



Arab Academy for Science, Technology & Maritime Transport
College of Engineering & Technology
Department of Basic and Applied Science

University/Academy: Arab Academy for Science, Technology & Maritime Transport
Faculty/Institute: College of Engineering & Technology
Program: B.Sc. Mechanical Engineering

Form No. (12)
Course Specification

1- Course Data

Course Code: IM 111	Course Title: Industrial Relations	Academic Year/Level: 1 st year / 1 st semester	
Specialization: All Programs	No. of Instructional Units 2 Credits	Lecture 2hrs.	Practical -

2- Course Aim

This course is designed to introduce students to the basic knowledge of industrial and work organizations, importance of health and industries and historical background on science, engineering, and technology: their origin and development.

3- Intended Learning Outcome (ILO's)

a- Knowledge and Understanding	<p>K7) Business and management principles relevant to engineering.</p> <p>Discuss the relationships between different departments in factories. Define the role of operation management Explain the techniques used for break even analysis. Define the elements of good forecast. Discuss the techniques of forecasting. Discuss the importance of inventory management. Explain technique to reduce inventory costs. Discuss the difference between economic order quantity and economic production quantity. Explain the meaning of quality control Discuss how to use quality charts</p>
b- Intellectual Skills	<p>I8) Select and appraise appropriate ICT tools to a variety of engineering problems.</p> <p>Analyze procedure for the development of new product. Evaluate optimum quantity for production Analyze the procedures for making forecast. Evaluate forecast values using different techniques. Identify different types of inventory. Evaluate the economic order quantity. Evaluate the economic production quantity. Analyze the use of sampling plans. Evaluate the stability of the process.</p>
c- Professional Skills	<p>P1) Apply knowledge of mathematics, science, information technology, design, business context and engineering practice integrally to solve engineering problems. Calculate the break even point. apply the equation for forecasting</p>

	Calculate the inventory costs
d- General Skills	G3) Communicate effectively. Enhance the presentations skills

4- Course Content

Lecture		
Wk	Hrs	
1	2	Introduction for Production Cycle and new product development.
2	2	Operation Management responsibilities and cost accounting.
3	2	Examples and problems for cost accounting
4	2	Introduction to Forecasting
5	2	Forecasting techniques
6	2	Examples and problems for forecasting
7	2	Exam
8	2	Inventory Management Principles
9	2	Examples for inventory management and problems
10	2	Economic Production Quantity
11	2	Introduction to quality control
12	2	Exam
13	2	Quality Control Charts
14	2	Term project
15	2	. Revision
16	2	Final Exam

5-Teaching and Learning Methods

<ol style="list-style-type: none"> 1. Lectures 2. problems 3. Individual and group course homework

6-Teaching and Learning Methods for Students with Special Needs

<ol style="list-style-type: none"> 1. Consulting with lecturer during office ours 2. Consulting with Lecturer during office hours 3. Private sessions for redelivering the lecture contents 4. An academic supervisor is appointed for handicapped students. Constant follow ups are done for handicapped students after each assessment to evaluate their academic level of achievement.

7- Student Assessment

a- Procedures used:	<ol style="list-style-type: none"> 1. Written examinations to assess the Intended learning outcomes. 2. Continuous assessment (reports, discussions, etc.....) to assess the Intellectual skills.
b- Schedule:	Assessment 1: 7 th Week Written Exam Assessment 2: 12 th Week Written Exam Assessment 3: Continuous Assessments Assessment 4: 16 th Week Final Written Exam

c- Weighing of Assessment:	7 th Week Examination : 30 %
	12 th Week Examination: 20 %
	Final-term Examination: 40 %
	Oral Examination : 0 %
	Practical Examination : 0 %
	Semester Work : 10 %
Total : 100%	

8- List of References:

a- Course Notes	Prepared by Lecturer
b- Required Books (Textbooks)	Turner, Mize, Case & Nazentz,"Introduction to industrial engineering", Prentice Hall, latest edition.
c- Recommended Books	Industrial Relations : Theory and Practice" Michcel Salomon. "Production/Operations Management" William J. Steveason
d- Periodicals, Web Sites, ..., etc.	

Course coordinator:

Program Manager: