COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate MD program of general (internal) medicine
(2) Department offering the programme:	General (Internal) medicine department
(3) Department responsible for teaching the course:	Physiology department in collaboration with internal medicine department
(4) Part of the programme:	First part
(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:	MED603
(9) Credit hours	3 hours
(10) Total teaching hours:	45 hours

(B) Professional information

Course aim :

Teach the candidate how to integrate and link their Internal medicine information with other related specialties such as basic physiological knowledge.

Provide the candidate with the basis of medical problems and their related physiological theories.

(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

A 1 recognize the core content of Hemostasis, Fibrinolytic system, Erythropoiesis, Cardiac output, Heart rate regulation, Physiology of hemorrhage and shock, Coronary, venous, capillary and pulmonary circulation.

A 2 recall the patho-physiological basis of Glucose homeostasis, Hypothalamo-pituitary function and Assessment, Thyroid function control, Regulation of food intake and obesity, Renin angiotensin aldosterone system.

A 3 Describe the theories, principles and updates in GFR: value and measurement, Concentrating and diluting ability of the Kidney, Physiological basis and mechanism of action of Diuretics, Regulation of body fluid osmolality.

A 4 recognize the physiological basis of the Oxygen and CO2 transport by blood, Hypoxia and cyanosis, Regulation of hydrogen ion concentration, GIT motility, Control of gastric and pancreatic secretion, Bile metabolism, Body temperature regulation, and K, Na and Ca homeostasis.

B- Intellectual skills:

B 1 Interpret physiological data of GFR: value and measurement, Concentrating and diluting ability of the Kidney, Regulation of body fluid osmolality.

(3) Course content:

Subjects	Lectures & Seminars	Total Teaching Hours 44 hours
Hemostasis, Fibrinolytic system. Erythropoiesis.	2/week	4 hours (2 weeks)
Cardiac output, Heart rate regulation. Physiology of hemorrhage and shock. Coronary, venous , capillary and pulmonary circulation.	2/week	8hours (4weeks)
Glucose homeostasis. Hypothalamo-pituitary function and Assessment. Thyroid function control. Regulation of food intake and obesity. Renin angiotensin aldosterone system.	2/week	8 hours (4 weeks)
GFR: value and measurement Concentrating and diluting ability of the Kidney. Physiological basis and mechanism of actio Diuretics. Regulation of body fluid osmolality.	2/week	10 hours (5 weeks)
Oxygen and CO2 transport by blood. Hypoxia and cyanosis. Regulation of hydrogen ion concentration.	2/week	6 hours (3 weeks)
GIT motility. Control of gastric and pancreatic secretion. Bile metabolism.	2/week	6 hours (3 weeks)
Body temperature regulation K, Na and Ca homeostasis	2/week	2 hours (1 week)

(4) Teaching methods:

4.1: Lectures with power point presentation.

4.2: Seminars and group discussions.

4.3: Self learning.

(5) Assessment methods:

5.1:written exam (short essay) for assessment of knowledge and intellectual ILOs

5.2 : MCQ exam for assessment of knowledge and intellectual ILOs

Assessment schedule:

Assessment 1: writtem exam for 1.5 hours (short essay) : 80 marks.

Assessment 2: MCQ exam: 20 Marks

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

(6) References of the course:

6.1: Hand books: of the physiology department.

6.2: Text books: Ganong physiology

6.1: websites .

(7) Facilities and resources mandatory for course completion:

Lecture rooms with data show availability

Log book

Course coordinators:

Prof

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Head of the department:

Prof Salah Elgamal

Date: