**OPEN ELECTIVE – 4**

**COSMETICS AND PERSONAL CARE PRODUCTS**

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| Semester | II |
| Paper Code | CHOE-IV |
| Paper title | Cosmetics and Personal Care Products |
| Number of teaching hrs per week | 3 |
| Total number of teaching hrs per semester | 42 |
| Number of credits | 3 |

**Course Objectives:**

The objective of this course is to make students aware of the contents of personal care products, uses, harmful effects, caution about overuse and chemistry behind the ‘Cosmetics’.

**Course Specific Outcomes:** On completion of this course, students will be able to

1. Gain knowledge about the variety of cosmetic products and chemistry behind them.
2. Understand the meaning of the term ‘Cosmetics’.
3. Learn the history of cosmetics and importance of cosmetics.
4. Classify the cosmetic products into different categories.
5. Learn the chemistry employed in personal care products and major constituents in cosmetics.
6. Explain Harmful side effects of cosmetics and their cautious and judicious usage in daily life.
7. Identify the quality of cosmetic products by learning testing, packaging and labeling.
8. Gain knowledge about regulatory bodies and rules governing personal care products.
9. Understand the importance and health benefits of essential oils in cosmetic industries.

**Content of open elective- 4**

**Introduction to Cosmetics (6 h)**

Introduction, history of cosmetics, product types - aerosol, emulsion, gel, non-aerosol, solution and stick. Quality control. Testing-clinical testing, consumer testing, Draize test, efficacy testing, RIPT, salon testing. Herbal cosmetics - herbs used in cosmetics, hazardous chemicals in cosmetics.

Cosmetic packaging and labeling, How to read PCP (Personal Care Product) label, cosmetic regulations and laws - Food, Drug and Cosmetic Act (FD&C Act), Fair Packaging and Labeling Act (FPLA). Cosmetic industry - a boon for Indian economy.

**Perfumes (2 h)**

Types of perfumes, raw materials in perfumery, production of natural perfumes, flower perfumes. Deodorants, anti-perspirants.

**Hair care products (6 h)**

Hair care and nutrition, shampoos – principal constituents – thickeners and foam stabilizers – perfumes – preservatives - conditioning agents – anti-dandruff shampoos.

Hair cream – composition – hair gels - hair dyes – types – constituents - dye removals.

**Skin care Products (7 h)**

Skin care basics and routine- acne on skin, prevention and remedies - skin cleansers - face wash – classifications- toners – cold cream – cleansing milk – moisturizers – hand and body lotions - skin tan – sun screen lotions – constituents, exfoliants, tattoos and tattoo ink - How safe are they?

**Colour Cosmetics (7 h)**

Pigments/coloring agents and dyes-lakes and tones-history of pigments and dyes in cosmetics. Lipstick – constituents- manufacturing methods – evaluation of lipsticks - lip glosses - nail polish – formulation - manufacture-nail polish remover- face powder- constitution, facial masks, color coding in cosmetics, harmful effects of color cosmetics.

**Dental Products (6 h)**

Structure of tooth, dental hygiene, dental caries, oral care product - product categories – tooth paste – tooth powder – oral rinses – mouth washes –dental sealants, dental floss-tooth whiteners-comparison between synthetic and herbal oral products.

**Eye cosmetics (4 h)**

Eye shadows, under-eye concealers, eye-liners, mascaras, artificial eyelashes, and eyebrow pencils, eye makeup removers.

**Essential oils and their importance in Cosmetic Industry (4 h)**

Eugenol, geraniol, sandalwood oil, Eucalyptus oil, rose oil, 2-phenyl ethyl alcohol, jasmine, civetone, muscone - health benefits of essential oils.

**REFERENCES**

1. *Modern Technology of Cosmetics*, Asia Pacific Press Inc, New Delhi, 2004.
2. E. Stocchi*: Industrial Chemistry*, Vol 1, Ellis Horwood Ltd. UK, 1990.
3. P.C Jain, M. Jain: *Engineering Chemistry*, 16th edition, Dhanpat Rai & Sons, Delhi, 2015.
4. Sharma B.K & Gaur H, *Industrial Chemistry,* Goel Publishing House, Meerut (1996).

**Pedagogy:** ICT tools, Chalk & Talk, Models & Charts.

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| **Formative Assessment (Internal assessment) Theory** | |
| **Assessment Occasion/ type** | **Weightage in Marks** |
| Continuous evaluation and class test | 20 |
| Seminars/Class work | 10 |
| Assignments/Discussions | 10 |
| **Total** | 40 |