

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)**VI- SEMESTER****Course Title: Production Management**

(Course Code: 1363401)

Diploma Programme in which this course is offered	Semester in which offered
Mechanical (Manufacturing Technology)	Sixth Semester

Module.	Topics	Hours
Module 1	Types of Manufacturing Industry 1.1 Continuous type 1.1.1 Mass production 1.1.2 Flow production, 1.2 Intermittent type 1.2.1 Job order production 1.2.2 Batch order production 1.3 Examples for each 1.4 Advantages and Disadvantages	3 h
Module 2	Layout 2.1 Site selection of a factory 2.1.1 Introduction 2.1.2 Factors to be considered in general location of the factory 2.1.3 Factors to be considered in the selection of a particular site. 2.2 Factory layout (plant buildings) 2.2.1 Introduction 2.2.2 Major considerations which should be followed while making lay-out of a factory. 2.3 Plant layout 2.3.1 Introduction 2.3.2 Principles of plant layout 2.3.3 Factors influencing plant layout 2.3.4 Methods of layout 2.3.5 Line or product layout / functional or process layout 2.3.6 Fixed position layout / combination layout 2.3.7 Advantages and disadvantages. 2.4 Flow pattern 2.4.1 Factors governing flow pattern 2.4.2 Flow systems 2.4.2.1 Horizontal flow lines (five basic types) 2.4.2.2 Vertical flow lines (six basic types)	5 h
Module 3	Production Planning and Control 3.1 Introduction 3.2 Understanding PPC 3.3 Sales forecasting 3.3.1 Definition and concept 3.3.2 Purpose of sales forecasting 3.3.3 Sales forecasting techniques 3.4 Process Planning	10 h

	<ul style="list-style-type: none"> 3.4.1 Definition and concept 3.4.2 Information required to do process planning 3.4.3 Process planning procedure 3.4.4 Economic order quantity 3.5 Scheduling and Control <ul style="list-style-type: none"> 3.5.1 Introduction 3.5.2 Scheduling 3.5.3 Concept factors affecting scheduling 3.5.4 Scheduling procedure and techniques 3.6 Dispatching <ul style="list-style-type: none"> 3.6.1 Introduction 3.6.2 Dispatch procedure 3.6.3 Centralized and de-centralized dispatching. 3.7 Routing <ul style="list-style-type: none"> 3.7.1 Introduction 3.7.2 Routing procedure 3.8 Progress control <ul style="list-style-type: none"> 3.8.1 Steps involved in progress control <ul style="list-style-type: none"> 3.8.1.1 System to record the work accomplished 3.8.1.2 Making a report of work accomplished 3.8.1.3 Transmission and interpretation of report 3.8.1.4 Corrective action. 	
Module 4	<p>Material, Purchase, Store and Inventory</p> <ul style="list-style-type: none"> 4.1 Materials management <ul style="list-style-type: none"> 4.1.1 Functions of material management 4.1.2 Objectives of material management 4.2 Purchase organization <ul style="list-style-type: none"> 4.2.1 Objectives of purchasing department 4.2.2 Activities, duties and functions of purchasing department 4.2.3 Purchase organization 4.2.4 Purchase procedure 4.3 Stores and store keeping <ul style="list-style-type: none"> 4.3.1 Purpose of store keeping duties of store keeper 4.3.2 Stores location 4.3.3 Methods of storing 4.3.4 Protection of stores 4.3.5 Stock stacking system 4.4 Inventory control <ul style="list-style-type: none"> 4.4.1 Inventory classification 4.4.2 Objectives and how to achieve them 4.4.3 Functions of inventories 4.4.4 Economic order quantity 4.4.5 ABC analysis 	6 h