FACULTY OF MEDICINE

Student Guide Semester 2 Year 1

COURSE CODE: BMM10607
Session 2023/2024

COURSE 6:
Gastrointestinal System

DATE OF COURSE:
June 30th, 2024 – August 15th, 2024

Prepared by:

…… Date: 4.4.2024

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VISION

Faculty of Medicine aspires to be a reputable institution in producing virtuous, high-quality health professionals and researchers and providing excellent health services for sustainable community.

MISSION

Faculty of Medicine shall produce virtuous, proficient, globally competitive health professionals and researchers, producing high impact research and providing sustainable high-quality healthcare.

LOCATION

MKK 1	: Makmal Kemahiran Klinikal 1
MKK 2	: Makmal Kemahiran Klinikal 2
MKK3	: Makmal Kemahiran Klinikal 3
DT	: Dewan Theater
DKA	: Dewan Kuliah A
DKB	: Dewan Kuliah B
DKC	: Dewan Kuliah C
CL1	: Makmal Momputer 1
CL3	: Makmal Momputer 3
MA 1	: Makmal Anatomi 1
MA 2	: Makmal Anatomi 2
MBiokim	: Makmal Biokimia
MMikro	: Makmal Mikrobiologi
MHisto	: Makmal Histologi
BT1	: Bilik Tutorial 1
BT2	: Bilik Tutorial 2
BT3	: Bilik Tutorial 3
BT4	: Bilik Tutorial 4
BT5	: Bilik Tutorial 5
BT6	: Bilik Tutorial 6
BT9	: Bilik Tutorial 9
BT10	: Bilik Tutorial 10
BT11	: Bilik Tutorial 11
BT12	: Bilik Tutorial 12
BT13	: Bilik Tutorial 13

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COURSE 6: GASTROINTESTINAL SYSTEM

Course Coordinator: Dr. Siti Fadziyah Mohamad Asri (H/P: 019-3143717)

CONTENT SYNOPSIS:

This course emphasises on the fundamental knowledge of gastrointestinal system. It covers the whole gastrointestinal tract from the oral cavity to the anal canal, and its accessory glands, mainly the liver and pancreas, as well as the hepatic portal system.

During this course, the students will learn the normal structures and functions of the gastrointestinal system. It also covers the pathology and clinical manifestations of common diseases affecting the systems and related pharmacological treatment. They will also learn basic medical examinations and procedures, and communication skills during collaborative learning activities.

The methods of teaching and learning includes interactive lectures, e-learning, small group discussion (SGD), problem based learning (PBL), laboratory practicals and early clinical experiences (ECE). It incorporates HIEPs through collaborative assignments and projects.

At the completion of the course, students should be able to describe the structures and functions of the gastrointestinal system and correlate them with disease mechanisms and drug actions. Students should also be able to display related basic medical examinations and procedures, as well as demonstrate effective communication and independent learning.

COURSE LEARNING OUTCOMES VS PLO/ MQF AND TEACHING DELIVERIES:

After completing this course, the students will be able to:

CLO	Description	PLO	Tax	MQF	Weightage (100%)	Delivery
CLO1	Demonstrate the interrelationship of the structures, functions, disease mechanisms and drug actions in the gastrointestinal system.	PLO1	C3	MQF1 - Knowledge and Understanding	75	Interactive lecture, SGD, e-learning, PBL
CLO2	Display basic medical examinations and procedures to identify structures and functions of the gastrointestinal system.	PLO3	P3	MQF3a - Practical skill	15	Practical, ECE
CLO3	Demonstrate effective communication during collaborative learning	PLO5	A3	MQF3c - Communication Skills	5	PBL, SGD
CLO4	Demonstrate independent learning and self-development in learning activities.	PLO9	A3	MQF4a - Personal Skills	5	PBL, SGD

ASSESSMENTS:

CLO1 (C3)	MQF1: Knowledge and Understanding	75 %	
Category Title	Tool	Examination Format	Weight (%)
Final Exam	Structured Essay	Final Assessment	15
Final Exam	MCQ	Final Assessment	35
Quiz	MCQ	Continuous Assessment	25
CLO2 (P4)	MQF3a: Practical Skills	15 %	
Category Title	Tool	Examination Format	Weight (%)
Final Exam	OSPE	Final Assessment	10
ECE assessment	Supervisor report	Continuous Assessment	5
CLO3 (A3)	MQF3c: Communication Skills	5 %	
Category Title	Tool	Examination Format	Weight (%)
Group work assessment	Supervisor report	Continuous Assessment	5
CLO4 (A3)	MQF4a - Personal Skills	5 %	
Category Title	Tool	Examination Format	Weight (%)
Group work assessment	Supervisor report	Continuous Assessment	5

OUTLINE OF COURSE CONTENT (LECTURES/KELIP)

Lecture	Lecturer	Title	Learning Outcome
Anatomy 1	**NFMN**	**Abdominal wall**	● Identify and describe the structural components of the anterior and posterior abdominal walls. ● Name the different planes and regions of the abdominal wall and correlate the organs with each region. ● Describe the anatomical aspects of the inguinal canal and its clinical anatomy. ● Discuss the formation and contents of rectus sheath and clinical significance.
Anatomy 2	**NFMN**	**Peritoneum**	● Describe the peritoneal cavity and peritoneal reflections. ● Name the important peritoneal folding (ligaments, mesentery, omentum). ● Explain about the greater sac and lesser sac. ● Describe the peritoneal pouches and recesses. ● Discuss the clinical anatomy of the peritoneum.
Anatomy 3 (e-Learning 2 hours)	**SFMA**	**Development of foregut**	● Describe the development of the primitive gut. ● Name the derivatives of foregut. ● Describe the development of the stomach and its rotation. ● Explain the development of liver, gallbladder and pancreas from the foregut. ● Discuss the congenital anomalies of the foregut.
Anatomy 4 (e-Learning 2 hours)	**SFMA**	**Development of midgut and hindgut**	● Name the structures which are derived from the midgut and hindgut. ● Explain the process of development of the duodenum, jejunum, ileum, caecum, appendix and large intestine. ● Explain the process of rotation of midgut. ● Name the congenital anomalies of the midgut and hindgut.

