



DEPARTMENT OF CHEMISTRY
UNIVERSITY OF LUCKNOW
Four Year Undergraduate Course Structure:
Subject: Chemistry Semester IV NEP (Revised)
For students admitted in session 2024-25 onwards

Introduction of Household Chemicals, Soaps and Detergents

Semester IV

Chemistry Vocational VC 2

Credits 2

MM 100 (75 + 25)

Course Outcome

- CO 1 To expose the students to various emerging new areas of Chemistry and apprise them with their prevalent in their future studies and their applications in various spheres of chemical sciences.
- CO 2 To enhance student sense of enthusiasm for chemistry and to involve them in an intellectually stimulating experience of learning in a supportive environment.
- CO3 To enhance practical knowledge
- CO4 To motivate self-employment ability
- CO5 To create self-efficiency

Unit 1

- **Household chemicals:**
 - History of household Industry, Basic Theory of Household Chemicals, and Raw material required for household product, Product manufacture in household industry. Role of household product in day-to-day life.

Unit 2

- **Cleaning agents:**
 - Introduction, synthesis and applications of Natural cleaning agents, cleaning action, Floor cleaner, Toilet Cleaner, Bathroom Cleaner, Kitchen Cleaner

Unit 3

- **Technology of Soap:**
 - Chemistry of soap; Raw material for soap industry and their selection; hard fats yielding and oil yielding soaps; Chemical reactions of soaps; Hard and Soft soaps; Plant and process employed in soap manufacture; Liquid hand wash and liquid dish wash.

Unit 4

- **Detergents and surfactants:**
 - Introduction; Different terms used in detergents; Raw materials for detergents; Washing action of detergents; Types of detergents; Introduction of surfactants; Types of surfactants.

Recommended Books:

1. Small scale industries and house hold industries in developing economy by Shetty M.C.
2. Manufacture of perfume cosmetics and detergents by Giri Raj Prasad .
3. Industrial chemistry by B.K. Sharma
4. Flavours & Essential oils, Industries SBP Board
5. Perfumes soaps & cosmetics by Poucher.