



كلية الطب
وحدة ضمان الجودة



Faculty of Medicine
Quality Assurance Unit

Master (MSC) Degree Program and Courses
Specifications for Occupational and Environmental
Medicine

(According to currently applied Credit point bylaws)

Public Health and Community
Medicine Department
Faculty of medicine
Assiut University
2022-2023

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Master degree of occupational and environmental medicine

A. Basic Information

Program Title: occupational and environmental medicine



Nature of the program: Single.



Responsible Department: public health and community medicine Department.



Program Academic Director (Head of the Department):
Prof. Eman Morsy Mohamed



Coordinator (s):

- Principle coordinator: professor Dr: Ahmmed El Hany

- Assistant coordinator (s) Dr :Shimaa abdelsamee



Internal evaluators: Professor Dr Hosney Shaban

External evaluator: Professor Dr: Hussein Hassan Zayet.(Cairo university)



Date of Approval by the Faculty of Medicine Council of Assiut University: 23/9/2014



Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:
27/11/2022.



Total number of courses:7 courses



First part :5 courses



Second part :one course



Elective course :one

B. Professional Information

1- Program aims

1/1 Proficient in the knowledge and skills required to practice occupational medicine.

1/2 Graduates of the programs will have acquired the knowledge and skills needed to practice occupational medicine in the occupational health facilities of the government and in the community.

1/3 To introduce candidates to the basics of scientific medical research.

1/4 To provide the candidates with master degree:

- Enabling them to start professional careers as specialists in Egypt.**
- Making them recognized as specialists abroad.**
- Enabling them to pursue higher studies and subspecialties.**
- Enabling them to understand and get the best of published scientific research and do their own.**

2-Intended learning outcomes (ILOs)
for the whole program:

2/1 Knowledge and understanding:

- A. Explain the essential facts and principles of relevant basic sciences including, Occupational Epidemiology, Biostatistics, sociology, industrial chemistry and Environmental, human physiology related to occupational and environmental medicine.
- B. Mention essential facts of clinically supportive sciences including Occupational chest diseases, Occupational dermatology, Audiology and Clinical toxicology In addition to Basic of Internal Medicine related to occupational and environmental medicine.
- C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of common diseases and situations related to occupational and environmental medicine.
- D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to occupational and environmental medicine.
- E. Mention the basic ethical and medicolegal principles relevant to the occupational and environmental medicine.
- F. Mention the basics of quality assurance to ensure good clinical care in the field of practice.
- G. Mention the ethical and scientific principles of medical research.
- H. State the impact of common health problems in the field of occupational and environmental medicine on the society.

2/2 Intellectual outcomes

- A. Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the occupational and environmental medicine.
- B. Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to occupational and environmental medicine.
- C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the occupational and environmental medicine field.
- D. Formulate management plans and alternative decisions in different situations in the field of the occupational and environmental medicine.

2/3 Skills

2/3/1 Practical skills (Patient Care)

- A. Obtain proper history and examine patients in caring and respectful behaviors.
- B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to occupational and environmental medicine.
- C. Carry out patient management plans for common conditions related to occupational and environmental medicine.
- D. Use information technology to support patient care decisions and patient education in common clinical

situations related to occupational and environmental medicine.

- E. Perform competently non invasive and invasive procedures considered essential for the occupational and environmental medicine.
- F. Provide health care services aimed at preventing health problems related to occupational and environmental medicine.
- G. Provide patient-focused care in common conditions related to occupational and environmental medicine, while working with health care professionals, including those from other disciplines
- H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)

2/3/2 General skills

Including:

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice

Practice-Based Learning and Improvement

- A. Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

- B. Appraises evidence from scientific studies.
- C. Conduct epidemiological Studies and surveys.
- D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
- E. Facilitate learning of students and other health care professionals including their evaluation and assessment.

Interpersonal and Communication Skills

- F. Maintain therapeutic and ethically sound relationship with patients.
- G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.
- H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.
- I. Work effectively with others as a member of a health care team or other professional group.

Professionalism

- J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society
- K. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices
- L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

Systems-Based Practice

- M. Work effectively in relevant health care delivery settings and systems including good administrative and time management.
- N. Practice cost-effective health care and resource allocation that does not compromise quality of care.
- O. Assist patients in dealing with system complexities.

3- Program Academic Reference Standards (ARS) (Annex 2)

Academic standards for master degree in occupational and environmental medicine

Assiut Faculty of Medicine developed master degree programs' academic standards for different clinical specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.

These standards were approved by the Faculty Council on 17-6-2009. These standards were revised and approved without changes by the faculty council on 23/9/2014. These standards were recently revised and reapproved without changes by the faculty council on 27/11/2022.

4- Program External References(Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical Education).

http://www.acgme.org/acWebsite/navPages/nav_Public.asp

2. Master of Occupational Medicine of Hong Kong

http://www.cuhk.edu.hk/med/cmd/occmed/msc_occ_med.html

3. American college of Occupational and environmental Medicine.

www.acoem.org/

4. <https://www.ilo.org/global/lang--en/index.htm>

5. <https://www.osha.gov/>

6. Current Occupational & Environmental Medicine, 5th Edition, Joseph Ladou. 2014

7. WHO, 2019: available at

https://www.who.int/occupational_health/activities/occupational_work_diseases/en/

5. Program Structure and Contents

A. Duration of program: 3 – 5 years

B. Structure of the program:

Total number of points : 180 (20 out of them for thesis)

Didactic 24 (20 %), practical 96 (80 %) thesis 20 (11.1%)

total 180CP

First part

Didactic 16 (40%), practical 24(60%).total 40 CP

Second part

Didactic 24., (0%) practical 96(80%).total 120CP

According the currently applied bylaws:

Total courses 160 CP

Compulsory courses: 98.9%

Elective course: 2 credit point: 1.1%

	Points	% from total
▪ Basic science courses	8	4.4
Humanity and social courses	2	1.1%
▪ Speciality courses	31	17.2
▪ Others (Computer, ...)	-	-
▪ Field training	120	66.7
Thesis	20	11.1%

C. Program Time Table

A. Duration of program 3 years maximally 5 years divided into

- **Part 1: (One year)**

Program-related speciality courses and ILOs + elective courses

Students are allowed to sit the exams of these courses after 12 months from applying to the M Sc degree.

One elective course can be set during either the 1st or 2nd parts.

- **Thesis**

For the M Sc thesis;

MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

It should be discussed and accepted before passing the second part of examination)

- **Part 2 (2 years)**

Program –related speciality courses and ILOs

Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.

The students pass if they get 50% from the written exams and 60% from oral and clinical /practical exams of each course and 60% of summation of the written exams, oral and clinical /practical exams of each course

Total degrees 1900 marks.

700 marks for first part

1200 for second part

Written exam 40% - 70%.

Clinical /practical and oral exams 30% - 60%.

D. Curriculum Structure: (Courses):

✚ courses of the program:

courses	Course Code	Core Credit points		
		Lectures	training	total
First Part				
Basic science courses (8CP) Course 1: Epidemiology of Occupational health & Biomedical statistics & Sociology. Course 2: Industrial chemistry Environmental human & physiology and respiration. Course 3: Principles of occupational medicine	OCC209A§	3CP	-	3CP
	OCC209B§	2CP	-	2CP
	OCC209C§	3CP	-	3CP
General clinical compulsory courses (6 points) Course 4: Clinical Toxicology Course 5: Psychology Or Internal Medicine	OCC210§	6 4		4
	OCC220 Or OCC218	2		2
Elective courses*		2CP		
- Elective course				
Clinical training and scientific activities:				
Clinical training and scientific activities:(10 CP)-Course 1: Epidemiology of Occupational health & Biomedical statistics & Sociology-	OCC209A§		10 2CP	
Course 2: Industrial chemistry & Environmental	OCC209B§		2CP	

human physiology & respiration. Course3: Principles of occupational medicine.	OCC209C§		3CP	
Course 4: Clinical Toxicology	OCC210§		1CP	
Course5: Psychology	OCC220		2CP	
Or Internal Medicine	Or OCC218			
Clinical training and scientific activities in Speciality course (14 CP)			14	
Course6: Occupational and Environmental Medicine (advanced)	OCC209D#§			
Total of the first part		16	24	40
Second Part	Speciality courses 24 CP Speciality Clinical Work (log Book) 96 CP			
Speciality Courses Course6: Occupational and Environmental Medicine (advanced)	OCC209D#§	24		
Training and practical activities in Occupational and Environmental Medicine (96 CP) (96 CP)			96	
Total of the second part		24	96	120
Thesis				
Total of the degree				

Didactic (lectures, seminars, tutorial)

* Elective courses can be taken during either the 1st or 2nd parts.

Student work load calculation:

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

Elective Courses#:

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

One of the above mentioned courses are prerequisites for fulfillment of the degree.

Thesis:

20 CP are appointed to the completion and acceptance of the thesis.

6. Courses Contents (Annex 1)

The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods.

See Annex 1 for detailed specifications for each course/module

7-Admission requirements

Admission Requirements (prerequisites) if any :

I. General Requirements:

- a. MBCh Degree from any Egyptian Faculties of Medicine

- b. Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
- c. One year appointment within responsible department (for non Assiut University based registrars)

II. Specific Requirements:

- a. Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working residents 1-2 week leave prior to first/ second part exams.

FEES:

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils.

8-Progression and completion requirements

- + Examinations of the first part could be set at 12 months from registering to the MSc degree.
- + Examination of the second part cannot be set before 3 years from registering to the degree.
- + Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- + The minimum duration of the program is 3 years.

The students are offered the degree when:

1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.
2. Completing all scheduled CP and log book (minimum 80%).
3. Discussion and acceptance of the MSc_thesis.

9- Program assessment methods and rules (Annex IV)

Method	ILOs measured
Written examinations: Structured essay questions Objective questions: MCQ Problem solving	K & I
Clinical: Long/short cases OSCE	K ,I, P &G skills
Structured oral	K ,I &G skills
Logbook assessment	All
Research assignment	I &G skills

Weighting of assessments:

Courses	Course code	Written Exam	Degrees		
			Degree		Total
			Oral Exam *	Practical / Clinical Exam	
First part					
Basic academic Courses:					
COURSE1: Epidemiology of Occupational health & Biomedical statistics & Sociology.	OCC209A§	90	60	-	150
Course2: Industrial chemistry & Environmental human physiology and respiration.	OCC209B §	60	40	-	100
Course3: Principles of occupational medicine	OCC209C§	100	50	-	150
General clinical courses					
Course4: Clinical Toxicology	OCC210A§	150	25	25	200
Course5: Internal medicine العامة الباطنة or Psychology علم النفس والسلوكيات OCC220	OCC218 Or OCC220	60	20	20	100
Total of the first part		460	295	45	700
Second Part					
Speciality Courses:					
Course6: Advanced Occupational and Environmental Medicine	OCC209D#§	600	300	300	1200
Total of the degree		1060	595	345	1900
Elective course		50		50	100

* 25% of the oral exam for assessment of logbook

Total degree 1900

700 marks for first part

1200 for second part

Written exam 40% - 70%.

Clinical/practical and oral exams 30% - 60%.

✚ Examination system:

- **First part:**
- Written exam in 5 essential courses + oral exam in first 3 courses and the remaining 2 courses had oral and clinical courses.

- **Second part:**
- **Written exam in 5 papers; paper time ranged from 2-3 hours + oral and clinical/practical exam.**

- **Elective courses**
 - Written exam one paper 1 hour in Elective course + Oral & Practical exam

10-Program evaluation

By whom	method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

#Annex 5 contains evaluation templates and reports (Joined in the departmental folder).

11-Declaration

We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.

All course specifications for this program are in place.

Contributor	Name	Signature	Date
<ul style="list-style-type: none"> ▪ Program Principle Coordinator: 	Prof.dr.Ahammed Hany		5/2022
<ul style="list-style-type: none"> ▪ Head of the Responsible Department (Program Academic Director): 	Prof.dr. Eman Morsy Mohamed		5/2022

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses/

Course 1: - Epidemiology of Occupational health & Biomedical statistics & Sociology

Course 1; Module 1 & 2: epidemiology of occupational health & Biomedical statistics

1. Module data

- + Module Title: Epidemiology of Occupational health & Biomedical statistic.
 - + Course code: OCC209A§
 - + Occupational and Environmental Medicine: occupational and environmental medicine.
- Number of credit points:** One credit point (100%) for didactics, 0% for training, and total 1 CP for occupational epidemiology and Two credit points (100%) One credit points for didactics (50%) & 1 credit point for Training in medical biostatistics(50%)..
- + Department (s) delivering the course: Public health & Community medicine department, Faculty of Medicine Assuit University in conjunction with occupational and environmental medicine, Faculty of Medicine, Cairo University.
 - + Coordinator (s):
 - Principle Module coordinator: Prof Dr. Ahmed El Hany
 - Assistant coordinator (s): Dr. Shimaa Abdelsamee
 - + Date last reviewed: May 2022
 - + General requirements (prerequisites) if any :
 - Bachelor degree in medicine and surgery
 - Completed house – office training year
 - To be free to complete his study if he from outside the university.
 - + Requirements from the students to achieve course ILOs are clarified in the joining log book.
 - + Mark : 150 for all modules of the course

2. Modules Aims

2/1 - To acquire the basic knowledge and practical skills of biostatistics and occupational epidemiology which are appropriate and essential to the field of occupational and environmental medicine.

3. Intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Describe the Principles of Biostatistics and occupational epidemiology including the following: 1.types of variables mean, median, standard deviation 2. Correlation, regression 3. T-test, ANOVA test, chi square test 4. Types of study design, screening tests, samples. 5. Surveillance 6. Investigation of outbreak	Lectures Didactics. Tutorial	Written Oral exam Log book MCQ problem solving , OSCE
B. Outline the principles of biostatistics tests and methods designs used for mentioned conditions in AA related to occupational epidemiology study and biostatics.		
C. State update and evidence based Knowledge of occupational epidemiology study and biostatistics related to industries medicine and occupational health.		
D. Memorize the facts and principles of the		

relevant basic and clinically supportive sciences related to Related to biostatistics and occupational epidemiology.		
E. Mention the basic ethical and medicolegal principles relevant to biostatistics and occupational epidemiology.		
F. Mention the basics of quality assurance to ensure good occupational health care in his field		
G. Mention the ethical and scientific principles of medical research.		
H. State the impact of common health problems in the field of biostatistics and occupational epidemiology related to industries medicine and occupational health on the society.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of supportive sciences related to biostatistics and occupational epidemiology with proper reasoning and management of common conditions and situations related to Industries Medicine and Occupational Health.	Lectures Didactics. Tutorial Seminar	Written Oral Problem solving , exercises Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common situations related to biostatistics and occupational epidemiology as well as industries Medicine and Occupational Health.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the biostatistics & Occupational epidemiology.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper sociodemographic and occupational data and examine statistical data entry in respectful ethical behaviors and attitude.	-Practical training and - computer exercise using Epi Info for questionnaire design, calculation of sample size & Research Methodology. - Workshops for student's education. - Field visits.	Written, Oral, & Practical exam. Computer exercise Log book Problem solving Reports
B. Order the proper biostatistical tests and occupational epidemiology study methods related to conditions mentioned in AA		
C. Interpret the data analysis and results of biostatistics tests and occupational epidemiology study and surveillance.		
D. Perform the biostatistical tests for data analysis and occupational epidemiology studies and surveillance related to mentioned topics and conditions above.		
E. Recommend the proper biostatistical tests for data analysis and proper method of occupational surveillance related to occupational epidemiology.		
F. Carry out actions plans for management of common conditions and situations related to biostatistics and occupational epidemiology as well as industries Medicine & Occupational Health.		
G. Use information technology to support occupational care decisions and students education and other in common situations related to biostatistics and occupational epidemiology as well as Occupational Health.		
H. Provide occupational health care services aimed at preventing health		

<p>problems related to occupational epidemiology including the following :</p> <ul style="list-style-type: none"> • Study design, screening tests, samples. • Surveillance • Investigation of outbreak 		
<p>I. Provide occupational health -focused care in common conditions and situations related to Occupational and Environmental Medicine, while working with health care professionals, including those from other disciplines like: social workers, occupational health investigators.</p>		

D -General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Observation and supervision , Educational prescriptions, conferences , written assignment	Written Oral Logbook OSCE Portfolio
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological occupation Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain ethical sound relationship with occupational workers and professionals during data management.	Observation and supervision , Educational prescriptions, conferences , written assignment	Written, Oral , Practical exam, Logbook, Portfolio.
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present the following : <ul style="list-style-type: none"> • Data analysis , study design, screening tests and samples. • Surveillance data. • Report of outbreak Investigations. 		
K. Write a report about the following: <ul style="list-style-type: none"> • Statistical data analysis. • Paper critique for study design, screening tests, samples. • Recorded data of Surveillance. • Findings of outbreak Investigations. 		
L. Council students, social and occupational health workers and professionals about Biostatistics and occupational epidemiology.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of occupation health and society	Observation and supervision discussion	Portfolio Logbook Review report
N. Demonstrate a commitment to ethical principles including provision or withholding of health care, confidentiality of occupational health information, informed consent, business practices.		
O. Demonstrate sensitivity and responsiveness to occupation' culture, age, gender, and disabilities.		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Oral and written assignment Didactic , journal clubs, Educational prescription.	Written Oral Practical exam
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Occupational epidemiology	A-H	A-D	A-I	A-R
Types of variables mean, median, standard deviation	A-H	A-D	A-G	A-R
Correlation, regression	A-H	A-D	A-G	A-R
T-test, ANOVA test, chi square test	A-H	A-D	A-G	A-R
Types of study design, screening tests, samples.	A-H	A-D	A-G	A-R
Surveillance.	A-H	A-D	A-I	A-R
Investigation of outbreak	A-H	A-D	A-I	A-R

5. Methods of teaching/learning:

- Didactics; Lectures, tutorial; seminars.
- Practical training
- Visits
- Observation and supervision ,
- Educational prescriptions,
- conferences ,
- written assignment
- conferences ,
- written assignment
- Discussion
- Oral assignment
- journal clubs,
- computer work and training

- Workshop.
- Field visits.

6. Methods of teaching/learning: for students with poor achievements

- Didactics; Lectures, tutorial; seminars.
- Practical training
- Visits
- Observation and supervision ,
- Educational prescriptions,
- conferences ,
- written assignment
- conferences ,
- written assignment
- Discussion
- Oral assignment
- journal clubs,
- computer work and training(exercise).
- Workshop.

7. Assessment methods:

i. Assessment tools:

- Written and oral examination
- Log book.
- Practical exam
- Portfolio
- Review report.
- MCQ.
- OSCE.
- Problem solving.
- Exercise

ii. Time schedule:

- 1 hour (lectures and practice) / week for 6 months
- iii. Marks: 100

8. List of references

i. Lectures notes:

- Course notes
- Staff members print out of lectures and/or CD copies.

ii. Essential book&

- Joseph landau of occupational and environmental medicine 5th edition 2014.

iii. Recommended books:

- Bark 19th edition 2002.
- ROM 4th edition 1995.
- Oxford Handbook of Occupational Health 2007.
- Textbook Of occupational Medicine Practice (Fourth Edition) 2017.

iv. Periodicals, Web sites,

- Egyptian journal of Occupational and Environmental medicine
- American journal of Occupational and Environmental medicine.

v. others:

WHO,2019: available at

https://www.who.int/occupational_health/activities/occupational_work_diseases/en/

9. Signatures

Contributor	Name	Signature	Date
▪ Program Principle Coordinator:	Prof.dr.Ahammed Hany		5/2022
▪ Head of the Responsible Department (Program Academic Director):	Prof.dr. Eman Morsy Mohamed		5/2022

Course 1; Module3; Sociology (Social science)

I. Module data

- + **Module Title: sociology (social science)**
- + **Course code: OCC209A§**
- + **Speciality: Occupational and Environmental Medicine: Industries Medicine &Occupational Health**
- + **Number of credit points:** One credit points for didactics (100%), training 0 CP, Total 1CP.
- + **Department (s) delivering the course: public health &community medicine department, Faculty of Medicine in conjunction with Social Planning , Faculty of Social Sciences, Assuit University.**
- + **Coordinator (s):according to both departmental councils**
Principle Module coordinator
Dr Etemad Abd-El-Rehim Al- Shreef
Assistant coordinator (s)
Dr Dalia Galal Mahran
Dr Manal Mohamed Moustafa Darwish.
- + **Date last reviewed: May 2022**
- + **General requirements (prerequisites) if any :**
 - MBBCh from any Egyptian Faculty of medicine
 - Equivalent degree from medical schools abroad approved by the ministry of higher education.
 - Regulatory role of post graduate studies of Assiut Faculty of Medicine.
- + **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Module Aims

2/1- To acquire the updated concepts, facts and skills which are related to social and behavioral aspects of public health and appropriate to occupational and environmental health.

3. Intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the updated Principles and concepts of social sciences related to public health including the following:</p> <ul style="list-style-type: none"> • key concepts in the social and behavioral aspects of public health; culture, race/ethnicity, gender, poverty/disparities, • The social factors related to behavior change, community, organizational climate and family structure. • concepts of the social determinants of health • social determinants of population health • The relevance of ethics in public health 	<p>Lectures, didactics Discussion seminars</p>	<p>Written exams Oral exams</p>
<p>B. Mention the principles of orientation sessions for the field work.</p>		
<p>C. State update and evidence based Knowledge of the following concepts related to social and behavioral sciences</p> <ul style="list-style-type: none"> • key concepts in the social and behavioral aspects of public health; culture, race/ethnicity, gender, poverty/disparities, 		

<ul style="list-style-type: none"> • The social factors related to behavior change, community, organizational climate and family structure. • concepts of the social determinants of health • social determinants of population health • The relevance of ethics in public health. 		
D. Memorize the facts and principles of the relevant to basic and supportive sciences related to social and behavioral sciences as well as Occupational and public Health.		
E. Mention the basic ethical and medicolegal principles of sociology relevant to the Industries Medicine & Occupational and public Health.		
F. Mention the basics of quality assurance to ensure good health care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common social and health problems in the field of occupational health and diseases on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with proper reasoning and management of common problems related to sociology as well as Occupational & public health.	- Lectures Discussion - orientation sessions	<ul style="list-style-type: none"> • Written exams • Oral exams

B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common situations and problems related to sociology as well as Occupational health.		<ul style="list-style-type: none"> • Problem solving MCQ
C. Design and present cases, seminars in common problem related to social and behavior sciences in the field.		
D-Formulate management plans and alternative decisions in different social situations in the field of Industries Medicine &Occupational Health.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine sociodemographic data in caring and respectful behaviors.	Tutorial - Discussion -summer field visits and field activities, Training. Orientation sessions.	<ul style="list-style-type: none"> • Written exams • Oral exams • Practical exam • Logbook. • Portfolio. • Study reports.
B. Order the field activities schedules of orientation session and summer field visits related to sociology and public health.		
C. Interpret the feedback of the orientation session and summer field on the society and public& occupational health.		
D. Participate in the orientation session and summer field visits for the field work.		
E. Prescribe the active measures for social and behavioral problems discovered in the field visits.		
F. Carry out patient management plans for common situation and obstacles related to social		

&Occupational and public Health in the field visits.		
G. Use information technology to support health care decisions and student education in common social situations related to public and occupational health in the field.		
H. Provide health care services aimed at preventing health and socio-behavioral problems related to public and Occupational Health like: Poverty/disparities, community, organizational climate and family structure, social health determinants, and the relevance of ethics in public and occupational health.		
I. Provide public and occupational health- focused care in common conditions and situations related to sociology, while working with health care professionals, including those from other disciplines.		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures, didactic seminars, -Discussion Community campains Observation and supervision , Educational prescriptions, conferences , written assignment	Written exams
B. Appraises evidence from scientific studies(journal club)		Oral exams
C. Conduct epidemiological Studies and surveys including field visits.		Practical exam, portfolio
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Observation and supervision -Written and oral communication Educational prescriptions, conferences , written assignment	Log book Portfolio
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case, seminar in topics related to social and behavioral sciences and influences on public and occupational health.		
C. Write a report about: <ul style="list-style-type: none"> ● Orientation sessions ● Summer field visits. ● Field work ● Workshop activities. 		
L. Council students ,families and others about the social and behavioral determinants of public and occupational health.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation -Senior staff experience	Log book
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Observation -Senior staff experience	Log book
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Contents (topic s/modules/rotation Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Key concepts in the social and behavioral aspects of public health: culture,	A,C	C	-	A-G
Race /ethnicity, gender, poverty/disparities,	A,C	C	A	A-G
The factors related to behavior change, community, organizational climate and family structure.	A,C	C	A-C	A-R
The social determinants of health	A-H	A-D	A-I	A-R
The relevance of ethics in public health	A-H	A-D	A-I	A-R

5. Methods of teaching/learning:

- Didactics; Lectures, tutorial; seminars.
- Practical training
- Summer field Visits, orientation sessions
- Observation and supervision ,
- Educational prescriptions,
- conferences ,
- written assignment
- conferences ,
- written assignment
- Discussion

- Oral assignment
- journal clubs
- Workshop.

6. Methods of teaching/learning: for students with poor achievements

- Extra number of
- Lectures, didactics, seminars.
- Training work

7. Assessment methods:

i. Assessment tools:

- Written and oral examination
- Log book.
- Practical exam
- Portfolio
- Review report.

ii. Time schedule: 1 hour (lectures and practice) / week for 6 months

iii. Marks: 50

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Joseph landau of occupational and environmental medicine 5th edition 2014.

iii. Recommended books:

- Bark 19th edition 2002.

- ROM 4th edition 1995.

iv. Periodicals, Web sites, ... etc

Egyptian journal of Industries Medicine & Occupational Health and Environmental medicine

American journal of Industries Medicine & Occupational Health and Environmental medicine.

v. Others

none

9. Signatures

Course Coordinator: - Prof. Ahmed M. Hany	Head of the Department: - Prof.dr. Eman Morsy
Date:	Date:

Course 2: (Industrial chemistry& Environmental Human physiology and respiration)

Course 2:Module1: Industrial chemistry

Name of department: public health &community medicine department.

Faculty of medicine

Assiut University

2022-2023

I. Module data

Module Title: Industrial chemistry

Course code: OCC209B §

Speciality Occupational and Environmental Medicine: occupational and environmental medicine

Number of CP : Two credits points; 1 credit points for didactics & 1 credit point for training unit.

Department (s) delivering the course: public health department Faculty of Medicine Assuit University in conjunction with occupational and environmental medicine, Faculty of Medicine, Cairo University.

 **Coordinator (s):According to both Departmental councils**


Principle Module coordinator:

- **professor Dr: Hussein Hassan Zayet.(Cairo university)**
- **professor Dr:Ahmmed El Hany .**
- **Assistant coordinator (s) : Dr :Shimaa Abdelsamee**

 **Date last reviewed: May 2022**

 **General requirements (prerequisites) if any :**

- **Bachelors degree in medicine and surgery**
- **has completed his house- office training**
- **has to be free to complete his study if he from outside the university**

 **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course Aims

2/1-Demonstrate principles of Industrial process of each upper Egypt factory.

2/2-Physician has knowledge of the health effects of the broad physical and social environment, which includes housing, urban development, land-use and transportation, industry, and agriculture.

2/3-Clinical evaluation and treatment for injuries and illnesses that are occupationally or environmentally related.

3. intended learning outcomes (ILOs):

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions related to industrial chemistry and principles of occupational medicine :</p> <p>- Clinical evaluation and treatment for injuries and illnesses that are occupationally or environmentally related.</p> <p>-Occurrence of factory disasters, outbreak epidemics.</p> <hr/> <p>- Industrial process Health hazards and preventive measures for :</p> <ul style="list-style-type: none"> ● Cotton industry ● Cement industry ● Petroleum industry ● Iron& steel industry 	<p>Lectures</p> <p>Field visits to factories of upper Egypt</p> <p>Seminars</p> <p>Report writing</p>	<p>Written</p> <p>Oral</p> <p>practical</p>

<ul style="list-style-type: none"> • Super phosphate industry • Stone industry • Glass industry. • Battery industry <p>- Administrative aspects include:-</p> <ul style="list-style-type: none"> • Occupational safety in industry • Industrial hygiene • Agricultural medicine • Women at work • Investigating environmental health hazards • The role of primary health care physician in occupational medicine • Some clinical aspect in occupational medicine • Accident & air and water pollution • Determination of fitness at work • Disability • Rehabilitation • Susceptibility • Biological monitoring • First aids and management of emergency at industry • Occupational and environmental health • Hazards of alterative pressure • Occupational vibration • Light • Electricity • Occupation; hearing loss and hearing conservational program • Ionizing and non ionizing radiation • Reaction to cold stress and thermal stress 		
<p>B. Outline the principles of (diagnostic, therapeutic, and preventive tools) which are appropriate to industries medicine</p>		

<p>&occupational heath in clinical reasoning, diagnosis and management of potential environmental causes of concern to the individual as well as to community health and Environmental issues</p>		
<p>C. State update and evidence based Knowledge of the following aspects related to industrial chemistry and principles of occupational medicine:</p> <ul style="list-style-type: none"> • Types of industries conducted in upper Egypt • Industrial process in Egypt • Industrial hazards (emission) • Safety measures of industrial process (precautions for each industry). 		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to industrial chemistry and principles of occupational medicine.</p>		
<p>E. Mention the basic ethical and medicolegal principles revenant to the industrial chemistry and principles of occupational medicine.</p>		
<p>F. Mention the basics of quality assurance to ensure good clinical care in his field.</p>		
<p>G. Mention the ethical and scientific principles of medical research</p>		
<p>H. State the impact of common health problems in the field of industrial chemistry and principles of occupational medicine on the society.</p>		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common conditions related to industrial chemistry and principles of occupational medicine.	Lectures Field visits to factories of upper Egypt Seminars Report writing	Written Oral practical
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to industrial chemistry and principles of occupational medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the industrial chemistry and principles of occupational medicine.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Field visits to factories of upper Egypt	Written Oral practical
B. Order the diagnostic procedures or tools which are appropriate to industrial chemistry and principles of occupational medicine in clinical reasoning, diagnosis and management of potential environmental causes of concern to the individual as well as to community and occupational health and environmental issues.		
C. Interpret the diagnostic procedures which are appropriate to industrial chemistry and principles of occupational medicine in clinical reasoning, diagnosis and management of potential environmental causes of concern to the individual as well as to community health. Environmental issues.		
D. Perform the procedures used for management of conditions mentioned in AA,AC which are appropriate to industrial chemistry and principles of occupational medicine.		
E. Prescribe the procedures used for management of mentioned conditions above related to industrial chemistry and principles of occupational medicine.		
F. Carry out patient management plans for common conditions and hazards related to industrial chemistry and principles of occupational medicine.		
G. Use information technology to support patient care decisions and patient education in common		

clinical situations related to industrial chemistry and principles of occupational medicine		
H. Provide health care services aimed at preventing health problems related to industrial chemistry and principles of occupational medicine ,like the following: Disasters prevention ,industrial process modification , diseases, and disability prevention.		
I-Provide patient-focused care in common conditions related to industrial chemistry and principles of occupational medicine, while working with health care professionals, including those from other disciplines like: Emergency , investigation of problem emission , epidemics disasters , undetermined problem		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Field visits to factories of upper Egypt Seminars Report writing.	Written Oral Practical exam
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Lectures Field visits to factories of upper Egypt	Written Oral Practical exam
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	Seminars Report writing	
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in effects of industrial hazards (emission).		
K. Write a report in the following industrial aspects: <ul style="list-style-type: none"> • Types of industries conducted in upper Egypt • Industrial process in Egypt • Industrial hazards (emission) • Safety measures of industrial process & precautions for each Industry. 		
L. Council patients and families about Disasters prevention, industrial process modification, diseases, disability prevention.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Field visits to factories of upper Egypt Seminars Report writing	Written Oral practical
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Lectures Field visits to factories of upper Egypt Seminars Report writing	Written Oral practical
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Cotton industry	A-H	A-D	-	A-R
Cement industry	A-H	A-D	-	A-R
Petroleum industry	A-H	A-D	-	A-R
Iron& steel industry	A-H	A-D	-	A-R
Super phosphate industry	A-H	A-D	-	A-R
Stone industry	A-H	A-D	-	A-R
Glass industry battery industry	A-H	A-D	-	A-R
Occupational safety in industry	A-H	A-D	A-I	A-R
Industrial hygiene	A-H	A-D	A-I	A-R
Agricultural medicine	A-H	A-D	-	A-R
Women at work	A-H	A-D	-	A-R
Investigating environmental health hazards	A-H	A-D	A-I	A-R
The role of primary health care physician in occupational medicine	A-H	A-D	A-I	A-R
Clinical aspect in occupational medicine	A-H	A-D	-	A-R
Accident & air and water pollution	A-H	A-D	-	A-R
Determination of fitness at work	A-H	A-D	A-I	A-R
Disability	A-H	A-D	A-C,F-I	A-R
Rehabilitation	A-H	A-D	A-F-	A-R

Susceptibility	A-H	A-D	B-F	A-R
Biological monitoring	A-H	A-D	A-D	A-R
First aids and management of emergency at industry	A-H	A-D	A-F	A-R
Occupational and environmental health	A-H	A-D	-	A-R
Hazards of alterative pressure	A-H	A-D	A-H	A-R
Occupational vibration	A-H	A-D	G,H,I_	A-R
Light	A-H	A-D	_	A-R
Electricity	A-H	A-D	-	A-R
Occupation; hearing loss and hearing conservational program	A-H	A-D	A-H	A-R
Ionizing and non ionizing radiation	A-H	A-D	-	A-R

5. Methods of teaching/learning:

Lectures

Field visits to factories of upper Egypt

Seminars

Report writing

6. Methods of teaching/learning: for students with poor achievements

Extra :

Lectures,

Field visits to factories of upper Egypt,

Seminars;

Report writing.

7. Assessment methods:

i. Assessment tools:

- 1- Written and oral examination
- 2- Log book

ii. Time schedule: 1 hour (lectures and practice) / week for 6 months

iii. Marks: 50 marks

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential book& recommended books

- **Joseph landau of occupational and environmental medicine 5th edition 2014.**
 - iii. Recommended books:**
- **Bark 19th edition 2002.**
- **ROM 4th edition 1995.**
- **Oxford Handbook of Occupational Health 2007.**
- **Textbook Of occupational Medicine Practice (Fourth Edition) 2017.**

iv. Periodicals, Web sites, ... etc

Egyptian journal of Industries Medicine & Occupational
Healthational and Environmental medicine

American journal of Industries Medicine & Occupational
Healthational and Environmental medicine.

v. Others

WHO,2019: available at [https:// www.who.int/
occupational_health/activities/occupational_work_disease
s/en/](https://www.who.int/occupational_health/activities/occupational_work_diseases/en/)

9. Signatures

Course Coordinator: - Prof. Ahmed M. Hany -	Head of the Department: - Prof.dr. Eman Morsy
Date:	Date:

Course 2; Module2: Environmental; human physiology

Name of department: public health & community medicine department.

Faculty of medicine

Assiut University

2022-2023

I. Module data

- + Module (Unit) Title: environmental, human physiology.
 - + Course code: OCC209B §
 - + Speciality :Occupational and Environmental Medicine: occupational and environmental medicine
 - + Number of CP: Two credits points; 1credit point for didactics & 1 credit point for training.
 - + Department (s) delivering the course: Public health and community medicine department Faculty of Medicine Assuit University in conjunction with occupational and environmental medicine, Faculty of Medicine, Cairo University.
- Coordinator (s):According to both departmental councils.
Principle Module coordinator:
- professor Dr: Hussein Hassan Zayet.(Cairo university
 - professor Dr:Ahmmed Hany .
- + Assistant coordinator (s) : Dr :Shimaa Abdelsamee
 - + Date last reviewed: May 2022
 - + General requirements (prerequisites) if any :
 - Bachelor degree in medicine and surgery
 - Has completed his house – office training year
 - has to be free to complete his study if he from outside the university
 - + Requirements from the students to achieve course ILOs are clarified in the joining log book.

2. Module Aims

2/1 - To acquire principles and skills which are appropriate for environmental and human physiology including the pulmonary function test, hearing assessment, and measurement of environmental pollution.

3. intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the following principles, and conditions related to assessment of environmental and human physiology as well as its impact on occupational medicine and environmental health:</p> <p>Pulmonary function test and its significance. Spirometry for respiratory function test Assessment of hearing level (audiometry) Types of environmental pollution (gouger counter for radiation). As regard to (definition– types – assessment - instruments).</p>	Lectures; tutorial; Seminars.	Written Oral Logbook.
<p>B. Illustrate the principles of (diagnostic, therapeutic and preventive tools related to human and environmental physiology such as; pulmonary function test ; hearing measurement, types of environmental pollution and assessment.</p>		
<p>C. State update and evidence based Knowledge of situation and topics mentioned above in AA,AB.</p>		

D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to environmental and human physiology.		
E. Mention the basic ethical and medicolegal principles relevant to environmental and human physiology as well as Occupational and environmental health.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems related to environmental and human physiology in the field of occupational and environmental health on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to environmental and human physiology as well as Occupational and environmental Health.	Didactics, Lectures seminars	Written exam Oral exam Practical exam
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to environmental and human physiology as well as Occupational and environmental Health.		
C. Design and present cases , seminars in common related problem		
D-Formulate management plans and alternative decisions in different situations in the field of the environmental and human physiology as well as Occupational and environmental Health.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper data and examine patients in caring and respectful behaviors.	Practical training visits	Written, Oral & Practical exam
B. Order the following diagnostic procedures and measurement : Pulmonary function test and its significance. spirometry Measurement of hearing level, audiometry. Measurement of environmental pollution in different types, e.g. gougger counters for radiation).		
C. Interpret the results of diagnostic procedures and measurement mentioned above in CB and its diagnostic values related to human or environmental physiology and significance.		
D. Perform the suitable measures of corrective actions to provide healthy occupational and industrial environment.		
E. Recommend corrective actions and measures for management of problems related to environmental and human physiology as well as occupational and environmental health.		
F. Carry out management plans for common problems related to Industrial, Occupational and environmental Health.		
G. Use information technology to support decisions related environmental and occupational health and education in common situations.		
H. Provide health care services aimed at preventing health problems related to Industries Medicine, Occupational and environmental health like; Hearing loss problems, respiratory problems,		

environmental monitoring.		
I. Provide health -focused care in common conditions related to human & environmental physiology and health. while working with health care professionals, including those from other disciplines like; Occupational related environmental pollution, occupational related hearing loss, and occupational related respiratory dysfunction.		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Observation and supervision , Educational prescriptions, conferences , written assignment	Written & Oral exam Logbook OSCE Portfolio
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with health and environment.	Observation and supervision , Educational prescriptions, conferences , written assignment	Written, Oral , Practical exam, Logbook, Portfolio.
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in Occupational related environmental pollution , occupational related hearing loss , occupational related respiratory dysfunction		
K. Write a report in Occupational related environmental pollution , occupational related hearing loss , occupational related respiratory dysfunction		
L. Council workers and families about Modern or new safety measures for different environmental pollution (in various regions world wide), new methods for evaluation and respiratory function test , new methods for evaluation hearing loss.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of environmental and human health and society	Observation and supervision discussion	Portfolio Logbook Review report
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of health information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Oral and written assignment Didactic , journal clubs, Educational prescription.	Written Oral Practical
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
pulmonary function test and its significant	A-H	A-D	A-I	A-R
assessment of hearing level	A-H	A-D	A-K	A-R
types of environmental pollution	A-H	A-D	A-I	A-R

5. Methods of teaching/learning

- Didactics; Lectures, tutorial; seminars.
- Practical training
- Visits
- Observation and supervision ,
- Educational prescriptions,
- conferences ,
- written assignment
- conferences ,
- written assignment
- Discussion
- Oral assignment
- journal clubs,

6. Methods of teaching/learning: for students with poor achievements

Extra;

- Didactics; Lectures, tutorial; seminars.
- Practical training
- Visits
- Observation and supervision ,
- Educational prescriptions,
- conferences ,
- written assignment
- conferences ,
- written assignment
- Discussion
- Oral assignment
- journal clubs,

7. Assessment methods:

- i. Assessment tools:
 - Written and oral examination
 - Log book.
 - Practical exam
 - Portfolio
 - Review report.
 - Problem solving.
 - OSCE.
- ii. Time schedule: 2 hour (lectures and practice) for each / week for 6 months
- iii. Marks: 50 Marks

8. List of references

- i. Lectures notes
 - Course notes
 - Staff members print out of lectures and/or CD copies.
 - ii. Essential book& recommended books:
 - Joseph landau of occupational and environmental medicine 5th edition2014.
 - iii. Recommended books:
 - Bark 19th edition 2002.
 - ROM 4th edition 1995.
 - Oxford Handbook of Occupational Health 2007.
 - Textbook Of occupational Medicine Practice (Fourth Edition) 2017.
 - iv. Periodicals, Web sites, ... etc
 - Egyptian journal of Industries Medicine &Occupational Healthational and Environmental medicine
 - American journal of Industries Medicine&Occupational Healthational and Environmental medicine.
 - v. Others
- WHO,2019: available at
https://www.who.int/occupational_health/activities/occupational_work_diseases/en/

9. Signatures

Contributor	Name	Signature	Date
<ul style="list-style-type: none"> ▪ Program Principle Coordinator: 	Prof.Dr: Ahmmed El Hany		
<ul style="list-style-type: none"> ▪ Head of the Responsible Department (Program Academic Director): 	Prof.Dr: Eman Morsy		

Course 3; Principles of Occupational Medicine.

Name of department: public health & community medicine department.

Faculty of medicine

Assiut University

2022-2023

I. Course data

- + Course Title: principles of occupational medicine
- + Course code: OCC209C§
- + Speciality: Occupational and Environmental Medicine: industries occupational and environmental medicine
- + Number of CP: 3 (50%) credit points for didactics & 3 credit point for training (50%), total 6CP(100%).
- + Department (s) delivering the course: public health department Faculty of Medicine Assuit University in conjunction with occupational and environmental medicine, Faculty of Medicine, Cairo University.
- + Coordinator (s): According to both departmental councils.
Principle Module coordinator:
 - professor Dr: Hussein Hassan Zayet. (Cairo university)
 - professor Dr: Ahmmed El Hany .
 - Assistant coordinator (s) : Dr :Shimaa Abdelsamee
- + Date last reviewed: May 2022
- + General requirements (prerequisites) if any :
 - Bachelors degree in medicine and surgery
 - has completed his house- office training
 - has to be free to complete his study if he from outside the university
- + Requirements from the students to achieve course ILOs are clarified in the joining log book.

2. Course Aims

2/1-Demonstrate principles of Industrial process of each upper Egypt factory .

2/2-Physician has knowledge of the health effects of the broad physical and social environment, which includes housing, urban development, land-use and transportation, industry, and agriculture.

2/3-Clinical evaluation and treatment for injuries and illnesses that are occupationally or environmentally related.