Anatomy 5	**NFCL**	**Anatomy of oral cavity and pharynx**	● Describe the anatomy of the oral cavity and tongue. ● Describe the anatomy of salivary glands. ● Describe the parts of pharynx and their main features. ● Name the muscles of pharynx, their nerve supply and main actions. ● Explain their clinical application.
Anatomy 6	**NFCL**	**Oesophagus and stomach**	● Describe the gross anatomy of the oesophagus and stomach. ● Discuss the blood supply, nerve supply and lymphatic drainage of the oesophagus and stomach. ● Discuss the applied aspects of the oesophagus and stomach.
Anatomy 7	**YIAB**	**Small intestines**	● Describe the morphology of the small intestine. ● Explain the gross anatomy and relations of duodenum. ● Explain all the differences between duodenum, jejunum and ileum. ● Describe the formation, attachment and contents of mesentery. ● Discuss the clinical application related to the small intestine.
Anatomy 8 (e-Learning 2 hours)	**TFM**	**Hepatobiliary system and pancreas**	● Describe the gross anatomy and important relations of the liver, gallbladder, biliary tree and pancreas. ● Describe the formation, course, tributaries and termination of portal vein. ● List the sites and tributaries of portocaval anastomosis. ● Discuss the clinical application related to hepatobiliary system and pancreas.
Anatomy 9	**YIAB**	**Large intestines**	● Describe gross anatomy of the colon, caecum and appendix. ● Differentiate between small and large intestines. ● Explain about the attachments and contents of mesocolon. ● Describe the gross anatomy of anorectal canal. ● Discuss the clinical applications of the large intestine.

Anatomy 10 (e-Learning 2 hours)	**NM**	**Histology of salivary glands, tongue, hepatobiliary apparatus and pancreas**	• Describe the microscopic anatomy of the oral cavity, tongue and salivary glands. • Describe the microscopic anatomy of liver and gallbladder. • Describe the microscopic features of the exocrine and endocrine pancreas.
Anatomy 11 (e-Learning 2 hours)	**NM**	**Histology of oesophagus, stomach, small and large intestines**	• Describe the microscopic features of the oesophagus and stomach. • Describe the microscopic structure of duodenum, jejunum and ileum. • Describe the microscopic features of the colon and appendix.
Physiology 1	**SAM**	**Functional organisation of GI tract & physiology of smooth muscle**	• Outline the functional anatomy of the gastrointestinal (GI) system. • Describe the functional structure of the walls of the GI system. • Describe the main functions of the GI system. • Explain the innervation of the GI system. • Describe the main properties of the visceral smooth muscles.
Physiology 2 (e-Learning 2 hours)	**CMN**	**Salivary secretion**	• Describe the different types of salivary gland. • Describe the properties, composition and functions of the saliva. • Explain the mechanism of salivary secretion. • Explain the regulation of salivary secretion. • Discuss the clinical relevance of their disorders.

Physiology 3	**MAM**	**Gastrointestinal motility**	• Describe the following processes in terms of functional structures, mechanism and functions:
			  ○ Mastication
			  ○ Deglutition
			• Movements of the stomach – filling and emptying

			● Movements of the small and large intestines
Physiology 4 (e-Learning 2 hours)	**ZAO**	**Physiology of gastric secretion**	● Describe the functional structures of the stomach. ● Describe the functions of the stomach. ● Describe the composition, properties and functions of gastric juice. ● Explain the regulation of gastric secretion. ● Describe the clinical relevance of their disorders.
Physiology 5	**MAM**	**Intestinal secretions**	● Describe the functional structure of the intestines. ● List the composition, properties & functions of intestinal secretions. ● Discuss the regulation of intestinal secretions. ● Discuss the clinical relevance of their disorders.
Physiology 6	**ZAO**	**Physiology of exocrine pancreas**	● Describe the functional structures of the exocrine pancreas. ● Explain the composition, properties and functions of pancreatic juice. ● Discuss the control of pancreatic secretion. ● Discuss the clinical relevance of their disorders.
Physiology 7	**SAM**	**Vomiting and defaecation reflexes**	● Explain the physiological mechanisms involving vomiting and defeacation reflexes. ● Discuss the importance of the main GI reflexes. ● Discuss the clinical relevance of vomiting.
Physiology 8	**CMN**	**Gastrointestinal hormones**	● List the clinically important gastrointestinal hormones. ● Describe the actions and regulation of these hormones.

