

Gujarat University
Semester- II
Curriculum for Introduction to Indic Knowledge Tradition
Course Code: 127 - G
For all Undergraduate Programs
(Indian Knowledge System/Value Added Course)
(w.e.f 2023-2024)

Objective Of the Course

The ancient Indic knowledge tradition has contributed in many fields like research, medicine, mathematics, science, politics and social life. For example, physician Shsutruta in his book Shsutruta Samhita described Rhinoplasty surgery in 600 BCE. Similarly, according to field medalist mathematician Manjul Bhargava, the concept of Pythagoras theorem first appears in Baudhyana's shulbh sutra around 800 BCE. The Western world is finally accepting the fact that Indian mathematicians had mastered the basic mathematical algorithms of addition, subtraction, and division at least a thousand years earlier than the Europeans. The word algorithm is associated with Al Khwaizmi, who borrowed and translated basic mathematical concepts and texts from India in his book Hisab e Hind in 9th century CE. We now also know that Calculus was spread in the West through the Kerala School of Mathematics.

Indian Knowledge traditions governed on a conceptual interdisciplinary framework, with such coordination, scholars from different fields joined together for the expansion of the subject scope. This framework has also made possible dialogue between different schools of thoughts.

This course aids to understand and analyses the totality of Indian Knowledge tradition. This course provides a basic understanding of the Indian Knowledge System and its traditions. This course will introduce to various ancient Indian thoughts and their relevance in contemporary times.

Outcome of the Course (CO)

Learner will be able to ...

- Learn about the process of ancient Indian traditions.
- Understand the contribution of Indian minds in various fields.
- Link ancient wisdom in the current context
- Learn about the leading Indian inventors and thinkers in various disciplines.

- Develop a positive attitude towards Indian traditions and practices.
- Increase subject-awareness and self-esteem.
- Develop a comprehensive understanding of how all knowledge is ultimately intertwined.

Prerequisite: 12th Pass

Corequisite: Learner can join our other online certificate and diploma courses for knowledge enhancement.

1. Certificate Course in Indic Knowledge Tradition

Get a glimpse of Indian scientific and technological heritage, know about the totality of Indic Knowledge & Tradition

2. Diploma in Indic Manuscriptology

Get acquainted with the different types of Indian scripts, their origin, materials used for them, writing styles, etc. as well as cataloging, scribble notes and manuscript libraries, know about Indic Manuscriptology

3. Diploma in Indic Paleography

Get acquainted with the ancient scripts, their origin, style of writing, their preservation techniques and the materials used for them, know about Indic Paleography

4. Diploma in Indic Education System

Ancient learning system process - training for the fulfillment of life and character building to overcome the challenges of life with positivity. Know about Indic Education System

5. Diploma in Indic Philosophy

Develop an understanding of Indian culture and history, know and understand the mysteries of life and nature, know about Indic Philosophy

6. Certificate in Vedant

Comprehensive overview of the teachings of our Shastra along with a roadmap to live a fulfilling life and attaining the highest human goal, that is Moksha through our Online Certificate Course Vedant

Evaluation Pattern

Internal	Total Marks
	25
External	25

Semester: 2

Course Credit: 2

Course Duration: 40 Hrs.

Unit	Topic
1	Introduction of Indic Knowledge Traditions <ul style="list-style-type: none">• Education,• Trade and Commerce• Governance• Science and Technology• Architecture &• Literature
2	Importance of Indic Knowledge Traditions Contribution of IKS to the World <ul style="list-style-type: none">• Importance of Indic Knowledge Traditions in contemporary period• How to do research in Indic Knowledge Tradition• Methods to study relevant Books.

Reference Books

Text Books:

- **Introduction to Indian Knowledge System-** Concept and Application by B. Mahadevan, Vinayak Rajat Bhat, Nagendra Pavan R.N.
- R.M. Pujari, Pradeep Kolhe, N. R. Kumar, '**Pride of India: A Glimpse into India's Scientific Heritage**', Samskrita Bharati Publication.
- '**Indian Contribution to science**', compiled by Vijnana Bharati.
- '**Knowledge traditions and practices of India**', Kapil Kapoor, Michel Danino, CBSE, India.

Reference Books:

- Dr. Subhash Kak , Computation in Ancient India, Mount, Meru Publishing (2016)
- Dharampal, Indian Science and Technology in the Eighteenth Century, Academy of Gandhian Studies, Hyderabad, 1971, republ. Other India Bookstore, Goa, 2000
- Robert Kanigel, The Man Who Knew Infinity: A Life of the Genius Ramanujan, Abacus, London, 1999
- Alok Kumar, Sciences of the Ancient Hindus: Unlocking Nature in the Pursuit of Salvation, CreateSpace Independent Publishing, 2014
- B.V. Subbarayappa, Science in India: A Historical Perspective, Rupa, New Delhi, 2013
- S. Balachandra Rao, Indian Mathematics and Astronomy: Some Landmarks, Jnana Deep Publications, Bangalore, 3rd edn, 2004
- S. Balachandra Rao, Vedic Mathematics and Science In Vedas, Navakarnataka Publications, Bengaluru, 2019
- Bibhutibhushan Datta, Ancient Hindu Geometry: The Science of the Śulba, 1932, repr. Cosmo Publications, New Delhi, 1993
- Bibhutibhushan Datta & Avadhesh Narayan Singh, History of Hindu Mathematics, 1935, repr. Bharatiya Kala Prakashan, Delhi, 2004
- George Gheverghese Joseph, The Crest of the Peacock, Penguin Books, London & New Delhi, 2000
- J. McKim Malville & Lalit M. Gujral, Ancient Cities, Sacred Skies: Cosmic Geometries and City Planning in Ancient India, IGNCA & Aryan Books International, New Delhi, 2000).

- Clemency Montelle, *Chasing Shadows: Mathematics, Astronomy and the Early History of Eclipse Reckoning*, Johns Hopkins University Press, 2011
- Anisha Shekhar Mukherji, *Jantar Mantar: Maharaja Sawai Jai Singh's Observatory in Delhi*, AMBI Knowledge Resources, New Delhi, 2010
- Thanu Padmanabhan, (ed.), *Astronomy in India: A Historical Perspective*, Indian National Science Academy, New Delhi & Springer (India), 2010
- Acharya Prafulla Chandra Ray, *A History of Hindu Chemistry*, 1902, republ., Shaibya Prakashan Bibhag, centenary edition, Kolkata, 2002
- R. Balasubramaniam, *Delhi Iron Pillar: New Insights*, Indian Institute of Advance Study, Shimla & Aryan Books International, New Delhi, 2002
- R. Balasubramaniam, *Marvels of Indian Iron through the Ages*, Rupa & Infinity Foundation, New Delhi, 2008
- Anil Agarwal & Sunita Narain, (eds), *Dying Wisdom: Rise, Fall and Potential of India's Traditional Water-Harvesting Systems*, Centre for Science and Environment, New Delhi, 1997
- Fredrick W. Bunce: *The Iconography of Water: Well and Tank Forms of the Indian Subcontinent*, DK Print world, New Delhi, 2013.