COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Neurotoxicology Fellowship(NT)
(2) Part of the programme:	Semester 2
(3) Date of approval of programme specification by Faculty council	**9/8/2016**
(4) Course title:	**PESTICIDES**
(5) Course code:	NT2
(6) Total teaching hours:	9 credit hours

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

- Provide in-depth knowledge of Mechanisms of pesticides neurotoxicity
- Develop updated concepts in diagnosis and management of pesticides toxicities.
- Identify how to study pesticides models both invivo or invitro.

(2) Intended Learning Outcomes (ILOs):

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

A- Knowledge and Understanding

A1. To know the workings of anticholinesterase insecticides and pesticides. Consequences of metals such as mercury, lead, zinc, and polytypic byproducts of combustion on nerves functions. Understand natural toxins - those of microbial origin (microbial, marine, clostridial, and botulilinal neurotoxins), as well as those of animal origin (snake, spider, and scorpion venoms).

B- Intellectual skills

B1 To Identify sites and mechanisms of neurotoxicity, how chemicals affect the nervous system, effects of human-made neurotoxins, as well as those of natural origin.
B2. To use integrative approach in understanding neurotoxicity through introduction of students to the organization and workings of the nervous system: Central Nervous System and Peripheral Nervous System.

C- Professional/practical skills

c3- Evaluate clinical aspects of delayed neurotoxicity of pesticides

D- Communication & Transferable skills

D5. Apply safety and infection control measures during practice.

(3) Course content: Compulsory

Lectures: (24 weeks).

Course title	Code	Hours/ Lectures	Credit Hours
Pesticides -A. Anticholinesterase Insecticides B. Pesticides that Target Ion Channels C. Miscellaneous Pesticides with Action on the Nervous System D. METALS Neurotoxicity: Low-Level Pb2+, Heavy-Metal, Manganese and Aluminum	NT2	9 9 9 9	9

(4) Teaching methods:

4.1: Online lectures with discussions, quizes

4.2: Online problem -solving case scenarios

4.3 Clinical rounds in toxicology unit

4.4 Practical Training in Experimental neurology Unit (MERC)

(5) Assessment methods:

-Online MCQs and EMQs exam after end of 1st semester

-Assessment of clinical traineeship: logbook

- writing a review article about one of the course themes

(6) References of the course:

Textbooks

- Mammalian Toxicology MB Abou Donia, Wiley2nd Edition
- Neurotoxicology: MB Abou Donia, CRC
- Neuroscience; Dale Purves, et al., Sinauer Press, 5th Ed, 2012

Periodicals

- Neurotoxicology and Teratology
- Neurotoxicology
- Neurotoxicity Research
- Experimental Neurology

(7) Facilities and resources mandatory for course completion:

Intranet with a vast learning material

Program specification and handbooks

Candidates logbook

A very rich library and computer laboratories

Course director:

Dr. : Mohamed Salama

Course co-ordinators:

Dr. Shaaban El Mosallamy

Dr. Mohamed El Gamal

Date: