



SWARNANDHRA
COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

Accredited by National Board of Accreditation, AICTE, New Delhi, Accredited by NAAC with "A" Grade – 3.32 CGPA, Recognized under 2(f) & 12(B) of UGC Act 1956, Approved by AICTE, New Delhi, Permanent Affiliation to JNTUK, Kakinada, Seetharampuram, W.G.DT., Narsapur-534280, (Andhra Pradesh)

DEPARTMENT OF MECHANICAL AND ROBOTICS ENGINEERING
TEACHING PLAN

Course Code	Course Title	Semester	Branches	Contact Periods /Week	Academic Year	Date of commencement of Semester
23BM4 T01	INDUSTRIAL MANAGEMENT	IV	MECHANICAL & ROBOTIC ENGINEERING	05	2025-26	10/12/2025
COURSE OUTCOMES: Students are able to						
1 Learn about how to design the optimal layout (K1) 2 Demonstrate work study methods (K3) 3 Explain Quality Control techniques(K2) 4 Discuss the financial management aspects. (K2) 5 Understand the human resource management methods. (K2)						
UNIT	Out Comes / Bloom's Level	Topic No.	Topics/Activity	Text Book / Reference	Contact Hour	Delivery Method
I Learn about how to design the optimal layout (K1)	UNIT I: Introduction Industrial Engineering, Plant Layout					PPT, Lecture, Active Learning & Tutorial
	1.1	Industrial Engineering (IE), Development & Application			T1,R1	
	1.2	Role of an industrial engineer			T1,R1	
	1.3	Differences between production management & industrial engineering			T1,R1	
	1.4	Quantitative tools of IE			T2,R1	
	1.5	Productivity Measurement			T2,R1	
	1.6	Concepts of management & importance			T1,R1	
	1.7	Functions of management			T2,R1	
	1.8	Scientific management by Taylor's principles			T1,R1	
	1.9	Theory X and theory Y			T1,R1	
	1.10	Henry Fayol's principles of management.			T1,R1	
	1.11	Factors governing plant location			T1,R1	
	1.12	Types of production layouts			T1,R1	
	1.13	Advantages and disadvantages of process layout and product layout, applications			T1,R1	
	1.14	Quantitative techniques for optimal design of layouts			T1,R1	
	1.15	Plant maintenance, preventive & break down maintenance.			T1,R1	

				Total	11	
V		UNIT V - Human Resource Management, Value Analysis				
	Understand the human resource management methods. (K2)	5.1	Concept of human resource management	T1,R1	01	
		5.2	Personnel management and industrial relations	T1,R1	01	
		5.3	Functions of personnel management	T1	01	
		5.4	Job- evaluation, its importance and types	T1,R1	01	
		5.5	Merit rating, quantitative methods	T2,R1	01	
		5.6	Wage incentive plans, and types.	T2,R1	01	
		5.7	Value engineering	T1	01	
		5.8	Implementation procedure	T1,R1	01	
		5.9	Enterprise resource planning and	T1,R1	01	
		5.10	Supply chain management.	T2,R1	01	
		Total		10		
		CUMULATIVE PROPOSED PERIODS		55		

Text Books:

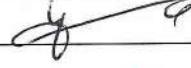
S.No	AUTHORS, BOOK TITLE, EDITION, PUBLISHER, YEAR OF PUBLICATION
1	O.P Khanna, Industrial Engineering and Management, Dhanpat Rai Publications (P) Ltd, 2018.
2	Martand Telsang, Industrial Engineering and Production Management, 3 rd Edition, S.Chand & Company Ltd. NewDelhi, 2018

Reference Books:

S.No	AUTHORS, BOOK TITLE, EDITION, PUBLISHER, YEAR OF PUBLICATION
1	Bhattacharya DK, Industrial Management, 1 st Edition, S.Chand, publishers, 2010.
2	T.R. Banga, S.C.Sharma, N. K. Agarwal, Industrial Engineering and ManagementScience, 12 th Edition, Khanna Publishers, 2008.
3.	NVS Raju, Industrial Engineering and Management, 1 st Edition, Cengage India PrivateLimited, 2013

Web Details

1	https://onlinecourses.nptel.ac.in/noc21_me15/preview
2	https://onlinecourses.nptel.ac.in/noc20_mg43/preview
3	https://www.edx.org/learn/industrial-engineering

		Name	Signature with Date
i.	Faculty	Ms. P.S.J. SHILPA	
ii.	Course Coordinator	Ms. P.S.J. SHILPA	
iii.	Module Coordinator	Dr. M. Manikya Rao	
iv.	Program Coordinator	Dr. G. Grace	




Principal