

Center for Ancient History and Culture, JAIN University

COURSE TITLE: INTRODUCTION TO INDIAN KNOWLEDGE SYSTEMS

Focus Area/Subject Area: Indian Knowledge Systems

Credits: 3

Eligibility: Should be a first semester student of any bachelor's degree at the JAIN University.

Details of the Instructor:

Anand Vishwanathan, Research Associate, Center for Ancient History and Culture, JAIN University

Course Objective:

1. To introduce briefly different areas of IKS to the students including research methods.
2. To give a brief overview of selected areas of IKS, astronomy, literature and arts, agriculture-food and Ayurveda, architecture and civil engineering.

Learning Outcome:

1. Students understand the various pramanas used in Indian Knowledge System.
2. They have been introduced to some fields of IKS like Astronomy, Arts, Ayurveda and Architecture.
3. They can explore the different fields of study in IKS further with the references and the resources provided during the course.

SYLLABUS

Module 1 (10 hours)

Astronomy and mathematics

- Introduction to various fields in traditional Indian Knowledge system. Methods and sources.
- Ancient Indian Observational astronomy. Foundation concepts - nakṣatra, graha, time units, phenomena like meteors, eclipses.
- Mathematical thinking - numerical and spatial thinking, śulbasūtra, zero, sundials, water clock, time measurement.

Module 2 (10 hours)

Language, literature and Art

- Formation of words in saṃskṛta and some ideas from Pāṇini and Patañjali. Technical words and examples of their usage.
- Music Vedic chants, sāma, some concepts in ancient treatises like nārādīyaśikṣā nāṭyaśāstra. Basics of related concepts like dance, meter and rasa in poetry.

Module 3 (5 hours)

Earth and Atmosphere

- Anomalous phenomena, Earthquakes, clouds, rainfall, soil, agriculture and food science

Module 4 (10 hours)

Architecture and Civil Engineering

- Sindhu-Sarasvatī cities, description in purāṇa, arthaśāstra. A glance at select texts like nāradaśilpa, mayamata, mānasāra.

Module 5 (10 hours)

Material science

- Knowledge and use of various materials in āyurveda, rasaśāstra and vāstuvīdyā.

References:

1. Dikshit, S. B. (1969, 1981). Bharatiya Jyotish Sastra (in Marathi) Poona (1896). (Transl. RV Vaidya, Vol.1). New Delhi: Government of India Press.
2. Iyengar, R. N. (2016) Astronomy in Vedic texts, History of Indian Astronomy, A Handbook - Volume brought out on the occasion of IX International Conference on Oriental Astronomy November 14–18.
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6. Sen, S. N., and Shukla, K. S. (Ed.) (2000). History of Astronomy in India, 2nd Revised Edition. New Delhi: Indian National Science Academy.
7. Thompson R.L. (2007) The Cosmology of the Bhāgavata Purāṇa (First Indian Edition) MLBD Publ. Delhi.
8. Iyengar, R.N; Kannan K.S; Wakankar S. Y. (2018) Nārada Śilpaśāstra - Sanskrit Text on Architectural Civil Engineering, Jain University Press.
9. Bruno Dagens (2000) Mayamatam, IGNC.
10. Ayachit S.M (Tr.) (2002) Kashyapiyakrishisukti: A Treatise On Agriculture By Kashyapa, Asian Agri-history Foundation.
11. Sadhale, Nalini (Tr.) (1999) Krishi Parashara (Agriculture by Parashara), Asian Agri-History Foundation.
12. Gyanendra Pandey (2014), Ksemakutuhalam (Classical Treatise on Health Care, Dietetics and Cookery Culinary Science), Chowkhamba Krishnadas Academy.
13. Altekar A.S. (1944) Education in Ancient India.

14. Radha Kumud Chatterjee (1947) Ancient Indian Education: Brahmanical and Buddhist
15. Agrawala V.S. (1953) India as known to Panini.
16. (1990) Hydrology in Ancient India by National Institute of Hydrology, India.
17. B. Mahadevan, Vinayak Rajat Bhat, Nagendra Pavana (2022) Introduction to Indian Knowledge System: Concepts and Applications.