JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
(Established by Govt. of A.P., ACT No.30 of 2008)
ANANTHAPURAMU – 515 002 (A.P) INDIA

MASTER OF BUSINESS ADMINISTRATION
MBA; MBA (General Management); MBA (Business Management)
COMMON COURSE STRUCTURE

Course Code	OPERATIONS MANAGEMENT	L	T	P	C
21E00206		4	0	0	4
	Semester	**II**			

Course Objectives:

- To explain various concepts of Production and Operations Management.
- To explore and impart knowledge on the elements of good control system, the role of control charts and statistical process control methods in helping managers to control variation.
- To develop the strong knowledge about quality control systems
- To facilitate the knowledge over real time inventory control techniques
- To offer learners an introduction to industry 4.0, its applications in the business world.

Course Outcomes (CO): Student will be able to

- Understand the concept of Production and Operations Management.
- Construct and interpret simple control charts for both continuous and discrete data.
- Gain knowledge on the quality philosophies and principles of deming, Juran, six sigma and to become acquainted with the International Organization for Standardization's ISO 9000:2000 requirements.
- Learn different types of inventory that firm's use and their role in value analysis
- Familiarize with inventory concepts to support the development of useful quantitative models for inventory management.
- Understand the drivers and enablers of industry 4.0

UNIT - I	Lecture Hrs:08

Introduction and Overview of Operations Management: Definition of Operations Management – Nature and Scope of OM – Role & Decision areas of Operations Manager- interface of OM with other functions - Operations Management's future challenges

UNIT - II	Lecture Hrs:12

Operations Control: Managing of Work Environment–Automation—Technology Management-Waste Management-Quality Assurance and Quality Circles–Statistical Quality Control–Control Charts for Variables-Average-Range and Control charts for Attributes, Acceptance Sampling Plans. Purchase functions and Procedure

UNIT - III	Lecture Hrs:12

Managing for Quality: Basic concepts of quality, dimensions of quality, Juran's quality trilogy, Deming's 14 principles, Quality improvement and cost reduction, ISO 9000-2000 clauses & coverage. Six Sigma, Productivity–factors affecting productivity - measurement & improvements in productivity-new product development and design-stages.

UNIT - IV	Lecture Hrs:12

Inventory and Inventory Models: Inventory Control-Different Systems of Inventory Control,Costs & Types of Inventory – ABC, VED. Value Analysis – importance in cost reduction – concepts and procedures. Inventory control –Types of Inventory–Safety stock – Inventory Control Systems–JIT, VMI.

UNIT - V	Lecture Hrs:12

Introduction to Industry 4.0 - The Various Industrial Revolutions - Digitalization and the Networked Economy - Drivers, Enablers, Compelling Forces and Challenges for Industry 4.0 – Benefits of adopting an Industrial 4.0 model

Textbooks:

1. Heizer, Render, Principles of Operations Management 8th Edition, Prentice Hall, 2011.
2. B. Mahadevan, "Operations Management - Theory and Practice", Pearson, New Delhi, 2013.
3. Operations Management and Control , Banerjee Biswajit, S.Chand

Reference Books:

1. Panner Selvem: "Production and Operations Management",Prentice Hall of India, New Delhi, 2012.
2. S N Chary, "Production and operations management", Tata McGraw Hill, NewDelhi, 2013.

Online Learning Resources:

https://onlinecourses.swayam2.ac.in/imb21_mg47/preview
https://onlinecourses.nptel.ac.in/noc21_me18/preview