

IC (209)201 Chemical Stoichiometry

3(3/3-0/0)

Abbreviation -

Prerequisite CHEM 104 and CHEM 108 and MATH 104

This course is opened for CORE COURSE

Course Description

Mass balance of non-chemical reaction system, mass balance of chemical reaction system, energy balance of flow system, heat balance of non-chemical reaction system, heat balance of chemical reaction system, combustion, stoichiometry of unit operations and applications of stoichiometry, mass balance and energy balance with problems in chemical industries.

Objectives

1. Students will be able to understand the basic principles of chemical stoichiometry, mass balance and energy balance.
2. Students will be able to apply the principles of chemical stoichiometry, mass balance and energy balance for analyzing data from chemical reactions and processes.

Course Content**Lecture Hours**

1. Introduction	3
2. Mass balance of non-chemical reaction system	5
3. Mass balance of chemical reaction system	5
4. Energy balance of flow system	5
5. Heat balance of non-chemical reaction system	5
6. Heat balance of chemical reaction system	5
7. Combustion	5
8. Stoichiometry of unit operations	5
9. Applications of stoichiometry, mass balance and energy balance with problems in chemical industries	7

Total	45
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