COURSE SPECIFICATION
Faculty of Medicine– Mansoura University
(A)   Administrative information

(1) Programme offering the course:	Postgraduate **MD** Programme of Neurology
(2) Department offering the programme:	Neurology department
(3) Department responsible for teaching the course:	Physiology department
(4) Part of the programme:	First part in semester Number 1
(5) Date of approval by the Department`s council	**27/4/2016**
(6) Date of last approval of programme specification by Faculty council	**9/8/2016**
(7) Course title:	Applied physiology of Nervous system
(8) Course code:	NRL 603
(9) Total credit hours:	3
(10) Teaching hours	45 hours

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1- Provide the candidate with a sufficient amount of knowledge about neurophysiology.

2- Educate the candidate how to interpret the neurological pathophysiology.

3- Provide the candidate with active learning of the various diseases affecting the nervous system regarding the possible pathophysiology, pathogenesis, clinical presentation, differential diagnosis & investigations.

(2) Intended Learning Outcomes (ILOs):

A- Knowledge and Understanding

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

A1 Recognize the physiology of sensory and motor systems.

A2 Identify the Synaptic transmission & neurotransmitters.

A3 Discuss regulation of Posture & Equilibrium.

A4 Identify the states of consciousness, emotion, memory & learning.

A5 Discuss cerebral hemispheric specialization and Frontal lobe function and lesion.

A6 Recognize brain metabolism and neurophysiological basis of Language

A7 Discuss speech

A8 Recognize CSF circulation

A9 Identify neuro-endocrinology including hypothalamus, pituitary.

A10 Discuss control of cerebral vasculatures and blood brain barrier

A11 Recognize physiology of visual and auditory systems

A12 Discuss function of autonomic nervous system , olfaction and taste.

B- Intellectual skills:

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

B1 Analyze efficiently and construct the most appropriate explanation of different neurological manifestations.

B2 Interpret accurately the pathophysiology of different neurological diseases.

B3 Able to have logic puzzling and analytical cryptic thinking skills.

B4 Interpret diagnostic electrophysiological procedures including electroencephalogram, electromyogram, nerve conduction and evoked potentials studies.

Course content:

Subjects	Lectures	Clinical	Laboratory/ Practical	Total Teaching Hours
Synaptic transmission & neurotransmitters	3			3
Physiology of sensory system and thalamus	3			3
Physiology of motor system (cerebellum & basal ganglia)	3			3
Regulation of Posture & Equilibrium	3			3
States of consciousness (arousal, sleep & epilepsy)	3			3
Emotion , memory & learning	2			2
Cerebral hemispheric specialization	2			2
Frontal lobe function and lesion	3			3
Brain metabolism	3			3
Neurophysiological basis of Language	2			2
Speech	2			2
CSF circulation	2			2
Neuro-endocrinology including hypothalamus, pituitary.	2			2
Control of Cerebral vasculatures and blood brain barrier	2			2
Physiology of Visual system	3			3
Physiology of auditory System	3			3
Function of autonomic nervous system	2			2
Olfaction and taste	2			2
Total Teaching Hours	**45 hours**			

(4) Teaching methods:

4.1. Lectures.

(5) Assessment methods:

Assessment method	Intended learning Outcomes
5.1 MCQ	A1, 2,3,4,5,6,7,8,9,10,11,12, B1, 2, 3;4
5.2 Written exam	A1, 2,3,4,5,6,7,8,9,10,11,12, B1, 2, 3,4.

Assessment schedule:

Final exam after one semester from admission to MD degree with total of 100 marks

Percentage of each Assessment to the total mark:

MCQ: 20 marks; 20% of the total mark

Written exam: 80 marks; 80% of the total mark

Other assessment without marks:

Log book for assessment of the attendance and activities throughout the course (Minimum acceptance attendance is 75 %), it should be fulfilled and signed by Head of the department.

(6) References of the course:

6.1: Hand books: Book authorized by department of physiology.

6.2: Text books: Neurology in clinical practice, Textbook of clinical neurology,

6.3: Journals: Clinical Neurophysiology, Journal of Clinical Neurophysiology, Nature Reviews Neuroscience

6.4: Websites: http://emedicine.medscape.com/
http://neuromuscular.wustl.edu/
http://www.neuroland.com/
http://www.neurophys.com/

(7) Facilities and resources mandatory for course completion:

Candidates and their learning are supported in a number of ways:

□ Candidates logbook

□ Programme Specification and Handbooks

□ Lecture hall, extensive library and other learning resources

□ Computer laboratories with a wide range of software

□ Internet with a wide range of learning support material

Course coordinator: Dr. Ahmed Hamdy

Head of the department: Prof. Dr. Ahmed Gamal Azab.

Date: /   / 2016