

**LEAD CITY UNIVERSITY, IBADAN**  
**FACULTY OF ENVIRONMENT, MANAGEMENT AND SOCIAL SCIENCES**  
**DEPARTMENT ACCOUNTING & FINANCE**  
**2017/2018 (SECOND SEMESTER)**

Course Code: ACC 314/ BUS 314

Course Title: Production Management

Lecturers: Mr Ayilara, Mr. Onamusi

Course Status: Compulsory

Contact hours in a week: 4 Hours

**Course Description**

Production management introduces the students to the basic concept of the production process and operation management.

**Course Objectives:**

This unit introduces the students with the basic concepts of the production and operation functions. Among different functions in any organization, production and operation function is a vital function which does the job of value addition to products / services respectively. Maximizing the value addition automatically results in productivity improvement.

**Class Rules of Engagement**

- i. The University's dress code must be adhered to at all times
  - ii. 15 minutes lateness is allowable to all students
  - iii. Switch off all mobile phones or adopt silent mode
  - iv. Lecture note, course work book, Ruler & Calculation is a must
  - v. Fill attendance register before the end of each class
  - vi. Any breach or misconduct will be treated officially
- i. Part A: Essay
  - ii. Part B: Calculations

**Section B: Teaching Plan**

**Week 1**Element of Production

**Week 2** Production & Process Design and Management

**Week 3-4** Facility Location and Layout

**Week 5-6**Modern Tools and Machinery of Production

**Week 7** Standard Definition

**Week 8-9** Line Balancing automation

**Week 10** Production Scheduling and control work study

**Week 11-12** Maintenance and Tools and equipment quality Control

## **Week 13-14 REVISION**

### **Continuous Assessment 40marks**

- i. Class attendance atleast 70%
- ii. Assignments including class presentation
- iii. Semester Test

### **Semester Examination 60marks**

- i. Part A: Essay
- ii. Part B: Calculations

### **Section C: Reading List**

1. Olumuyiwa O. olawale (1998) Problems and Solution in Poduction and Operation Management. First edition
2. Production and Operations Management by Everette E. Adam, Jr. Ronald J. Ebert; Publisher: Prentice
3. Hall of India
4. Production and Operations Management by N.G. Nair; Publisher: Tata Mc. Graw Hill
5. Production and Operations Management by Panneerselvam R; Publisher: Prentice Hall of India
6. Operations Management by Shafer Scott M; Publisher: John Wiley

### **Section D: Tutorial Questions**

- Using a detailed diagram, discuss each component part that make up the Production Management Process.
- Theories and principles of Production management are built around efficiency which eventually translates into cost reduction. Discuss the assertion elaborately citing examples where necessary
- (A) Define Production Management (B) Discuss the four main management functions applicable to the production management process and provide a link among these functions
- (A)Discuss the three schools of thought approach to managing operations used by a manufacturing company (B). identify the factors to be considered in locating a factory
- (A)What is Product Development. (B). Discuss the stages/activities involved in Product development
- (A) Production managers function is very salient to the production process. Discuss (B). Explain the techniques to increasing Productivity
- (A). Define the concept Total Quality Management (B). state the basic characteristics of Total Quality Management (C). explain the principles that supports Total Quality Management
- Write short notes on the following; (A). Quality Control/Assurance (B). Economic order quantity (C). Product life cycle (D). Automation in Business (E). Standardization
- Ghana Tobacco is a company that has production operations in Lagos, Ibadan and Benin.** The production capacity for each of these plants for the next 6-months planning period for Farouz are as follows:

Plant	Six-month Production capacity
Lagos	50,000
Ibadan	60,000
Benin	25,000

Suppose the company distribute through four regional distribution centers located in Sagamu, Warri, Kaduna, Port Harcourt and that the 6-months forecasted demand for the distribution centres are as follows

Distribution centre	Six-month F-Demand
Sagamu	60,000
Warri	40,000
Port Harcourt	20,000
Kaduna	15,000

Management has compiled the transportation cost per unit from each of the plants to each of the distribution centres as shown in the table below;

From\To	Sagamu	Warri	P/H	Kaduna
Lagos	3	2	7	6
Ibadan	7	5	2	3
Benin	2	5	4	5

Required: determine how much of the production to be transported from each plant to each distribution Centre and obtain a distribution schedule using Northwest corner rule an

- Patience Nigeria Ltd purchases a component used in the manufacturing of electric hand drilling machine** directly from the supplier. The company will require 1000 units per month. If ordering costs are N25 per order, unit cost is N2.50 per component, and annual inventory holding costs are charged at 20%.
  - What is the EOQ for this component?

- B. What is the length of cycle time in months?
- C. What is the total annual inventory cost associated with EOQ?
- D. Assuming 300 working days per year and a lead time of five days, what is the re-order point for this component?

11. **If-You-think-there-are-jobs a small manufacturing company want to determine when to replace its Truck** which cost price is N12'200. The salvage value of the machine is only N200. From past experience the maintenance costs of the Truck are as follows

Year	1	2	3	4	5	6	7	8
Cost (N)	2000	5000	8000	12000	18000	25000	32000	40000

Required;

- A. When should the company replace this Truck?
  - B. What is the condition for the Replace of Plant and equipment?
12. **Hard-Work-Creativity-Pays a small manufacturing plant presently has 7 work stations in which 10 tasks are performed.** The company operates a 35 hours working week, 44 weeks working year, and annual sales of the company is 11,500 units. The new chairman of the company has called for a review of the plant design to increase operational efficiency. The current design is shown below

Task	Work content (min)	Predecessor
A	2	--
B	1	A
C	4	B
D	2	C,F
E	1	A
F	5	E
G	1	H
H	3	A
I	4	A
J	3	D,G,I

Required;(A). Calculate the Cycle Time (B.)Minimum number of work stations (C.)Precedence chart (D.)Calculate the efficiency of the new work station

*LECTURER: Onamusi/Ayilara*