Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Medical Physiology

Course specifications

Medical Physiology for Neuropsychiatry Diploma & Master degrees First Part

2016/2017

Medical Physiology for Neuropsychiatry Diploma & Master degrees Course specifications

University: Tanta Faculty: Medicine Department: Medical Physiology

A- Administrative Information

- **Program title: Medical Physiology for Neuropsychiatry Diploma & Master degrees**
- **Department offering the program : Neuropsychiatry Department**
- **Departments responsible for the program: Neuropsychiatry Department& Medical Physiology.**
- **Course Code: NEUROPSCH 7002 & NEUROPSCH 8002**
- **Academic year/ Level : 2016 /2017**
- **No. of Credit/taught hours: 1½ theoretical credit hour(1½ hour/week for 15 weeks)**
- **Authorization date of course specification: / /**

B- Professional Information

1- Overall Course aims:

Our course aim to offer advanced knowledge in Medical Physiology relate to the neuropsychiatry which help the graduate to move onto the rewarding and challenging professional careers. Apply analytical and critical methods when dealing with medical problem related to Neurological ,Merge medical knowledge to hypothesize new relations and explain pathoMedical Physiology of different Neuropsychiatry diseases.

2- Intended learning outcomes (ILOs):

a. knowledge and understanding:

At the end of the course the graduate should be able to:

a 1 Describe the normal functions of the human nervous system and mind at the molecular, cellular and organ level and the total body values.

a 2 Recognize terms ,Facts and concept of human Medical Physiology and behavior as they may be applied.

a 3 Identify factors and differentiate between normal mental health and disease.

a4 Express knowledge of human Medical Physiology in relation to him or her specialty.

b. Intellectual skills:

At the end of the course the graduate should be able to

b 1 Analyze problems and select the most appropriate and cost effective diagnostic procedures for each problem.

b 2 Interpret the results of commonly used diagnostic procedures (neurophysiological, neuropsychological .
b 3 Retrieve and analyzes relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem.

d. General transferable skills:

At the end of the course the graduate should be able to

d.1. Communicate effectively with his colleagues and scientific institutes.
d.2. Use the basic computer skills which serve his career development
d.3. Apply self evaluation and specify his medical educational needs.

3- Course contents

Course title	Topic	No. of credit hours	No of Credit points	Remarks
Medical Physiology	Neuropsychiatry.	3½ hs (1½for Medical Physiology)	10½ points (4½for Medical Physiology)	Co-requisite with biochemistry

Detailed contents of the course topics. (Syllabus contents):

General topics

Week No.	topic
1-	1- Hemostasis, anticoagulants and hemorrhagic disorders.
2-	2- pain, pain analgesia system 3- Homeostasis and Ca++ homeostasis
3-	4- Arterial Blood Pressure and pathophysiological basis of hypertension.
4-	5- chemical transmitters of ANS.
5-	6- Hemorrhage and shock.
6-	7- Heart rate and its regulation
7-	8- Control of diameter of arterioles
8-	9- Supra- renal cortical hormones and disorders 10- Hormones regulating glucose metabolism.(Diabetes mellitus: PathoMedical Physiology and its complications
9-	11- ABO system, Rh factor, Blood transfusion and its incompatibility. 12- Regulation of body water and electrolytes.
10-	13- Acid – Base balance and disorders 14- Hypoxia and cyanosis
11-	15- Erythropoiesis , Anemia and Polycyathemia. 16- Cardiac reserve
12-	17- Thermoregulation & Clinical aspects of thermoregulation 18- Cardiac Output

13-	19- Cellular mechanism of hormonal actions 20- Edema

Related specialty systems:

1. Central nervous system & peripheral nervous system.
2. Behavior, memory, EEG & learning.
3. Autonomic nervous system.

Related specialty topics:

1. Medical Physiology of behavior, memory &learning.
2. PathoMedical Physiology of limbic system, disorders of thought &mood.
3. Neurotransmitters &neuromodulators in chemical synapse.
4. Neurochemical system important for sleep & awaking, changes in sleep associated with aging, drugs (sleep deprivation).
5. Hypothalamus in relation to thirst, hunger, temperature regulation & defense mechanism.
6. Neurological disturbance resulting from diseases or damage of different regions of the cerebellum.
7. Clinical syndromes of basal ganglia.
8. Mechanical & cognitive bases of motor skill.
9. EEG. Record (normal & abnormal).
10. Medical Physiology of cerebrospinal fluid and its barrier.
11. Obesity hazard.

