

**Indian Knowledge System and Mental Health Applications (IKSMHA) Centre,
IIT Mandi**

COURSE TITLE: SELECTED TOPICS IN AYURVEDIC BIOLOGY

Focus Area/Subject Area: Ayurvedic Biology

Credits: 3

Eligibility: UG/PG/PhD/Research Scholar

Details of the Instructor: Dr Subhash Singh, Visiting Instructor, IIT Mandi

Course Objectives:

- Ayurveda is a holistic approach to health and personalized medicine, known as the science of life.
- It is one of the oldest medical systems, containing thousands of medical concepts and hypotheses.
- Ayurveda has potential in treating chronic diseases like cancer, diabetes, arthritis, and asthma, which often remain untreatable in modern medicine.
- Currently, Ayurveda is trailing behind modern medical practices due to a lack of scientific validation for many of its concepts.
- There is a critical need for evidence-based research to gain global recognition and acceptance of Ayurveda.
- Advancements in research methodologies are essential for properly validating Ayurvedic treatments and practices.
- Implementing Ayurveda teachings at institutions like IIT Mandi can enhance healthcare personnel's understanding and capabilities.
- Scientific research in Ayurveda can also promote career growth for students and increase the global acceptance of this traditional Indian medical system.

Learning Outcome:

- Teaching Ayurveda will enhance the knowledge and skills of healthcare personnel.
- It promotes understanding of a holistic approach to health and personalized medicine.
- Scientific research in Ayurveda will open new career paths for students.
- Research contributes to the scientific validation and credibility of Ayurvedic practices.
- Increased credibility will promote global acceptance of Ayurveda as a valid system of traditional medicine.

SYLLABUS

Unit 1: Origin of life as per Sankhya Darshan [10 hours]

The creation and nature of the universe, the origin of ego (Mahan and Ahankar), the development of senses (Indriyas), types of senses, the origin of elements (Tanmatra), and the classification of matter (Prakriti and Vikriti). It also delves into the description of 13 elements, the concept of the individual soul (Jeevatma), the similarities and differences between Prakriti and Purusha, the qualities of the soul, and the attributes of the mind and the five great elements.

Unit 2: Shukra Shonit Suddhi Shariram [10 hours]

The section covers various aspects related to reproductive health and conception in the context of Ayurveda. It covers topics such as the doshas related to Shukra and Veerya, the characteristics of pure semen and healthy menstrual flow, the structure of the reproductive organs, symptoms and treatments for various disorders like Alpipedrut Rakt Pradar and Nastartav. It also details rituals and practices related to conception, fertility, and parental care, including the influence of diet and lifestyle. It delves into unique concepts like multiple pregnancies, various types of embryos, and the impact of thoughts and dreams on conception, emphasizing the importance of natural processes in maintaining a healthy pregnancy.

Unit 3: Shonit varneeeya Adhyay ka upkram [7 hours]

The section explores the concept of "Ras" in Ayurveda, detailing its definition, functions, and role in the formation of blood and other bodily tissues. It describes the origin of blood from Ras and its connection to the five elemental principles. It emphasizes the importance of proper nutrition, especially the role of Ras in nourishing all bodily tissues. It discusses the impact of age on Ras production and the significance of maintaining pure blood for overall health. The section concludes with insights into disorders related to impure blood and the characteristics of individuals with healthy blood in the context of Ayurveda.

Unit-4: Katidha Purusheeyam Shareeram [10 Hours]

The section delves into various philosophical and metaphysical aspects from an Ayurvedic perspective. It discusses the differentiation of individuals based on Dhatu (tissues) according to Vaishesik and Nyaya Darshan. It explores the nature and attributes of the mind, including its qualities and functions. It elaborates on the creation of the soul (Purush), its eternal nature, and its relationship with the body. It addresses the concept of Kshetragya (consciousness) and Kshetra (body), discussing their respective origins. Additionally, it explores the causes of suffering, the nature of sensations, and the path to liberation through yoga and self-realization, offering insights into the Ayurvedic perspective on holistic well-being.

Unit 5: Nidra Vimarsh (Sleep) [5 Hours]

The section explores the concept of Nidra (sleep) in Ayurveda, defining its nature, causes of sleep disorders, and the significance of proper sleep. It emphasizes the benefits of adequate sleep and discusses suitable sleeping practices in different seasons. The section also highlights various sleep-related conditions and their symptoms, focusing on the impact of sleep on overall well-being and doshic constitutions.

Text books:

1. CC Chatterjee, Human Physiology, Vol. 1 and Vol. 2, CBS Publishers and Distributors Pvt Ltd. New Delhi, India, 1956
2. Guyton & Hall, Textbook of Medical Physiology, 3rd Edition, Elsevier Health Science, India, 2020