



# GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Pharmacy

Subject Code: BP809TT

SEMESTER: VIII

Subject Name: Cosmetic Science

**Scope:** To understand the classification of cosmetics and cosmeceutical products as per Indian and EU regulations. This subject deals with principles of formulation and the building blocks of skin care products, classification of sunscreens and sun protection factor, the role of herbs in cosmetics with their analytical methods, principles of cosmetic evaluation. The subject also includes about oily and dry skin, causes leading to dry skin, skin miniaturization as well as a basic understanding of the terms covering cosmetics.

**Objectives:** Upon completion of the course the student shall be able to

1. To know and explain about cosmetics, and related sciences, cosmeceuticals (cosmetics with skin, hair and oral care benefits) and personal care and hygiene products.
2. To demonstrate practical skills in the area of biology, formulation science and analytical techniques required to scientifically design and develop various cosmetic products.
3. To describe about basic cosmetic problems associated with skin, hair and oral care etc.

**Teaching scheme and examination scheme:**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	Theory		Practical	
				External	Internal	External	Internal
3	1	0	4	80	20	0	0

Sr No	Topics	% weightage
1.	Classification of cosmetic and cosmeceutical products Definition of cosmetics as per Indian and EU regulations, Evolution of cosmeceuticals from cosmetics, cosmetics as quasi and OTC drugs <b>Cosmetic excipients:</b> Surfactants, rheology modifiers, humectants, emollients, preservatives. Classification and application <b>Skin:</b> Basic structure and function of skin. <b>Hair:</b> Basic structure of hair. Hair growth cycle. <b>Oral Cavity:</b> Common problem associated with teeth and gums.	10
2.	<b>Principles of formulation and building blocks of skin care products:</b> Face wash, Moisturizing cream, Cold Cream, Vanishing cream and their advantages and disadvantages. Application of these products in formulation of cosmeceuticals. <b>Antiperspirants &amp; deodorants-</b> Actives & mechanism of action. <b>Principles of formulation and building blocks of Hair care products:</b> Conditioning shampoo, Hair conditioner, anti-dandruff shampoo. Hair oils. Chemistry and formulation of Para-phenylene diamine based hair dye. Principles of formulation and building blocks of oral care products: Toothpaste for bleeding gums, sensitive teeth. Teeth whitening, Mouthwash.	10
3.	Sun protection, Classification of Sunscreens and SPF. <b>Role of herbs in cosmetics:</b> Skin Care: Aloe and turmeric Hair care: Henna and amla. Oral care: Neem and clove <b>Analytical cosmetics:</b> BIS specification and analytical methods for shampoo, skin cream and toothpaste.	10



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4.	Principles of Cosmetic Evaluation: Principles of sebumeter, corneometer. Measurement of TEWL, Skin Color, Hair tensile strength, Hair combing properties Soaps, and syndet bars. Evolution and skin benefits.	8
5.	Oily and dry skin, causes leading to dry skin, skin moisturisation. Basic understanding of the terms Comedogenic, dermatitis. Cosmetic problems associated with Hair and scalp: Dandruff, Hair fall causes Cosmetic problems associated with skin: blemishes, wrinkles, acne, prickly heat and body odor. Antiperspirants and Deodorants- Actives and mechanism of action	7

### References

- 1) Harry's Cosmeticology, Wilkinson, Moore, Seventh Edition, George Godwin.
- 2) Cosmetics – Formulations, Manufacturing and Quality Control, P.P. Sharma, 4<sup>th</sup> Edition, Vandana Publications Pvt. Ltd., Delhi.
- 3) .Drugs and Cosmetic act/rules by govt. of India Publication
- 4) European Union regulation for cosmetics.
- 5) Poucher's Perfumes, Cosmetics and Soaps, Hilda Butler, 10th Edition, Kluwer Academic Publishers
- 6) Handbook of Cosmetic Science and Technology, 3rd Edition, André O. Barel, Marc Paye, Howard
- 7) Pulok K. Mukherjee. Quality Control Herbal Drugs Business Horizons; Reprint 2012 edition
- 8) Trease, G.E. and Evans, W.C. "Trease and Evans' Pharmacognosy" WB Saunders Co.