

LIST OF INDIAN KNOWLEDGE SYSTEMS

Sr. No.	Course Name	Teaching Scheme	Credits	Institute Offering Course	Name of Professor/ Resource person
1	Indian Art: Materials, Techniques and Artistic Practices		2	-	-
2	General Meteorology		2	-	-
3	Concepts and Applications in Engineering		2	-	-
4	Course On Mathematical And Computer Logic For Nyaya Sastra Students	33 Hrs	2	https://www.iksindia.org/courses-offered-by-iks-centers.php IKS Teacher Training Centers (Shikshak Prashikshan Kendra)	Dr.K.Srinivasa Rao, Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya & Dr. A. Gayathri
5	Concepts Of Drug Design In Ayurveda		2	IKS Center for Traditional Knowledge and Informatics, The University of Transdisciplinary Health Sciences and Technology (TDU) Bangalore	Dr. Subrahmanya Kumar K, Associate Professor, TDU 2. Dr. Sanket Sharma, Assistant Professor, TDU 3. Dr. Arun Bhanu, Senior Research Associate, TDU
6	Ancient Indian Mathematics		2	Aryabhata College, Univeristy of Delhi	Dr. Venkateshwara Pai, Associate Professor, Department of Humanities and Social Sciences, IISER, Pune 2. Dr. Anand Burdhan, Assistant Professor, School of Heritage Research and Management, Ambedkar University 3. Dr. Priti Jagwani, Associate Professor, Department of Computer Sciences, Aryabhata College, University of Delhi

7	Indian Astronomy		4	Aryabhata College, Univeristy of Delhi	Dr. Priti Jagwani, Associate Professor, Department of Computer Sciences, Aryabhata College, University of Delhi
8	Indian Knowledge System In Architecture And Town Planning	15 Hrs	2	IKS Centre for the Study of Knowledge Transmission in India, Centre for Indic Studies, Indus University, Ahemdabad	Dr. Komal Thawrani, Asst. Prof., Indus Architecture School, Indus University 2. Dr. Komal Pujara, Research Associate, Centre for Indic Studies, Indus University
9	Indian Ethics	2 Hrs/Week	2	IKS Centre for the Study of Knowledge Transmission in India, Centre for Indic Studies, Indus University, Ahemdabad	Dr. Amit Kumar Dubey (Assistant Professor, Centre for Indic Studies, Indus University)
10	Health Culture Of Bharat		4		Dr. Rammanohar P, Research Director, Amrita School of Ayurveda 2. Dr. Sushma NS, Research Officer, Amrita School of Ayurveda 3. Dr. Shyamasundaran K, Research Officer, Amrita School of Ayurveda 4. Dr. Devi Muraleedharan, Asst. Professor, Amrita School of Ayurveda

Course Objectives:

1. To introduce the diversity of art practices and material culture from the Indian subcontinent.
2. To situate these practices against their socio-cultural, political and temporal settings.
3. To support an immersive approach to understanding Indian art.
4. To bring together the recent findings in Indian art

Course Outcomes:

Students will be able to:

CO1: Draw connections between the historical artifacts and contemporary objects from the immediate surroundings.

CO2: Encourage themselves as an art practitioner, aspiring art historians, educators, and those preparing for competitive examinations in India.

CO3: Direct the possible ways of exploring these thematic.

Unit 1: Clay and Architecture I

Clay: Terracotta and Terracruda, How is clay processed into objects?, Brick structures and urns from the Indus Valley and Megalithic sites in south India, Sculptures of terracotta and bronze from Harappa, Terracruda or unbaked clay-made objects and rituals.

Architecture I: Basics of Buddhist and Jain architecture- Wood, stone and living rock, Stupa, vihara, caves and temples from Shunga, Kushana, Maurya and Gupta periods.

Unit 2: Pigment and Architecture II

Pigment: Mineral and vegetal colours- How pigment-based paints are processed and applied to walls Bhimbetka drawings, Murals of Sittanavasal and Ajanta.

Architecture II: Hinduism and temple building- Architectural treatise and utilisation of Vastupurusha mandala for making temples, Temples of Badami Chalukyas, Rashtrakuta, Chola, Chandela and Eastern Ganga dynasties.

Unit 3: Stone and Garden

Stone: Memorials, Architectural Remnants and Objects- Types of stone in India: Mathura Sandstone, Deccani Basalt, Rajasthani Marble, Stone carving for architecture, Hero stones and their social significance, Household items and objects in royal court.

Garden: Islam, the garden of paradise and afterlife, Tombs, palace, garden and waterways from the Mughal and Deccani context, Regional and foreign flora and fauna in Mughal and Deccani gardens.

Unit 4: Paper and Printing

How does paper affect the character of painting and calligraphy? How are ink and pigments prepared? Jain manuscripts and Islamic treatise, Mughal, Deccani, Rajput and Pahari miniature paintings, Mysore and Tanjore paintings.

Printing: European Interventions -Printmaking techniques and their application in books and images, Bazar paintings of Kalighat and Battala woodcuts, Lithograph and Oleograph from Calcutta, Pune and Lucknow

Unit 5: Multimedia Approaches

Introduction to the key developments in Indian Art after 1947, Post-independence artistic and design practices, Canvas painting, textile, furniture making between the 1950s and 1990s, Neoliberalism, transnational connections and “new media” approaches, Curatorial and collaborative projects between artists, educators and communities, Biennale, entrepreneurship and expansive notion of “art” after 2010.

Text Books/References:

1. Ali, Daud and Emma Flatt eds. 2020. Garden and landscape practices in pre-colonial India: histories from the Deccan. New Delhi: Routledge.
2. Dehejia, Vidya. 2006. Chola: Sacred Bronzes of Southern India. London: Royal Academy of Arts.
3. Goswamy, B. N., and Eberhard Fischer. 2017. Pahari Paintings: The Horst Metzger collection in the Museum Rietberg. New Delhi: Niyogi Books.
4. Hardy, Adam. 2007. The Temple Architecture of India. Chichester (GB): J. Wiley and Sons.
5. Huntington, Susan. 1993. The Art of Ancient India: Buddhist, Hindu, Jain. New York: Weatherhill.
6. Koch, Ebba. 2001. Mughal Art and Imperial Ideology: Collected Essays. New Delhi: Oxford University Press.
7. Meister, Michael and M. A. Dhaky. 1999. Encyclopedia of Indian Temple Architecture. New Delhi: Manohar Publishers.
8. Mitter, Partha. 2001. Indian Art. Oxford and New York: Oxford University Press.
9. Sengupta, Paula. 2012. The Printed Picture: Four Centuries of Indian Printmaking. New Delhi: Delhi Art Gallery.
10. Singh, Kavita, ed. 2018. Scent upon a Southern Breeze: the synaesthetic arts of the Deccan. Mumbai: Marg. Subramanyan, K. G. 2007. The Magic of Making: Essays on Art and Culture. Calcutta: Seagull.

General Meteorology

Course Objectives:

1. To give an overview of science of meteorology.
2. Be aware of the working of world meteorological organization and different met communications/telecommunication network in India.
3. To make aware of effect of physical geography and earth's interior on meteorology.

Course Outcomes:

Students will be able to:

CO1: Remember various components of world meteorological organizations. (Remember)

CO2: Understand the met communications, telecommunications network in India and channels used in IAF. (Understand)

CO3: Understand the effect of physical geography, motions of the earth and on meteorological process. (Apply)

CO4: Apply the knowledge of earth's interior to analyse the meteorological phenomena. (Analyze)

CO5: Evaluate the measurement of time in prospective of meteorology. (Evaluate)

Unit 1: Science of Meteorology- An Overview

Introduction to meteorology, History of meteorology, General circulation.

Unit 2: Meteorological Organisation

World meteorological organization (WMO), Regional met centers, Indian Meteorological Department, Met organization in Indian Air force.

Unit 3: Motion of Earth and Measurement of Time

Introduction, Orbital and rotational characteristics of earth, Conversion of time and sidereal time.

Unit 4: Physical Geography and Structure of Earth

Insolation, The earth and its interior, Impact of physical geography.

Unit 5: Met Telecommunication

Global Telecommunication System, National Data Exchange Network, Meteorological Telecommunications in IAF.

