavity and dilated gut loops containing fluid mainly involves the small gut.

What's your diagnosis in this patient?

PBL-6A

Ayesha Fifteen year old girl presented in accident and emergency department of AIMS hospital with the complain of swelling in right inguinal region with pain and multiple episodes of vomiting from last six hours. On examination her pulse was 110/min BP 100/60mm of Hg with 2x2 cm swelling in right inguinal region with redness of over lying skin. The cough impulse was negative. The swelling was hot, tender, non-fluctuant, irreducible, just below and lateral to pubic tubercle. Its upper limit was not reachable and transillumination test was negative. She had a history of surgery for venous haemangioma in right thigh six months back. Her blood CP had Hb 13gm/dl and TLC 1400/L. the emergency surgeon decided to go for emergency exploration.

Annexure A		
Abdominal Examination-Check List		
	Yes	No
Theme		
1. Performs steps of Abdominal Examination on a simulated patient.		
Sub theme Makes Rapport with the patient		
1. Greets the patient		
2. Introduces himself to the patient		
3. Explain the procedure to the patient		
4. Takes consent form the patient		
Sub theme: Performs inspection of abdomen correctly on a subject.		
SLO		
1. Helps patient in proper Exposure		
2. Makes proper position for examination		
3. Spends at least one minute in observing the abdomen from foot end and side of the head		
4. Comment regarding		
i. Shape of abdomen.		
ii. Symmetry of abdomen.		
iii. Localized / General, (distention, swelling)		
iv. Position and shape of umbilicus		
v. Movement of abdominal wall		
vi. Visible peristalsis		
vii. Visible Pulsation		
viii. Presence of Scar / Striae		
ix. Presence of prominent superficial veins		
x. Pigmentation / De-pigmentation of abdominal wall		
xi. Presence of Hernias		
Theme		
1. Performs palpation of abdomen correctly on a subject.		
Sub theme		
1. General Abdominal Palpation		
Steps		
1. Explains the procedures and takes consent		
2. Helps patient in proper exposure and positioning		
3. Tell the patient to relax		
4. Enquire about the site of pain		
5. Makes his hands warm before palpation (in cold weather)		
6. Position his wrist and forearm in the horizontal plane while palpating abdomen		
7. Makes superficial palpation in all nine quadrants of abdomen correctly		
8. Repeat using slightly deeper palpation examining each of the nine areas of the abdomen.		
Sub theme: Examination of Liver		
1. Helps patient in proper exposure		
2. Sits in the couch beside the patient		
3. Places both hands correctly side by side on right Hemiabdomen with fingers pointing towards the rib.		
4. Starts palpation from right iliac fossa(RIF) and gradually moves towards right hypochondrium.		
5. Asks the patient to take deep breath		

