



BENHA UNIVERSITY



FACULTY OF ENGINEERING AT SHOUBRA

COURSE SPECIFICATIONS (2014-2015)

Model No.12

Course Specifications: Inventory Control

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: MDP458

Course Title: Inventory Control policy

Specialization: Mechanical Production Engineering

Course Type: Elective

Study Year: Fourth Year

Teaching Hours: Lecture: 3 Tutorial: 2

Practical: 0

Total: 5

2- Course Aim

Provide the students with the knowledge for :

1. Analyzing and developing inventory management policies under deterministic and stochastic environments.

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) Characteristics of engineering materials related to inventory control, type of inventory. (A.3)
 - a.2) Methodologies of solving engineering problems, data collection interpretation. , inventory policies and JIT (A.5)
- b. **Intellectual Skills:** At the end of this course, the students will be able to:
 - b.1) Solve inventory problems (B.7)
 - b.2) Analyze results of inventory models and appreciate their limitations. (B.11)
- c. **Practical and Professional Skills:** On completing this course, the students are expected to be able to:
 - c.1) Use a wide range of analytical tools, techniques, equipment, and software packages pertaining to materials requirement planning and develop required computer programs (C.6)
 - c.2) Prepare and present technical inventory reports. (C.12)
- 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	Introduction and Definitions
2	Functions, Types of Inventory, and inventory costs
3	Inventory classification and analysis
4	Deterministic Inventory Models
5	Deterministic Inventory Models
6	Probabilistic Inventory Models
7	Probabilistic Inventory Models
9	Material Requirements Planning
10	Material Requirements Planning
11	Just-In-Time Inventory
12	Just-In-Time Inventory
13	Computer Applications
14	Computer Applications

5- Teaching and Learning Methods

- 5.1 Lectures
- 5.2 Class activity
- 5.3 Case study
- 5.4 Seminar / workshop
- 5.5 Assignments/ Homework

6- Teaching and Learning Methods of Disables

- 2. 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

- Waters D. " Inventory Control and Management " 2003 by John Wiley & Sons Ltd
- Arnold T. J.R. and et. al. " Introduction to Materials Management " 2008 by Pearson edu., Inc.

Course Coordinator: Dr./ Ahmed Gaffer, Dr. / Sayed Ali Zayan

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: Inventory Control

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	Introduction and Definitions	1	a.1			
2	Functions, Types of Inventory, and inventory costs	2	a.1			
3	Inventory classification and analysis	3	a.2			d2
4	Deterministic Inventory Models	4		b.1 , b2		
5	Deterministic Inventory Models	5		b.1 , b2		
6	Probabilistic Inventory Models	6		b.1 , b2		
7	Probabilistic Inventory Models	7		b.1 , b2		
8	Midterm exam	8				
9	Material Requirements Planning	9		b1,b2	c2	d1
10	Material Requirements Planning	10		b1,b2	c2	d1
11	Just-In-Time Inventory	11	a1			d1
12	Just-In-Time Inventory	12	a1			d1
13	Computer Applications	13			c1	d2
14	Computer Applications	14			c1	d2

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COURSE SPECIFICATIONS (2014-2015)

Matrix of course aims and ILO's

Course Title: Inventory Control **Code:** MDP458

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
Analyzing and developing inventory management policies under deterministic and stochastic environments.	a1,a2	b1,b2		

Course Coordinator: Dr./ Ahmed Gaffer, Dr. / Sayed Ali Zayan

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