

In the Name of God

Islamic Republic of Iran
Ministry of Health and Medical Education
Deputy for Education

Occupational Health Engineering

Degree: Master of Science (MSc)

Total Course Credits

- Compensatory: 21
- Core: 27
- Non-core (Electives):
- Thesis: 5

Program Description

The field of Occupational Health Engineering, as a branch of medical sciences, is a multidisciplinary field. The degree may offer opportunities for the graduates to learn more about the development and implementation of health and safety requirements, anticipation, recognition, evaluation and control of chemical, physical and biological hazards in workplace that could impair the health and well-being of workers and the development of practical and research skills.

The graduates can help in propagating theoretical and practical aspects of occupational health, improving workplace safety and health, promoting public health, implementing policies to promote a safe and healthy work condition, and understanding and managing risks.

The Islamic Republic of Iran is one of countries in the world that offer this course in terms of the educational excellence, scientific product relevant to occupational health and providing services concerning safety and health issues in the workplace. The main mission of the course is preparing students to be responsible for the recognition, evaluation, and control of chemical, physical and biological hazards in workplaces.

Admission Requirements

- Having a bachelor's degree (BSc) in Occupational Health Engineering
- Meeting admission criteria based on regulations of universities
- Being eligible for entering the program

Expected Competencies at the End of the Program

General Competencies*

Specific Competencies and Skills

At the end of the program learners will be competent in the following skills:

- Organizing data and information
- Writing scientific reports
- Conducting practical research
- Using standard methods and specialized equipment
- Working in professional environment and improving ability to work with people

Educational Strategies, Methods and Techniques*



Student Assessment (Methods and Types)

- Formative (Quizzes and Midterm Exam)
- Summative (Final Exam)
- Oral and written exams, observation, clinical competence assessments
- (OSCE, OSLE, OSFE, DOPS, 360 degree evaluation competency)
- Portfolio assessment: logbook, test results, reports, articles, certificates, promotion, etc.

Ethical Considerations*

*Note: The related document(s) can be found at <http://hcmeq.behdasht.gov.ir/>.



Tables of the Courses

Table 1. Compensatory Courses

Code of the Course	Title of the Course	Credits			Teaching Hours			Prerequisite or Concurrent Courses
		Theoretical	Practical	Total	Theoretical	Practical	Total	
01	Introduction to General Medicine and Occupational Diseases	2	-	2	34	-	34	02
02	Anatomy and Physiology	2	-	2	34	-	34	-
03	Basic Biostatistics	1	1	2	17	34	51	-
04	General Workplace Safety	3	1	4	51	34	85	-
05	Human Factors Engineering	1	2	3	17	68	85	-
06	Geographic Information System (GIS) Application in Occupational Health	0.5	0.5	1	9	17	26	-
07*	Medical Information Systems	0.5	0.5	1	9	17	26	-
08	Research Methods in Health Sciences	2	-	2	34	-	34	03
09	Specialized Language of Occupational Health	2	-	2	34	-	34	-
10	Biostatistics and Using Computer Software	1	1	2	17	34	51	03
Total		15	6	21	255	204	459	

Table 2. Core Courses

Code of the Course	Title of the Course	Credits			Teaching Hours			Prerequisite or Concurrent Courses
		Theoretical	Practical	Total	Theoretical	Practical	Total	
11	Evaluation of Air Pollution	2	1	3	34	34	68	-
12	Design of Air Pollution Control Systems in the Workplaces	2	1	3	34	34	68	11
13	Occupational Toxicology	2	-	2	34	-	34	-
14	Applied Occupational Toxicology	-	1	1	-	34	34	13
15	Occupational Diseases	1.5	0.5	2	26	17	34	-
16	Workplace Safety	1	1	2	17	34	51	04
17	Design of Heat, Cold, and Humidity Control System	2	1	3	34	34	68	-
18	Design of Noise and Vibration Control System	2	1	3	34	34	68	-



19	Radiations Protection in Workplace	0.5	0.5	1	9	17	26	-
20	Design of Lighting in Workplace	0.5	0.5	1	9	17	26	-
21	Applied Human Factors	1.5	0.5	2	26	17	43	-
	Engineering (1)							
22	Applied Human Factors Engineering (2)	1	1	2	17	34	51	21
23	Modeling in Occupational Health	1	1	2	17	34	51	-
24	Thesis	-	-	5	-	-	-	-
	Total	17	10	27	289	340	629	

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