

CLUSTER UNIVERSITY SRINAGAR

Amar Singh College, Srinagar

Subject- Botany

UG: Semester 3rd

Credits -04 (01 Theory+03 Practical)

Code: UGBOT22S303

Syllabus for Skill Enhancement Course (SEC)

Marks: 25+75

Course Objective: To acquaint the student with the importance of plants used in modern and Ayush methods of treatment.

Medicinal and Aromatic Plants (MAPS) III

Theory

UNIT I

Pharmacognosy: Concept and History

Drug: Definition and Classification

Drug: Adulteration and Types.

Types of metabolites: Primary and Secondary metabolites

Plant secondary metabolites of medicinal importance: Alkaloids, Glycosides and sterols (Brief account).

Sources and uses of Morphine, Atropine, Codeine and Ephedrine in modern medicine.

Practicals

UNIT 2

Identification of drugs by morphological characters and physical tests for evaluation of drugs.

Gross anatomical studies of Ginger (rhizome), *Artemisia* (stem and leaf), Mint (Stem and leaf) and *Crocus* (corm).

Surveys for documenting different methods of use and application of Ethnomedicine in Tribal communities (Project report).

UNIT 3

Preparation and compilation of MAPs inventory with photographs of some local medicinal and aromatic plants by each student.

Microscopically study the mucilage from the seeds of *Ocimum* and *Cydonia*.

UNIT 4

Visit to local market and data collection of sale and sale procedures.

Internet surfing for latest market value of high value of medicinal and aromatic plants.

Post harvesting and processing of following plant species:

Artemisia sps; *Acorus calamus*; *Asparagus racemosus*; *Lavendula angustifolia*, *Ocimum* sps.

Suggested Books:

1 Alikhan I. and Khanum A. 2008. Role of Biotechnology in Medicinal and Aromatic Plants. UKAZ Publ.

2 CB and Franz C. 2005. Breeding Research on Aromatic and Medicinal Plants. International Book Distr.

3 Chandha K. L. and Gupta R. 2006. Advances in Horticulture Vol. XI. Medicinal and Aromatic Plants,

4 Gupta A. K, Tandon N. and Sharma M. 2008. Quality Standards of Indian Medicinal Plants.

5 Malhotra Publ. House. Gupta AK and Sharma M. 2008. Reviews on Indian Medicinal Plants. ICMR.

6. Sharma R. 2004. Agrotechniques of Medicinal Plants. Daya Publ.