

GUJARAT TECHNOLOGICAL UNIVERSITY
B.E. SEMESTER : VIII
CHEMICAL TECHNOLOGY

Subject Name: Design & Fabrication of Molds

Subject Code: 183602

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

Sr. No	Course contents
1.	Compression Molds: Positive, semi-positive & flash Mold with Horizontal & vertical flash, arrangement of loading shoes , simple two, Plate & three – plate Molds , split Molds
2.	Transfer Molds: Principles if Integral post, auxiliary ram & separated Pot Mold , calculation of number of cavities.
3.	Injection Molds : Two plate & three plates types , injection , venting, Runner & gates , calculation of number of cavities , hot runner Mold
4.	Extrusion dies: Extrusion of simple shapes tubing cable covering &Sheeting dies
5.	Mold Fabrication : steels for molding tools & their treatment include processes used for Mold fabrication finishing, processes
6.	Heating systems for plates & Molds , measurement & control of Temperature of Molds & dies, simple blow Mold
7.	Introduction to computer aided design & software design aspects for Molds & dies.

Reference Books:

1. Plastic Mold engineering hand book ,Du Boi's & I. Pribble, Chapman & Hall, 1995
2. Plastic Mold & dies ,Laszlo Sors., L Bardocz, I Radnoti, Van Nostrand Reinhold Co., 1981
3. Gastrow Injection Molds, H Gastrow & P Unger, Hanser Verlag, 2006
4. Compression & transfer molding of plastics. J.Butle, Plastic Institute, 1959
5. Plastic engineering data book , A Glanvill, Industrial Press, 1973
6. Encyclopedia of Polymer Science & Technology, John Wiley & Sons, Inc 1965.
7. Encyclopedia of Polymer Science & Technology , John Wiley & Sons , Inc 1988
8. Handbook of Polymer Testing Roger Brown, Marcel Dekker Inc , 1999.
9. Plastics additive Handbook , Gachter & Mullar , Hanser Publishers , 1987
10. Filler & filled Polymers , J.F.Gerard Wiley – VCH verlag GmbH,2001
11. Handbook of fillers & reinforcements for plastics , H.S.Katz & J.V. Milewskh van ,Norstand zeinhold co , 1978
12. Handbook of Fillers , G.Wypych , Chem Tech Publishing 2000.
13. Photochemical conversion & stabilization of polymers , V.Shlyapitokh , Hanser Publication , 1984.
14. Handbook of plastics analysis , Marcel Dekker , H.Lobo & J.V.Bonilla , 2003.