COURSE SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	MD Degree of Industrial Medicine and Occupational Health
(2) Department offering the programme:	Public Health and Community Medicine Department
(3) Department responsible for teaching the course:	Public Health and Community Medicine Department
(4) Part of the programme:	Second Part
(5) Date of approval by the Department`s council	
(6) Date of last approval of programme specification by Faculty council	**9/8/2016**
(7) Course title:	Occupational and Environmental Clinical Toxicology
(8) Course code:	PHPM 618 - OECT
(9) Credit hours	1 Cr. hour
(10) Total teaching hours:	15 hrs lectures

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows: (either to be written in items or as a paragraph)

To provide the postgraduate students with enough knowledge and skills enabling them to master the science and art of Clinical Toxicology which is an important constituent of Occupational and Environmental Medicine Practice.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

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

A- Knowledge and Understanding

A1: Describe the scope of clinical toxicology from an Occupational Medicine perspective.
A2: Understand the classification of occupational and environmental toxic agents.
A3: Recognize factors affecting clinical response to toxic agents.
A4: Understand principles of toxicokinetics and toxicodynamics of occupational toxic agents.
A5: Express good knowledge of lines of diagnosis and management of industrial toxicity.
A6: Recognize toxicity of selected agents such as nanoparticles.

B- Intellectual skills

B1: Differentiate between causes of poisoning encountered at a workplace.
B2: Interpret correctly investigations requested for diagnosis of cases of poisoning at a workplace.
B3: Compare between toxicity tests chosen for assessment of outcome of an unidentified hazard.
B4: Perform toxicological risk assessment for unidentified hazards.
B5: Summarize toxicology of nanoparticles and pesticides.

D- Communication & Transferable skills

D1: Learn teaching and learning skills.
D2: Design and deliver a teaching event/ or short course.
D3: Develop critical thinking and peer-reviewing skills.

(3) Course content:

Subjects	Lectures	Practical
Introduction to Clinical Occupational and Environmental Toxicology.	15 hrs	
Classification of occupational and environmental toxic agents.		
Factors affecting clinical response to occupational and environmental toxic agents.		
Toxicokinetics and toxicodynamics of occupational toxic agents: Bioavailability-Cellular barrier-Absorption-Distribution-Metabolism-Excretion.		
Tests for acute, subacute, and chronic toxic effects. Tests for Teratogenesis / Toxic effects on reproductive organs / Tests for assessment of carcinogenicity.		
Identification of mechanism of toxicity (6 questions to be answered). / Types of research used.		
Toxicologic Risk Assessment. / Dose-Response Curves		
Diagnosis of Toxic Effects of Occupational Toxins. / Management of Toxic Effects of Occupational Toxins. / Biomarkers of Toxicity.		
Selected Examples: Toxicity of Nanoparticles. / Pesticide Toxicology.		
Selected Examples: Other Occupational Toxic Agents.		

(4) Teaching methods:

4.1:… Lectures

4.2: … Seminars

4.3: … Tutorial

4.4: … Workshops

(5) Assessment methods:

5.1 Written exam for assessment of knowledge and intellectual ILOs

5.2 MCQ exam for assessment of intellectual ILOs

(6) Assessment schedule:

Assessment 1: MCQ……at the end of 6th semester (8 marks)

Assessment 2: Written exam after 36 months of the start of the job (1 hr / 32 marks).

Percentage of each assessment to the total mark:

MCQ: 8 Marks

Written: 32 Marks

(7) References of the course:

1- Hodgson E. Introduction to Toxicology. *In "A Textbook of Modern Toxicology", Third Edition, edited by Ernest Hodgson" ISBN 0-471-26508-X Copyright . (2004) John Wiley & Sons, Inc.*

2- Lam C et al. A Review of Carbon Nanotube Toxicity and Assessment of Potential Occupational and Environmental Health Risks. *Critical Reviews in Toxicology,* 36:189–217 (2006) . Copyright _c Taylor and Francis Group, LLC ISSN: 1040-8444 print / 1547-6898 online

Course coordinator: Prof. Emily Kamel and Dr. Hala Samir

Head of the department: Prof. Mohamed Azmy Khafagy

Date:

P.S. This specification must be done for each course.