Biochem 1 (e-Learning 2 hours)	**NSMS**	**Digestion & absorption of carbohydrates & lipids**	● List the dietary carbohydrates and lipids and their sources. ● Describe the digestion and absorption of carbohydrates and lipids. ● Describe the role of bile salts in digestion and absorption of lipids. ● Differentiate digestion and absorption of medium-chain and long-chain triglycerides. ● Describe the carbohydrate and lipid malabsorption syndromes.
Biochem 2	**LHMA**	**Digestion & absorption of proteins & nucleic acids**	● Classify the proteolytic enzymes and explain secretion and activation of zymogens. ● Describe the actions of gastric, pancreatic and intestinal proteolytic enzymes. ● Describe the absorption of dipeptides and amino acids - amino acid transporters. ● Enumerate the defects in digestion and absorption of proteins in regards to gluten enteropathy. ● Effects of gastric, pancreatic disorders and intestinal amino acid transport defects.
Biochem 3 (e-Learning 2 hours)	**LHMA**	**Ammonia metabolism & toxicity**	● List the sources and explain the formation of ammonia. ● Describe glutamine metabolism. ● Explain the transport of ammonia. ● Explain the final disposal of ammonia in regards to urea formation. ● Describe ammonia toxicity with regards to normal blood ammonia level, hereditary urea cycle disorders and acquired causes of hyperammoniaemia .
Biochem 4 (e-Learning 2 hours)	**USMR**	**Bilirubin metabolism & hyperbilirubinaemias**	● List the sources of bilirubin. ● Describe the formation, transport and disposal of bilirubin. ● Define hyperbilirubinaemias and describe the types and causes.

Biochem 5 (e-Learning 2 hours)	**LHMA**	**Metabolism of bile acids & bile salts**	● State the composition and functions of bile. ● Explain the structure of bile acids & bile salts. ● Explain the metabolism of bile acids and bile salts. ● Describe the enterohepatic circulation of bile salts. ● Define cholelithiasis and state the types & explain the formation of gallstones and their effects.
Biochem 6 (e-Learning 2 hours)	**SNRK**	**Nutrition & energy**	● Explain the composition of food and list the energy yielding and body building nutrients. ● Define the units of energy and state the energy value of nutrients. ● Define the respiratory quotient values of nutrients and explain its importance. ● State and describe the components of energy expenditure that are basal metabolic rate, specific dynamic action and physical activity.
Biochem 7 (e-Learning 2 hours)	**USMR**	**Protein nutrition**	● Explain protein turnover and amino acid pool. ● State the routes and amounts of daily nitrogen loss and state the daily requirements of protein. ● Describe indices to assess quality of food proteins that is biological value, chemical score, protein efficiency ratio, net protein utilisation and digestibility coefficient. ● State the composition of a balanced diet. ● Describe protein-energy malnutrition.
Biochem 8 (e-Learning 2 hours)	**SNRK**	**Vitamins and mineral metabolism**	● Describe absorption, transportation, storage and excretion of vitamins. ● List the daily requirements, dietary sources, functions and deficiency symptoms of each vitamin. ● Describe the hypervitaminosis. ● Describe the minerals, daily requirements, their functions, deficiency diseases and toxicity. ● Difference between vitamins and minerals.

Microbiology 1	**NIAR**	**Viral hepatitis**	• Define viral hepatitis. • Describe the epidemiology and clinical findings. • List the causative organisms. • Describe the pathogenesis and complications. • Explain the laboratory diagnosis. • Outline the management and prevention of the infection.
Microbiology 2	**SIS**	**Cholecystitis & cholangitis**	• Define cholecystitis and cholangitis. • Describe the clinical findings. • List the causative organisms. • Describe the pathogenesis and complications. • Explain the microbiological investigation. • Outline the management of the infection.
Microbiology 3	**NIAR**	**Pyogenic liver abscess**	• Define pyogenic liver abscess. • Describe the clinical findings. • List the causative organisms. • Describe the pathogenesis and complications. • Explain the microbiological investigation. • Outline the management of the infection.
Microbiology 4	**SIS**	**Gastroenteritis and food poisoning**	• Define gastroenteritis and food poisoning. • Describe the epidemiology and clinical findings. • List the causative organisms. • Describe the pathogenesis and complications. • Explain the laboratory diagnosis. • Outline the management and prevention of the infection.

Microbiology 5	**KAJ**	**Enteric fever & salmonellosis**	• Define enteric fever and salmonellosis. • Describe the epidemiology and clinical findings. • List the causative organisms. • Describe the pathogenesis and complications. • Define “carrier” in typhoid fever. • Explain the laboratory diagnosis. • Outline the management and prevention of the infection.
Pathology 1 (e-Learning 2 hours)	**NHAB**	**Oral cavity diseases**	• Describe the pathology of pemphigus vulgaris. • Describe the causes of ulcerations in the mouth. • Describe the tumour-like and benign tumours of the oral cavity. • Describe aetiology and pathogenesis and pathology of preneoplastic and malignant oral lesions. • Describe the aetiology, pathogenesis, pathology, and clinical manifestations of benign and malignant salivary gland neoplasms.
Pathology 2	**NHAB**	**Oesophageal diseases**	• Describe oesophagitis (including lacerations, infective, GERD, eosinophilic, chemical) regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe Barrett oesophagus regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe oesophageal varices regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe esophageal carcinoma, including the pathogenesis, pathology, and clinical features.
Pathology 3	**NHAB**	**Stomach diseases**	• Outline mechanisms of gastric injury. • Outline acute and chronic gastric ulceration, and the complications of chronic gastric ulceration.

