

*PROGRAM SPECIFICATIONS*

Program Title:

**Doctorate Degree:  
Occupational & Environmental  
Medicine**

**Code: PHOM**



## Program Specification

### A- Basic Information

- 1- **Program Title:** Doctorate Degree in Occupational and Environmental Medicine
- 2- **Program Type:** Single  Double  Multiple
- 3- **Department (s):** Department of public Health, Community, Environmental and Occupational Medicine.
- 4- **Coordinator:** Prof. Amira Gamal
- 5- **External Evaluator(s):** Prof
- 6- **Last date of program specifications approval:** the bylaws of the master program was approved 2016.
- 7- **Date of program specification revision approval:** 2018
- 8- **Number of credit points for this degree:** 180 CP

### **Professional Information:**

#### **A. Program Aims**

1. To enable students to acquire knowledge of and the ability to apply the core sciences of preventive medicine - that is, epidemiology, biostatistics, health care organization and administration, occupational and environmental health, and behavioral sciences - in the identification and solution of health problems in occupational groups.
2. To help students acquire knowledge and skills in toxicology, environmental monitoring, and safety evaluation as they apply to individuals and groups.
3. To enhance students' clinical knowledge in care of persons with occupational or environmental exposures and in assessment of suitability for employment.
4. To teach students about planning, management, and evaluation of occupational health programs in clinical practice and corporate settings.
5. To develop in students an understanding of the policy-making process in occupational medicine with respect to law, regulation, and workers' compensation.
6. To create in students an understanding of the roles and expertise of other occupational health professionals, and to collaborate with these professionals.
7. To provide an opportunity for students to develop independent research skills and to be able to use appropriate analytical techniques in the prevention of occupational diseases and injuries and in the evaluation of occupational health care programs.



### Intended Learning Outcomes (ILOs)

#### **A) Knowledge and Understanding**

- a1 Recognize the professional code of ethics to practice occupational health.
- a2 Demonstrate elements of sanitary environment & its impact on worker's health.
- a3 List risk assessment steps for different environmental hazards.
- a4 Identify risk assessment principles & vocational rehabilitation of workers with psychiatric disabilities.
- a5 Discuss mechanism, risk factors, clinical picture, sequelae & prevention of injury at the workplace.
- a6 Recognize international standards for permissible levels of workplace hazardous exposure.
- a7 Recognize toxicokinetics, toxicodynamics, clinical picture & management of intoxication with industrial chemicals.
- a8 List occupational safety standards including laboratories.
- a9 Describe approaches for assessment of risk, fitness, & disability at work.
- a10 Review the legislative framework for compensable occupational diseases & injuries.
- a11 Recognize toxicokinetics, toxicokinetics, diagnosis & management of different occupational & environmental toxic agents.
- a12 Describe definitions, guidelines, categories & circumstances conducive to fitness for work examinations.
- a13 Recognize and appreciate the basis for medico-legal and ethical aspects related to the care of patients and related to research and its reflection on environment.
- a14 Recognize basis and principles of quality assurance.

#### **B) Intellectual Skills:**

- b1. Interpret findings of pulmonary function testing & chest X-ray according to ILO classification of pneumoconiosis.
- b2. Distinguish different occupational lung disorders & occupational cancer which is mostly preventable.
- b3. Consider problems of special working groups with respect to medical code of ethics.
- b4. Comply with assessment of fitness guidelines with reference to labor laws & compensation claims.
- b5. Propose suitable criteria, methods, & guidelines for assessment of fitness for work for specific jobs
- b6. Compare Egyptian laws for disability with consideration of other countries.
- b7. Employ plans for practical risk assessment & occupational hygiene at workplace.



- b8. Differentiate between causes of poisoning using various investigations.
- b9. Construct a research design to study important occupational health problems with selection of proper statistical analysis.
- b10. Evaluate state of mental health of workers with application of risk assessment principles.
- b11. Evaluate workplace psychiatric disorders of different etiologies with consideration of proper management.
- b12. Write scientific papers

**C) Professional and Practical Skills:**

- c.1 Perform psychosocial work environment & health risk assessments at the workplace.
- c.2 Assess the general health status of workers with management of sickness absence.
- c.3 Implement workplace strategies to combat job stress & other mental health complaints.
- c.4 Assess patients clinically with special concern for certain at risk groups & referral to specialist when needed.
- c.5 Conduct surveillance including biomonitoring of workers to diagnose & manage work-related & occupational disorders.
- c.6 Perform workplace risk assessments to design risk management plans.
- c.7 Manipulate cases of poisoning by first-aid measures with referral to toxicology centers when needed.
- c.8 Implement laboratory biosafety measures.
- c.9 Evaluate disability & fitness for work with advice for rehabilitation.
- c.10 Conduct health surveillance using simple investigations & screening tests.
- c.11 Carry out risk assessment of working environment generally & in special situations of concern.
- c.12 Apply the basic statistics and information technology in data management of the research study
- c.13 Evaluate professional reports
- c.14 Plan to improve performance related to occupational medicine.

**D) General and Transferable Skills:**

- d.1.** Communicate ideas and arguments effectively.
- d.2.** Use computers/Internet efficiently and Manage information effectively to improve quality of care.
- d.3.** Present information clearly in written, electronic and oral forms
- d.4.** Conduct supervised training session for junior staff members.
- d.5.** Conduct appraisal session for junior staff members.
- d.6.** Apply the self-evaluation and self-learning skills.
- d.7.** Manage time and work effectively within a team.
- d.8.** Apply the principles of scientific evidence in daily practice
- d.9.** Patron scientific meetings effectively



### 3- Academic Standards

#### External References for Standards (Benchmarks)

- Academic reference (s) standards ARS

#### Comparison of Provision to External References (attached)

##### i. Curriculum Structure and Contents

###### Program structure:

###### MD Program Credit points (CP) structure:

**Total needed credit points for getting MD degree 180 C**

The program consists of **First part 30 CP, Thesis 50 CP, and Second part 100 CP**

**The first part of the program:** 30 CP, its duration (15 weeks) for one academic semester. The first part comprises the following:

- ii. A course in Research Methodology planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes 8 CP.
- iii. Two electives each one has 2 CP. The students should select one elective which has not been selected in the Master Degree.
- iv. The specialized courses in industrial chemistry and environmental physiology, planned and held in the community medicine Department. It includes 18 CP.
- v. **MD thesis:** 50 CP, no scores for thesis. The candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 2 years from the date of the faculty council approval on the thesis protocol.

**The second part of the program:** 100 CP, its duration (75 weeks) for 5 consecutive academic semesters. The second part comprises the specialized courses in occupational Medicine, planned and held in the community medicine Department. This part lasts for 2 years ending by written and practical exams.

**No. of credit Points:** the MD program is 180 credit Point system.

- vi. Every credit point include 25 working hour (30% = 7 hours for face to face learning activities, and 70% =18 hours for self-learning activities).

##### Program Courses

Code No.	Course Title	Credit points	Written examination			Oral exam	Practical or clinical Exam
			No of Papers	Duration In hours	Marks		
<b>RBs</b>	Research methodology and biostatistics	<b>8</b>	<b>1</b>	<b>3 hours</b>	<b>160</b>		
<b>PHOM51</b>	Industrial chemistry	<b>9</b>	1	<b>3 hours</b>	<b>120</b>	<b>20</b>	<b>40</b>



PHOM52	Environmental physiology	9	1	3 hours	120	20	40
E	Two Elective courses	2+2	1+1	1 hour+1 hour	40+40		

**Level/Year of Programme: Second Part MD**

Code No.	Course Title	Credit points	Written examination			Oral exam	Practical or clinical Exam
			No of Papers	Duration In hours	Marks		
PHOM53	Practical and theoretical course of industrial medicine and disability assessment	90	3	3 hours	360	180	360

a) **Thesis:** 2 faculty senior supervisors from the staff members are nominated by the department council to prepare a proposal of the thesis protocol after the selection of a subject that is complementary to the research plans of the department. Data collection, methodologies, study question, time table, ethical considerations and budget are formulated by the candidate under guidance of his supervisors into a research project. The research protocol is then peer reviewed by two different staff members nominated by the Head of the department who share their ideas and comments with the supervisors to reach to the final form. The research protocol is discussed then openly in one of the department councils to be approved and diverted to the Faculty research committee where it is subjected to a critical appraisal to meet the research basic standards set by the committee. The final approvals of the research protocol are then issued by the committee of post graduate studies, the Faculty and University Council to be registered.

**6- Program Admission Requirements**

- The program accepts candidates with Master in occupational and environmental medicine with a grade of GOOD at least.
- Registration for the program opens 2 times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

**7- Student Assessment Methods**

**7.1 Written (MEQ)** to assess the cognitive domain.



- 7.2 MCQs** to assess the cognitive domain
- 7.3 Oral Viva Cards** to assess higher cognitive and attitude domains.
- 7.4 Observations** to assess practical and presentation skills.
- 7.5 Portfolio** to assess the cognitive, psychomotor and the affective domains.

### **8- Weighting of Assessments**

#### **Type of exam**

#### **First part (30 credit points= 600 mark)**

- |                            |            |
|----------------------------|------------|
| • Written exam             | 480        |
| • Oral and practical exams | 120        |
| • <b><u>Total</u></b>      | <b>600</b> |

#### **Second part (100 credit points including 10 credit points not included in the total marks =1800 mark)**

- |                  |     |
|------------------|-----|
| • Oral exam      | 180 |
| • Practical exam | 300 |
| • Written exam   | 780 |
| • Portfolio      | 540 |

**Total** **1800**

### **9- Regulations for Progression and Program Completion**

- The regulations for program completion follow the general regulations for the Faculty of Medicine, Suez Canal University for MD approved by the Supreme Council of Universities. The program is considered complete with the accomplishment of 2 summative assessment (for the first and the second parts) and the defense of a thesis developed and submitted for the purpose of acquiring the degree.
- **First part**
- Passing level 60% of total marks of the exam and at least 50% passing level of the total written exam marks
- **Second part**
- Passing level 60% of total marks of the exam
- Passing level 60% total of practical and oral exam
- **Thesis/Assay**
- Passing discussion is required for MD degree

### **10- Evaluation of Program Intended Learning Outcomes (ILOs)**

Evaluator	Tool	Sample
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قسم الصحة العام وطب المجتمع وطب البيئة وطب الصناعات

1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni(N/A since this is the first time to implement the program)	N/A	N/A
3- Stakeholders	Self-administered questionnaires DELPHI Focus groups	According to the method
4-External Evaluator(s) (Exaternal Examiner(s))	External audit of the program specifications	

*Head of Department*

**Prof. Amani Waheed**