

IC (209)203            Elementary Industrial Chemistry

3(3/3-0/0)

Abbreviation            ELEM IND CHEM

Prerequisite            CHEM 104 and CHEM 108

This course is opened for    MAJOR ELECTIVE COURSE

**Course Description**

Basic techniques in industrial chemistry, operations of boilers, compressors, pumps, temperature measuring device, valves and gauges, automatic control system, production processes, preparation, properties and activities of catalysts in chemical reactions, control and management of pollutants in industries, safety in industries, patents and intellectual properties.

**Objective**

Students will be able to understand basic principles of equipment, processes in industrial chemistry and chemical plant management.

**Course Content****Lecture Hours**

1. Basic techniques in industrial chemistry	3
2. Operations of boilers, compressors, pumps, temperature measuring device, valves and gauges	6
3. Automatic control system	6
4. Production processes	10
4.1 Petroleum and Petrochemicals	
4.2 Plastics	
4.3 Metals	
4.4 Ceramics	
5. Preparation, properties and activities of catalysts in chemical reactions	6
6. Control and management of pollutants in industries	6
7. Safety in industries	6
8. Patents and intellectual properties	2

Total	45
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