GANPAT UNIVERSITY

FACULTY OF MANAGEMENT STUDIES

Programme	Master of Business Administration				Branch/Spec.	Marketing/Finance/HR/International Business/Entrepreneurship/SCM		
Semester	II				Version	1.0.0.2		
Effective from *Academic* Year	2022-23				Effective for the batch Admitted in	June 2022		
Subject code	**3IIA05POM**	Subject Name			**PRODUCTION AND OPERATIONS MANAGEMENT**			
Teaching scheme					Examination scheme (Marks)			
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	4	0	0	0	4	Theory	60	40	100
Hours	4	0	0	0	4	Practical	-	-	-

Pre-requisites:

Course Objectives:

This course has been designed to acquaint the students with the latest tools and techniques in operations management systems and will enable the students to manage productivity, manufacturing technology, facilities, operations planning and control and materials and quality.

Course Outcomes:

On successful completion of the course the student will be able to :

2IIA05POM.CO1: Understand the transformation process model ; various types of operations; the role and responsibilities of an operations manager in product and service design.

2IIA05POM.CO2: Apply process design and layout strategies to manufacturing and service operations; and decision0making for plant location and process type selection.

2IIA05POM.CO3: Apply production planning and control techniques such as forecasting, capacity planning, MRP, scheduling, and inventory management to optimize operational efficiency.

2IIA05POM.CO4: Analyze quality improvement tools, productivity techniques, and maintenance systems to ensure continuous improvement and operational excellence.

Theory syllabus

Unit	Content	Hrs
1	Transformation process model: Inputs, process and outputs; Classification of operations; Responsibilities of Operations Manager, Difference between production, operations and supply chain, The Generic Product Development Process , Product design criteria: Quality function deployment, Value Analysis/Value Engineering, Designing Products for Manufacture and Assembly, Designing service product: Services process in a high context and low context services	15
2	Process types in manufacturing: project, jobbing, batch, line, mass, continuous; Process types in services: professional services, services shops, mass services; Plant location; facility layout for products and services	12
3	Production Planning & Control: Production planning techniques for various process choices, techniques of production control. Forecasting & Strategic Capacity Planning, concept of Learning Curves in operations , Methods of Forecasting, Overview of Operation Planning, Aggregate Production Planning, Production strategies, Capacity Requirement Planning, MRP, Scheduling, Supply Chain Management, Inventory Management, CPM and PERT.	15

4	Quality management: Introduction; Meaning; difference between quality control and Quality assurance, Quality characteristics of goods and services; Tools and techniques for quality improvement: check sheet, histogram, scatter diagram, cause and effect diagram, Pareto chart, process diagram, statistical process control chart and acceptance sampling;; Total quality management (TQM) model; Service quality, concept of Six Sigma and its application, JIT & Lean Operations, 5S in quality, poka yoka, kaizen Productivity Improvement Techniques: Work study; Method study; Work measurement: time study: stop watch time study; Work sampling. Maintenance: maintenance policies for facilities and equipment; Time of failure; Preventive versus breakdown maintenance; Procedure for maintenance, total productive maintenance (TPM).	18

Text Books	
1	Kanishka Bedi- *Production & Operations Management*.- (Oxford University Press)
Reference Books	
1	Adam Jr Everetl E. R J *Production and Operations Management* (Prentice-Hall), 2000 5th ed.
2	Chary- *Production and Operations Management* (Tata McGraw-Hill, 9th ed.)
3	Hill T- *Operations Management* (Palgrave, 2000)
4	Johnston R et al *Cases in Operations Management* (Pitman, 1993)
5	McGregor D *Operations Management* (McGraw-Hill, 1960)
6	Morton- *Production and Operations Management* (Vikas)
7	Haleem A- *Production and Operations Management* (Galgotia books, 2004)
8	Shanker Ravi- *Industrial Engineering* (Galgotia)
9	Chase- *Production and operation Management,* Irwin London; 7th ed.

Practical content

Mapping of CO with PO and PSO:

Semester 2: Course Name: 3IIA05POM PRODUCTION AND OPERATIONS MANAGEMENT							
Course outcomes	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**
3IIA05POM.CO1	1	3	-	2	-	1	2
3IIA05POM.CO2	3	3	-	2	1	1	2
3IIA05POM.CO3	3	3	-	2	-	2	2
3IIA05POM.CO4	3	3	-	2	-	1	2

Semester 2: Course Name: 3IIA05POM PRODUCTION AND OPERATIONS MANAGEMENT			
Course outcomes	**PSO1**	**PSO2**	**PSO3**
3IIA05POM.CO1	1	2	3
3IIA05POM.CO2	2	2	3
3IIA05POM.CO3	2	3	3
3IIA05POM.CO4	2	2	3