

## Arranging courses for occupational health engineering and occupational safety at the undergraduate

### Level

#### First semester

session	Name of Course	Lesson code	unit number	theory	practical	workshop	Prerequisite for
1	Safety management systems	34	2	1.5	.5	-	-
2	Advance language		2	2	-	-	-
3	Solid Mechanics	01	2	2	-	-	-
4	Exclusive Physics 1	02	2	2	-	-	-
5	general mathematics1	07	2	2	-	-	-
6	Familiarity with industries and knowledge of industrial techniques	18	2	1	1	-	-
7	Physical education 1	8	1	-	1	-	-
8	Islamic Thought 1 (Theoretical Foundations of Islam)		2	2	-	-	-
9	Life Skills		1	1	-	-	-
10	Study skills		1	1	-	-	-
11	Physiology and anatomy	09	3	3	-	-	-
12	General Chemistry (Inorganic and Organic)	04	2	2	-	-	-
	Total unit	22					

## Second semester

session	Name of Course	Lesson code	unit number	theory	practical	workshop	Prerequisite for
1	Islamic Thought 2 (Theoretical Foundations of Islam)	-	2	2	-	-	-
2	Physical education 2	9	1	-	1	-	Physical Education 1 (Code 8)
3	Exclusive Physics 2	03	2	2	-	-	-
4	Analytical Chemistry	06	3	2	1	-	General Chemistry (Inorganic and Organic) (Code 04)
5	General Mathematics 2	08	3	3	-	-	General Mathematics 1 (Code 07)
6	Fluid Mechanics	17	3	3	-	-	General Mathematics 1 (Code 07)
7	Biochemistry and nutrition principles	05	2	2	-	-	-
8	Industrial Management	14	2	2	-	-	-
9	Safety in civil operations	29	2	1.5	.5	-	Familiarity with industries and knowledge of industrial techniques with (Code 18)
	Total unit	20					

**Third semester**

session	Name of Course	Lesson code	unit number	theory	practical	workshop	Prerequisite for
1	Islamic ethics	-	2	2	-	-	-
2	first aid	10	2	1	1	-	Physiology and Anatomy (Code 09)
3	Dynamics of gases and aerosols	24	2	2	-	-	-
4	Accidents at work and emergencies	30	2	1.5	0.5	-	Familiarity with industries and knowledge of industrial techniques with (Code 18)
5	Occupational ergonomics 1	35	3	2	1	-	Physiology and Anatomy (Code 09)
6	Principles of toxicology and biological monitoring	37	2	2	-	-	Biochemistry and Principles of Nutrition (Code 05) and Decomposition Chemistry (Code 06)
7	Radiation hygiene	23	3	2	1	-	Exclusive Physics 1 (Code 02) Exclusive Physics 2 (Code 03)
8	General English	7	3	3	-	-	-
9	Industrial Psychology	15	1	1	-	-	
	Total unit	20					

**Forth semester**

session	Name of Course	Lesson code	unit number	theory	practical	workshop	Prerequisite for
1	Biostatistics	11	3	2	1	-	General Mathematics 2 (Code 08)
2	Fire safety and chemicals	31	3	2	1	-	Familiarity with industries and knowledge of industrial techniques with (Code 18)
3	Basics of air pollutant sampling	25	3	2	1	-	Dynamics of gases and aerosols (code 24)
4	Occupational diseases and their epidemiology	40	2	2	-	-	Physiology and Anatomy (Code 09)
5	Heat and cold stresses in the workplace	22	2	1.5	0.5	-	Exclusive Physics 2 (Code 03)
6	Sound in the workplace	20	2	1.5	0.5	-	Exclusive Physics 2 (Code 03)
7	Islamic Revolution	-	2	2	-	-	-
8	Persian literature	6	3	3	-	-	-
	Total unit	20					

**Fifth semester**

session	Lesson code	Name of Course				Prerequisites
			theory	practical	the internship	
1	42	How to communicate with the industry			0.5	Spending 4 semesters
		Practical acquaintance with workshops subject to labor law and group visits			2	
		Familiarity with how to provide occupational health services in the public sector			2	
		Public workshop			0.5	
		Research Methods			1	
		Familiarity with GIS			1	
		Inspection techniques in occupational health and safety			0.5	
		Familiarity with laws, regulations, rights and administrative correspondence in occupational health and safety			0.5	
		Total unit			8	

### Sixth semester

session	Name of Course	Lesson code	unit number	theory	practical	workshop	Prerequisite for
1	Vibration in the workplace	21	1	0.75	0.25	-	Exclusive Physics 2 (Code 03)
2	Electrical and machine safety	32	2	1.5	0.5	-	Introduction to Industries and Knowledge of Industrial Techniques (Code 18)
3	Analysis of air samples	26	3	2	1	-	Analysis Chemistry with Code 06 and Basics of Air Pollution Sampling (Code 25)
4	Technical language	39	2	2	-	-	General English (Code 7)
5	Workplace lighting	19	2	1	1	-	Exclusive Physics 2 (Code 03)
6	Basics of air pollution control	27	2	2	-	-	Dynamics of gases and aerosols (code 24)
7	Islamic history and civilization	-	2	2	-	-	-
8	Islamic sources	-	2	2	-	-	-
9	computer programming	12	2	1	1	-	-
	Total unit	20					

### Seventh semester

session	Name of Course	Lesson code	unit number	theory	practical	workshop	Prerequisite for
1	Islamic ethics	10	2	2	-	-	Exclusive Physics 2 (Code 03)
2	first aid	38	2	1.5	0.5	-	Introduction to Industries and Knowledge of Industrial Techniques (Code 18)
3	Dynamics of gases and aerosols	-	2	2	-	-	Analysis Chemistry with Code 06 and Basics of Air Pollution Sampling (Code 25)
4	Accidents at work and emergencies	41	2	2	-	-	General English (Code 7)
5	Occupational ergonomics 1	36	2	1.5	0.5	-	Exclusive Physics 2 (Code 03)
6	Principles of toxicology and biological monitoring	28	3	2	1	-	Dynamics of gases and aerosols (code 24)
7	Radiation hygiene	33	2	1.5	0.5	-	-
8	General English	13	2	1	1	-	-
9	Industrial Psychology	16	1	1	-	-	-
	Total unit	20					

**Eighth semester**

session	Lesson code	Name of Course	unit number			Prerequisites
			theory	practical	workshop	
1	42	Internship in the field includes:				
		Section 1: Group internship programs	Ethics	-	-	1
			Computer and its application in occupational health	-	-	1
		Section 2	Individual internship in a specific industry	-	-	6