



MANONMANIAM SUNDARANAR UNIVERISTY,
TIRUNELVELI-12
SYLLABUS



CERTIFICATE COURSE IN HERBAL SCIENCE

Subject Status	Subject Title	Subject Code
Core	Phytomorphology & Taxonomy of Medical Plants	HST1
Core	Herbal Medicine	HST2
Practical	Practical	HSL1
Project	Project	HSP1



PHYTOMORPHOLOGY & TAXONOMY OF MEDICINAL PLANTS

Unit – 1

Introduction of medicinal plants from Indigenous systems (Ayurvedha, Siddha, Unani, Homeopathy, Traditional and Ethnomedicines). Brief study on morphology of the plants with special reference to root, stem, leaves, flowers, fruits and seeds and their special modifications.

Unit – 2

Medicinal plants diversity of South India. Important medicinal plants, aromatic plants and neutraceutical plants, Examples from Algae, Fungi, Lichens, Pteridophytes, Gymnosperms, Gymnosperms and Angiosperms. Special reference to the Medicinal plants of Kanyakumari District.

Unit – 3

Critical studies of the following families of medicinal importance with their distinguishing features: Acanthaceae, Asclepiadaceae, Apocyanaceae, Euphorbiaceae, Lamiaceae, Malvaceae, Fabaceae, Poaceae, Rubiaceae, Rutaceae, Solanaceae and Zingiberaceae (common and frequently used medicinal plants of the above families with their local name(s), scientific name, Trade name, Habit, Geographical distribution, parts used and curable diseases.

Unit – 4

Collection of plants, preparation of herbarium and its maintenance. Identification of medicinal plants: Literature survey, Field observation, Museum, Herbarium and Traditional Medicinal Practice. Medicinal plants from different ecological conditions (xerophytes, mesophytes and hydrophytes with their adaptations). Role of Sacred Groves in Medicinal Plants Conservation. Special reference to major sacred Groves in Kanyakumari district.

Unit – 5

Conservation of medicinal plants – In-situ practices: Medicinal Plants conservation Areas (MPCA) and Ex-situ practices: Field Gene Bank, Botanic Gardens, Cryopreservation and Micropropagation). Reasons for dwindling of medicinal plants. Threatened Endemic Medicinal Plants of South India. Special reference to Kanyakumari District.

References

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7. Lawrence, G.H.M. 1973. Taxonomy of Vascular plants. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
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9. Majumdar, A. 2002. Home Remedies in Ayurveda. Amar Granth Publications, Delhi.
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12. Nadkarni, K.M. 2004. Indian Plants and Drugs with Their Medical Properties and Uses. Srishti, New Delhi.
13. Nair, C.K.N. and Mohanan, N. 1998. Medicinal Plants of India: With Special Reference to Ayurveda. Nag Publishers, Delhi.
14. Pandey, B.P., 1995. Angiosperms. S. Chand & Co. Ltd., New Delhi.
15. Subramanyam, N.S., 1995. Modern Plant Taxonomy. Vikas Publishing House Pvt. Ltd., New Delhi.
16. The Wealth of India. 2001. A Dictionary of Indian Raw Materials & Industrial Products: First Supplement Series (Raw materials) Vol. 2 : C1 – Cy. National Institute of Science Communication.
17. The Wealth of India. 2002. A Dictionary of Indian Raw Materials & Industrial Products : First Supplement Series (Raw Materials) Vol. 3 : D – I. National Institute of Science Communication, New Delhi.
18. The Wealth of India. 2003. A Dictionary of Indian Raw Materials & Industrial Products : First Supplement Series (Raw Materials) Vol. 4 : J – Q. National Institute of Science Communication and Information Resources, New Delhi.



HERBAL MEDICINE

Unit – 1

Scope and importance of herbal medicine – Need for the study of medicinal plants. Indigenous Systems of Medicine – Siddha, Ayurveda, Unani, Homeopathy, Tribal medicine, Grand mother medicine and Home remedies. Role of herbs in preventive and rejuvenating health care.

Unit – 2

Medicinal plants biodiversity – common, economically valuable and therapeutically important medicinal plants used in different systems of medicine with reference to their local name, scientific name, trade name, habit, origin, useful part and their uses for treating various diseases : Abrus precatorius, Acalypha indica, Acorus calamus, Adhatoda vasica, Aegle marmelos, Aerva lanata, Andrographis paniculata, Aristolochia indica, Asparagus racemosus, Azadirachta indica, Bacopa monnieri, Boerhavia diffusa, Borassus flabellifer, Calotropis gigantea, Carica Papaya, Centella asiatica, Cinnamomum zeylanicum, cissus quadrangularias, clitroia terntatea, coculus hirsutus, coleus amboinicus, curcuma aromatic, C. longa, Cylcea peltata, Cyperus rotundus, Datura metel, Dodonaea viscosa, Eclipta alba, Enicostemma littorale.

Unit – 3

Medicinal plants biodiversity – common, economically valuable and therapeutically important medicinal plants used in different systems of medicine with reference to their local name, scientific name, trade name, habit, origin, useful part and their uses for treating various diseases: Ficus benghalensis, Ficus religiosa, Gloriosa superb, Gymnema sylvestre, Hemidesmys indicus, Hygrophila auriculata, Hybanthus enneaspermus, Indigofera aspalathoides, I. enneaphylla, I. tinctoria, Momordica charnata, Naringi crenulata, Ocimum gratissimum, Ocimum teneuiflorum, Pavonia odorata, Phyllanthus amarus, piper longum, plumbago zeylanica, Rauwolfia serpentina, santalum albus, sida cordifolia, solanum trilobatum, Terminalia chebula, Tinospora cordifolia, Trichopus zeylanicus subsp. Travnacoricus, Tribulus terrestris, Tylophora indica, Vernonia cinerea, vetveria zizanoides and vitex negundo.

Unit – 4

Collection, cultivation, Harvesting, Storage and Marketing Techniques of economically important medicinal plants with reference to: Abelmoschus moscahtus, Acorus calamus, Acacia catechu, Adathoda beddomei, Aloe vera, Baliospermum montanum, Cassia senna, Coscinium fenenstratum, Caesalpinia sappan, Catharanthus roseus, Coleus aromaticus, Coleus zeylanicus, Curcuma amada, Hemidesmus indicus, Holostemma ada-kodien, Indigofera tinctoria, Piper longum, Plumbago zeylanica, strychnos nux-vomica, Terminalia chebula, Trichopus zeylanicus subsp, travancoricus, Tinospora cordifolia, Vamilla frgrams, etc.,



Unit – 5

Marketing of Medicinal Plants. Important Indian Medicinal Plants in local trade and export. Quality control methods. Prevention of adulteration and substitution.

References

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PRACTICAL

1. Study on medicinal part: root, stem, bark, leaves, flowers, fruits, seeds, gum, resins, etc.,
2. Field identification of medicinal plants including the documentation of medicinal flora.



3. Identification of medicinal plants, parts used and their uses in Indigenous Systems of Medicine (Ayurvedha, Siddha, Unani and Homeopathy).
4. Survey of medicinal plants with reference to different ecosystems of Kanyakumari district such as plains forests, wetlands etc.,
5. Ethnomedicines.
6. Preparation of herbarium and storage (Herbaira, Museum)
7. Field data and submission.

PROJECT

1. Survey of medicinal plants.
2. Ethnomedicines
3. Survey of medicinal plants in sacred groves.
4. Endemic and Threatened Medicinal plants.
5. Survey of economically important medicinal plants in trade.

