

UG

Course Code: **CH406**

Credit: **3**

Version: **1**

Prerequisite Course: **Nil**

Department: **Chemical Engineering**

Course Name: **Polymer Process Modelling**

L-T-P: **3-0-0**

Approved on:

Classification of Polymer Processing Operations. Simple Model Flows for analyzing processing operations with examples. Extrusion and extruders. Calendering, Roller and Blade Coating, Film Blowing. Fiber spinning injection moulding, blow moulding, thermoforming, rotational moulding. Compression and transfer moulding. Reaction injection moulding. Compounding and mixing. Twin screw extruder. Banbury and other mixing equipments in polymer processing.

Books

1. Middleman, S., "Fundamentals of Polymer Processing," McGraw-Hill Book Company, NY, 1977.
2. Morrison, F.A., "Understanding Rheology," Oxford University Press, 2001.
3. Tadmor, Z. and Gogos C.G., "Principles of Polymer Processing," Wiley-Interscience, New York, 1979.