**R.C.Patel Arts, Commerce & Science College, Shirpur**

**Department of Botany**

**Value Added on Herbal Cosmetics 2023-2024**

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**AIMS AND OBJECTIVES**

1. To know concept of active compounds of medicinal plants.
2. To know importance of plants in herbal cosmetics industry.
3. To study plants having medicinal use.
4. To prepare various herbal cosmetics & their use.
5. To know the basics ideas of marketing of the herbal products.

**Course Outcomes**

 After successfully completing this course, students will be able –

 CO 1. Students get the knowledge about various herbs used in herbal cosmetics.

 CO 2. Skill of herbal cosmetics preparation is gain through practical experience.

 CO 3. Exhibition and selling of prepared herbal product inside college campus for Teachers and students provides knowledge about communication and marketing skills.

 CO 4. Market visit helps in getting knowledge about demand for herbal cosmetics Products and resources of raw material for herbal product preparation.

 **Duration of the course**

* One Month

**Timing of the course**

* Two Hours a day.

**Eligibility Criteria**

* For B.Sc. Student.

**Criteria for completion**

* The student must have attended at least 80% of the lectures and completed all assignment

**Syllabus**

**Value Added on Herbal Cosmetics**

**Total period: - 30 Credits:-02**

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| **1** | **Introduction to Cosmetics and Cosmeceuticals** |
|  |  | * History and Evolution of Cosmetics Science
* Need for study of Cosmeceuticals
* New Advances in the field of Cosmeceutical
 |
| 2. |  | **Anatomy and Physiology of Skin and Hair** |
|  |  | * Anatomy and Physiology of Skin
* Pathology of skin hair and nails
* Process of skin healing
 |
| 3 |  | **Analytical Techniques for Cosmetic Products Evaluation** |
|  |  | * Quantitative and Qualitative Methods of determination of Compounds
* Ion Exchange Chromatography, Size Exclusion Chromatography
* Analytical Techniques and Principles Gel Electrophoresis, HPLC
* Spectroscopical Methods of Analysis
 |
| **4** |  | **Herbal Drug Technology** |
|  | * Definition of herb, herbal medicine, herbal medicinal product
* Herbal drug preparation Source of Herbs, Selection, identification and authentication of herbal materials
* Processing of herbal raw material
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|  |  |
| 5 |  | **Good Manufacturing Practices & Quality Assurance in Cosmetic Technology** |
|  |  | * GMP guidelines for Cosmetic Products
* Quality Audits Procedures
* Regulatory Compliances
 |
| **6** |  | **Herbal Product Development and Cosmetic Formulations** |
|  |  | * Methods of Herbal Product Development
* Screening, Standardization and Identification Procedures
* Process of Cosmetic Product Development
 |
| **5** |  | **Herbal Hair and Oral Care Cosmetics** |
|  |  | * Formulation of Herbal Hair shampoos, Herbal Hair Conditioners, Hair Oils
* Formulations of Herbal Tooth Pastes, Mouth Washes, Oral Floss
* Evaluation of oral care formulations
 |

**Reference Book**

1. Lal BB. *The Saraswati Flows on: The Continuity of Indian Culture.* 2002.

2. Mahabharata (Critical Edition) Pune: Bhandarkar Oriental Reseach Institute. *Viratparva.* Chap.3:17, 8:16, Aadiparva. Chap.213:44.

3. Lad GP. *Archeology and Mahabharata.* Pune: Deccan College Postgraduate Research Institute; 1978. Part I. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=Archeology+and+Mahabharata&author=GP+Lad&publication_year=1978&)]

4. Patkar KB, Bole PV. *Herbal cosmetics in ancient India with a treatise on planta cosmetica.* Bharatiya Vidya Bhavan Mumbai, India Mumbai: World Wide Fund for Nature; 1997. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=Herbal+cosmetics+in+ancient+India+with+a+treatise+on+planta+cosmetica&author=KB+Patkar&author=PV+Bole&publication_year=1997&)]

5. Rao SA. In: *Sri Sarabhendra Vaidya Ratnavali.* Krishnaswami Mahadick., editor. Saraswati Mahal Library: Tanjore; 1952. p. 277. 351,354,359,381. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=Sri+Sarabhendra+Vaidya+Ratnavali&author=SA+Rao&publication_year=1952&)]

6. Mukerji B. *The Indian Pharmaceutical Codex-Council of Scientific and Industrial Research.* New Delhi: 1953. pp. 223–228. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=The+Indian+Pharmaceutical+Codex-Council+of+Scientific+and+Industrial+Research&author=B+Mukerji&publication_year=1953&)]

7. Rao KV. Contributions to the Study of Economic plants. *Study of vegetable drugs sold on pavements of Bombay.*1967:256. (In two Volumes) [[Google Scholar](https://scholar.google.com/scholar_lookup?journal=Study+of+vegetable+drugs+sold+on+pavements+of+Bombay&title=Contributions+to+the+Study+of+Economic+plants&author=KV+Rao&publication_year=1967&pages=256&)]

8. Watson JF. In: *Index to the native and scientific names of economic plants.* Eyre GE, Spottiswoods W, editors. London: 1866. p. 412. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=Index+to+the+native+and+scientific+names+of+economic+plants&author=JF+Watson&publication_year=1866&)]

9. *Anon.- Maharashtra State Gazetteer.* Vol.A. Mumbai: Bot Gen Miscellaneous Plants-Govt Printing Press; 1961. p. 84. Part III. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=Anon.-+Maharashtra+State+Gazetteer&publication_year=1961&)]

10. Mishra J. *Shri Kamaratnam-Nityanath virachitam (13th Century. A.D.)* Kalyan, Mumbai: Lakshmi-Venkateswar Press Prakashan; 1897. p. 93. Chap.5:60. [[Google Scholar](https://scholar.google.com/scholar_lookup?title=Shri+Kamaratnam-Nityanath+virachitam+(13th+Century.+A.D.)&author=J+Mishra&publication_year=1897&)]