			• Describe peptic ulcer disease regarding the aetiology and pathogenesis, the diseases associated with peptic ulcer, the pathology (gastric and duodenal ulcers), and the clinical manifestations (including complications). • Discuss the benign neoplasms of the stomach. • Describe the malignant neoplasms of the stomach, including the pathogenesis, pathology, and clinical features.
Pathology 4	**AA**	**Chronic hepatitis and liver cirrhosis**	• Outline the general features of hepatic disease, including patterns of hepatic injury, laboratory evaluation of liver disease, hepatic failure. • Outline three morphological characteristics of cirrhosis and describe the pathogenesis and the clinical features of cirrhosis including complication. • Describe portal hypertension regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations including complications. • Outline jaundice (including neonatal jaundice and hereditary hyperbilirubinaemia) and cholestatic syndromes of infancy. • Describe alcoholic liver disease regarding the pathogenesis, the pathology, and the clinical manifestations and outline non-alcoholic fatty liver disease.
Pathology 5 (e-Learning 2 hours)	**AA**	**Hepatobiliary tumours**	• Describe oesophagitis (including lacerations, infective, GERD, eosinophilic, chemical) regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe Barrett oesophagus regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe oesophageal varices regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe oesophageal carcinoma, including the pathogenesis, pathology, and clinical features.
Pathology 6	**NHAB**	**Diseases of gallbladder and hepatobiliary tract**	• Describe the aetiology, risk factors and pathogenesis, the pathology, and the clinical manifestations of cholesterol and pigment gallstones.

			• Describe the pathology of acute and chronic cholecystitis (Rokitansky-Aschoff sinus). • Describe the pathology and the clinical manifestations of gallbladder carcinoma. • Outline the disorders of the extrahepatic bile duct.
Pathology 7	**NHAB**	**Diseases of pancreas**	• Describe acute and chronic pancreatitis regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations (including complications of chronic pancreatitis). • Outline pancreatic pseudocyst and cystic neoplasms. • Describe pancreatic carcinoma regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Outline pancreatic endocrine tumours.
Pathology 8 (e-Learning 2 hours)	**AA**	**Intestinal diseases**	• Outline the causes of intestinal obstructions, including hernias, adhesion, volvulus, and intussusception. • Describe ischaemic bowel disease regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe celiac disease regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe pseudomembranous colitis regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Outline appendicitis, including the aetiology, the pathology, and the clinical manifestations
Pathology 9	**AA**	**Intestinal polyps and tumours**	• Describe intestinal polyps (inflammatory, adenomatous, hyperplastic, familial adenomatous polyposis, juvenile, neoplastic) regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Describe colorectal adenocarcinoma (classification) regarding the aetiology and pathogenesis, the pathology, and the clinical manifestations. • Outline the features of GI neuroendocrine tumours.

			• Describe the pathology and the clinical manifestations of neuroendocrine tumours. • Outline tumours of anal canal, including the pathology and the clinical manifestations.
Parasite 1	**KAJ**	**Ascariasis and enterobiasis**	• Identify the various stages and life cycle of *Ascaris lumbricoides* and *Enterobius vermicularis*. • Describe the epidemiology, pathogenesis and clinical manifestations of ascariasis. • Describe the laboratory diagnosis and treatment. • Outline the preventive measures.
Parasite 2	**KAJ**	**Trichuriasis, hookworm infections, and strongyloidiasis**	• Identify the various stages and life cycle of *Trichuris trichuria,* Hookworm and *Strongyloides.* • Describe the epidemiology, pathogenesis and clinical manifestations of these infections. • Describe the laboratory diagnosis and treatment. • Outline the preventive measures.
Parasite 3	**NB**	**Amoebiasis, giardiasis and balantidiasis**	• Identify the various stages and life cycle of *Entamoeba histolytica*, *E. coli, Giardia lamblia, Balantidium coli* and *Dientamoeba fragilis*. • Describe the epidemiology, pathogenesis and clinical manifestations of amoebiasis. • Describe the laboratory diagnosis and treatment. • Outline the preventive measures.

Parasite 4	**NB**	**Taeniasis, cysticercosis and schistosomiasis**	● Identify the various stages and life cycle of *Taenia saginata, Taenia solium*, *Hymenolepis nana, Hymenolepis diminuta* and *Diphyllobothrium latum*. ● Describe the epidemiology, pathogenesis and clinical manifestations of these infections. ● Describe the laboratory diagnosis and treatment. ● Outline the preventive measures.
Pharmacology 1	**SDA**	**Antidiarrheal agents, laxatives and faecal softeners**	● Classify antidiarrheal agents. ● Explain the mechanism of action of antidiarrheal agents. ● Describe pharmacokinetic, uses and side effects of antidiarrheal agents. ● Classify laxatives and faecal softeners. ● Explain the mechanism of action of laxatives and faecal softeners. ● Describe pharmacokinetic, uses and side effects of laxatives and faecal softeners.
Pharmacology 2	**SYNJ**	**Antiemetic agents**	● Classify antiemetics. ● Explain the mechanism of action of antiemetics. ● Describe pharmacokinetics, uses and side effects of antiemetics.
Pharmacology 3	**SHN**	**Treatment for peptic ulcer**	● Classify anti-peptic ulcer agents. ● Explain the mechanism of action of anti-peptic ulcer agents. ● Describe pharmacokinetic, uses and side effects of anti-peptic ulcer agents.

