



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

COURSE CONTENT

PROJECT & OPERATIONS MANAGEMENT								
III SEMESTER								
Course Code	Category	Hours/Week			Credits	Maximum Marks		
22MBA0019	CORE	L	T	P	C	CIE	SEE	Total
		4	-	-	4	40	60	100
Contact Classes:60	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes: 60			
Prerequisite: Basic knowledge of management and quantitative techniques.								

COURSE OVERVIEW:

This course introduces the principles and practices of Operations and Project Management. It covers production systems, facility layout, scheduling techniques, project planning and appraisal, and project control methods. The course also emphasizes strategic decision-making, quality management, and modern approaches such as Agile and Lean practices.

COURSE OBJECTIVES:

- To understand the fundamentals and strategic role of Operations Management.
- To apply layout design and scheduling techniques effectively.
- To understand key concepts and processes of Project Management.
- To evaluate projects using appraisal and risk analysis methods.
- To apply project planning, control, and modern management practices.

COURSE OUTCOMES: After completion of the course, students should be able to

1. Explain operations management, production systems, productivity, strategic management and GDP's impact
2. Explain the principles of various layouts, types, designs and procedures with necessary rules in dispatching.
3. Formulate project management principles and implement projects across various sectors using systems approach.
4. Analyze project planning frameworks, appraisal methods that influence technical and risk related factors.
5. Assess project planning, controlling techniques, scheduling approaches in project management.

UNIT-I: Introduction to Operations Management: Functional Subsystems of Organization, Definition, Systems Concept of Production, Types of Production Systems – Flow Shop, Job Shop, Batch Manufacturing, The Project, Productivity, Strategic Management – Corporate Strategic,

Generic competitive Strategies, Functional Strategies, Gross Domestic Product and its impact, World Class Manufacturing.

UNIT-II: Layout and Scheduling: Layout, Advantages and limitations of Product Layout, Advantages and limitations of Group Technology Layout, Layout Design Procedures. Introduction, Johnson's Problem, Extension of Johnson's rule. Job Shop Scheduling: Introduction, Types of Schedules, Schedule Generation, heuristic Procedures, Priority Dispatching Rules. Two Jobs and Machines Scheduling.

UNIT-III: Introduction to Project management: Introduction to Project management – Project Characteristics- Project Life cycle – Project Identification, Formulation and Implementation- Project management in different sectors: Construction, Services Sector, Public sector and Government Projects. Systems approach to project management.

UNIT-IV: Project Planning and Appraisal: Project Planning – Project Appraisal- Feasibility study- Technical, Commercial, Economic, Financial, Management, and Social Cost Benefit Analysis-Project Risk Analysis.

UNIT-V: Project Planning and Control: Planning Steps- Scheduling- Network Diagrams, Network Analysis, Critical Path, Quality Management, Project Execution, Monitoring and control, Agile project Management, Scrum, Lean Production and project management.

TEXT BOOKS:

1. Panneer selvam “Production and Operations Management” PHI,2012
2. Prasanna Chandra, Projects, Planning, Analysis, Selection, Financing, Implementation, and review, 6e, Tata McGraw Hill, 2008.

REFERENCE BOOKS:

- H.Kaushal,Production/OperationsManagement,CaseStudySolutions,MacMillan,2012.
- Ajay K Garg, Production and Operations Management, TMH,2012
- DannySamson“OperationsManagement:IntegratedApproach”Cambridge,2012.
- Dipak Kumar Bhattacharyya, Production and Operations Management, Universities Press, 2012.
- J.K, Sharma: Operations Research, Macmillian,2013.
- John M, Nicholas and Herman Steyn, Project Management for Engineering, Business, and Technology, 5e, Routledge,2017.
- K.Nagrajan,Project Management,NewAgeInternationalPublishers,7e,2015.

ELECTRONIC RESOURCES:

1. http://tn.upi.edu/pdf/Operations_Management.pdf
2. <https://notendur.hi.is/~kth93/3.20.pdf>

MATERIALS ONLINE:

1. Course template
2. Tutorial question bank
3. Tech talk and Concept Video topics
4. Open-ended experiments
5. Definitions and terminology
6. Assignments
7. Model question paper – I
8. Model question paper – II
9. Lecture notes
10. PowerPoint presentation
11. Drshya Siksha Sangrah (DSS) Videos