Text Books:

1. WMO Training Manuals.
2. Manual of Meteorology for Air Crew - IAF Publication

3. General Meteorology – Byers HR.

Reference Books:

1. Training Notes. Dept of Meteorology - AFA(Volume – 3)
Meteorology for Airman in India Part I – I Met D.

Concepts and Applications in Engineering

Course Objectives:

1. Provide students with a fundamental understanding of key concepts and principles in engineering, including mechanics, thermodynamics, materials science, and electrical circuits.
2. Develop students' ability to analyze engineering problems, apply appropriate mathematical and scientific principles, and formulate solutions using critical thinking and creativity.
3. Foster an appreciation for the interdisciplinary nature of engineering by exploring how different branches of engineering (e.g., mechanical, electrical, civil) interact and contribute to solving complex real-world problems.
4. Introduce students to ethical issues in engineering practice and encourage them to consider the societal impacts of engineering solutions, including sustainability, environmental responsibility, and social justice.

Course Outcomes:

Students will be able to:

1. Upon completion of the course, students should demonstrate a solid understanding of fundamental engineering principles and their applications in various engineering disciplines.
2. Students should be able to effectively analyze engineering problems, apply appropriate mathematical and scientific techniques, and develop innovative solutions.
3. Students should be capable of applying the engineering design process to develop solutions to open-ended problems, considering factors such as functionality, safety, cost, and manufacturability.
4. Students should demonstrate proficiency in using engineering tools and software for analysis, modeling, simulation, and design tasks relevant to the course material.
5. Students should exhibit an understanding of ethical principles in engineering practice and be able to identify and address ethical dilemmas that may arise in engineering projects.
6. Students should demonstrate the ability to work effectively in teams, exhibiting professionalism, respect for diverse perspectives, and a commitment to collective success.

UNIT 1:

The Vedic Corpus:

1. Introduction to Vedas
2. A synopsis of the four Vedas
3. Sub-classification of Vedas
4. Messages in Vedas
5. Introduction to Vedāṅgas
6. Prologue on Śikṣā and Vyākaraṇa
7. Basics of Nirukta and Chandas
8. Introduction to Kalpa and Jyotiṣa
9. Vedic Life: A Distinctive Features

Number Systems and Units of Measurement:

1. Number systems in India - Historical evidence
2. Salient aspects of Indian Mathematics
3. Bhūta-Saṃkhyā system
4. Kaṭapayādi system
5. Measurements for time, distance, and weight
6. Piṅgala and the binary system

UNIT 2:

Mathematics:

1. Introduction to Indian Mathematics
2. Unique aspects of Indian Mathematics
3. Indian Mathematicians and their Contributions
4. Algebra
5. Geometry
6. Trigonometry
7. Binary mathematics and combinatorial problems in Chandaḥ Śāstra
8. Magic squares in India

Astronomy:

1. Introduction to Indian astronomy
2. Indian contributions in astronomy
3. The celestial coordinate system
4. Elements of the Indian calendar
5. Notion of years and months
6. Pañcāṅga – The Indian calendar system
7. Astronomical Instruments (Yantras)
8. Jantar Mantar of Rājā Jai Singh Sawai

UNIT 3:

Engineering and Technology: Metals and Metalworking:

1. The rise and fall of a great Indian technology
2. Mining and ore extraction
3. Zinc extraction
4. Copper and its alloys
5. Iron and steel in ancient India
6. Lost wax casting of idols and artefacts
7. Apparatuses used for extraction of metallic components

Engineering and Technology: Other applications:

1. Science and technology heritage of India
2. Science and technology heritage: Literary Sources
3. Science and technology heritage: Physical structures
4. Science and technology heritage: Temples
5. Science and technology heritage: Watershed management
6. Dyes, arts and perfume production.
7. Surgical-techniques
8. Shipbuilding
9. Status of Indigenous S & T

UNIT 4:

Town Planning and Architecture:

1. Perspective of Arthaśāstra on town planning
2. Vāstu-śāstra – The science of architecture
3. Eight limbs of Vāstu
4. Town planning
5. Temples in India: Marvellous stone architecture for eternity
6. Temple architecture in India
7. Iconography

Knowledge Framework and classifications:

