

# G.VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS)

(Re-Accredited with "A" Grade by NAAC)

Department of B.Sc., Botany

## U23BO6OE - TRADITIONAL LIFE SCIENCES AND ECOLOGICAL KNOWLEDGE IN IKS

Course Code	Course Title	Category	Lecture	Tutorial	Practical	Credit
U23BO6OE	Traditional Life Sciences and Ecological Knowledge in IKS	Open Elective	0	0	0	3

Year	Semester	Internal Marks (CIA)	External Marks (ESE)	Total Marks
III	VI	0	100	100

### Course Objective

- To introduce the fundamental principles and scope of the Indian Knowledge System (IKS)
- To explore traditional health and wellness practices, especially Ayurveda, Yoga, and Dinacharya
- To understand the integration of ecological knowledge with traditional life sciences and healthcare
- To study the identification, classification, and medicinal applications of native and traditional plants
- To promote awareness of the nutritional and therapeutic value of commonly used fruits, vegetables, and herbs in daily life

### Course Outcomes (COs)

On the completion of the course the student will be able to

CO	Course Outcome	Knowledge Level (RBT)
CO1	understand the concept, scope, and relevance of Indian Knowledge System (IKS) in ancient and modern times.	K1,K2,K3,K4,K5
CO2	explain the principles of Ayurveda, Yoga, and Dinacharya for maintaining health and wellbeing.	K1,K2,K3,K4,K5
CO3	analyze traditional plant-based knowledge and herbal medicine systems in the context of ecology and holistic health.	K1,K2,K3,K4,K5
CO4	identify and describe the therapeutic uses of traditional medicinal plants, especially those found in Tamil Nadu.	K1,K2,K3,K4,K5
CO5	evaluate the nutritional and medicinal value of commonly used plants, fruits, and vegetables in daily life.	K1,K2,K3,K4,K5

K1–Remember; K2–Understand; K3–Apply; K4–Analyze; K5–Evaluate; K6–Create

### CO-PO and CO-PSO Mapping (Course Articulation Matrix)

COs	POs							PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
Total	0	0	0	0	0	0	0	0	0	0

(3-Strong, 2-Medium, 1-Low, -No Correlation)

### Course Content

#### Unit I Introduction to Indian Knowledge System

Self Study

Introduction to IKS- Definition, Concept and Scope of IKS, IKS based approaches on Knowledge Paradigms, IKS in ancient India and in modern India

#### Unit II Importance of Health& Wellness in IKS

Self Study

Ayurveda -Importance of Sleep and Food, Role of water in wellbeing, Yoga and Trigu?a System .Healthy regimen to maintain state of wellbeing, Dinacharya, the Daily regimen including Daily detoxification, exercise,

Intake of Food, Water, Air and Sunlight, work and ergonomics, Rest and sleep hygiene.

### **Unit III Life sciences, Environment, and Health in IKS**

Self Study

Traditional Life Sciences: Understanding plant-based knowledge systems – identification, uses, and classification of medicinal plants in Ayurveda.

### **Unit IV Traditional knowledge and utility of some medicinal plants.**

Self Study

Traditional knowledge and utility of some medicinal plants in Tamilnadu – *Solanum trilobatum*, *Cardiospermum halicacabum*, *Vitex negundo*, *Adathoda vasica*, *Azadirachta indica*, *Gloriosa superba*, *Eclipta alba*, *Aristolochia indica*, *Phyllanthus fraternus* and *Boerhaavia diffusa*.

### **Unit V Plants in day today life**

Self Study

*Ocimum sanctum*, *Centella asiatica*, *Solanum trilobatum*, *Cassia auriculata*, *Aloe vera*. Nutritive and medicinal value of some fruits (Guava, Sapota, Orange, Mango, Banana, Lemon, Pomegranate) and vegetables - Greens (*Moringa*, *Solanum nigrum*) Cabbage.

#### **Reference Books**

1. Dash, B. 1998. *Ayurvediya Triskandha Kosha – A Textbook of Ayurveda*. Concept Publishing Company, New Delhi.
2. Pullaiah, T., Krishnamurthy, K.V., and Bahadur, B. (Eds.). 2016. *Ethnobotany of India – Volume I to V*. Apple Academic Press, New Delhi.
3. Singh, B.R. (Ed.). 2007. *Traditional Knowledge System in India*. D.K. Printworld, New Delhi.
4. Nadkarni, K.M. 2002. *Indian Materia Medica – Vol I & II*. Asiatic Publishing House, New Delhi.

#### **Web Resources**

1. <https://iksindia.org/ebook.php>
2. <https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.lkouniv.ac.in/site/writereaddata/siteContent/20200>

#### **Course Designer**

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