



**CLUSTER UNIVERSITY SRINAGAR**  
**SYLLABUS (FYUP UNDER NEP 2020)**  
**Offered By Department of INDUSTRIAL CHEMISTRY**  
**Semester 1<sup>st</sup> Skill Enhancement Course (SEC)**

***Course Title: Beauty Care Products-I***

Course Code: UGICH22S101

Credits: 4 (Theory: 1, Practical: 3)

Contact Hrs: 105 (Theory: 15, Practical: 90)

Max. Marks 100

Theory External: 15; Min Marks: 06

Theory Internal (Continuous Assessment): 10 Marks, Min Marks: 04

Practical Experimental Basis= 45 Marks, Min. Marks: 18

Practical Internal (Continuous Assessment): 30 Marks, Min. Marks: 12

**Objectives:**

- To introduce students to skills of soap and detergent making.
- To acquaint the students with methods of soap and detergent manufacture

**Course Outcomes: After the completion of the course the students will be able to:**

- Understand raw materials and soap making process.
- Understand different types of soaps and their uses.
- Understand and learn the detergent making process.

**Unit I: Soaps & Detergents**

- Raw materials for Soap Industry: Oils and Fats, Alkalies, Surfactants, Builders, Fillers.
- Production of Soap Base. Manufacture of Soap by Direct Saponification. Manufacture of different types of Soaps.
- Synthesis of Detergents: Raw materials-Fatty Alcohols, Olefins, Normal Paraffins, Alkyl Benzene. Sulphonation of Raw materials.
- Manufacture of Finished Detergents: Powder Detergents, Liquid Detergents and Solid Detergents.

**PRACTICAL (Lab Course)**

**Unit II:**

- Hydrolysis of Coconut oil.
- Hydrolysis of animal fats.
- Acid Hydrolysis of Vegetable oils
- Preparation of soap from oils yielding slow lathering soap.
- Preparation of soap from oils yielding quick lathering soap

**Unit III**

- Preparation of soap by direct method using different edible oils Boiling and Cold Process (02)
- Preparation of soap by direct method using animal fats.
- Preparation of Metal soaps.
- Preparation of Transparent soaps.
- Preparation of Rose toilet soap by cold process.

**Unit IV**

- Preparation of Sulphur soap using coconut oil by Boiling Method.
- Preparation of Shaving Soaps.
- Preparation of liquid soap using different oils. (3 practicals).
- Preparation of detergent powder using different raw materials. (3 practicals)

**References:**

1. Handbook of Cosmetic Science and Technology; Barel, A.O, Paye M., Maibach H.I (2014); CRS Press.
2. Perfumes, Soaps, Detergents & Cosmetics; Bhatia S.C.; CBS Publishers & Distributors, New Delhi.
3. Text Book of Cosmetics; Garud A., Sharma P.K., Garud N.(2012); Pragati Prakashan.
4. Perfumes & Cosmetics; George William Askinson; Read Books Publishers.