6. Synchronizes palpation with patient's respiration.		
7. Palpates from lateral subcostal region medially up to epigastrium to trace the liver edge.		
8. Confirms the presence of lower edge of liver by percussion		
9. Percusses for the upper border of liver from right second Intercostal Space		
10. Measures the total span of Liver		
11. Determines the surface, consistency and tenderness if Liver is Palpable		
12. Auscultates at different points of enlarged liver for bruit / Rub		
Examination of Spleen		
1. Sits on the couch besides the patient.		
2. Places flat of left hand on posterolateral aspect of left lower ribs for support.		
3. Places right hand in the RIF with fingers pointing towards left hypochondrium and gradually moves towards left hypochondrium		
4. Ask the patient to take deep breath		
5. Synchronizes palpation with patient's respiration.		
6. Scans the Left subcostal area to localize spleen		
7. Turns the patient half on to the right side and repeat the examination as above if spleen is not palpable in supine position.		
8. Differentiate enlarged spleen from palpable Left Kidney		
9. Confirms presence of spleen by percussing Left hypochondrium		
10. Measures total span of spleen		
11. Determines the surface, consistency and tenderness if spleen is palpable.		
12. Auscultates at different points of enlarged spleen for bruit / rub.		
Percussion		
1. Percussion for liver → according to key		
2. Percussion for Spleen → according to key		
Percussing for presence of free fluid in abdomen (shifting Dullness)		
1. Patient should lie in supine position		
2. Place your left hand fingers in longitudinal axis on the midline near the umbilicus and begin percussion moving your finger laterally towards the right flank.		
3. When dullness is first detected keep your fingers in that position and ask the patient to roll on the left side.		
4. Wait a few seconds (for peritoneal fluid to redistribute)		
5. Percuss again for change of note from dullness to resonance		
Fluid Thrill:		
1. Patient should lie in supine position.		
2. Place one hand flat over the lumbar region of one side		
3. Ask an assistant to put the side of their hand longitudinally and firmly in the midline of abdomen		
4. Flick the opposite lumbar region		
5. Fluid thrill or wave is felt by the detecting hand held flat in the lumbar region		
Auscultation of Abdomen (Bowel sounds)		
1. The stethoscope should be placed on one side of the abdominal wall just to the right of umbilicus and it is kept there until sounds (gurgles) are heard.		

Resource for learning

- 1) Guyton 12th Edition
- 2) Sherwood 7th Edition
- 3) Ganong edition 23rd Edition
- 4) Clinical Anatomy by Snells
- 5) Last's Anatomy by RJ Last
- 6) Clinically Oriented Anatomy by Keith. L. Moore
- 7) The Developing Human by Moore & Persaud
- 8) Basic Histology by Luiz Carlos Junqueira
- 9) DiFiore's Atlas of Histology 11th Edition
- 10) Lippincot's Biochemistry review 5th edition
- 11) Harper's Biochemistry 28th Edition
- 12) Mark's Biochemistry 3rd Edition
- 13) Macleod's Clinical Examination

Glossary:

Following online medical dictionaries can be referred to

www.nlm.nih.gov/medlineplus/mplusdictionary.html

www.online-medical-dictionary.org

www.medterms.com

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Schedule for GIT Module – 2nd Year MBBS

Week-1

Time	Tuesday	Wednesday	Thursday	Friday
8 – 10AM	<u>LGIS</u> Introduction to GIT Module Dr. Ijaz and Module Team	<u>PBL-1A</u> Dr. Fauzia & Team-2	<u>Dissection</u> Muscles of mastication & TMJ Dr. Asad & team 1	<u>Islamiat</u>
	<u>LGIS</u> Topographic anatomy of GIT Dr. Asad			<u>LGIS</u> Role of saliva in digestion Dr. Zahid Azeem
10.30–12:30	<u>SGD</u> Oral Cavity Team-1 <u>Wrap-up</u> Dr. Asad	<u>SGD</u> Topographic anatomy of pharynx Team-1 <u>Wrap-up</u> Dr. Asad	<u>SGD</u> Swallowing & deglutition Team-2 <u>Wrap-up</u> Dr. Fauzia	<u>SGD</u> Taste perception & taste buds Team-2 <u>Wrap-up</u> Dr. Fauzia
	<u>LGIS</u> Saliva & Salivary gland Dr. Fauzia			
2:00-3:00PM	<u>Practical</u> A: Anatomy: (1-35) B: Biochem: (36-72) C: Physio: (73:105)	<u>Practical</u> A: Anatomy: (36-72) B: Biochem: (73:105) C: Physio: (1-35)	<u>Practical</u> A: Anatomy: (73:105) B: Biochem: (1-35) C: Physio: (36-72)	DSL Dental Caries
3:00-4:00PM				

AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year

Week-2

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 9 AM	holiday	PBL 1B Dr. Fauzia	LGIS reflux esophagus, Hunger pangs, nausea & vomiting Dr. Khalid Awan	LGIS Stomach Dr. Asad	Islamiyat
9-10 AM			LGIS Swallowing process & reflexes Dr. Fauzia	LGIS Motor functions of stomach Dr. M. Ayub	LGIS Acid secretion in stomach Dr. Ayub
Tea Break (10:00–10:30 AM)					
10.30– 11:30	holiday	LGIS Dysphagia Dr. Farooq Kiani	LGIS Development of foregut Dr. Asad	SGD Gastric juices biochemical nature secretion & regulation Team-2 Wrap-up Dr. Alam	Dissection Stomach & Duodenum Dr. Asad & Team-1
11.30– 12:30		LGIS TMJ and its disorders Dr. Shaukat Hayat	Dissection Esophagus Dr. Asad & Team-1		
12.30– 1:30		DSL Development of foregut		DSL Acid Dyspepsia	
Lunch and Prayer Break (1:30–2:00 PM)					
2.00- 4:00PM	holiday	Practical A:Anatomy: (1- 35) Esophagus & stomach B: Biochem: (36- 72) C: Physio: (73:105)	Practical A:Anatomy: (36- 72) Esophagus & stomach B: Biochem: (73:105) C: Physio: (1-35)	Practical A:Anatomy: (73:105) Esophagus & stomach B: Biochem: (1- 35) C: Physio: (36-72)	DSL Chemoreceptor trigger zone

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AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year MBBS

Week-3

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10AM	LGIS Anatomy of liver & spleen Dr. Asad	LGIS Hepatic portal system Dr Asad		LGIS Development of pancreas Dr. Asad	ISLAMİYAT
	LGIS Liver & biliary system Dr fauzia	LGIS Synthesis of bile salts Dr. Alam Khan	LGIS Enterohepatic circulation of bile salts Dr Zahid Azeem	LGIS Metabolism of carbohydrates Dr. Alam Khan	LGIS Liver Function Tests Dr. zahid Azeem
Tea Break (10:00–10:30 AM)					
10.30– 11:30	Dissection Liver & spleen Dr. Asad & Team-1		SGD duodenum	SGD Histology of liver and GB	Skill Lab Coping skills & stress management Dr. Ayesha Mumtaz
11.30– 12:30		Skill Lab History & exam of patient with peptic ulcer & NG intubation Drs. Ali Arshad, Imtiaz, munazzah	team 1	Team-1 WU: Dr. Asad	
12.30– 1:30			PBL-2A Dr. Asad & Team-1	DSL	
Lunch and Prayer Break (1:30–2:00 PM)					
2.00- 4:00PM					SDL Portal system

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Schedule of Studies GIT MODULE 2nd Year MBBS 2015

Week-3

Date					
Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00–9:00 AM	<u>LGIS</u> Hepatitis in biliary dysfunctions Dr. Ali Arshad	<u>LGIS</u> Biochemical structure of body minerals Dr. Zahid Azeem	<u>LGIS</u> Vitamins: Water soluble vitamin Dr. Zahid Azeem	<u>Skill Lab</u> History & Exam of patient of acute pancreatitis Drs. Ziyad, Sarmad, Masood	ISLAMIYAT
9:00–10:00 AM	<u>LGIS</u> Development of body cavities (peritoneum) Dr. Asad	<u>LGIS</u> Acute pancreatitis & pseudo pancreatic cyst Dr. Sarmad	Vitamins: Fat soluble vitamins Dr. Alam Khan		
Break					
10:30–11:30 AM	<u>PBL-2B</u> <u>Team 1</u> Dr. Asad	<u>LGIS</u> Vitamins: Water soluble vitamin Dr. Zahid Azeem	<u>SGD</u> Pancreatic juices digestion, absorption & metabolism of protein Team-2 <u>Wrap-up</u> Prof. Alam	<u>Dissection</u> Small intestine Dr. Asad & Team-1	<u>SGD</u> Digestion, absorption, metabolism of water soluble, vitamins, minerals Team-2 <u>Wrap-up</u> Dr. Fauzia
11:30 AM–12:30 PM		<u>Skill Lab</u> History and examination of a jaundiced patient			
12:30–1:30 PM		Drs. Ijaz/Farzana/Masood	<u>DSL</u> Control of bile secretion	<u>DSL</u> Diabetes mellitus	<u>PBL-3A</u> Dr. Asad & Team-1
Break					
2:00–3:00 PM	<u>Practical</u> A: Anatomy B: Physiology C: Biochemistry	<u>Practical</u> B: Anatomy C: Physiology A: Biochemistry	<u>Practical</u> C: Anatomy A: Physiology B: Biochemistry		
3:00–4:00 PM					