3. intended learning outcomes (ILOs):

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions related to industrial chemistry and principles of occupational medicine :</p> <p>- Clinical evaluation and treatment for injuries and illnesses that are occupationally or environmentally related.</p> <p>-Occurrence of factory disasters, outbreak epidemics.</p> <hr/> <p>- Industrial process Health hazards and preventive measures for :</p> <ul style="list-style-type: none"> ● Cotton industry ● Cement industry ● Petroleum industry ● Iron& steel industry 	<p>Lectures</p> <p>Field visits to factories of upper Egypt</p> <p>Seminars</p> <p>Report writing</p>	<p>Written</p> <p>Oral</p> <p>practical</p>

<ul style="list-style-type: none"> • Super phosphate industry • Stone industry • Glass industry. • Battery industry <p>- Administrative aspects include:-</p> <ul style="list-style-type: none"> • Occupational safety in industry • Industrial hygiene • Agricultural medicine • Women at work • Investigating environmental health hazards • The role of primary health care physician in occupational medicine • Some clinical aspect in occupational medicine • Accident & air and water pollution • Determination of fitness at work • Disability • Rehabilitation • Susceptibility • Biological monitoring • First aids and management of emergency at industry • Occupational and environmental health • Hazards of alterative pressure • Occupational vibration • Light • Electricity • Occupation; hearing loss and hearing conservational program • Ionizing and non ionizing radiation • Reaction to cold stress and thermal stress 		
<p>B. Outline the principles of (diagnostic, therapeutic, and preventive tools) which are appropriate to industries medicine</p>		

<p>&occupational heath in clinical reasoning, diagnosis and management of potential environmental causes of concern to the individual as well as to community health and Environmental issues</p>		
<p>C. State update and evidence based Knowledge of the following aspects related to industrial chemistry and principles of occupational medicine:</p> <ul style="list-style-type: none"> • Types of industries conducted in upper Egypt • Industrial process in Egypt • Industrial hazards (emission) • Safety measures of industrial process (precautions for each industry). 		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to industrial chemistry and principles of occupational medicine.</p>		
<p>E. Mention the basic ethical and medicolegal principles revenant to the industrial chemistry and principles of occupational medicine.</p>		
<p>F. Mention the basics of quality assurance to ensure good clinical care in his field.</p>		
<p>G. Mention the ethical and scientific principles of medical research</p>		
<p>H. State the impact of common health problems in the field of industrial chemistry and principles of occupational medicine on the society.</p>		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common conditions related to industrial chemistry and principles of occupational medicine.	Lectures Field visits to factories of upper Egypt Seminars Report writing	Written Oral practical
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to industrial chemistry and principles of occupational medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the industrial chemistry and principles of occupational medicine.		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Field visits to factories of upper Egypt	Written Oral practical
B. Order the diagnostic procedures or tools which are appropriate to industrial chemistry and principles of occupational medicine in clinical reasoning, diagnosis and management of potential environmental causes of concern to the individual as well as to community and occupational health and environmental issues.		
C. Interpret the diagnostic procedures which are appropriate to industrial chemistry and principles of occupational medicine in clinical reasoning, diagnosis and management of potential environmental causes of concern to the individual as well as to community health. Environmental issues.		
D. Perform the procedures used for management of conditions mentioned in AA,AC which are appropriate to industrial chemistry and principles of occupational medicine.		
E. Prescribe the procedures used for management of mentioned conditions above related to industrial chemistry and principles of occupational medicine.		
F. Carry out patient management plans for common conditions and hazards related to industrial chemistry and principles of occupational medicine.		
G. Use information technology to support patient care decisions and patient education in common		

clinical situations related to industrial chemistry and principles of occupational medicine		
H. Provide health care services aimed at preventing health problems related to industrial chemistry and principles of occupational medicine ,like the following: Disasters prevention ,industrial process modification , diseases, and disability prevention.		
I-Provide patient-focused care in common conditions related to industrial chemistry and principles of occupational medicine, while working with health care professionals, including those from other disciplines like: Emergency , investigation of problem emission , epidemics disasters , undetermined problem		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Field visits to factories of upper Egypt Seminars Report writing.	Written Oral Practical exam
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Lectures Field visits to factories of upper Egypt	Written Oral Practical exam
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.	Seminars Report writing	
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in effects of industrial hazards (emission).		
K. Write a report in the following industrial aspects: <ul style="list-style-type: none"> • Types of industries conducted in upper Egypt • Industrial process in Egypt • Industrial hazards (emission) • Safety measures of industrial process & precautions for each Industry. 		
L. Council patients and families about Disasters prevention, industrial process modification, diseases, disability prevention.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Field visits to factories of upper Egypt Seminars Report writing	Written Oral practical
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Lectures Field visits to factories of upper Egypt Seminars Report writing	Written Oral practical
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Contents (topic s/modules/rotation) Module Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Cotton industry	A-H	A-D	-	A-R
Cement industry	A-H	A-D	-	A-R
Petroleum industry	A-H	A-D	-	A-R
Iron& steel industry	A-H	A-D	-	A-R
Super phosphate industry	A-H	A-D	-	A-R
Stone industry	A-H	A-D	-	A-R
Glass industry	A-H	A-D	-	A-R
battery industry	A-H	A-D	-	A-R
Occupational safety in industry	A-H	A-D	A-I	A-R
Industrial hygiene	A-H	A-D	A-I	A-R
Agricultural medicine	A-H	A-D	-	A-R
Women at work	A-H	A-D	-	A-R
Investigating environmental health hazards	A-H	A-D	A-I	A-R
The role of primary health care physician in occupational medicine	A-H	A-D	A-I	A-R
Clinical aspect in occupational medicine	A-H	A-D	-	A-R
Accident & air and water pollution	A-H	A-D	-	A-R
Determination of fitness at work	A-H	A-D	A-I	A-R
Disability	A-H	A-D	A-C,F-I	A-R
Rehabilitation	A-H	A-D	A-F-	A-R

Susceptibility	A-H	A-D	B-F	A-R
Biological monitoring	A-H	A-D	A-D	A-R
First aids and management of emergency at industry	A-H	A-D	A-F	A-R
Occupational and environmental health	A-H	A-D	-	A-R
Hazards of alterative pressure	A-H	A-D	A-H	A-R
Occupational vibration	A-H	A-D	G,H,I_	A-R
Light	A-H	A-D	_	A-R
Electricity	A-H	A-D	-	A-R
Occupation; hearing loss and hearing conservational program	A-H	A-D	A-H	A-R
Ionizing and non ionizing radiation	A-H	A-D	-	A-R

5. Methods of teaching/learning:

Lectures

Field visits to factories of upper Egypt

Seminars

Report writing

6. Methods of teaching/learning: for students with poor achievements

Extra :

Lectures,

Field visits to factories of upper Egypt,

Seminars; Report writing.

7. Assessment methods:

i. Assessment tools:

- 3- Written and oral examination
- 4- Log book

ii. Time schedule: 1 hour (lectures and practice) / week for 6 months

iii. Marks:150

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential book& recommended books

- **Joseph landau of occupational and environmental medicine 5th edition2014.**

iii. Recommended books:

- **Bark 19th edition 2002.**
- **ROM 4th edition 1995.**
- **Oxford Handbook of Occupational Health 2007.**
- **Textbook Of occupational Medicine Practice (Fourth Edition) 2017.**

iv. Periodicals, Web sites,

1. **Egyptian journal of Occupational and Environmental medicine**

2. American journal of Occupational and Environmental medicine.

v. others

WHO,2019: available at [https: //](https://www.who.int/occupational_health/activities/occupational_work_diseases/en/)

www.who.int/occupational_health/activities/occupational_work_diseases/en/

Contributor	Name	Signature	Date
Program Principle Coordinator:	prof Dr: Ahmmed El Hany		
Head of the Responsible Department (Program Academic Director):	Prof.Dr : Eman Morsy		

Course 4: Clinical toxicology.

- + Course Title: clinical toxicology
- + Course code: OCC210A§
- + Speciality: Occupational and Environmental Medicine: industries occupational and environmental medicine
- + Number of CP:
 - + 4 credit points for didactics(80%)& 1 credit point for training(20%).Total 5 CP(100%)
- + Department (s) delivering the course: clinical toxicology and forensic medicine department in conjunction with public health and community medicine, Faculty of Medicine, Assuit University .
- + Coordinator (s):According to both departmental councils.
Principle Module coordinator:
 - professor Dr: Hussein Hassan Zayet.(Cairo university
 - professor Dr:Ahmmed El Hany .
 - Assistant coordinator (s) : Dr : Shimaa Abdelsamee
- + Date last reviewed: May 2022
- + General requirements (prerequisites) if any :
 - Bachelors degree in medicine and surgery
 - has completed his house- office training
 - has to be free to complete his study if he from outside the university
- + Requirements from the students to achieve course ILOs are clarified in the joining log book.

2. Course Aims

2/1-Demonstrate principles of clinical toxicology
 2/2-Clinical evaluation and treatment for injuries and illnesses that are occupationally or environmentally related.

3. intended learning outcomes (ILOs):

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of industrial and occupational toxicities of the clinical toxicology conditions and toxic substance induced including the following:</p> <ol style="list-style-type: none"> a. The nature and extent of potential occupational and environmental chemical exposures, b. Considering routes of exposure and routes of absorption. c. Registry of toxic effects of Chemical Substances [RTECS]) and hazardous ingredients of chemical agents. <ul style="list-style-type: none"> • The physical characteristics of hazardous agents (e.g., liquid/gas/vapor/particulate). • The degree of absorption based upon circumstances of exposure, considering factors such as the nature of the substance, the route of exposure, concomitant exposures, and characteristics of the patient (e.g., age, susceptibility factors). 	<p>Lectures Scientific library Seminars Case presentation</p>	<p>Oral exam Written exam Log book MCQ problem solving</p>

<ul style="list-style-type: none"> ● Detection of early preclinical or clinical effects arising from chemical exposure and implement appropriate to preventive measures. ● Identification and evaluation biomarkers or other tests to assess exposure and/or health effects, including biological monitoring techniques that assay the substance, its metabolites, or other indices. ● Identification of clinical or biochemical evidence of target organ damage when exposure hazard is recognized. ● Evaluation, treatment, and/or properly referral of persons whose health may be affected by acute or chronic contact with occupational and environmental chemicals. ● Identification of toxic exposure on the basis of clinical signs and symptoms. ● Identification of chronic health effects (e.g., hepatotoxicity, asthma, central and peripheral nervous system toxicity, interstitial fibrosis) resulting from toxic exposure and sensitive diagnostic and prognostic confirmatory testing. ● Medical care and secondary preventive measures for individuals chronically affected by toxic exposure. ● Assessment of clinical, worksite, and environmental data, along with literature reviews in the performance of patient evaluations. ● Detailed exposure information including exposure histories, MSDSs, industrial hygiene reports, and other data. ● Evaluation of the severity of exposure to 		
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<p>hazardous agents, considering dose or/ response relationships.</p> <ul style="list-style-type: none"> • Interpretation of exposure data in the context of the scientific literature (human and animal) and the patient’s presentation. • Application of toxic kinetic data (including absorption, metabolism, storage, and excretion) to clinical and employment-related decision-making. • Determination of risky persons with health condition that increases risk from the effects of exposure to chemical, physical, or biological agents. • Distinguishing health effects of exposure to chemicals from other etiologies. • Using occupational and environmental information resources to conduct a literature search or to research the health effects of a chemical substance. • Interpretation and application of the medical, toxicological, and environmental literatures. 		
<p>B. illustrate the principles of (diagnostic; therapeutic; preventive tools) of clinical toxicology conditions and assessment of toxicological exposure which is occupational or environmental related.</p>		
<p>C. State update and evidence based Knowledge of - Toxic exposure which is occupational or environmental related conditions.</p>		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to occupational health and diseases & environmental health.</p>		
<p>E. Mention the basic ethical and medicolegal</p>		

principles relevant to the occupational diseases & environmental health.		
F. Mention the basics of quality assurance to ensure good occupational care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common clinical toxicology health problems in the field of occupational diseases and health on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common clinical toxicology diseases related to occupational medicine and disease and environmental health.	- Lectures Discussion Tutorial seminars Didactics	Written Oral exams Logbook problem solving MCQ OSCE
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical toxicology related to occupational & environmental medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the occupational & environmental medicine		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching) report discussion	Chick list -log book & portfolio - MCQ Examination Practical exam, Report
B. Order the non invasive & invasive diagnostic procedures for assessment of toxic exposure and clinical intoxication which is occupationally or environmentally related situations.		
C. Interpret the following non invasive/invasive diagnostic procedures Assessment of toxicological exposure which is occupational or environmental related.		
D. Perform the following non invasive& invasive therapeutic procedures for management of toxic exposure which is occupationally or environmentally related.		
E. Prescribe the following non invasive& invasive therapeutic procedures for management of toxic exposure which is occupationally or environmentally related conditions.		
F. Carry out patient management plans for common clinical toxicology conditions related to occupational diseases and occupational medicine.		
G. Use information technology to support occupational health care decisions and occupational workers and professionals' health education in common clinical toxicology situations related to occupational health and diseases.		
H. Provide health care services aimed at preventing clinical toxicology health problems related to occupational toxicology diseases like; toxic exposure which is occupational or environmental related.		

I. Provide occupational health -focused care in common clinical toxicology conditions related to occupational health and diseases, while working with health care professionals, including those from other disciplines.		
J. Write competently all forms of occupational and environmental health charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Scientific library Seminars Web sites	Oral exam Written exam Log book MCQ testing
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with industrial patients.	Lectures Scientific library Seminars Web sites	Oral exam Written exam Log book MCQ testing
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in toxicological exposure which is occupational or environmental related. --		
K. Write a report in toxicological exposure which is occupational or environmental related. --		
K. Council industrial occupational patients and families about; - toxic exposure which is occupational or environmental related. - safety measures used to prevent these hazards		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Scientific library Seminars Web sites	Oral exam Written exam Log book Mcq testing
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of occupational patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant occupational health care delivery settings and systems.	Scientific library	Log book
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.	Seminars	Global rating
R. Assist patients in dealing with system complexities.		

