

L. D. Arts College (Autonomous), Ahmedabad

Detailed Syllabus (w.e.f. 2026-27)

Curriculum Designed for B. S.		Self-Finance Programme: UG
Semester: 1	Course Credit: 2	Course Title: Introduction to Indian Knowledge System (IKS)
Course Duration: 20 Hrs.	Course code: 117	Course Category: VAC

Course Objective:

The course aims to introduce students to the **Indian Knowledge Systems (IKS)** and develop an understanding of India's diverse intellectual, scientific, educational, medical, architectural, artistic, and cultural traditions. It seeks to enable students to appreciate the historical development, foundational texts, indigenous knowledge practices, and significant contributions of Indian civilization to various fields of knowledge, while encouraging critical and contextual engagement with these traditions.

Course Outcomes:

After successful completion of the course, students will be able to:

1. **Remember:** Identify the major concepts, systems, texts, traditions, and foundational literature associated with Indian Knowledge Systems.
2. **Understand:** Explain the philosophical foundations and historical development of Indian education, mathematics, astronomy, Ayurveda, metallurgy, architecture, arts, and cultural traditions.
3. **Apply:** Illustrate the application of traditional Indian knowledge and indigenous technologies in areas such as mathematics, medicine, town planning, architecture, metallurgy, and education.
4. **Analyze:** Examine the contributions of Indian knowledge traditions to the development of scientific, technological, educational, and cultural practices.
5. **Evaluate:** Critically evaluate the relevance, significance, and contemporary applicability of selected Indian Knowledge Systems while distinguishing historical evidence from interpretations or claims.
6. **Create:** Develop informed presentations, projects, or other academic outputs that integrate and communicate selected IKS concepts with contemporary contexts.

Course Contents:

Unit	Topic
1	Introduction to IKS • Introduction to IKS & Its importance • Introduction & importance of IKS • Various IKS Systems • Shashtra – Foundational Literature of Bharatvarsha • What is Shashtra? • Importance of Shashtra

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	• Classification of Shashtra – Vaidic & Avidic (with examples of imp. Literature) • Base of IKS proliferation • Bhartiya Education System and its philosophy • History of BES from Ancient to Modern • Domains of Education: Gurukul, Pathshala, Vidyalay, Vishvavidyalay
2	Contribution of IKS to the World • Mathematics & Astronomy • Number System • Algebra & Arithmetic • Geometry • Trigonometry • Planetary System • Speed of Light • Eclipse • Life sciences • Physics • Chemistry • Botany • Metal Technology • Mining Techniques • Types of Metals • Tools & Techniques for Metal Smelting with examples • Town planning & Temple Architecture • Indigenous tools & technologies for town planning & Temple Architecture • Science of Architecture • Lothal, Mohan Jo Daro, Dholavira • Angkorvat, Lepakshi Temple, Jagannath Puri Temple, Thanjavur Temple, Modhera and Konark Sun Temple, Hampi Temple Etc. • Ayurveda • Introduction of Ayurveda - Definition, Branches of Ayurveda, Books and Pioneers • Concept of Tri Dosh and importance of its Balance in the body • Indic Medical Science Achievement: Tools & Technology • Art & Traditions • History and Origin • Skill Enhancement with 64 Kala • Science behind our traditions and rituals

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Recommended References:

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2. **Kapoor, K., & Singh, A. K. (Eds.). (2005).** *Indian knowledge systems: Vol. 1. Foundations*. D.K. Printworld.
3. **Kak, S. (2000).** *The astronomical code of the Ṛgveda*. Aditya Prakashan.
4. **Srinivasan, S. (1994).** *The metallurgy of the Harappan civilization*. Indian Institute of Advanced Study.
5. **Rao, S. R. (1979).** *Lothal: A Harappan port town (1955–62)*. Archaeological Survey of India.
6. **Acharya, P. K. (1981).** *Architecture of Mānasāra: Illustrations of architectural and sculptural objects*. Oxford University Press.
7. **Sharma, P. V. (1992).** *History of medicine in India*. Indian National Science Academy.
8. **Sharma, P. V. (1998).** *Caraka-saṃhitā: Agniveśa's treatise refined and annotated by Caraka and redacted by Dṛḍhabala*. Chaukhambha Orientalia.
9. **Kramrisch, S. (1946).** *The Hindu temple*. Motilal Banarsidass.
10. **Ghosh, M. (Ed.). (1951).** *The Nāṭyaśāstra: Ascribed to Bharata-Muni*. Asiatic Society.