

# Alimentation and Excretion & Reproduction Module

**Credits: 3.5**

## Alimentation Module - Year 3 Semester 2

**Duration: 4 weeks (20 days)**

Topic/ Concept	Objectives	Time	Department	T/L Activity
<b>2006-3/SBM-4/01</b>				
<b>Alimentation in health</b>	1. recall digestion, absorption and metabolism relating to, carbohydrates, proteins, fat, vitamins, minerals & trace elements 2. recall normal structure and functions of the liver, gut, pancreas and biliary tract 3. recall the neural and hormonal control of the alimentation		Self learning	
<b>2006-3/SBM-4/02</b>				
<b>The role of nutrients, the requirements &amp; sources</b> 1. the concept of a healthy wholesome diet	recall		Self learning	
<b>2006-3/SBM-4/03</b>				
<b>Normal bowel flora</b>	recall		Self learning	
<b>2006-3/SBM-4/04</b>				
<b>Diarrhoea</b> 1. Mechanisms 2. Effects 3. Therapies	recall		Self learning	
	<b>2005-3/SBM-4/8</b>			
<b>2006-3/SBM-4/05</b>				
<b>Vomiting</b> 1. Mechanisms 2. Effects 3. Therapies	recall		Self learning	
	<b>2005-3/SBM-4/8</b>			

	<b>At the end of the module, student should be able to,</b>			
<b>2006-3/SBM-4/06</b>				
<b>Introduction to GI pathology</b>	1. apply principles of general pathology to the GIT (acute and chronic inflammation, metaplasia, dysplasia, neoplasia) - Recall		Pathology	
<b>2006-3/SBM-4/07</b>				
<b>Drugs in relation to alimentation</b>	1. describe the mechanism of action, pharmacokinetics, clinical uses, adverse reactions and interactions of (i). anti-emetics (ii). anti-spasmodics (iii). laxatives (iv). anti-diarrhoeal agents 2. explain the basis on which antiemetics are selected in different clinical situations. 3. list the commonly used anti-diarrhoeal agents and describe their clinical uses and limitations	1h	Pharmacology	Lecture
<b>2006-3/SBM-4/08</b>				
<b>Infective disease in relation to alimentation</b>				
<b>a. Infective diarrhoea, Food poisoning</b>	1. list the causes of infective diarrhoea and food poisoning 2. describe the pathogenesis of infective diarrhoea 3. state the key methods of diagnosis of infective diarrhoea and food poisoning 4. outline key methods in prevention of infective diarrhoea and food poisoning	1h	Microbiology	Lecture
<b>b. Pathological changes in gut infections</b>	describe the pathogenesis, morphological appearances and complications of - Typhoid, Tuberculosis, Amoebiasis, Bacillary dysentery	1h	Pathology	Lecture
<b>c. Malnutrition associated with Intestinal Infections</b>	1. name the intestinal protozoans and helminths that cause malnutrition in Sri Lanka 2. state the general clinical features that indicate malnutrition with infection caused by each of these agents 3. describe briefly the major mechanisms responsible for malnutrition in each infection	1h	Parasitology	Lecture

<b>2006-3/SBM-4/09</b>				
<b>a. Oesophagus &amp; Stomach</b>	<p>1. describe the pathogenesis, morphological appearances and complications of -Oesophagitis, Acute and Chronic Gastritis, Peptic ulcer.</p> <p>2. recall chronic inflammation.</p> <p>3. describe the pathogenesis, morphological appearances and complications of UC and Crohn's disease.</p> <p>4. list extraintestinal manifestations of the above.</p>	1h + 2h	Pathology	Lecture
	<p>2. describe the mechanism of action, pharmacokinetics, clinical uses, adverse reactions and interactions of</p> <p>(i). antacids</p> <p>(ii). H2 receptor antagonists</p> <p>(iii). proton-pump inhibitors</p> <p>(iv). cytoprotective agents</p> <p>(v). gastric prokinetic agents (metoclopramide, domperidone)</p> <p>(vi). Interaction of drugs used for Helicobacter pylori eradication</p>	1h	Pharmacology	Lecture
<b>b. Diseases of small intestine and appendix</b>	<p>1. describe the causes, appearances and complications of appendicitis and gastroenteritis.</p> <p>2. describe the common causes and appearances of small intestine in malabsorption</p> <p>3. describe the tumours of small intestine and appendix</p>	1h	Pathology	Student presentation
<b>2006-3/SBM-4/10</b>				
<b>Inflammatory bowel disease</b>	<p>1. recall chronic inflammation.</p> <p>2. describe the pathogenesis, morphological appearances and complications of UC and Crohn's disease.</p> <p>3. list extraintestinal manifestations of the above.</p>	2h	Pathology	Lecture
	<p>4. describe the mechanism of action, pharmacokinetics and adverse effects of drugs in inflammatory bowel disease</p>	2h	Pharmacology	Lecture