5. Course Methods of teaching/learning:

- Lectures, didactics
- clinical training
- Scientific library
- Seminars
- Web sites
- Case presentation
- Clinical rounds
- Seminars
- Clinical rotations
- (service teaching)
- Report discussion

6. Course Methods of teaching/learning: for students with poor achievements

Extra number of :

- Lectures, didactics
- clinical training
- Scientific library
- Seminars
- Web sites
- Case presentation
- Clinical rounds

- Seminars
- Clinical rotations
- (service teaching)
- Report discussion
- **extra clinical training**

7. Course Assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book
3. MCQ testing
4. Report writing.
5. Chick list
6. portfolio
7. practical exam
8. case study

ii. Time schedule:

iii. Marks: 200

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Joseph landau of occupational and environmental medicine 5th edition 2014.

iii. Recommended books:

- Bark 19th edition 2002.
- ROM 4th edition 1995.
- Oxford Handbook of Occupational Health 2007.
- Textbook Of occupational Medicine Practice (Fourth Edition) 2017.

iv. Periodicals, Web sites, ... etc

1. Egyptian journal of occupational and environmental medicine
2. American journal of occupational and environmental medicine.

v. others

WHO,2019: available at https://www.who.int/occupational_health/activities/occupational_work_diseases/en/

9. Signatures

Contributor	Name	Signature	Date
Program Principle Coordinator:	Prof. Dr: Ahmmed El Hany		
Head of the Responsible Department (Program Academic Director):	Prof.Dr: Eman Morsy		

Course 5: The students choose one of the following courses:

- 1- Psychology
- Or
- 2- Internal medicine.

Course 5a: (Psychology)

1. Course data

- ✚ Course Title: psychology
- ✚ Course code: OCC220.
- ✚ Speciality: Occupational and Environmental Medicine: occupational and environmental medicine.
- ✚ Number of CP: Two credit points for didactics(100%), 0 CP for training& Total 2CP.
- ✚ Department (s) delivering the course: Neurology and psychiatry department& in conjunction with Community Medicine and public health department, faculty of medicine.
- ✚ Coordinator (s):
 - Principle Module coordinator Prof Dr:Alaa Darwish&
 - Prof Dr: EL Ahmmed Hany
 - Assistant coordinator (s) Dr.Shimaa Abdelsamee
- ✚ Date last reviewed: May 2022
- ✚ - Regulatory role of post graduate studies of Assiut Requirements from the students to achieve course ILOs are clarified in the joining log book.

2. Course Aims

2/1-To acquire the principles and facts of psychology and its related disorders which are appropriate to industries medicine and occupational health.

3. Intended learning outcomes (ILOs):

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Describe the principles of psychology and related disorders in occupational health as regards to etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <ol style="list-style-type: none"> 1.Circadian rhythm& shift work 2. occupational psychology 3. absenteeism at work 4. drug abuse 5. somatoform disorders 	<p>Lectures - Tutorial.</p>	<p>Written exams Oral exams</p>
<p>B. State update and evidence based Knowledge of the following aspects</p> <ol style="list-style-type: none"> 1.Circadian rhythm& shift work 2. occupational psychology 3absenteeism at work 4. drug abuse 5. somatoform disorders 		
<p>C. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to occupational &environmental</p>		

medicine.		
D. Mention the basic ethical and medico legal principles relevant to Psychology and the Occupational Health.		
E. Mention the basics of quality assurance to ensure good psychological care in his field.		
F. Mention the ethical and scientific principles of medical research.		
G. State the impact of common psychology health problems in the field of occupational health and diseases on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with proper reasoning, diagnosis and management of common psychological disorders related to Occupational diseases.	- Lectures - Discussion Seminars Tutorial	Written exams Oral exams Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common situations related to psychology and occupational diseases.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the Industries Medicine& Occupational Health& environmental medicine.		

C- Practical skills =0

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Lectures -Discussion Tutorial journal clubs	Written exams Oral exams
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Lectures - Discussion	Written exams Oral exams
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in topics related to psychology and its related disorders and occupational health.		
K. Write a report in the mentioned conditions above.		

<p>L. Counsel others and health professionals about psychology and its impact on the occupational health including the following:</p> <ol style="list-style-type: none"> 1. Circadian rhythm & shift work 2. occupational psychology 3. absenteeism at work 4. drug abuse 5. somatoform disorders 		
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Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation		
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures - Discussion Didactics,	<ul style="list-style-type: none"> • Written exams • Oral exams 		
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices				
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities				

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation		
P. Work effectively in relevant health care delivery settings and systems.	-Lectures -Discussion	Written exams Oral exams		
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.				
R. Assist patients in dealing with system complexities.				

4. Contents (topic s/modules/rotation Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
1.Circadian rhythm& shift work	A-G	A-D	-	A-R
2. occupational psychology	A-G	A-D	-	A-R
3absenteeism at work	A-G	A-D	-	A-R
4. drug abuse	A-G	A-D	-	A-R
5. somatoform disorders	A-G	A-D	-	A-R

5. Methods of teaching/learning:

Lectures

Didactics and seminars, tutorial

6. Methods of teaching/learning: for students with poor achievements

-extra didactic teaching

7. Assessment methods:

1. i. **Assessment tools:** Written and oral examination
2. Log book
- ii. **Time schedule:** 1 hour (lectures and practice) / week for 6 months
- iii. **Marks=100**

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Joseph landau of occupational and environmental medicine 5th edition 2014.

iii. Recommended books:

- Bark 19th edition 2002.
- ROM 4th edition 1995.
- Oxford Handbook of Occupational Health 2007.
- Textbook Of occupational Medicine Practice (Fourth Edition) 2017.

iv. Periodicals, Web sites, ... etc

1. Egyptian journal of Occupational and Environmental medicine
2. American journal of Occupational and Environmental medicine.

v. Others

WHO,2019: available at https://www.who.int/occupational_health/activities/occupational_work_diseases/en/

9. Signatures

Contributor	Name	Signature	Date
Program Principle Coordinator:	Prof.Dr: Ahmmed El Hany		
Head of the Responsible Department (Program Academic Director):	Prof.Dr: Eman Morsy		

Course 5b: Internal medicine

- Name of department:
- Faculty of medicine
- Assiut University
- **2022/2023**

1. Course data

- + Course Title: Internal Medicine.
- + Course code: OCC218
- + Speciality Occupational and Environmental Medicine
industries medicine & occupational health
- + Number of **points**: Didactic 2 CP, (40%) practical 3 CP (60%).
total 5CP (100%).
- + Department (s) delivering the course: internal medicine
department & Community Medicine and public health
department
- + Coordinator (s):
 - Course coordinator: : EL Ahmmed Hany
 - Assistant coordinator (s): Dr. Shimaa Abdelsamee
 -
- + Date last reviewed: 5/2022.
- + General requirements (prerequisites) if any :
 - + General requirements (prerequisites) if any :
 - + MBChB from any Egyptian Faculty of medicine
 - + - Equivalent degree from medical schools abroad
approved by the ministry of higher education
- + Requirements from the students to achieve course ILOs are
clarified in the joining log book.

2. Course Aims

2/1-To acquire the principles and facts of internal medicine and its related disorders which are appropriate to industries medicine and occupational health.

3. Course intended learning outcomes (ILOs):

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <ul style="list-style-type: none"> • Bronchial asthma, • COPD. • Heart failure • Ischemic heart disease • Hypertension • Anemia • Diabetes mellitus • Constipation & diarrhea • Hepatitis • Liver cirrhosis and liver cell failure • Rheumatoid arthritis 	<p>Lectures - Tutorial. Clinical round Case presentation</p>	<p>Written exams Oral exams Clinical exam MCQ logbook</p>
<p>B. Mention the principles of diagnostic and therapeutic tools for conditions mentioned in AA</p>	<p>Lectures - Tutorial. Clinical round Case</p>	<p>Written exams Oral exams</p>

	presentation	Clinical exam MCQ
C. State update and evidence based Knowledge of Medical conditions mentioned in AA		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Occupational and Environmental Medicine		
E. Mention the basic ethical and medicolegal principles relevant to the Occupational and Environmental Medicine.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of speciality on the society.		

B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Occupational and Environmental Medicine.	Lectures - Tutorial. Clinical round Case presentation	Written exams Oral exams Clinical exam MCQ
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to		

Occupational and Environmental Medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the Occupational and Environmental Medicine		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures - Tutorial. Clinical round Case presentation	Written exams Oral exams Clinical exam MCQ logbook
B. Order the diagnostic procedures for the medical conditions mentioned in AA.		
C. Interpret the diagnostic procedures for the medical conditions mentioned in AA.		
D- Carry out patient management plans for mentioned conditions above related to Occupational and Environmental Medicine.		
E- Use information technology to support patient care decisions and patient education in common clinical situations related to Occupational and Environmental Medicine		
F. Provide health care services aimed at preventing health		

problems related to Occupational and Environmental Medicine like conditions mentioned in AA.		
G-Provide patient-focused care in common conditions related to Occupational and Environmental Medicine , while working with health care professionals, including those from other disciplines like conditions mentioned in AA.		
H-Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Lectures -Discussion Tutorial journal clubs	Written exams Oral exams
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Lectures - Discussion	Written exams Oral exams
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in conditions mentioned in AA		
K. Write a report in conditions mentioned in AA		
L. Council patients and families about- conditions mentioned in AA -		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Lectures - Discussion	Written exams Oral exams
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Lectures - Discussion	Written exams Oral exams
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Course contents (topic s/modules/rotation Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
Bronchial asthma,	A-H	A-D	A-H	A-R
COPD.	A-H	A-D	A-H	A-R
Heart failure	A-H	A-D	A-H	A-R
Ischemic heart disease	A-H	A-D	A-H	A-R
Hypertension	A-H	A-D	A-H	A-R
Anemia	A-H	A-D	A-H	A-R
Diabetes mellitus	A-H	A-D	A-H	A-R
Constipation & diarrhea	A-H	A-D	A-H	A-R
Hepatitis	A-H	A-D	A-H	A-R
Liver cirrhosis and liver cell failure	A-H	A-D	A-H	A-R

5. Course Methods of teaching/learning:

- Lectures
- Didactics and seminars, tutorial

6. Course Methods of teaching/learning: for students with poor achievements

Extra didactic teaching

7. Course assessment methods:

i. Assessment tools:

3. Written clinical and oral examination
4. Log book

ii. Time schedule: 1st part

iii. Marks:100 Marks.

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Joseph landau of occupational and environmental medicine 5th edition 2014.

iii. Recommended books:

- Bark 19th edition 2002.
- ROM 4th edition 1995.
- Oxford Handbook of Occupational Health 2007.
- Textbook Of occupational Medicine Practice (Fourth Edition) 2017.

iv. Periodicals, Web sites, ... etc

3. Egyptian journal of Occupational and Environmental medicine
4. American journal of Occupational and Environmental medicine.

v. Others

WHO,2019: available at https://www.who.int/occupational_health/activities/occupational_work_diseases/en/

9. Signatures

Contributor	Name	Signature	Date
Program Principle Coordinator:	Prof. Dr: Ahmmed El Hany		
Head of the Responsible Department (Program Academic Director):	Prof.Dr: Eman Morsy		

SECOND PART

Specialized, Course 6 :Occupational and Environmental Medicine (advanced)

- It is divided into 5 modules:
 - Module1- Occupational chest diseases.
 - Module 2- Occupational audiology.
 - Module 3- Occupational dermatology.
 - Module 4- Clinical toxicology .
 - Module 5-advanced internal medicine.

Course6: Occupational and environmental medicine(advanced)

Name of department: public health& community medicine department.

Faculty of medicine

Assiut University

2022-2023

1. Course data

- + Course Title: Occupational and Environmental Medicine (advanced)**
- + Course code: OCC209D#§**
- + Speciality: Occupational and Environmental Medicine industries medicine & occupational health**
- + Number of CP: 24credit points for didactics& 110 credit point for training.total 134CP**
- + Department (s) delivering the course: Public health and community medicine department in collaboration with chest, audiology , dermatology, clinical toxicology and forensics departments, Faculty of Medicine, Assuit university in conjunction with conjunction with occupational and environmental medicine, Faculty of Medicine, Cairo University. .**
- + Coordinator (s):**
Principle coordinator (s) :

professor Dr: Hussein Hassan Zayet.(Cairo university)

professor Dr:Ahmmed Hany

- Assistant coordinator (s) : Dr :Shimaa Abdelsamee


 **Date last reviewed: May 2022**

 **General requirements (prerequisites) if any :**

a Bachelor degree in Medicine and Surgery

-has completed his house-office training year

**-Has to be free to complete his study if he from
outside the university.**

 **Requirements from the students to achieve course ILOs are
clarified in the joining log book.**

2. Course Aims

2/1 to be Proficient in the update knowledge and skills required to practice in industries medicine and occupational health

1/2 Graduates of the programs will have acquired the knowledge and skills needed to practice occupational medicine in the occupational health facilities of the government and in the community.

2/3. For the work-up of occupational or environmental related pulmonary conditions, order and interpret the appropriate diagnostic tests

2/4. Perform respirator certification examinations tailored to the anticipated workplace exposures, to the exertional demands of the job, and to the type of respiratory protection used.

2/5. Diagnose and manage nasopharyngeal conditions caused or aggravated by occupational and environmental exposure,

2/6. Evaluate and manage a patient with hearing loss or other occupationally related otologic conditions.

2/7. Perform and interpret an audiogram, identify a standard threshold shift, and implement appropriate treatment and preventive interventions.

2/8. Differentiate occupational skin disorders by history, examination, and diagnostic evaluation.

2/9. Manage occupational and environmental skin injuries and dermatoses.

2/10. Determine the nature and extent of potential occupational and environmental chemical exposures, considering routes of exposure and routes of absorption.

2/11. Detect, insofar as possible, preclinical or clinical effects arising from chemical exposure and implement appropriate preventive measures.

damage when exposure hazard is recognized.

2/13. Evaluate, treat, and/or properly refer persons whose health may be affected by acute or chronic contact with occupational and environmental chemicals.

2/14. Assess clinical, worksite, and environmental data, along with literature reviews in the performance of patient evaluations.

2/15. Understand, explain, and be able to apply toxic kinetic data (including absorption, metabolism, storage, and excretion) to clinical and employment-related decision-making.

2/16. Determine if a person has a health condition that increases risk from the effects of exposure to chemical, physical, or biological agents.

2/17. Distinguish health effects of exposure to chemicals from other etiologies.

2/18. Use occupational and environmental information resources to conduct a literature search or to research the health effects of a chemical substance.

2/19. Interpret and apply the medical, toxicological, and environmental literatures.

2/20 acquire the skills for assessment OEM Related Law and Regulations: The physician has the knowledge and skills necessary to comply with regulations important to occupational and environmental health. Those regulations essential to workers' compensation, accommodation of disabilities, public health, worker safety, and environmental health.

3. Course intended learning outcomes (ILOs)

Course 6; module1: Occupational chest diseases .

A Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <p>1. Occupational asthma and bronchoreactivity (e.g., toluene diisocyanate sensitization, exposure to inhaled allergens, byssinosis, reactive airways dysfunction syndrome [RADS]).</p> <p>2. Pneumoconiosis (e.g., silicosis, coal workers' pneumoconiosis, asbestosis, hard-metal disease, benign radio-opaque pneumoconiosis, chronic beryllium disease).</p> <p>3. Irritant inhalations (e.g., acids, alkalis, oxides of nitrogen, phosgene, phosphine).</p> <p>4. Chronic obstructive pulmonary disease (COPD).</p> <p>5. Hypersensitivity pneumonitis</p>	<p>Lectures Scientific library Seminars Web sites Case presentation</p>	<p>Oral exam Written exam Log book MCQ testing</p>
<p>B. Mention the principles of (diagnostic/therapeutic/preventive tools) Pulmonary function tests.</p> <p>Peak-flow testing and post-shift spirometry in the assessment of exposure-related bronchoreactivity</p> <p>☐ Post-bronchodilator pulmonary function testing in the assessment of bronchoreactivity.</p> <p>☐ Methacholine and specific challenge testing in</p>		

<p>the assessment of exposure-related bronchoreactivity.</p> <p>☐ Exercise disability tests in the assessment of pulmonary impairment.</p> <p>☐ Imaging studies (e.g., chest radiographs for assessment of the pneumoconiosis magnetic resonance imaging, computed tomography, plain tomography).</p> <p>☐ Allergy testing.</p>		
<p>C. State update and evidence based Knowledge of As mentioned in module aim</p>		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Industries Medicine &Occupational Health &environmental medicine</p>		
<p>E. Mention the basic ethical and medicolegal principles revenant to the Industries Medicine &Occupational Health &environmental medicine.</p>		
<p>F. Mention the basics of quality assurance to ensure good clinical care in his field</p>		
<p>G. Mention the ethical and scientific principles of medical research</p>		
<p>H. State the impact of common health problems in the field of occupational chest diseases and environmental health on the society.</p>		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Industries Medicine &Occupational Health	- Lectures Discussion	<ul style="list-style-type: none"> ● Written exams ● Oral exams
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Industries Medicine &Occupational Health.	- Lectures Discussion	<ul style="list-style-type: none"> ● Written exams ● Oral exams
C. Design and present cases , seminars in common problem related to occupational chest diseases.	- Lectures Discussion	<ul style="list-style-type: none"> ● Written exams ● Oral exams
D-Formulate management plans and alternative decisions in different situations in the field of the Industries Medicine and Occupational Health	- Lectures Discussion	<ul style="list-style-type: none"> ● Written exams ● Oral exams

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	Clinical examination -Chick list -log book & portfolio - MCQ examination.
B. Order the following non invasive&invasive diagnostic procedures: - Pulmonary function tests. - Peak-flow testing and post-shift - -spirometry in the assessment of exposure-related bronchoreactivity - Imaging studies (e.g., chest radiographs for assessment of the pneumoconiosis , magnetic resonance imaging, computed tomography, plain tomography).		
C. Interpret the following non invasive/invasive diagnostic procedures Pulmonary function tests. Peak-flow testing and post-shift spirometry in the assessment of exposure-related bronchoreactivity ☐ Imaging studies (e.g., chest radiographs for assessment of the pneumoconiosis , magnetic resonance imaging, computed tomography, plain tomography).		
D. Perform the following non invasive/invasive		

therapeutic procedures for occupational chest diseases that are occupationally or environmentally related conditions		
E. Prescribe the following non invasive& invasive therapeutic procedures ; for chest diseases that are occupationally or environmentally related conditions.		
F. Carry out patient management plans for common occupational chest diseases related to Industries Medicine and Occupational Health.		
G. Use information technology to support patient care decisions and patient education in common occupational chest diseases related to Industries Medicine and Occupational Health.		
H. Provide health care services aimed at preventing health problems related to Industries Medicine and Occupational Health like: chest diseases that are occupationally or environmentally related conditions.-		
I. Provide patient-focused care in common occupational chest diseases related to occupational health and industries medicine, while working with health care professionals, including those from other disciplines like: chest diseases that are occupationally or environmentally related conditions.		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills
Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in chest diseases that are occupationally or environmentally related conditions		
K. Write a report about chest diseases that are occupationally or environmentally related conditions		
L. Council patients and families about chest diseases that are occupationally or environmentally related conditions and methods to prevent them		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Scientific library Seminars Web sites Case presentation	clinical examination 2. Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Lectures Scientific library Seminars Web sites Case presentation	1. Check list evaluation of live or recorded performance
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

Module2: Occupational audio logy

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following audiological diseases and clinical conditions including the following:</p> <ul style="list-style-type: none"> - Occupational audio logy. -. Assessment of hearing function tests 	<p>Lectures Scientific library Seminars Web sites Case presentation</p>		<p>Oral exam Written exam Log book MCQ testing</p>
<p>B. Mention the principles of (diagnostic, therapeutic, preventive tools) occupational audiological diseases including the following:</p> <ul style="list-style-type: none"> - hearing function tests - Other tests for assessment of hearing conditions which are occupationally related. 			
<p>C. State update and evidence based Knowledge of occupational audio logy, assessment of hearing function tests</p>			
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to occupational health and occupational audiological diseases.</p>			
<p>E. Mention the basic ethical and medicolegal principles revenant to the occupational health and occupational audiological diseases.</p>			
<p>F. Mention the basics of quality assurance to ensure good clinical care in his field</p>			
<p>G. Mention the ethical and scientific principles of medical research</p>			
<p>H. State the impact of common health problems in the field of occupational audiological diseases on the society.</p>			

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common audiological diseases related to occupational health and diseases.	Lectures - Discussion	<ul style="list-style-type: none"> • Written exams • Oral exams
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common occupational audiological diseases related to Industries Medicine &Occupational Health.		
C. Design and present cases , seminars in common occupational audiological diseases		
D-Formulate management plans and alternative decisions in different occupational audiological diseases in the field of the Industries Medicine &Occupational Health		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	-Clinical examination -Chick list -log book & portfolio - MCQ examination.
B. Order the following non invasive&invasive diagnostic procedures -.hearing function tests - .Other tests for assessment of hearing conditions which are occupationally related.		
C. Interpret the following non invasive& invasive diagnostic procedures -.hearing function tests - Other tests for assessment of hearing conditions which are occupationally related.		
D. Perform the following non invasive& invasive therapeutic procedures -.hearing function tests - .Other tests for assessment of hearing conditions which are occupationally related.		
E. Prescribe the following non invasive/invasive therapeutic procedures : 1.hearing function tests 2.Other tests for assessment of hearing conditions which are occupationally related.		
F. Carry out patient management plans for		

common conditions related to Industries Medicine & Occupational Health & environmental medicine.		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to occupational & environmental medicine		
H. Provide health care services aimed at preventing audiological health problems related to occupational health and industries medicine like: hearing conditions which are occupationally or environmentally related		
I. Provide patient-focused care in common audiological conditions and related to occupational health and industries medicine while working with health care professionals, including those from other disciplines like: hearing conditions which are occupationally or environmentally related		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills
Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in hearing conditions which are occupationally or environmentally related		
K. Write a report in hearing conditions which are occupationally or environmentally related		
L. Council patients and families about... hearing conditions which are occupationally or environmentally related		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Scientific library Seminars Web sites Case presentation	clinical examination 2. Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Lectures Scientific library Seminars Web sites Case presentation	1. Check list evaluation of live or recorded performance
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

Module 3: occupational dermatology

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <ol style="list-style-type: none"> 1. Diagnose and determine the cause of allergic contact dermatitis (including urticaria), particularly those caused by common antigens such as latex, epoxy monomer, and nickel. 2. Diagnose primary irritant-induced dermatoses. 3. Diagnose actinic skin damage, as well as photosensitization dermatitis, including cases due to exposure to coal tar, psoralens, and polychlorinated biphenyls (PCBs). 4. Diagnose occupational acne, including chloracne. 5. Differentiate work-aggravated dermatoses. 6. Diagnose occupational cutaneous infections (e.g. herpetic whitlows). 	<p>Lectures Scientific library Seminars Web sites Case presentation</p>	<p>Oral exam Written exam Log book Mcq testing</p>
<p>B. Outline the principles of (diagnostic,therapeutic, preventive tools)of dermatological diseases including Tests for assessment of skin diseases which are occupationally or environmentally related.</p>		
<p>C. State update and evidence based Knowledge of the following</p>		

<ul style="list-style-type: none"> - the cause of allergic contact dermatitis (including urticaria), particularly those caused by common antigens such as latex, epoxy monomer, and nickel. - primary irritant-induced dermatoses. - actinic skin damage, as well as photosensitization dermatitis, including cases due to exposure to coal tar, psoralens, and polychlorinated biphenyls (PCBs). - occupational acne, including chloracne. - work-aggravated dermatoses. - occupational cutaneous infections (e.g., herpetic whitlows). 		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to occupational dermatology diseases.</p>		
<p>E. Mention the basic ethical and medicolegal principles relevant to the occupational diseases and environmental health.</p>		
<p>F. Mention the basics of quality assurance to ensure good clinical care in his field</p>		
<p>G. Mention the ethical and scientific principles of medical research</p>		
<p>H. State the impact of common health problems in the field of occupational health and occupational dermatology diseases on the society.</p>		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common dermatological diseases related to occupational health and diseases.	- Lectures Discussion	<ul style="list-style-type: none"> • Written exams • Oral exams
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common dermatological clinical situations related to Industries Medicine &Occupational Health .		
C. Design and present cases , seminars in common occupational dermatology problem		
D-Formulate management plans and alternative decisions in different dermatology diseases in the field of the Industries Medicine &Occupational Health		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	Clinical examination -Chick list -log book & portfolio - MCQ examination
B. Order the following non invasive &invasive diagnostic procedures for assessment of skin diseases which are occupationally or environmentally related.		
C. Interpret the following non invasive &invasive diagnostic procedures for assessment of skin diseases which are occupationally or environmentally related.		
D. Perform the following non invasive &invasive therapeutic procedures for assessment of skin diseases which are occupationally or environmentally related.		
E. Prescribe the following non invasive &invasive therapeutic procedures : for assessment of skin diseases which are occupationally or environmentally related.		
F. Carry out patient management plans for common conditions related to occupational health		
G. Use information technology to support patient care decisions and patient education in common clinical dermatology situations related to occupational health		

H. Provide health care services aimed at preventing dermatology health problems related to occupational health like: skin diseases which are occupationally or environmentally related.		
I. Provide patient-focused care in common conditions related to occupational health while working with health care professionals, including those from other disciplines like: skin diseases which are occupationally or environmentally related.		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in skin diseases which are occupationally or environmentally related.		
K. Write a report in skin diseases which are occupationally or environmentally related.		
L. Council patients and families about skin diseases which are occupationally or environmentally related.		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

Module4: Advanced Clinical toxicology.

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>B. Describe the etiology, clinical picture, diagnosis and management of industrial and occupational toxicities of the clinical toxicology conditions and toxic substance induced including the following:</p> <ol style="list-style-type: none"> a. The nature and extent of potential occupational and environmental chemical exposures, b. Considering routes of exposure and routes of absorption. c. Registry of toxic effects of Chemical Substances [RTECS]) and hazardous ingredients of chemical agents. <ul style="list-style-type: none"> • The physical characteristics of hazardous agents (e.g., liquid/gas/vapor/particulate). • The degree of absorption based upon circumstances of exposure, considering 	<p>Lectures Scientific library Seminars Case presentation</p>	<p>Oral exam Written exam Log book MCQ problem solving</p>

factors such as the nature of the substance, the route of exposure, concomitant exposures, and characteristics of the patient (e.g., age, susceptibility factors).

- Detection of early preclinical or clinical effects arising from chemical exposure and implement appropriate to preventive measures.
- Identification and evaluation biomarkers or other tests to assess exposure and/or health effects, including biological monitoring techniques that assay the substance, its metabolites, or other indices.
- Identification of clinical or biochemical evidence of target organ damage when exposure hazard is recognized.
- Evaluation, treatment, and/or properly referral of persons whose health may be affected by acute or chronic contact with occupational and environmental chemicals.
- Identification of toxic exposure on the basis of clinical signs and symptoms.
- Identification of chronic health effects (e.g.,

hepatotoxicity, asthma, central and peripheral nervous system toxicity, interstitial fibrosis) resulting from toxic exposure and sensitive diagnostic and prognostic confirmatory testing.

- Medical care and secondary preventive measures for individuals chronically affected by toxic exposure.
- Assessment of clinical, worksite, and environmental data, along with literature reviews in the performance of patient evaluations.
- Detailed exposure information including exposure histories, MSDSs, industrial hygiene reports, and other data.
- Evaluation of the severity of exposure to hazardous agents, considering dose or/ response relationships.
- Interpretation of exposure data in the context of the scientific literature (human and animal) and the patient's presentation.
- Application of toxic kinetic data (including absorption, metabolism, storage, and

<p>excretion) to clinical and employment-related decision-making.</p> <ul style="list-style-type: none"> • Determination of risky persons with health condition that increases risk from the effects of exposure to chemical, physical, or biological agents. • Distinguishing health effects of exposure to chemicals from other etiologies. • Using occupational and environmental information resources to conduct a literature search or to research the health effects of a chemical substance. • Interpretation and application of the medical, toxicological, and environmental literatures. 		
<p>B. illustrate the principles of (diagnostic; therapeutic; preventive tools) of clinical toxicology conditions and assessment of toxicological exposure which is occupational or environmental related.</p>		
<p>C. State update and evidence based Knowledge of</p> <ul style="list-style-type: none"> - Toxic exposure which is occupational or environmental related conditions. 		

<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to occupational health and diseases & environmental health.</p>		
<p>E. Mention the basic ethical and medicolegal principles relevant to the occupational diseases & environmental health.</p>		
<p>F. Mention the basics of quality assurance to ensure good occupational care in his field</p>		
<p>G. Mention the ethical and scientific principles of medical research</p>		
<p>H. State the impact of common clinical toxicology health problems in the field of occupational diseases and health on the society.</p>		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common clinical toxicology diseases related to occupational medicine and disease and environmental health.	- Lectures Discussion Tutorial seminars Didactics	Written Oral exams Logbook problem solving MCQ OSCE
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical toxicology related to occupational & environmental medicine.		
C. Design and present cases , seminars in common problem		
D-Formulate management plans and alternative decisions in different situations in the field of the occupational & environmental medicine		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching) report discussion	Chick list -log book & portfolio - MCQ Examination Practical exam, Report
B. Order the non invasive & invasive diagnostic procedures for assessment of toxic exposure and clinical intoxication which is occupationally or environmentally related situations.		
C. Interpret the following non invasive/invasive diagnostic procedures Assessment of toxicological exposure which is occupational or environmental related.		
D. Perform the following non invasive& invasive therapeutic procedures for management of toxic exposure which is occupationally or environmentally related.		
E. Prescribe the following non invasive& invasive therapeutic procedures for management of toxic exposure which is occupationally or environmentally related conditions.		
F. Carry out patient management plans for common clinical toxicology conditions related to occupational diseases and occupational medicine.		
G. Use information technology to support occupational health care decisions and occupational workers and professionals' health education in common clinical toxicology situations related to occupational health and diseases.		
L. Provide health care services aimed at preventing clinical toxicology health problems related to occupational toxicology diseases like; toxic exposure which is occupational or environmental related.		

