

# **IM 111- Industrial Relations**

## **CREDIT HOURS**

3 Hours

## **CONTACT HOURS (Hours/week)**

Lecture: 2

## **COURSE COORDINATOR**

Dr Mona Fouad

## **TEXT BOOK:**

Turner, Mize, Case & Nazemtz, "Introduction to industrial engineering", Prentice Hall, latest edition.

## **COURSE DESCRIPTION:**

This course identifies the different types of industries, production techniques, management and organization structure, the different types of hazards and dangers and how to prevent them. Also it clarifies the meaning of production planning and control and cost calculations.

## **PREREQUISITE:**

None

## **RELATION OF COURSE TO PROGRAM:**

Required

## **COURSE INSTRUCTION OUTCOMES:**

The student gains basis knowledge and concepts related to industrialization and work organizations, industrial health and safety, and the history of engineering and technology. The student is able to identify the different types of industries, production techniques, management and organization structure. In addition, the student is able to identify different types of hazards and dangers to prevent them, as well as he/she understands the meaning of production planning, control and cost calculations.

## **TOPICS COVERED:**

- Types of Industries and Production Techniques.
- Management and Organization Structure.
- Production Planning and Control.
- Industrial Cost Estimation Techniques.
- Industrial Economy and Breakeven Analysis.
- Accidents at Work – Rules and Regulations.
- Hazards Classification, Prevention, and Personal Safety.

- Fire Hazards Identification and Prevention.
- Chemical Hazards and Prevention – Accident Reporting.
- Quality Control and Labour Relations.
- Science, Engineering, and Technology.
- Industrial Revolutions.

**CONTRIBUTION OF COURSE TO MEET THE REQUIREMENTS OF CRITERION 5:**

<b>Professional Component Content</b>			
<b>Math and Basic Sciences</b>	<b>Engineering Topics</b>	<b>General Education</b>	<b>Engineering Design</b>
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**RELATIONSHIP OF COURSE TO STUDENT OUTCOMES:**

<b>Student Outcomes</b>		<b>Course Outcomes</b>
<b>a.</b>	An ability to apply knowledge of mathematics, science, and engineering.	✓
<b>b.</b>	An ability to design and conduct experiments, analyze and interpret data.	
<b>c.</b>	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	
<b>d.</b>	An ability to function on multi-disciplinary teams.	
<b>e.</b>	An ability to identify, formulate, and solve engineering problems.	
<b>f.</b>	An understanding of professional and ethical responsibility.	
<b>g.</b>	An ability to communicate effectively.	
<b>h.</b>	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	
<b>i.</b>	A recognition of the need for, and an ability to engage in life-long learning.	
<b>j.</b>	A knowledge of contemporary issues within and outside the electrical engineering profession.	
<b>k.</b>	An ability to use the techniques, skills, and modern engineering tools necessary for electrical engineering practice.	