Department of Industrial Chemistry **Faculty of Science**

PMR (262)481 **Polymer Process Technology** **3(3/3-0/0)**

Prerequisite **PMR 381**

Course Description

Introduction, compression molding, transfer molding, injection molding, extrusion, blow molding, thermoforming, calendering, rotational molding, casting, foaming, coating, fiber-glass reinforcing, machining and finishing, and fiber spinning.

Objective

Students will be able to understand various polymer processing methods.

Course Content	**Laboratory Hours**
1. Introduction	2
2. Compression molding	6
3. Transfer molding	2
4. Injection molding	11
4.1 Injection molding machine	
4.2 Screw, nozzle, heater, hopper	
4.3 Clamping unit, clamping force calculation	
4.4 Types of molds, runner system layout, gate	
5. Extrusion	4
6. Blow molding	3
7. Thermoforming	2
8. Calendering	1
9. Rotational molding	1
10. Casting	1
11. Foaming	2
12. Coating	1
13. Fiber-glass reinforcing	3
14. Machining and finishing	4
15. Fiber spinning	2
Total	45