M. Provide occupational health -focused care in common clinical toxicology conditions related to occupational health and diseases, while working with health care professionals, including those from other disciplines.		
N. Write competently all forms of occupational and environmental health charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	Lectures Scientific library Seminars Web sites	Oral exam Written exam Log book MCQ testing
B. Appraises evidence from scientific studies(journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with industrial patients.	Lectures Scientific library Seminars Web sites	Oral exam Written exam Log book MCQ testing
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in toxicological exposure which is occupational or environmental related. --		
K. Write a report in toxicological exposure which is occupational or environmental related. --		
O. Council industrial occupational patients and families about; - toxic exposure which is occupational or environmental related. - safety measures used to prevent these hazards		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Scientific library Seminars Web sites	Oral exam Written exam Log book Mcq testing
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of occupational patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant occupational health care delivery settings and systems.	Scientific library Seminars	Log book
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		Global rating
R. Assist patients in dealing with system complexities.		

Module5: advanced internal medicine.

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following clinical industrial and occupational conditions:</p> <ul style="list-style-type: none"> ● Assessment of OEM Related Law and Regulations. ● Regulations to occupational and environmental health. ● The essential regulations to workers' compensation, accommodation of disabilities, public health, worker safety, and environmental health 	<p>Lectures Scientific library Seminars Web sites Case presentation</p>	<p>Oral exam Written exam Log book MCQ testing Report writing</p>
<p>B. Mention the principles of (diagnostic assessment, and rehabilitations tools) which are needed for assessment of diseases and associated disabilities which are occupationally or environmental related.</p>		
<p>C. State update and evidence based Knowledge of - assessment of diseases which are occupationally or environmentally related.</p>		
<p>D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to industrial health ,occupational safety ,legislation and rehabilitation.</p>		
<p>E. Mention the basic ethical and medicolegal principles revenant to industrial health ,occupational safety ,legislation and rehabilitation</p>		
<p>F. Mention the basics of quality assurance to ensure good occupational health care in his field</p>		

G. Mention the ethical and scientific principles of medical research		
H. State the impact of common occupational health problems in the field of occupational diseases and industries medicine on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common conditions and situations related to industrial health ,occupational safety ,legislation and rehabilitation.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing Report writing
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to industrial health ,occupational safety ,legislation and rehabilitation		
C. Design and present cases , seminars in common occupational health problem.		
D-Formulate management plans and alternative decisions in different situations in the field of the industrial health ,occupational safety ,legislation and rehabilitation		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Scientific library Seminars Web sites Case presentation Report discussion	Oral exam Written exam Log book MCQ testing Report writing
B. Order the following non invasive & invasive diagnostic procedures which are needed for assessment of diseases and disabilities which are occupationally or industrial related		
C. Interpret the following non invasive& invasive diagnostic procedures which are needed for assessment of diseases and disabilities which are occupationally or industrial related.		
D. Perform the following non invasive& invasive therapeutic and rehabilitation procedures which are needed for assessment of disabilities and rehabilitation which are occupationally or environmental related.		
E. recommend the following non invasive &invasive therapeutic procedures : Which are needed for management of occupational diseases and disabilities which are occupationally or environmentally related.		
F. Carry out patient management plans for treatment and rehabilitation of common occupational diseases and disabilities related to occupational and industrial diseases .		
G. Use information technology to support occupational patient care decisions and patient education in common clinical occupational situations related to occupational medicine.		

H. Provide occupational health care services aimed at preventing occupational health problems related to occupational & environmental medicine.		
I. Provide patient-focused care in common occupational diseases and environmental conditions related to occupational & environmental medicine while working with health care professionals, including those from other disciplines.		
J. Write competently all forms of occupational patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D-General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (audit, logbook)	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book Mcq testing Report writing
B. Appraises evidence from scientific studies (journal club)		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with industrial and occupational patients.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing Report writing
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a occupational health care team or other professional group.		
J. Present a case in occupational diseases and disabilities which are occupationally or environmentally related		
K. Write a report in diseases or disabilities which are occupationally or environmentally related		
L. Council patients and families about occupational diseases and disabilities		

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book Mcq testing Report writing
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	Lectures Scientific library Seminars Web sites Case presentation	Oral exam Written exam Log book MCQ testing Report writing
Q. Practice cost-effective occupational health care and resource allocation that does not compromise quality of care.		
R. Assist patients in dealing with system complexities.		

4. Course Contents (topic s/modules/rotation Course Matrix

Time Schedule: Second part

Module 1

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Occupational asthma and bronchoreactivity	A-H	A-D	A-J	A-R
2. Pneumoconiosis	A-H	A-D	A-J	A-R
3. Irritant inhalations (e.g., acids, alkalis, oxides of nitrogen, phosgene, phosphine).	A-H	A-D	A-J	A-R
4. Chronic obstructive pulmonary disease (COPD).	A-H	A-D	A-J	A-R
5. Hypersensitivity pneumonitis	A-H	A-D	A-J	A-R

Module 2

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
nasopharyngeal conditions caused or aggravated by occupational and environmental exposure,	A-H	A-D	A-J	A-R
hearing loss or other occupationally related otologic conditions.	A-H	A-D	A-J	A-R
Audiogram	A-H	A-D	A-J	A-R

Module 3

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
allergic contact dermatitis	A-H	A-D	A-J	A-R
irritant-induced dermatoses	A-H	A-D	A-J	A-R
actinic skin Damage	A-H	A-D	A-J	A-R
occupational acne	A-H	A-D	A-J	A-R
work-aggravated dermatoses	A-H	A-D	A-J	A-R
occupational cutaneous infections	A-H	A-D	A-J	A-R

Module 4

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
the nature and extent of potential occupational and environmental chemical exposures	A-H	A-D	A-J	A-R
biological monitoring	A-H	A-D	A-J	A-R

Module 5 Topic

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
OEM Related Law and Regulations	A-H	A-D	A-J	A-R

5. Course Methods of teaching/learning:

- Lectures, didactics
- clinical training
- Scientific library
- Seminars
- Web sites
- Case presentation
- Clinical rounds

- Seminars
- Clinical rotations
- (service teaching)
- Report discussion

6. Course Methods of teaching/learning: for students with poor achievements

Extra number of :

- Lectures, didactics
- clinical training
- Scientific library
- Seminars
- Web sites
- Case presentation
- Clinical rounds
- Seminars
- Clinical rotations
- (service teaching)
- Report discussion
- **extra clinical training**

7. Course Assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book
3. MCQ testing
4. Report writing.
5. Chick list
6. portfolio
7. practical exam
8. case study

ii. Time schedule: the end of 2nd part .

iii. Marks: 1200.

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

ii. Essential books

- Joseph landau of occupational and environmental medicine 5th edition 2014.

iii. Recommended books:

- Bark 19th edition 2002.
- ROM 4th edition 1995.
- Oxford Handbook of Occupational Health 2007.
- Textbook Of occupational Medicine Practice (Fourth Edition) 2017.

iv. Periodicals, Web sites, ... etc

Egyptian journal of occupational and environmental medicine

American journal of occupational and environmental medicine.

9. Signatures

Contributor	Name	Signature	Date
Program Principle Coordinator:	professor Dr: Ahmmed El Hany		
Head of the Responsible Department (Program Academic Director):	Prof.Dr: Eman Morsy		

ANNEX 2

Program Academic Reference Standards (ARS)

1- Graduate attributes for master degree in Occupational and Environmental Medicine

The Graduate (after residence training and master degree years of study) must:

- 1-** Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in Occupational and Environmental Medicine.
- 2-** Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related Occupational and Environmental Medicine.
- 3-** Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of Occupational and Environmental Medicine.
- 4-** Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.
- 5-** Identify and share to solve health problems in his Occupational and Environmental Medicine.
- 6-** Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical and evidence based clinical care including update use of new technology in Occupational and Environmental Medicine.
- 7-** Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients

and their families and teamwork with other health professions, the scientific community and the public.

8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.

9- Acquire decision making capabilities in different situations related to Occupational and Environmental Medicine

10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.

11- Be aware of public health and health policy issues and share in system-based improvement of health care.

12- Show appropriate attitudes and professionalism.

13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Occupational and Environmental Medicine or one of its subspecialties.

2- Competency based Standards for clinical master degree graduates

2.1- Knowledge and understanding

By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of

2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.

2-1-B- The relation between good clinical care of common health problems in the Occupational and Environmental Medicine and the welfare of society.

2-1-C- Up to date and recent developments in common problems related to Occupational and Environmental Medicine.

2-1-D- Ethical and medicolegal principles relevant to practice in Occupational and Environmental Medicine.

2-1-E -Quality assurance principles related to the good medical practice in Occupational and Environmental Medicine.

2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

By the end of the program, the graduate should be able to demonstrate the following:

2-2-A- Correlation of different relevant sciences in the problem solving and management of common diseases of Occupational and Environmental Medicine.

2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Occupational and Environmental Medicine.

2.2- C- Demonstrating systematic approach in studying clinical problems relevant to Occupational and Environmental Medicine.

2-2-D- Making alternative decisions in different situations in Occupational and Environmental Medicine

2.3- Clinical skills

By the end of the program, the graduate should be able to

2-3-A - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

2-3-B- Demonstrate patient care skills relevant to Occupational and Environmental Medicine for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of Occupational and Environmental Medicine.

2.4- General skills

By the end of the program, the graduate should be able to

✚ Competency-based outcomes for Practice-based Learning and Improvement

2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence,, improvements in patient care and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

✚ Competency-based objectives for Interpersonal and Communication Skills

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

✚ Competency-based objectives for Professionalism

2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

 **Competency-based objectives for Systems-based Practice**

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-g- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

	Patient care	Medical knowledge	Practice-based learning/Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Didactic (lectures, seminars, tutorial)	X	X		X	X	X
journal club,	X	X	X			
Educational prescription	X	X	X	X	X	X
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	X		X	X	X	X
conferences		X	X	X		X
Written assignments	X	X	X	X	X	X
Oral assignments	X	X	X	X	X	X

Teaching methods for knowledge

- ❖ Didactic (lectures, seminars, tutorial)
- ❖ journal club
- ❖ Critically appraised topic
- ❖ Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- ❖ Present a case (true or simulated) in a grand round
- ❖ Others

Teaching methods for patient care

- ❖ Observation and supervision /Completed tasks procedure/case logs
- ❖ On-the-job” training without structured teaching is not sufficient for this skill (checklists).
- ❖ Simulation is increasingly used as an effective method for skill/teamwork training.

Teaching methods for other skills

- ❖ Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).
- ❖ Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)
- ❖ Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

Annex 4, Assessment methods

Annex 4, ILOs evaluation methods for Master Degree students.

Method	Practical skills	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/ Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	X	X	X		X	X	X
Checklist	X				X		
Global rating	X	X	X	X	X	X	X
Simulations	X	X	X	X	X	X	
Portfolios	X	X	X	X	X		
Standardized oral examination	X	X	X	X	X		X
Written examination	X	X	X	X			X
Procedure/ case log	X	X					
OSCE	X	X	X	X	X	X	X

Annex 4, Glossary of Master Degree doctors assessment methods

- ❖ Record Review – Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- ❖ Chart Stimulated Recall – Uses the MSc doctor’s patient records in an oral examination to assess clinical decision-making.
- ❖ Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- ❖ Standardized Patients (SP) – Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MSc doctor’s performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor’s performance.
- ❖ Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- ❖ Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- ❖ PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by a MSc doctors.
- ❖ Case /problems – assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- ❖ Models: are simulations using mannequins or various anatomic structures to assess procedural skills and interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback.

- ❖ 360 Global Rating Evaluations – MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- ❖ Portfolios – A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
- ❖ Examination MCQ – A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- ❖ Examination Oral – Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- ❖ Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- ❖ PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MSc doctors.

Annex 5, Program evaluation tools

By whom	Method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

Annex 6, Program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الماجستير مع المعايير
الأكاديمية المعتمدة من كلية الطب □ جامعة أسيوط لدرجة الماجستير في طب
الصناعات المهنية

I- General Academic Reference Standards (GARS) versus Program ARS

1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate programs
1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in Occupational and Environmental Medicine.	1- إجادة تطبيق أساسيات و منهجيات البحث العلمي واستخدام أدواته المختلفة
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in Occupational and Environmental Medicine .	2- تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in Occupational and Environmental Medicine.	3- تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية
4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and update information.	4- إظهار وعيا بالمشاكل الجارية و الرؤى الحديثة في مجال التخصص
5- Identify and share to solve health problems in Occupational and Environmental Medicine	5- تحديد المشكلات المهنية و إيجاد حلول لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical and	6- إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل

evidence based clinical care including update use of new technology in Occupational and Environmental Medicine	التكنولوجية المناسبة بما يخدم ممارسته المهنية
7- Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public. 8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.	7- التواصل بفاعلية و القدرة على قيادة فرق العمل
9- Acquire decision making capabilities in different situations related to Occupational and Environmental Medicine.	8- اتخاذ القرار في سياقات مهنية مختلفة
10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.	9- توظيف الموارد المتاحة بما يحقق أعلى استفادة و الحفاظ عليها
11- Be aware of public health and health policy issues and share in system-based improvement of health care.	10- إظهار الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة في ضوء المتغيرات العالمية و الإقليمية
12- Show appropriate attitudes and professionalism.	11- التصرف بما يعكس الالتزام بالنزاهة و المصداقية و الالتزام بقواعد المهنة
13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in <i>Occupational and Environmental Medicine</i> or one of its subspecialties.	12- تنمية ذاته أكاديميا و مهنيا و قادرا علي التعلم المستمر

2. Academic standard

Faculty ARS	NAQAAE General ARS for Postgraduate programs
2.1.A -Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problems and topics.	2-1-أ-النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.1.B- The relation between good clinical care of common health problems in <i>Occupational and Environmental Medicine</i> and the welfare of society.	2-1-ب-التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to <i>Occupational and Environmental Medicine</i> .	2-1-ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the <i>Occupational and Environmental Medicine</i> .	2-1-د-المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص.
2.1. E-Quality assurance principles related to the good medical practice in <i>Occupational and Environmental Medicine</i> .	2-1-هـ- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	2-1-و- أساسيات وأخلاقيات البحث العلمي

