

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE OUTLINE TEMPLATE			
Course Title	MANUFACTURING MANAGEMENT		
Course Code	PR 625	No. of Credits	3
Department	Production Engineering	Faculty	Dr.S.Prasanna Venkatesan
Pre-requisites Course Code	--		
Course Coordinator(s) (if, applicable)	--		
Other Course Teacher(s)/Tutor(s) E-mail		Telephone No.	
Course Type	<input type="checkbox"/> Core course <input checked="" type="checkbox"/> Elective course		
COURSE OVERVIEW			
<p>Manufacturing Management deals with the decision making approaches to handle the strategic, tactical and operational issues in a manufacturing or a service system. The objective is to produce and deliver the goods/services according to specifications, in the right amount, right time and at a right cost with a minimum environmental impact.</p>			
COURSE OBJECTIVES			
<ol style="list-style-type: none"> 1. To enable the students to understand the role of manufacturing management in organizational decision making. 2. To study the strategic, tactical and operational decision making tools in order to model a manufacturing or a service system. 3. To understand the application of manufacturing management policies and techniques to the manufacturing and service organizations. 			
Course Outcomes		Aligned Programme Outcomes (PO)	
<ol style="list-style-type: none"> 1. Understand the role of manufacturing management in organizational decision making. 2. Build and analyze quantitative models for organizational decision making 3. Apply tools for modeling of complex systems 		PO 3, PO 5 and PO 7	

COURSE TEACHING AND LEARNING ACTIVITIES				
S.No.	Week	Topic	Mode of Delivery	
1	1	Nature of production- Strategic, Tactical and Operational decisions.	Chalk and talk	
	2	General discrete location-allocation problems -features and formulation	Chalk and talk	
	3	Facility location models	Chalk and talk	
	4	Supply chain management and SCM, Flow in supply chains, Key issues in supply chain management,	Chalk and talk	
	5	Supply chain facility location	Chalk and talk	
2	Test I			
	6	Aggregate production planning - Heuristics	Chalk and talk	
	7	Linear models and transportation models	Chalk and talk	
	8	Inventory management- EOQ models-models with price breaks	Chalk and talk	
	9	Operations scheduling, CDS and Palmer heuristics- Assembly Line Balancing	Chalk and talk	
	10	Solving models using software like GAMS, WinQSB	Tutorial/lab	
3	Test II			
4	11	Project Scheduling, MRP, lot sizing in MRP, ERP	PPT	
5	12	Quality management	PPT	
6	13	Assessment thru seminars	Seminar presentation	
7	End semester			
Mode of Assessment				
S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Test 1	End of 5 week	1hr	20
2	Test 1	End of 10 week	1hr	20
3	Seminar	End of week 12	10 min./student	10
4	End semester	End of week 13	3hr	50

ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc

Buffa., "Modern Production Management", John Welley, 1983.

Douglas C.Montgomery, Introduction to statistical quality control, 2nd Edition , Jhon Wiley & sons, 1991

Hax and Candea., "Production and Inventory Management", Prentice Hall, 1984.

Sunil Chopra, Peter Meindl, Supply Chain Management: Strategy, Planning and Operations-, Prentice Hall India, 3rd ed. (2007)

<http://nptel.ac.in/courses/110106045/>

COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)

Course Exit survey will be collected at the end of the semester before the start of semester examination through online. Students can log in their MIS account to give the feedback. Mid-semester anonymous feedback shall be collected to improve the teaching-learning process. Apart from this, students can share feedback during class committee meetings.

COURSE POLICY (including plagiarism, academic honesty, attendance, etc.)

Attending classes regularly and continuously is required for the students to understand the concepts.

Participation in the discussions is mandatory during the tutorial classes.

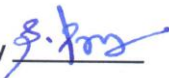
If any student is not able to attend any of the continuous assessments (1 and 2) due to genuine reason, student is permitted to attend a retest with 20% weightage. A candidate may appear for retest only once. Attending the end semester is a must.

ADDITIONAL COURSE INFORMATION

eg.: The Course faculty is available for consultation based on prior appointment to his email at - prasanna@nitt.edu

FOR SENATE'S CONSIDERATION

Course Faculty



CC-Chairperson



HOD