Pharmacology 4 (e-Learning)	**MSAA**	**Treatment of Inflammatory Bowel Disease (IBD)**	● Classify drugs used for treatment of IBD according to the severity of IBD. ● Understand the significance of pharmacokinetic properties of the above different classes. ● Recognise the common side effects and drug interactions of IBD treatment.
Radiology	**HMAR**	**Radiological anatomy of GIT**	● Interpret the GIT anatomy on X-ray, CT scan, MRI and other imaging. ● Explain abdominal X-ray and additional views.
Clinical/Surgery	**HAM**	**Acute abdominal pain**	● Discuss the different features / characters of acute abdominal pain. ● Explain the significance of sites and radiations of the pain. ● Discuss common causes of acute abdominal pain. ● Outline the principle of management for acute abdominal pain.
Clinical/Surgery	**HAM**	**Gastrointestinal bleeding**	● Explain the symptoms and signs of GI bleeding. ● Differentiate the clinical presentations of upper and lower GI bleeding. ● Discuss common causes of upper and lower GI bleeding. ● Outline the principle of management for GI bleeding.

OUTLINE OF COURSE CONTENT (PBL, SGD, PRACTICAL, ECE & PPD)

PBL	Lecturer	Learning Outcome
PBL Case 1	**NAS, USMR, SYNJ, SHN, NHAB, NB**	Specific LO will be given in the PBL session.
PBL Case 2	**NFCL, SFMA, SNRK, SIS, ZAO, CMN**	Specific LO will be given in the PBL session.
PBL Case 3	**SNRK, NAAB, NSMS, MAM, MA, NB**	Specific LO will be given in the PBL session.
PBL Case 4	**NB, SHN, MAM, NAAB, USMR, AD**	Specific LO will be given in the PBL session.

SGD	Lecturer	Title	Learning Outcome
SGD Anatomy 1	**TFM, YIAB, NFCL, SFMA**	Applied anatomy of GIT 1 (upper GIT / hepatobiliary)	• Apply the knowledge of anatomy to the clinical case scenarios - in upper GIT and hepatobiliary system. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.
SGD Anatomy 2	**SFMA, NM, NFMN, YIAB**	Applied anatomy of GIT 2 (lower GIT / abdominal wall)	• Apply the knowledge of anatomy to the clinical case scenarios - in lower GIT and abdominal wall. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.

SGD Physiology	**MAM, SAM, CMN, ZAO**	Pathophysiology of Common GIT Disorders	• Apply basic sciences knowledge to the clinical scenario. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.
SGD Pharmacology	**Pharmacology Lecturers**	To be decided by unit	• Apply basic sciences knowledge to the clinical scenario. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.
SGD Microbiology	**Microbiology Lecturers**	Applied microb of GIT 1	• Apply basic sciences knowledge to the clinical scenario. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.
SGD Pathology	**Pathology Lecturers**	To be decided by unit	• Apply basic sciences knowledge to the clinical scenario. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.
SGD Biochemistry	**LHMA, SNRK, NSMS, USMR**	To be decided by unit	• Apply basic sciences knowledge to the clinical scenario. • Demonstrate effective communication during collaborative learning. • Demonstrate independent learning and self-development in learning activities.

PRACTICAL	Lecturer	Title	Learning Outcome
Practical Anatomy 1	**NFMN, NFCL**	**Anterior abdominal wall, oral cavity, pharynx, oesophagus and stomach** **Lab staff:** Faizzul, Khairul, Faradi, Rostamizi	● Identify the layers and muscles of the anterior abdominal wall. ● Identify walls and contents of the rectus sheath. ● Demonstrate the boundaries and the content of the inguinal canal. ● Identify the features of the oral cavity, pharynx, oesophagus and stomach. ● Demonstrate the relations of oesophagus and stomach.
Practical Anatomy 2	**TFM, YIAB**	**Pancreas, hepatobiliary apparatus and intestines** **Lab staff:** Faizzul, Khairul, Faradi, Rostamizi	● Identify the features of the liver, gallbladder, biliary tree, portal vein and pancreas. ● Distinguished the features of small & large intestines, and anal canal. ● Demonstrate the relations of different organs in the abdominal cavity.
Practical Histology 1	**NM**	**Histology of tongue, salivary glands, hepatobiliary apparatus and pancreas.** **Lab staff:** Siti Asmah, Khairul	● Identify microscopic features of tongue, salivary glands, liver, gallbladder and pancreas.
Practical Histology 2	**NM**	**Oesophagus and stomach, and intestines** **Lab staff:** Siti Asmah, Rostamizi	● Identify microscopic features of oesophagus, stomach, duodenum, jejunum, ileum, appendix and colon.

Practical Pathology	**NHAB, AA**	**Pathology of GIT** **Lab staff:** Shahril amin, Faradi	• Describe the gross and microscopic morphologies of: ○ Barrett oesophagus ○ Squamous cell carcinoma of oesophagus ○ Gastric ulcer ○ Gastric carcinoma ○ Carcinoma of pancreas ○ Chronic active hepatitis ○ Liver cirrhosis
Practical Biochemistry	**SNRK**	**Liver function tests (Dry Lab)**	• List the liver function tests. • Discuss components in liver function tests and their significance. • Interpret the blood test result and relate with the possible diseases. • Discuss on the role of liver function test in assessing prognosis.
ECE	**Lecturer**	**Title**	• **Learning Outcome**
ECE 1	**SMAR, SA, MAM, YIAB**	**ECE: Common symptoms in GIT disease**	• Perform basic history taking for common symptoms in GIT disease: • Abdominal pain/mass • Nausea/Vomiting • Hematemesis • Diarrhea/PR bleed • Jaundice. (Demonstration and role play)
ECE 2		**ECE: Abdominal examination**	• Display the ability to perform abdominal examinations: ○ Inspection ○ Palpation ■ superficial: tenderness, lumps ■ deep: guarding, rigidity, mass, liver, spleen