<p>2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of <i>Occupational and Environmental Medicine</i>.</p> <p>2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل</p>
<p>2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات</p>
<p>2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية</p>
<p>2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية</p>
<p>2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management</p>	<p>2-2-هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص</p>
<p>2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own</p>	<p>2-2-و- التخطيط لتطوير الأداء في مجال التخصص</p>

<p>patient care, appraisal and assimilation of scientific improvements in evidence, patient care and risk management</p>	
<p>2.2.D- Making alternative decisions in different situations in the field of <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-ز - اتخاذ القرارات المهنية في سياقات مهنية متنوعة</p>
<p>2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.</p> <p>2.3.B- Demonstrate patient care skills relevant to <i>Occupational and Environmental Medicine</i> for patients with common diseases and problems.</p>	<p>2-3-أ - إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص</p>
<p>2.3.C- Write and evaluate reports for Situation related to <i>Occupational and Environmental Medicine</i>.</p>	<p>2-3-ب - كتابة و تقييم التقارير المهنية</p>
<p>2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.</p> <p>2.3.B- Demonstrate patient care skills relevant to that <i>Occupational and Environmental Medicine</i> for patients with common diseases and problems.</p>	<p>2-3-ج - تقييم الطرق و الأدوات القائمة في مجال التخصص</p>
<p>2.4.D- Demonstrate interpersonal and communication skills that result in effective information exchange and</p>	<p>2-4-أ - التواصل الفعال بأنواعه المختلفة</p>

teaming with patients, their families, and other health professionals.	
<p>2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management</p> <p>2.4.B- Use all information sources and technology to improve his practice.</p>	2-4-ب- استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية
<p>2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management</p> <p>2.4.B- Use all information sources and technology to improve his practice.</p> <p>2.4.E-Demonstrate professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.</p>	2-4-ج- التقييم الذاتي وتحديد احتياجاته التعلمية الشخصية
<p>2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, , improvements in</p>	2-4-د- استخدام المصادر المختلفة للحصول على المعلومات و المعارف

patient care and risk management.	
2.4. C- Demonstrate skills of teaching and evaluating others.	2-4-2 هـ- وضع قواعد ومؤشرات تقييم أداء الآخرين
2.4. F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.	2-4-2 و- العمل في فريق ، وقيادة فرق في سياقات مهنية مختلفة
2.4.G- Demonstrate skills of effective time management.	2-4-2 ز- إدارة الوقت بكفاءة
2.4.H- Demonstrate skills of self and continuous learning.	2-4-2 ح- التعلم الذاتي و المستمر

**Comparison between ARS and ILOS for master degree
in Occupational and Environmental Medicine**

(ARS)	(ILOS)
<p><u>2-1- Knowledge and understanding</u></p> <p>2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.</p>	<p><u>2-1- Knowledge and understanding</u></p> <p>2-1-A- Explain the essential facts and principles of relevant basic sciences including, , related to <i>Occupational and Environmental Medicine</i>.</p> <p>2-1-B- Mention essential facts_of clinically supportive sciences including Basics <i>Occupational and Environmental Medicine</i>.</p> <p>2-1-C- Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to <i>Occupational and Environmental Medicine</i>.</p>
<p>2-1-B The relation between good clinical care of common health problem in the <i>Occupational and Environmental Medicine</i> and the welfare of society.</p>	<p>2-1-H- State the impact of common health problems in the field of <i>Occupational and Environmental Medicine</i> on the society and how good clinical practice improve these problems.</p>
<p>2-1-C- Up to date and recent developments in common problems related to the field of <i>Occupational and Environmental Medicine</i>.</p>	<p>2-1-C- Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to <i>Occupational and Environmental Medicine</i>.</p> <p>2-1-D- Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to <i>Occupational and Environmental Medicine</i>.</p>
<p>2-1-D- Ethical and medicolegal Principles relevant to practice in the <i>Occupational and Environmental Medicine</i> field.</p>	<p>2-1-E- Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the field of <i>Occupational and Environmental Medicine</i>.</p>

<p>2-1-E-Quality assurance principles related to the good medical practice in the <i>Occupational and Environmental Medicine</i> field.</p>	<p>2-1-F- Mention the basics and standards of quality assurance to ensure good clinical practice in the field <i>Occupational and Environmental Medicine</i>.</p>
<p>2-1-F- Ethical and scientific basics of medical research.</p>	<p>2-1-G- Mention the ethical and scientific principles of medical research methodology.</p>
<p><u>2-2- Intellectual skills:</u></p> <p>2-2-A-Correlation of different relevant sciences in the problem solving and management of common diseases of the <i>Occupational and Environmental Medicine</i>.</p>	<p><u>2-2- Intellectual skills:</u></p> <p>2-2-A- Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the <i>Occupational and Environmental Medicine</i>.</p>
<p>2-2-B-Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-B- Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to <i>Occupational and Environmental Medicine</i>.</p>
<p>2-2-C- Demonstrating systematic approach in studying clinical problems relevant to the <i>Occupational and Environmental Medicine</i> field.</p>	<p>2-2-C- Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the <i>Occupational and Environmental Medicine</i> field.</p>
<p>2-2-D Making alternative decisions in different situations in the field of the <i>Occupational and Environmental Medicine</i>.</p>	<p>2-2-D- Formulate management plans and alternative decisions in different situations in the field of the <i>Occupational and Environmental Medicine</i>.</p>

continuous (ARS)	continuous (ILOs)
<p><u>2-3- Clinical skills:</u></p> <p>2-3-A- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.</p> <p>2-3-B- Demonstrate patient care skills relevant to that <i>Occupational and Environmental Medicine</i> for patients with common diseases and problems.</p>	<p><u>2/3/1/Practical skills (Patient Care :)</u></p> <p>2-3-1-A- Obtain proper history and examine patients in caring and respectful behaviors.</p> <p>2-3-1-B- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to <i>Occupational and Environmental Medicine</i>.</p> <p>2-3-1-C- Carry out patient management plans for common conditions related to <i>Occupational and Environmental Medicine</i>.</p> <p>2-3-1-D- Use information technology to support patient care decisions and patient education in common clinical situations related to <i>Occupational and Environmental Medicine</i>.</p> <p>2-3-1-E- Perform competently non invasive and invasive procedures considered essential for the <i>Occupational and Environmental Medicine</i>.</p> <p>2-3-1-F- Provide health care services aimed at preventing health problems related to <i>Occupational and Environmental Medicine</i>.</p> <p>2-3-1-G- Provide patient-focused care in common conditions related to <i>Occupational and Environmental Medicine</i> while working with health care professionals, including those from other disciplines.</p>
<p>2-3-C- Write and evaluate reports for situations related to the field of <i>Occupational and Environmental Medicine</i>.</p>	<p>-3-1-H Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).</p>

<p><u>2-4- General skills</u></p> <p>2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management</p>	<p><u>2/3/2 General skills</u></p> <p>2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).</p> <p>2-3-2-B- Appraises evidence from scientific studies.</p> <p>2-3-2-C- Conduct epidemiological studies and surveys.</p>
<p>2-4-B- Use all information sources and technology to improve his practice.</p>	<p>2-3-2-C- Conduct epidemiological studies and surveys.</p> <p>2-3-2-D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.</p>
<p>2-4-C- Demonstrate skills of teaching and evaluating others.</p>	<p>2-3-2-E- Facilitate learning of students other health care professionals including their evaluation and assessment.</p>
<p>2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.</p>	<p>2-3-2-F- Maintain therapeutic and ethically sound relationship with patients.</p> <p>2-3-2-G- Elicit information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p>2-3-2-H- Provide information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p>2-3-2-I- Work effectively with others as a member of a health care team or other professional group.</p>
<p>2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional</p>	<p>2-3-2-J- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.</p> <p>2-3-2-K- Demonstrate a commitment to</p>

<p>responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.</p>	<p>ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices.</p> <p>2-3-2-L-Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.</p>
<p>2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.</p>	<p>2-3-2-M-Work effectively in relevant health care delivery settings and systems including good administrative and time management</p> <p>2-3-2-N- Practice cost-effective health care and resource allocation that does not compromise quality of care.</p> <p>2-3-2-O- Assist patients in dealing with system complexities.</p>
<p>2-4-G- Demonstrate skills of effective time management</p>	<p>2-3-2-M-Work effectively in relevant health care delivery settings and systems including good administrative and time management</p>
<p>2-4-H- Demonstrate skills of self and continuous learning.</p>	<p>2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).</p>

III - Program matrix

Knowledge and understanding

Course	Program covered ILOS							
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E	2/1/F	2/1/G	2/1/H
Course 1 : Epidemiology of Occupational health& Biomedical statistics& Sociology	√	√		√	√	√	√	√
course 2 : Industrial chemistry&Environmental human physiology and respiration)			√		√	√	√	√
course 3 : Principles of occupational medicine)	√	√	√	√	√	√	√	√
Course 4 : Clinical Toxicology	√	√	√	√	√	√	√	√
Course 5 a or b	√	√	√	√	√	√	√	√
Course6: Advanced Occupational and Environmental Medicine.	√	√	√	√	√	√	√	√

Intellectual

Course	Program covered ILOS			
	2/2/A	2/2/B	2/2/C	2/2/D
Course 1 : Epidemiology of Occupational health & Biomedical statistics & Sociology	√	√	√	√
course 2 : Industrial chemistry & Environmental human physiology and respiration)	√	√	√	√
course 3 : Principles of occupational medicine)	✓	✓	✓	✓
Course 4 : Clinical Toxicology	✓	✓	✓	✓
Course 5 a or b	✓	✓	✓	✓
Course 6: Advanced Occupational and Environmental Medicine.	✓	✓	✓	✓

Practical Skills (Patient Care)

Course	Program covered ILOS							
	2/3/1/A	2/3/1/B	2/3/1/C	2/3/1/D	2/3/1/E	2/3/1/F	2/3/1/G	2/3/1/H
Course 1 : Epidemiology of Occupational health& Biomedical statistics& Sociology	√	√	√	√	√	√	√	
course 2 : Industrial chemistry&En vironmental) human physiology and respiration)	√	√	√	√	√	√	√	
course 3 : Principles of occupational medicine)	√	√	√	√		√		√
Course 4 : Clinical Toxicology	√	√	√	√	√	√	√	√
Course 5 a or 5b	√	√	√	√		√	√	√
Course6: Advanced Occupational and Environmental Medicine.	√	√	√	√	√	√	√	√

General Skills

Course	Program covered ILOS							
	2/3/2/A	2/3/2/B	2/3/2/C	2/3/2/D	2/3/2/E	2/3/2/F	2/3/2/G	2/3/2/H
Course 1 : Epidemiology of Occupational health& Biomedical statistics& Sociology	√	√	√	√	√	√	√	√
course 2 : Industrial chemistry&Environmental) human physiology and respiration)	√	√	√	√	√	√	√	√
course 3 : Principles of occupational medicine)	√	√	√	√	√	√	√	√
Course 4 : Clinical Toxicology	√	√	√	√	√	√	√	√
Course 5 a or b	✓	✓	✓	✓	✓	✓	✓	✓
Course6: Advanced Occupational and Environmental Medicine.	✓	✓	✓	✓	✓	✓	✓	✓

General skill

Course	Program covered ILOS						
	2/3/2/I	2/3/2/J	2/3/2/K	2/3/2/L	2/3/2/M	2/3/2/N	2/3/2/O
Course 1 : Epidemiology of Occupational health& Biomedical statistics& Sociology	√	√	√	√	√	√	√
course 2 : Industrial chemistry&Environmental) human physiology and respiration)	√	√	√	√	√	√	√
course 3 : Principles of occupational medicine)	√	√	√	√	√	√	√
Course 4 : Clinical Toxicology	√	√	√	√	√	√	√
Course 5 a or b	✓	✓	✓	✓	✓	✓	✓
Course6: Advanced Occupational and Environmental Medicine.	✓	✓	✓	✓	✓	✓	✓

Annex 7,
Additional information:

 **Department information:**

Staff members:

s.n.	Name	Position title
1.	Prof. Dr. Eman Morsy Mohamed	Head of the department
2.	Prof. Dr. Farida Ahmed Morshed Allam	Professor
3.	Prof. Dr. Ali Hussein Zarzour	Professor
4.	Prof. Dr. Mohammad Hassan Qayed	Professor
5.	Prof. Dr. Farag Mohamed Moftah	Professor
6.	Prof. Dr. Mahmoud Atteya	Professor
7.	Prof. Dr. Ahmed Mohamed Mahmoud Hany	Professor
8.	Prof. Dr. Hosnia Said Abdel Mageed	Professor
9.	Prof. Dr. Omaima El-Gibaly Mohamed Helmy	Professor
10.	Prof. Dr. Etemad Abd El Raheem El-Shreef	Professor
11.	Prof. Dr. Randa Mohamed Shams El-Deen Moustafa	Professor
12.	Prof. Dr. Eman Mohamed Monazea	Professor
13.	Prof. Dr. Ekram Mohamed Abdel Khalek	Professor
14.	Prof. Dr. Dalia Galal Mahran	Professor
15.	Prof. Dr. Sabra Mohamed Ahmed	Professor
16.	Prof. Dr. Hala Hassan Ibrahim Abu Faddan	Professor
17.	Prof. Dr. Faten Mohamed Rabea	Professor
18.	Prof. Dr. Medhat Araby Khalil	Professor
19.	Prof. Dr. Manal Mohamed Moustafa Darwish	Professor
20.	Prof. Dr. Ahmed Mohamed Khair	Professor
21.	Assis. Prof. Doaa Mazen Mohamed	Assistant professor
22.	Assis. Prof. Asmaa Mohamed Ahmed Soliman	Assistant professor
23.	Assis. Prof. Taghreed Abd El -Aziz	Assistant professor
24.	Assis. Prof. Mirette Mamdouh Wesly	Assistant professor
25.	Assis. Prof. Doaa Mohamed Osman	Assistant professor
26.	Assis. Prof. Shimaa Abdel Samee	Assistant professor
27.	Dr. Heba Mahmoud Mohamed	Lecturer
28.	Dr. Mariam Roshdy El-khyat	Lecturer
29.	Dr. Shimaa Hosny Hassan	Lecturer
30.	Dr. Heba Gaafer Ali	Lecturer

Opportunities within the department:

- Post graduate Computer Lab
- Internet availability
- Specialist of computer and statistics

Department quality control insurance for completing the program:

- Evaluation by the department head and staff members.
- Regular assessments.
- Log book monitoring.

(End of the program specifications)