

## Medicinal Plant Expert Assistant

1. Department: Botany
2. Title: Medicinal Plant Expert Assistant
3. Sector:- B.Sc. I (Botany)
4. Year of implementation: 2024-2025

### Course Structure

Skill Level	Theory Hours	Practical Hours	Total Hours	Credits	No. of students in batch
4	15	30	45	02	32

### Syllabus

#### Learning Objectives:

1. To give knowledge about the medicinal plants and their medicinal properties
2. To identify medicinal plants in surrounding region

#### Theory Syllabus (15 Hrs, Credit: 01)

##### Unit I: Roles and Responsibilities

Nature of working relationship, Duties and Responsibilities, Government Policies or Company Policies for job role, Document writing and their record management, Activity Plan.

##### Unit II: Survey of medicinal plants and pharmacological studies of following medicinal plants.

- *Aloe vera* (L.) Burm. f. (Korphad)
- *Curcuma longa* (Turmeric)
- *Zingiber officinale* (Adrak)
- *Oscimum sanctum* (Tulasi)
- *Phyllanthus emblica* L. (Amala)
- *Justicia adhatoda* L. (Adulasa)

**Practical Syllabus (30 Hrs, Credit:01)****List of Experiments****24 hrs**

- 1-2. Study of medicinal plants with respect to Botanical name, classification, plant parts used and medicinal uses.
3. Screening of bioactive compounds in *Curcuma longa*, *Aloe vera* and *Zingiber officinale*.
4. Screening of bioactive compounds in *Ocimum sanctum*, *Phyllanthus emblica* L. and *Justicia adhatoda* L.
5. Preparation of aloe vera gel, alepak and ginger candy.
6. Preparation of *Curcuma* tablets, Adulasa syrup and dry decoction of tulasi.
7. Preparation of amala candy and amala syrup.

**Field Visit to Arkashala or herbal processing unit****06 hrs****Learning Outcomes:**

After completion of the course students are able to

1. Identify medicinal plants.
2. Extract bioactive components.

**Recommended Books:**

1. Dr A Husain, **Central Institute of Medicinal and Aromatic Plants**, Lucknow, India
2. Dr M J Plotkin, **Conservation International**, Washington, DC, USA
3. Ram P Rastogi; B N Mehrotra; Shradha Sinha; Pushpa Pant; Renu Seth (1990).  
**Compendium of Indian medicinal plants.** Volume 1 – 6.

**BOS Sub Committee:**

1. Prof.(Dr.)D. D. Namdas- Chairman
2. Dr. S. V. Deshmukh – Member

**Expert:**

1. Dr. H. S. Patil – Academic Expert
2. Dr. Girish Badave – Industrial Expert