

GUJARAT TECHNOLOGICAL UNIVERSITY

RUBBER TECHNOLOGY

B. E. SEMESTER: VII

Subject Name: **Rubber Equipment Design – II**

Subject Code: **172601**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam (E)		Mid Sem Exam (Theory) (M)	Practical (Internal)
				Theory	Practical		
3	0	3	6	70	30	30	20

Sr. No	Course Content	Total Hrs.
1.	Mould Design: Introduction, Materials for moulds, General considerations & computations, Mold shrinking cooling, Mold durability, Mold making processes and machines used. Planning of the mould lay-out partition line locations, nozzle runner, coring, air vents & other details, design of moulds for injection moulding, compression moulding & transfer moulding operation, calculation of machine capacity requirements.	14
2.	Die Design: Planning the general arrangements of the die, different parts, selection of dies for hot & cold extrusions, dies for extrusion of tube, pipe, & sheeting, machine capacity calculations.	10
3.	Design Of Extruder: Major components, Process design & mechanical design of single screw extruder, Part design.	16
4.	Design Of Injection Molding Machine: Major components, Process design & Mechanical design.	14

Practical and Term work:

It should be based on theories

Text Books:

1. Elastomer Molding Technology By: John G. Sommer
2. Extrusion Technology By: Rapra Report
3. Injection molding of Rubber By : M. A. Wheelay

Reference Books:

1. Rubber Products Manufacturing Technology By: Anil K. Bhowmick
2. Rubber Processing & Production Organisation By: Philip K. Freakley.
3. Calendering & Extrusion Technology By: Arun V. Apte.