<b>2006-3/SBM-4/11</b>				
<b>Neoplasms of the Colon</b>	<ol style="list-style-type: none"> <li>1. recall chronic inflammation, metaplasia, dysplasia, carcinogenesis and spread of tumour.</li> <li>2. describe pathogenesis, morphological appearances, mode of spread and complications.</li> <li>3. list the diagnostic methods available.</li> </ol>	2h	Pathology	Lecture
<b>2006-3/SBM-4/12</b>				
<b>Anal and peri anal disease</b>	<ol style="list-style-type: none"> <li>1. recall acute and chronic inflammation and carcinogenesis.</li> <li>2. describe the pathogenesis, morphological appearances and complications of -Fissures, fistulae, ulcers, haemorrhoids, and tumours.</li> </ol>	1h	Pathology	Lecture
<b>2006-3/SBM-4/13</b>				
<b>Introduction to liver pathology</b>	apply the principles of general pathology to the liver diseases - Recall		Pathology	
<b>2006-3/SBM-4/14</b>				
<b>Liver disease</b>	<ol style="list-style-type: none"> <li>1. list the causes and describe the morphological appearances and complications - acute and chronic hepatitis, liver abscess.</li> <li>2. describe the pathogenesis, morphological appearances and complications of alcoholic liver disease,NAFLD,cirrhosis.</li> <li>3. describe the pathological changes and effects of portal hypertension.</li> <li>4. describe the Pathology of hepatomegaly</li> <li>5. recall Amyloidosis, Storage diseases, Acute congestion, Steatosis</li> <li>6. interpret investigations in diseases of the liver - <ol style="list-style-type: none"> <li>(i). interpret serum markers of acute and chronic hepatitis.</li> <li>(ii). understand the principles and interpretation of investigations of common liver diseases.(acute and chronic hepatitis, cirrhosis, portal hypertension, ascites,NAFLD,alcoholic liver disease and tumours.)</li> </ol> </li> </ol>	2h	Pathology	Student presentation
	7. interpret serum markers of acute and chronic hepatitis.	1h	Medicine	Lecture

	8. understand the principles of investigation of common liver diseases ( acute and chronic hepatitis, cirrhosis, portal hypertension, ascites, NAFLD, alcoholic liver disease and tumours)			
<b>2006-3/SBM-4/15</b>				
<b>Diseases of the Biliary system</b>	obstructive jaundice, biliary calculi, acute and chronic cholecystitis, tumours of the liver and the biliary system	2h	Pathology	Student presentation
<b>2006-3/SBM-4/16</b>				
<b>Pancreatic disease</b>	acute and chronic pancreatitis, pathogenesis, complications, morphology and biochemical investigations and the tumours of pancreas	2h	Pathology	Student presentation
<b>2006-3/SBM-4/17</b>				
<b>a. Imaging of GI diseases</b>	1. radiological, pathological correlation of gastrointestinal diseases discussed in this module 2. radiological pathological correlation of hepatobiliary and pancreatic diseases	2h + 1h	Radiology/ NMU	Lecture
<b>b. To introduce Nuclear medicine application in clinical practice</b>	3. to understand organ physiology and its functions with regard to radioisotope uptake			Lecture
	4. to understand practical applications on given clinical areas			

**Alimentation Module –(Year 3 Semester 2)**

**Module Summary**

<b>Department</b>	<b>Lectures (hrs)</b>	<b>Student Presentation (hrs)</b>	<b>Total (hrs)</b>
Pathology	7	9	16
Pharmacology	4		4
Medicine	1		1
Radiology	2		2
NMU	1		1
<b>Total</b>	<b>15</b>	<b>9</b>	<b>24</b>

**Names and departments of the teachers involved in the teaching programme:**

**Dept. of Pathology**

Prof. N. Ratnatunga  
Dr. Rukmani Gunawardena  
Sulochana Wijetunge  
Dr. R. Waduge  
Dr. E. Siriweera

**Dept. of Medicine**

Dr. I.B. Gawarammana

**Dept. of Pharmacology**

Dr. U. Dangahadeniya

**Dept. of Surgery**

Dr. S. Rosairo

**NMU**

Head/ NMU