COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate MD program of Gastroenterology and Hepatology
(2) Department offering the programme:	Internal medicine department Gastroenterology and Hepatology Unit
(3) Department responsible for teaching the course:	Physiology department in collaboration with Internal medicine department– Gastroenterology and Hepatology Unit
(4) Part of the programme:	First part– Physiology
(5) Date of approval by the Department`s council	**26/7/2016**
(6) Date of last approval of programme specification by Faculty council	**9/8/2016**
(7) Course title:	Applied physiology
(8) Course code:	HGMED**610** **HGMED603**
(9) Total teaching hours **&Credit hours:**	**15** teaching hours (1 credit **hour)**

(B) Professional information

(1) Course Aims:

The broad aims of the course:

Teach the candidate the physiologic role of the gastrointestinal system and liver in order to recognize pathophysiology, diagnose and treat different GI and liver disorders

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1. *Describe the physiology of GIT motility, GIT and pancreatic secretion, Bile metabolism, GIT absorption.*

A2. *Discuss the regulation of food intake and obesity.*

A3. *Recognize the physiologic role of Liver in storage, digestion of nutrients, excretion of bile and handling of drugs*

A4. *Explain the physiology of hemostasis ,fibrinolysis, erythropoiesis , physiology of hemorrhage and shock, venous, capillary and pulmonary circulation, , rennin-angiotensin aldosterone system, regulation of body fluid osmolality, K, Na and Ca homeostasis and acid base balance.*

A5.*Define the brain gut interaction as well as the neuroendocrine functions of the GIT*

B- Intellectual skills:

B1 *Demonstrate the facts about the role of the GIT in transport, digestion and absorption of various nutrients.*

B2 *Outline the physiologic role of the liver and pancrease in digestion and absorption of nutrients*

B3 *Integrate the role of different parts of the GIT, liver and pancrease in response to a meal*

B4 *Differentiate between the hemodynamic status changes in physiologic conditions and GI bleeding*

B5 *Distinguish the difference in various body fluid statuses and relate it to the body handling of the electrolytes*

B6.

C- General and Transferable Skills:

C1. Adopt principles of the lifelong learning needs of the medical profession

C2. Present information clearly in written, electronic and oral forms.

C3. Communicate ideas and arguments effectively

C4. Work effectively within a team.

C5. Discuss freely about learned medical problems.

(3) Course content:

Subjects	Lectures	Total Teaching hours
• **Review of GI layers and epithelia of different regions**	1	
• **GIT Motility(Esophageal, gastric and intestinal)**	1	
• **GIT secretions(Gastric, pancreatic &bile)**	1	
• **GIT hormones**	1	
• **Integrative response of the GIT, pancrease and liver to a meal**	1	
• **Nutrient digestion (CHO ,Lipids and proteins)and absorption**	1	
• **Brain-gut axis**	1	
• **Liver physiology.**	2	
• **Physiology of hemorrhage and shock.**	0.5	
• **Venous, capillary and pulmonary circulation.**	0.5	
• **Calcium homeostasis**	1	
• **Hemostasis, Fibrinolytic system.**	1	15 hrs
• **Erythropoiesis , lymphoid tissue**	1	
• **Regulation of body fluid osmolality, electrolytes**	1	
• **Renin angiotensin aldosterone system**	1	
• **Acid base balance**	1	

(1) Teaching methods:

4.1: Lectures with power point presentation.

4.2: Seminars and group discussions.

4.3: Self learning.

(2) Assessment methods:

5.1: written exam (short essay) for assessment of (a 2,3,4 ; b 1,3,5,8)

Assessment 1: written exam for 1hour (short essay): 80 marks.

5.2: online MCQ exam 20marks

Other assessment without marks: presentations during seminars, log book.

(3) References of the course:

6.1: Hand books of the physiology department.

6.2: Text books: Ganong physiology

6.1: websites.

(4) Facilities and resources mandatory for course completion:

Lecture halls.

Audiovisual facilities.

Virtual Library including multimedia teaching facilities.

Publishing facilities including: Printers, photocopy machines.

Course coordinators:

Prof Mohamed Elmahdy Sarhan

Prof: Emil Fayez Metias

Prof: Hasan EL-ASKLANY

Head of the department:

Prof .Salah El-Gamal

Date: