



BENHA UNIVERSITY



FACULTY OF ENGINEERING AT SHOUBRA

COURSE SPECIFICATIONS (2014-2015)

Model No.12

Course Specifications: Industrial Safety

University: Benha University

Faculty: Faculty of Engineering at Shoubra

Department offering the program: Mechanical Engineering Department

Department offering the course: Mechanical Engineering Department

1- Course Data

Course Code: MDP468

Course Title: Industrial Safety

Specialization: Mechanical Production Engineering

Course Type: Elective

Study Year: Fourth Year

Teaching Hours: Lecture: 3 Tutorial: 2

Practical: 0

Total: 5

2- Course Aim

For students undertaking this course, the aims are to:

1. Identify hazard and potential hazard areas.
2. Develop safety programs to prevent or mitigate damage or losses.
3. Assess safety practices and programs.
4. Conduct safety audits
5. Improve safety practices

3- Intended Learning Outcomes of Course (ILO's)

a. Knowledge and Understanding Skills: On completing this course, students will acquiring and understanding of :

- a.1) Quality assurance systems, codes of practice and standards, health and safety requirements and environmental issues. (A.6)
- a.2) Professional ethics and impacts of engineering solutions on society and environment.(A.11)
- a.3) The constraints within which his/her engineering judgment will have to be exercised. (A.14)
- a.4) Relevant contemporary issues in safety, health, and environmental auditing. (A.16)

b. Intellectual Skills: At the end of this course, the students will be able to:

- b.1) Judge engineering decisions considering balanced costs, benefits, safety, quality, reliability, and environmental impact. (B.9)
- b.2) Apply the principles of mathematics, science and technology in problem solving scenarios in mechanical engineering. (B.13)
- b.3) Evaluate and appraise designing for safety, workplace safety and health Program, and respiratory protection. (B.15)

c. Practical and Professional Skills: On completing this course, the students are expected to be able to:

- c.1) Use basic workshop equipment safely. (C.15)
- c.2) Analyze experimental results and determine their accuracy and validity. (C.16)

d. General and Transferable Skills: At the end of this course, the students will be able to:

- d.1) Effectively manage tasks, time, and resources. (D.6)
- d.2) Search for information and engage in life-long self-learning. (D.7)



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4- Course Contents

Week no.	Topics
1	Practice of Safety
2	Workplace Safety and Health Program
3	Loss Control Programs
4	Safety, Health, and Environmental auditing
5	Identifying Hazards
6	Accident Investigation, Analysis, and Cost
7	Injury and Illness Record keeping
9	Designing for Safety
10	Personal Protective Equipment
11	Fire Safety and Extinguisher
12	Machine safeguarding
13	Fall Protection
14	Respiratory Protection and Emergency Wash

5- Teaching and Learning Methods

- 5.1 Lectures
- 5.2 Class activity
- 5.3 Assignments/ Homework

6- Teaching and Learning Methods of Disables

6. Nothing.

7- Student Assessment

a- Student Assessment Methods

- 1. Six assignments to assess knowledge and intellectual skills.
- 2. Two quizzes to assess knowledge, intellectual and professional skills.
- 3. Midterm exam to assess knowledge, intellectual, professional and general skills.
- 4. Final exam to assess knowledge, intellectual, professional and general skills.

b- Assessment Schedule

NO.	Assessment	Week
1	Assignments	2, 4, 5, 7, 11, 12
2	Quiz	4, 10
3	Midterm exam	8
4	Final exam	15

c- Weighting of Assessments

Assessment	Weight (%)
Midterm Examination	20
Final Term Examination	64
Oral Examination	00
Semester Work	16
Other Types of Assessment	00
Total	100



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8- List of References

a- Course Notes: Course notes prepared by instructor.

b- Recommended Books

- Industrial Safety & Health Management, Prentice Hall, 5th edition by C. Ray Asfahl,

Course Coordinator: Dr. Hesham Morsy

Head of Department: Prof. Dr. Osama Ezzat Abdelatif



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FACULTY OF ENGINEERING AT SHOUBRA

COURSE SPECIFICATIONS (2014-2015)

Model No.11A

Course Specifications: Industrial Safety

University: Benha University

Faculty: Faculty of Engineering at Shoubra

Department offering the program: Mechanical Engineering Department

Department offering the course: Mechanical Engineering Department

Matrix of Knowledge and Skills of the Course

No.	Topics	week	Basic Knowledge	Intellectual Skills	Professional Skills	General Skills
1	Practice of Safety	1	a.1 , a.3			d.1
2	Workplace Safety and Health Program	2	a.1 , a.3	b.1		
3	Loss Control Programs	3	a.3	b.2	c.1	d.1
4	5 Safety, Health, and Environmental auditing	4	a.1	b.1	c.1	
5	Identifying Hazards	5	a.1	b.3		
6	Accident Investigation, Analysis, and Cost	6	a.1	b.1		d.1
7	Injury and Illness Record keeping	7	a.3	b.2	c.1	
8	Mid-term exam	8	a.1	b.2		
9	Designing for Safety	9	a.3	b.3	c.2	d.2
10	Personal Protective Equipment	10	a.4	b.4		
11	Fire Safety and Extinguisher	11	a.2	b.2		d.2
12	Machine safeguarding	12	a.1, a.3	b.2 , b.3	c.2	
13	Fall Protection	13	a.1, a.3	b.4	c.2	d.2
14	Respiratory Protection and Emergency Wash	14	a.1, a.3	b.1 , b.2		d.2
15	Final exam	15	a.1, a.3	b.2 , b.3	c.2	

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COURSE SPECIFICATIONS (2014-2015)

Matrix of course aims and ILO's

Course Title: Industrial Safety **Code:** MDP468

Lecture: 3 **Tutorial/Practical:** 2 **Total:** 5

Program on which the course is given: B.Sc. Mechanical Production Engineering

Major or minor element of program: Minor.

Department offering the program: Mechanical Engineering Department

Department offering the course: Mechanical Engineering Department

Academic year / level: Fourth Year / Second semester

Date of specifications approval: 2014

Course aims	Basic Knowledge	Intellectual Skills	professional Skills	General Skills
1- Identify hazard and potential hazard areas.	a1,a2	b1,b2	c1, c2	d1,d.2
2- Develop safety programs to prevent or mitigate damage or losses.	a1,a2, a3	b2 b3	c1	d.2
3- Assess safety practices and programs.	a2, a3	b3	c1, c2	d1
4- Conduct safety audits	a1,a4	b1,b2	c1, c2	d1,d.2
5- Improve safety practices	a2, a4	b2, b3	c1, c2	d.2

Course Coordinator: Dr. Hesham Morsy

Head of Department: Prof. Dr. Osama Ezzat Abdelatif