Binod Bihari Mahto Koyalanchal University, Dhanbad

Syllabus of Indian Knowledge Systems (IKS-I) for FYUGP Semester – I

Introduction To Indian Knowledge Systems

Teaching Hours: 30

Course level: Credits: 02

This course aims to provide a comprehensive understanding of the rich and diverse knowledge systems that have evolved in India over centuries. It is focused towards various aspects of Indian knowledge, encompassing contributions to humanities, Science, Technology, Engineering and Mathematics fields, through four modules, undergraduate level students will gain insights into the foundational concepts, historical developments, and contemporary relevance of Indian knowledge systems.

Course Objectives:
i. Introduce foundational concepts and philosophical underpinnings of Indian knowledge systems.
ii. Explore contributions to humanities, including literature, art, music, and philosophy.
iii. Explore the achievements and relevance in Science, Technology, Engineering and Mathematics (STEM) fields such as mathematics, astronomy, medicine, Ayurveda, architect, engineering, town planning, water management, etc.

Course Outcomes:
i. Explain fundamental principles and concepts of Indian knowledge systems.
ii. Analyze contributions to humanities, recognizing cultural and artistic significance.
iii. Assess impact of Indian achievements in STEM fields on global knowledge systems.

Course Content:

Unit-1: INTRODUCTION TO INDIAN KNOWLEDGE SYSTEMS
1. Definition
2. Objectives
3. Contemporary significance
4. Historical overview of Indian Education and Educational Institutions

Unit-2: INDIAN PHILOSOPHICAL SYSTEMS
1. Theist systems : (Sankhya, Yoga, Vaisheshika, Nyaya, Purva nd Uttar Meemansa) Nature, Concept and Literature
2. other systems : : (Buddhism, Jainism and Charvaka) Nature, Concept and Literature

Unit-3: CONTRIBUTION TO HUMANITIES
1. Introduction to classical Languages in India (Sanskrit, Pali, Magadhi)
2. Introduction to ancient Indian art (Music, and Drama) and architecture (temples and town planning)
3. Indian philosophical thoughts on Social Institutions (Purushartha, Ashrama, Dharma and Values).
4. Introduction to Bhartiya Arthshastra and Nitishstra (Basic Concepts)

Unit-4: CONTRIBUTIONS TO STEM (SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS)
1. Historical development of mathematics and astronomy in India
2. Health and Medicinal Practices Introduction to Ayurveda, and lifestyle (Rutucharya, Dincharya etc.) with reference to Charaka, Sushrut and Banabhatta.
3. Ancient Indian techniques and achievements related to metallurgy and material science.
4. Ancient Indian Agricultural Practices Assessment Scheme: Assessment scheme and passing criterions will be same as per the structure of UG programs under NEP 2020.

References:
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v. Ranganathananda, Swami. The Massage of the Upanishads. Bombay: Bharathya Vidya Bhaven, 1985.
vi. DK Chakkrabarty, Makkhan Lal, History of Ancient India (Set of 5 Volumes), Aryan book Internation publication, 2014
vii. Introduction to Indian Knowledge System, B. Mahadevan, V. R. Bhat, Nagendra Pavana R. N., PHI. 2022
viii. Yoga System of Patanjali, J. H. Woods, Bharatiya Kala Prakashan 2009
ix. Indian Philosophy – Vol I and II, S. Radhakrishnan, Oxford University Press. 2009
x. Mayamatam – Indian Treatise on Housing, Architecture and Iconography (2 volumes), Bruno Daegens, Indira Gandhi National centre for Arts. 2007
xi. Glimpse into Kautilya's Arthashastra, Ramachandrudu P., Sanskrit Academy, Hyderabad. 2010 12. Vedic Mathematics, Jagadguru Swami Sri Bharati Krsna Tirathji Maharaj, Mot