Caution!
Eighty percent (80%) attendance is mandatory to appear in Module/Professional/University Examination as per Pakistan Medical and Dental Council (PMDC) regulations.

AJK Medical College, Muzaffarabad

Schedule for GIT Module – Class of 2014-19 (2nd Year)

Week-4

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10A M		<u>LGIS</u> Defecation reflexes & disorders Dr. Ayub	<u>PBL-3B</u> Dr. Sarmad & Team-	<u>PBL-4A</u> Dr. Farzana & Team-1	
Tea Break (10:00–10:30 AM)					
10.30 – 12:30	<u>DSL</u> Preparation for PBL-3				
12.30 – 1:30	<u>SDL</u>		<u>SDL</u>		
Lunch and Prayer Break (1:30–2:00 PM)					
2:00-4:00 PM		<u>Practical</u> A: Anatomy: (1-35) B: Biochem: (36-72) C: Physio: (73:105)	<u>Practical</u> A: Anatomy: (36-72) B: Biochem: (73:105) C: Physio: (1-35)	<u>Practical</u> A: Anatomy: (73:105) B: Biochem: (1-35) C: Physio: (36-72)	

Caution
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AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year MBBS

Week-5

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10AM			1		
Tea Break (10:00–10:30 AM)					
10.30–11:30				<u>LGIS</u> Anterior abdominal wall Dr. Asad	Holiday
11.30–12:30				<u>LGIS</u> Development of midgut & its congenital anomalies Dr. Ghuncha	
12.30–1:30		<u>SDL</u>			
Lunch and Prayer Break (1:30–2:00 PM)					
2:00-4:00PM		<u>Practical</u> A:Anatomy: (1-35) Duodenum, Taj, ilium B: Biochem: (36-72) C: Physio: (73:105)	<u>Practical</u> A:Anatomy: (36-72) Duodenum, Taj, ilium B: Biochem: (73:105) C: Physio: (1-35)	<u>Practical</u> A:Anatomy: (73:105) Duodenum, Taj, ilium B: Biochem: (1-35) C: Physio: (36-72)	Holiday

Caution

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AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year MBBS

Week-6

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10AM	<u>Dissection</u> Anterior abdominal wall Dr. Asad & Team-1	<u>SGD</u> Abdominal hernia Team-1 <u>Wrap-up</u> Dr. Asad			<u>Dissection</u> Colon Dr. Asad & Team-1
Tea Break (10:00–10:30 AM)					
10.30–12:30	<u>SGD</u> Movements of small intestine Team-2 <u>Wrap-up</u> Dr. Fauzia	<u>LGIS</u> Caecum & colon Dr. Asad	<u>LGIS</u> Balanced Diet Dr. Naeem Ahmed	<u>LGIS</u> Development of hindgut Dr. Ghuncha	<u>PBL-4B</u> Dr. Farzana
12.30–1:30	<u>LGIS</u> Peritonitis Dr. Adnan Mehraj	<u>LGIS</u> Acute appendicitis Dr. Sarmad Latif	<u>SDL</u>	<u>SDL</u>	
Lunch and Prayer Break (1:30–2:00 PM)					
2.00-4:00PM		<u>Practical</u> A:Anatomy: (1-35) B: Biochem: (36-72) C: Physio: (73:105)	<u>Practical</u> A:Anatomy: (36-72) B: Biochem: (73:105) C: Physio: (1-35)	<u>Practical</u> A:Anatomy: (73:105) B: Biochem: (1-35) C: Physio: (36-72)	SDL
	<u>SDL</u>				

Caution
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AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year MBBS

Week-7

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10AM	PBL-5A Dr. Asad & Team-1	Dissection Blood supply, lymphatic drainage & innervations of posterior abdominal wall Dr. Asad & Team-1	Dissection Rectum, Anal Canal & Ischiorectal Fossa Dr. Asad & Team-1	SGD Haemorrhoids Team-1 Wrap-up Dr. Asad	SGD Ischiorectal fossa Team-1 Wrap-up Dr. Asad
Tea Break (10:00–10:30 AM)					
10.30–12:30	LGIS Rectum & Anal canal Dr. Asad	LGIS Safe Drinking water & Diarrhea Prof. Brig^(R) Ahmed Khan/ Dr. Uzma	LGIS Laparoscopic surgery Dr. Adnan Mehraj	LGIS Anal Canal & Perianal Fistula Dr. Asad	LGIS Imaging of Rectum & Anal Canal Dr. Kh. Ijaz
12.30–1:30	LGIS Colonoscopy Dr. Ali Arshad	SDL	LGIS Intestinal Flora: Role in Putrefaction, Fermentation & Hepatic Encephalopathy Dr. Mumtaz Khan	LGIS Lower GIT bleed Dr. Raja Ijaz	LGIS Low & High Anorectal Anomalies & Surgical Correction Dr. Zakir
Lunch and Prayer Break (1:30–2:00 PM)					
2:00-4:00PM	SDL Perineum	Skill Lab Counseling of child/ family having diarrhea Prof. Brig^(R) Ahmed Khan/ Dr. Murtaza	SDL	SDL Imaging modalities of Rectum & Anal Canal	SDL Lower GIT bleed

Caution

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AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year MBBS

Week-8

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8 – 10AM	<u>PBL-5B</u> Dr. Asad	<u>Skill Lab</u> History & exam of patient with lower GIT bleed Drs. Ijaz, Ziyad, Masood & Team-1	<u>Skill Lab</u> History & Exam of a Child Having Inguinal Swelling Drs. Farzana, Sarmad, Shaukat	<u>LGIS</u> Vitamins Dr. Zahid <u>SDL</u>	SDL
Tea Break (10:00–10:30 AM)					
10.30–12:30	<u>LGIS</u> Developmental defects of inguinoscrotal region Dr. Asad	<u>Dissection</u> Scrotum & Inguinal Canal Dr. Asad & Team-1	<u>PBL-6B</u> Dr. Khalid & Team-2		
12.30–1:30	<u>PBL-6A</u> Dr. Khalid & Team-2	<u>LGIS</u> Inguinoscrotal swellings Dr. Sarmad Latif	Revision		
Lunch and Prayer Break (1:30–2:00 PM)					
2:00-4:00PM	SDL	<u>SDL</u> Inguinoscrotal swellings	<u>Presentation Seminar</u>	Dissection	Revision

AJK Medical College, Muzaffarabad

Schedule for GIT Module – 2nd Year MBBS

Time	Thursday
8 – 10AM	LGIS Vitamins Dr. Zahid Venue (Exam Cell Building adjacent to Sports Complex Jalalabad)
	SDL
Tea Break (10:00–10:30 AM)	
10.30– 12:30	LGIS GIT Physiology Prof. Ayub Venue (Exam Cell Building adjacent to Sports Complex Jalalabad)
12.30– 1:30	
Lunch and Prayer Break (1:30–2:00 PM)	
2:00-4:00PM	Dissection Venue (Dissection Hall, AJKMC)



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