4- Teaching and learning methods:

4.1 Illustrated lectures.

4.2 Tutorial is scheduled and previously announced special topics from the curriculum are discussed in the tutorial.

4.3 Assignment to be prepared by the graduate in one of the special topic taught.

4.4 Seminars scheduled and previously announced to facilitate selection identification of their thesis.

- Each teaching method is designed to serve different educational goal, and together they provide an appropriate stimulating atmosphere for learning.

5- Student Assessment:

End semester final examination consists of:

5.1. Final written consists of one paper, 3 hours. With the co-requisite subjects The written is divided into 3 parts part1 short questions in the form (state, mention ,explain compare define etc). the 2nd part in problem solving question the 3rd part is MCQ questions to assess (a.1, a.2, a.3, a4).

5.2. Oral to assess (a.1, a.2, a.3, a4 & b.1,2,3, d.1,2,3)

6- Assessment schedule:

6.1. **End Semester Final one written qualifying examination**	At the end of the semester (60% of the total mark)
6.2. **oral qualifying examination**	After the written (40% of the total mark)

7- Weighing of assessments:

Grading system for End Semester written Exam:

Grade	%	Code	CGPA points
Excelent	95% or more	A	4.000
	90% to less than 95%	A-	3.666
Very Good	85% to less than 90%	B+	3.333
	80% to less than 85%	B	3.000
Good	75% to less than 80%	B-	2.666
	70% to less than 75%	C+	2.333
Satisfactory	65% to less than 70%	C	2.000
	60% to less than 65%	C-	1,666
Failed	55% to less than 60%	D+	1.333
	30% to less than 55%	D	1.000
	Less than 30%	F	0.000

Final comprehensive exam

Final exam	Final written	Final oral	Total
Final comprehensive exam of Medical Physiology, & biochemistry	45 (60%)	30 (40%)	75

- Final written examination consists of one paper, 3 hour s. With the co-requisite subjects
- Oral examination by two examiners

8- List of references:

8.1. Essential books (Textbooks):

- Guyton &Hall textbook of Human Medical Physiology and Mechanisms of Disease.
- Gannon (review of medical Medical Physiology).
- Vander's human Medical Physiology.

8.2. Recommended books:

- Applied Medical Physiology in intensive care by M.R. Pinsky (Editor), J. Mancebo (Editor), L. Brochard (Editor), Gran Hedenstierna 2009.
- An introduction to human disease: pathology & pathoMedical Physiology correlations by Leonard Crowley. Hardcover August 2009.

- Critical pathways in cardiovascular medicine: Second Edition Lippincott Williams & Wilkins.
- Applied Medical Physiology: A manual showing functions of the various organs in disease by Frederich Augustus Rhodes.

8.3. Periodicals, Web:

- www.tebawy.5u.com.
- http://bcs.whfreeman.com.
- http://www.bpcc.edu/sciencealliedhealth/humanMedical Physiologylinks.htmlhttp://bio–alive.com/animations/Medical Physiology.htm.
- Human Medical Physiology from cell to system By: Lauralee Sherwood.

9- Other resources/ facilities required for teaching and learning to achieve the above ILOs:

- All facilities required for teaching are available.

10- We certify that all of the information required to deliver this course is contained in the above specifications and will be implemented.

We verify that the above course and the analysis of students and external evaluator opinions are accurate.

Course coordinator and head of department
name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……