	SMAR, SA, MAM, YIAB		○ Percussion ○ Auscultation of bowel sound *Hernia and PR exam (no need to perform)* ● Apply the surface anatomy of the abdominal regions - 9 regions for palpation. (Demonstration and role play, video on example of patient's appearance / signs)
PPD	**Lecturer**	**Title**	● **Learning Outcome**
PPD 10 (2 hours)	**Dr. Nor Hafizah (FBK)**	**Interpersonal Communication**	● Understand the forms and purposes of interpersonal communication. ● Analyse the importance of interpersonal communication and its fundamental concepts and principles. ● Apply necessary skills in interpersonal communication.
PPD 11 (3 hours)	**ARM**	**Career Pathway as a Doctor**	● Discuss the pathway to become medical officer (Introduction to MBBS program). ● Discuss career and challenges as a doctor, which is regard as a noble profession. ● Explain medical specialties for future career. ● Describe the criteria to become excellent medical professional.

REFERENCES:

Anatomy

1. Moore, K.L., Dalley, Arthur F., Agur, Anne M.R. Clinically Oriented Anatomy, 9th edition (2022), Williams & Wilkins, Philadelphia
2. Ross, M.H., Kaye, G.I. & Pawlina, W. Histology – Text and Atlas, 8th edition (2020), Lippincott Williams & Wilkins, Philadelphia
3. Sadler, T W. Langman's Medical Embryology, 14th edition (2019), Lippincott Williams & Wilkins, Philadelphia
4. Snell, Richard S. Clinical Neuroanatomy for Medical Students, 8th edition (2018), Lippincott Williams & Wilkins, Philadelphia
5. Netter, F. H., Atlas of Human Anatomy, 8th edition (2022), Elsevier.

Physiology

1. Hall, J. E & Guyton, A. C. (2016). Guyton and Hall Textbook of Medical Physiology. 13th Edition. 1 – 1046. Elsevier.
2. Barrett, K. E, Barman, S.M, Boitano, S. B & Brooks, H. L. (2016). Ganong's Review of Medical Physiology. 25th edition. 1-763. McGraw Hill Education. Lange.

Biochemistry

1. Harvey RA & Ferrier D. (2017). Biochemistry: Lippincott's Illustrated Reviews. 7th edition. Lippincott Williams & Wilkins international edition.
2. Rodwell VW, Kennelly PJ, Weil PA, Bender DA and Botham KM: Harper's Illustrated Biochemistry, 2018. McGraw-Hill Education _ Medical, 31st Edition.
3. Lieberman, M. & Marks, A. (2015). Marks' Basic Medical Biochemistry: A Clinical Approach. 4th edition. Lippincott Williams & Wilkins international edition.

Pathology

1. Cotran, Kumar and Collins, (2010). Robbin's Pathologic Basis of Diseases. 8th edition. W.B Saunders.
2. Rubin, E., Reisner, H.M. (2009). Essentials of Rubin's Pathology. 5th edition. Philadelphia. Lippincott Williams & Wilkins
3. Rubin, R. Strayer, D.S., Rubin, E. (2012). Rubin's Pathology: Clinicopathologic Foundations of Medicine. 6th edition. Philadelphia. Lippincott Williams & Wilkins

Pharmacology

1. Katzung B, Trevor A. (2015). Basic and Clinical Pharmacology. 13th edition. McGraw-Hill Education.
2. Rang HP, Ritter JM, Flower RJ, Henderson G. (2016). Rang & Dale's Pharmacology, 8th edition. Elsevier Churchill-Livingstone.
3. Whalen, K. (2014). Lippincott Illustrated Reviews: Pharmacology. 6th edition. Wolter Kluwer Lippincott Williams Wilkins.

Clinical skill

1. Innes JA, Dover A and Fairhurst K (2018): Macleod's Clinical Examination.14th Edition, Elsevier.

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(SEMESTER 2, YEAR 1)
Academic Session 2023/2024

WEEK 1

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

DATE / TIME	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00 -12.00	12.00 - 1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 30.6.2024	SELF-STUDY	Intro. to module **SFMA (online)**		English for Communication II **(PBI 10202)** **MKK2, DKC**			SELF-STUDY	Integriti Dan Anti Rasuah **(MPU34011)** **(DKB)**	
MONDAY 1.7.2024	Abdominal wall **NFMN** **DKB**	Peritoneum **NFMN** **DKB**		Functional organisation of GI tract & physiology of smooth muscle **SAM** **DKB**	SELF-STUDY		Digestion and absorption II: proteins & nucleic acids **LHMA** **DKB**	SELF-STUDY	
TUESDAY 2.7.2024	Anatomy of oral cavity and pharynx **NFCL** **DKB**	Oesophagus and stomach **NFCL** **DKB**		Oesophageal Diseases **NHAB** **DKB**	SELF-STUDY		**e-learning** Salivary secretion **CMN**		
WEDNESDAY 3.7.2024	**e-learning** Digestion and absorption I: carbohydrates & lipids **NSMS**			Penghayatan Etika dan Peradaban **(MPU 31072)** **MKK2, DKB**			**e-learning** Oral cavity diseases **NHAB**		
THURSDAY 4.7.2024	Stomach Diseases **NHAB** **DKB**	Gastrointestinal motility **MAM** **DKB**		**Practical Anatomy 1** (Makmal Diseksi Anatomi) Anterior abdominal wall, oral cavity, pharynx, oesophagus and stomach **NFCL, NFMN** Lab Staff: Faizzul, Khairul, Faradi, Rostamizi			**e-learning** Hepatobiliary system and pancreas **TFM**		

