



# SS INSTITUTE OF PHARMACY

(A unit of VS Educational & Charitable Trust)

Approved by Tamilnadu Government & Pharmacy Council of India, New Delhi.

Affiliated to the Tamilnadu Dr. M.G.R. Medical University, and

The Directorate of Medical Education, Chennai.

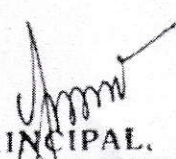
## VISION

- To establish a premier, globally recognized institute excelling in pharmacy education, to nurture highly competent pharmacy professional to the society

## MISSION

- Our mission is to empower students from rural regions, transforming them into skilled and responsible citizens who will play a key role in advancing our nation.
- To collaborate with leading pharmacy organization to develop their skills and to train students in pharmaceutical science to meet both national and global demands.
- To lead in pharmaceutical education by combining critical thinking, problem-solving, and professional skills.
- To develop and support emerging pharmacy professionals who can excel and lead in the pharmaceutical industry.



  
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SS INSTITUTE OF PHARMACY,  
KUPPANUR (PO), SANKARI (TK),  
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## BP 603 T: HERBAL DRUG TECHNOLOGY (Theory)

**Total Hours: 45**

### Scope:

This subject gives the student the knowledge of basic understanding of herbal drug industry, the quality of raw material, guidelines for quality of herbal drugs, herbal cosmetics, natural sweeteners, nutraceutical etc. The subject also emphasizes on Good Manufacturing Practices (GMP), patenting and regulatory issues of herbal drugs

### Objectives:

Upon completion of this course the student should be able to:

understand raw material as source of herbal drugs from cultivation to herbal drug product

know the WHO and ICH guidelines for evaluation of herbal drugs 3. know the herbal cosmetics, natural sweeteners, nutraceuticals 4. appreciate patenting of herbal drugs, GMP .

### Course content:

#### UNIT-I

**11 Hours**

#### Herbs as raw materials

Definition of herb, herbal medicine, herbal medicinal product, herbal drug preparation

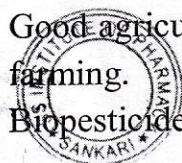
Source of Herbs

Selection, identification and authentication of herbal materials Processing of herbal raw material

#### Biodynamic Agriculture

Good agricultural practices in cultivation of medicinal plants including Organic farming. Pest and Pest management in medicinal plants.

Biopesticides/Bioinsecticides.



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## Indian Systems of Medicine

Basic principles involved in Ayurveda, Siddha, Unani and Homeopathy

Preparation and standardization of Ayurvedic formulations viz Aristas and Asawas, Ghutika, Churna, Lehya and Bhasma.

## UNIT-II

7 Hours

### Nutraceuticals

General aspects, Market, growth, scope and types of products available in the market. Health benefits and role of Nutraceuticals in ailments like Diabetes, CVS diseases, Cancer, Irritable bowel syndrome and various Gastro intestinal diseases. Study of following herbs as health food: Alfaalfa, Chicory, Ginger, Fenugreek, Garlic, Honey, Amla, Ginseng, Ashwagandha, Spirulina

### Herbal-Drug and Herb-Food Interactions:

General introduction to interaction and classification. Study of following drugs and their possible side effects and interactions: Hypercium, kava-kava, Ginkobiloba, Ginseng, Garlic, Pepper & Ephedra.

## UNIT-III

10 Hours

### Herbal Cosmetics

Sources and description of raw materials of herbal origin used via, fixed oils, waxes, gums colours, perfumes, protective agents, bleaching agents, antioxidants in products such as skin care, hair care and oral hygiene products.

Herbal excipients:

**Herbal Excipients** – Significance of substances of natural origin as excipients – colorants, sweeteners, binders, diluents, viscosity builders, disintegrants, flavors & perfumes.



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## **Herbal formulations :**

Conventional herbal formulations like syrups, mixtures and tablets and Novel dosage forms like phytosomes

## **UNIT- IV**

**10 Hours**

**Evaluation of Drugs** WHO & ICH guidelines for the assessment of herbal drugs  
Stability testing of herbal drugs.

### **Patenting and Regulatory requirements of natural products:**

Definition of the terms: Patent, IPR, Farmers right, Breeder's right, Bioprospecting and

Biopiracy

Patenting aspects of Traditional Knowledge and Natural Products. Case study of Curcuma & Neem.

**Regulatory Issues** - Regulations in India (ASU DTAB, ASU DCC), Regulation of manufacture of ASU drugs - Schedule Z of Drugs & Cosmetics Act for ASU drugs.

## **UNIT-V**

**07 Hours**

### **General Introduction to Herbal Industry**

Herbal drugs industry: Present scope and future prospects.

A brief account of plant based industries and institutions involved in work on medicinal and aromatic plants in India.

### **Schedule T – Good Manufacturing Practice of Indian systems of medicine**

Components of GMP (Schedule – T) and its objectives



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