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WEEK 2

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

DATE / TIME	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00 - 12.00	12.00 - 1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 7.7.2024	**AWAL MUHARAM**								
MONDAY 8.7.2024	Physiology of exocrine pancreas **ZAO** **DKB**	Chronic hepatitis and liver cirrhosis **AA** **DKB**		Intestinal secretion **MAM** **DKB**	SELF-STUDY		**SGD l Anatomy** Applied anatomy of GIT 1 (upper GIT / hepatobiliary) **TFM, YIAB, NFCL, SFMA** **BT 1,2,3,4**	SELF-STUDY	
TUESDAY 9.7.2024	Gastrointestinal Hormones **CMN** **DKB**	Viral hepatitis **NIAR** **DKB**		Gastroenteritis and food poisoning **SIS** **DKB**	SELF-STUDY		**e-learning** Histology of salivary glands, tongue, hepatobiliary apparatus and pancreas **NM**		
WEDNESDAY 10.7.2024	**e-learning** Bilirubin metabolism & hyperbilirubinemias **USMR**			Penghayatan Etika dan Peradaban **(MPU 31072)** **DKB / DT**			**e-learning** Physiology of gastric secretion **ZAO**		
THURSDAY 11.7.2024	**PPD 10** Interpersonel Communication **Dr Nor Hafizah** **DKB**			**Practical Histology 1** (Makmal Mikrobiologi & Histologi) Histology of tongue, salivary glands, hepatobiliary apparatus and pancreas **NM** Lab Staff: Siti Asmah, Khairul **MPG1-3: MMikrob/MBiokim/MHisto**			**e-learning** Hepatobiliary Tumors **AA**		

BACHELOR OF MEDICINE & BACHELOR OF SURGERY (MBBS) PROGRAMME PHASE 1
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WEEK 3

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

TIME / DATE	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00 - 12.00	12.00 - 1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 14.7.2024	**e-learning** Ammonia metabolism & toxicity **LHMA**			English for Communication II **(PBI 10202)** **MKK2, LAB COMP. 3**			SELF-STUDY	Integriti Dan Anti Rasuah **(MPU34011)** **(DKB)**	
MONDAY 15.7.2024	SELF-STUDY	**PPD 11** Career Pathway as a Doctor **ARM** **DKB**			SELF-STUDY		**SGD Physiology** Pathophysiology of Common GIT Disorders **MAM, SAM, CMN, ZAO** **BT 1,2,3,4**	SELF-STUDY	
TUESDAY 16.7.2024	Pyogenic liver abscess **NIAR** **DKB**	Vomiting and defaecation reflexes **SAM** **DKB**		**PBL Case 1 Session 1** **NAS, USMR, SYNJ, SHN, NHAB, NB** **BT 1,2,3,4,5,6**			**e-learning** Development of foregut **SFMA**		
WEDNESDAY 17.7.2024	Treatment of Peptic Ulcer **SHN** **DKB**	SELF-STUDY		Penghayatan Etika dan Peradaban **(MPU 31072)** **MKK2, DKB**			**e-learning** Development of midgut and hindgut **SFMA**		
THURSDAY 18.7.2024	Diseases of the gall bladder and hepatobiliary tract **NHAB** **DKB**	SELF-STUDY		**PBL Case 1 Session 2** **NAS, USMR, SYNJ, SHN, NHAB, NB** **BT 1,2,3,4,5,6**			**e-learning** Metabolism of bile acids & bile salts **LHMA**		

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WEEK 4

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

DATE / TIME	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00 -12.00	12.00 – 1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 21.7.2024	**e-learning** Nutrition & energy **SNRK**			English for Communication II **(PBI 10202)** **DKC / MKK2**			SELF-STUDY	Integriti Dan Anti Rasuah **(MPU34011)** **(DKB)**	
MONDAY 22.7.2024	Antiemetic agents **SYNJ** **DKB**	Small Intestine **YIAB** **DKB**		Cholecystitis and cholangitis **SIS** **DKB**	SELF-STUDY		**SGD II Anatomy** Applied anatomy of GIT 2 (lower GIT / abdominal wall) **SFMA, NM, NFMN, YIAB** **BT 1,2,3,4**	SELF-STUDY	
TUESDAY 23.7.2024	Large Intestine **YIAB** **DKB**	Radiological anatomy of GIT **HMAR** **DKB**		**PBL Case 2 Session 1** **NFCL, SFMA, SNRK, SIS, ZAO, CMN** **BT 1,2,3,4,5,6**			**SGD Biochem** **LHMA, SNRK, NSMS, USMR** **BT 1,2,3,4**	SELF-STUDY	
WEDNESDAY 24.7.2024	Diseases of Pancreas **NHAB** **DKB**	SELF-STUDY		Penghayatan Etika dan Peradaban **(MPU 31072)** **DKB / MKK2**			**e-learning** Protein nutrition **USMR**		
THURSDAY 25.7.2024	**Practical Anatomy II** (Makmal Diseksi Anatomi) Pancreas, hepatobiliary apparatus and intestines **TFM, YIAB** Lab Staff: Faizzul, Khairul, Faradi, Rostamizi			**PBL Case 2 Session 2** **NFCL, SFMA, SNRK, SIS, ZAO, CMN** **BT 1,2,3,4,5,6**			**e-learning** Vitamins and Mineral metabolism **SNRK**		

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WEEK 5

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

TIME / DATE	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00– 12.00	12.00- 1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 28.7.2024	SELF-STUDY			English for Communication II **(PBI 10202)** **DKC / MKK2**			SELF-STUDY	Integriti Dan Anti Rasuah **(MPU34011)** **(DKB)**	
MONDAY 29.7.2024	Antidiarrhoeal agents, laxatives and faecal softeners **SDA** **DKB**	Intestinal Polyps & Tumors **AA** **DKB**		Enteric fever and salmonellosis **KAJ** **DKB**	SELF-STUDY		Taeniasis, cysticercosis and Schistosomiasis **NB** **DKB**	SELF-STUDY	
TUESDAY 30.7.2024	Ascariasis and Enterobiasis **KAJ** **DKB**	SGD Pharmacology **MSAA, SDA, SYNJ, SHN** **BT 1,2,3,4**		**PBL Case 3 Session 1** **SNRK, NAAB, NSMS, MAM, MA, NB** **BT 1,2,3,4,5,6**			**e-learning** Histology of oesophagus, stomach, small and large intestines **NM**		
WEDNESDAY 31.7.2024	**Practical Biochemistry** **Liver function tests** (Dry Lab) **SNRK** **DKB**			Penghayatan Etika dan Peradaban **(MPU 31072)** **DKB, MKK2**			Acute abdominal pain **HAM** **DKB**	SELF-STUDY	
THURSDAY 1.8.2024	**Practical Histology 2** (Makmal Mikrobiologi & Histologi) Histology of oesophagus, stomach, small and large intestines **NM** Lab Staff: Siti Asmah, Khairul **MPG1-3: MMikrob/MBiokim/MHisto**			**PBL Case 3 Session 2** **SNRK, NAAB, NSMS, MAM, MA, NB** **BT 1,2,3,4,5,6**			**e-learning** Intestinal diseases **AA**		

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WEEK 6

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

TIME / DATE	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00– 12.00	12.00-1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 4.8.2024	SELF-STUDY			English for Communication II **(PBI 10202)** **DKC / MKK2**			SELF-STUDY	Integriti Dan Anti Rasuah **(MPU34011)** **(DKB)**	
MONDAY 5.8.2024	SELF-STUDY	Trichuriasis, hookworm infections, and strongyloidiasis **KAJ** **DKB**		**SGD Pathology Pathology Lecturers** **DKB, MKK2, DT**	SELF-STUDY		**ECE 1**: Common symptoms in GIT disease **SHN, SA, MAM, YIAB** **MKK1, MKK2, MKK3**		
TUESDAY 6.8.2024	Amoebiasis, giardiasis and balantidiasis **NB** **DKB**	SELF-STUDY		**PBL Case 4 Session 1 NB, SHN, MAM, NAAB, USMR, AD** **BT 1,2,3,4,5,6**			Gastrointestinal bleeding **HAM** **DKB**	SELF-STUDY	
WEDNESDAY 7.8.2024	**SGD Microbiology** Applied microb of GIT 1 **NIAR, YCC, SIS, NB, KAJ** **BT 1,2,3,4,5**	SELF-STUDY		Penghayatan Etika dan Peradaban **(MPU 31072)** **DKB / MKK2**			**e-Learning activity** Treatment of Inflammatory Bowel Disease (IBD) **MSAA**		
THURSDAY 8.8.2024	**Practical Histopathology Pathology of GIT NHAB, AA** Lab Staff: Shahril Amin, Faradi **MPG1-3: MMikrob/MBiokim/MHisto**			**PBL Case 4 Session 2 NB, SHN, MAM, NAAB, USMR, AD** **BT 1,2,3,4,5,6**			SELF-STUDY		

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WEEK 7

COURSE 6: Gastrointestinal System

Course Coordinator:
Dr Siti Fadziyah

DATE / TIME	8.30 – 9.30	9.30 – 10.30	10.30 - 11.00	11.00– 12.00	12.00-1.00	1.00 - 2.30	2.30 – 3.30	3.30 – 4.30	4.30 - 5.00
SUNDAY 11.8.2024	SELF-STUDY			English for Communication II **(PBI 10202)** **DKC, MKK2**			SELF-STUDY	Integriti Dan Anti Rasuah **(MPU34011)** **(DKB)**	
MONDAY 12.8.2024	**ECE 2:** Abdominal examination **SHN, SA, MAM, YIAB** **MKK1, MKK2, MKK3**			SELF-STUDY			SELF-STUDY		
TUESDAY 13.8.2024	**QUIZ 1 (online)** **Anatomy / Physiology / Biochemistry** **LAB COMP, 1 & 3**			SELF-STUDY			SELF-STUDY		
WEDNESDAY 14.8.2024	SELF-STUDY			Penghayatan Etika dan Peradaban **(MPU 31072)** **DKB, MKK2**			SELF-STUDY		
THURSDAY 15.8.2024	**QUIZ 2 (online)** **Pharmacology / Pathology / Microbiology / Parasitology** **LAB COMP, 1 & 3**			**FEEDBACK SESSION (PROFESS)**	SELF-STUDY		Meeting Preclinical (online)	SELF-STUDY	

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