1. Indian scheme of knowledge
2. The knowledge triangle
3. Prameya – A vaiśeṣikan approach to physical reality
4. Dravyas – the constituents of the physical reality
5. Attributes – the properties of substances and Action – the driver of conjunction and disjunction
6. Sāmānya, viśēṣa, samavāya
7. Pramāṇa – the means of valid knowledge

8. Saṃśaya – ambiguities in existing knowledge
9. Framework for establishing valid knowledge
10. Deductive or inductive logic framework
11. Potential fallacies in the reasoning process
12. Siddhānta: established tenets in a field of study

UNIT 5:

Linguistics

1. Introduction to Linguistics
2. Aṣṭādhyāyī
3. Phonetics
4. Word generation
5. Computational aspects
6. Mnemonics
7. Recursive operations
8. Rule based operations
9. Sentence formation
10. Verbs and prefixes
11. Role of Sanskrit in natural language processing

Books and References

1. Mahadevan, B., Bhat Vinayak Rajat, Nagendra Pavana R.N. (2022), “Introduction to Indian Knowledge System: Concepts and Applications”, PHI Learning Private Ltd. Delhi.

Additional Readings:

1. Pride of India: A Glimpse into India’s Scientific Heritage, Samskrita Bharati, New Delhi.
2. Sampad and Vijay (2011). “The Wonder that is Sanskrit”, Sri Aurobindo Society, Puducherry.
3. Bag, A.K. (1979). Mathematics in Ancient and Medieval India, Chaukhamba Orientalia, New Delhi.
4. Datta, B. and Singh, A.N. (1962). History of Hindu Mathematics: Parts I and II, Asia Publishing House, Mumbai.
5. Kak, S.C. (1987). “On Astronomy in Ancient India”, Indian Journal of History of Science, 22(3), pp. 205–221.
6. Subbarayappa, B.V. and Sarma, K.V. (1985). Indian Astronomy: A Source Book, Nehru Centre, Mumbai.
7. Bag, A.K. (1997). History of Technology in India, Vol. I, Indian National Science Academy, New Delhi.
8. Acarya, P.K. (1996). Indian Architecture, Munshiram Manoharlal Publishers, New Delhi.

9. Banerjea, P. (1916). Public Administration in Ancient India, Macmillan, London.
10. Kapoor Kapil, Singh Avadhesh (2021). "Indian Knowledge Systems Vol – I & II", Indian Institute of Advanced Study, Shimla, H.P.

Course On Mathematical and Computer Logic for Nyaya Shastra Students

Module 1: Introduction to Mathematical Logic (5 Hours)

- Overview of Nyaya Shastra and its relevance in the modern context (1 hour)
- Propositional Logic: Syntax, semantics, and truth tables - Predicate Logic (1 hour)
- Quantifiers, variables, and logical connectives (1 hour)
- Inference Rules and Proofs in Mathematical Logic (2 hours)
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Module 2: Foundations of Computer Logic (4 Hours)

- Introduction to Computer Logic: Boolean Algebra and Logic Gates (2 hours)
- Combinational Circuits and their applications in Nyaya Shastra (1 hour)
- Sequential Circuits and their relevance in Nyaya Shastra methodologies (1 hour)

Module 3: Nyaya Shastra and Logical Reasoning (5 Hours)

- Overview of Nyaya Shastra principles and methodologies (1 hour)
- Formal analysis of Nyaya Shastra syllogisms and reasoning (1 hour)
- Logical fallacies and error detection in Nyaya Shastra texts (1 hour)
- Symbolic representation and analysis of Nyaya Shastra arguments (2 hours)

Module 4: Modal Logic in Nyaya Shastra (5 Hours)

- Modal operators: Possibility, necessity, and contingency in Nyaya Shastra (2 hours)
- Application of Modal Logic in analyzing Nyaya Shastra concepts (1 hour)
- Formal representation of Nyaya Shastra modal arguments (2 hours)

Module 5: Computational Tools for Nyaya Shastra Analysis (4 Hours)

- Introduction to computational tools for logical analysis (1 hour)
- Utilizing software and programming languages for Nyaya Shastra reasoning (2 hours)
- Case studies and practical exercises using computational tools (1 hour)

Module 6: Integration with Modern Logical Systems (5 Hours)

- Comparative study of Nyaya Shastra with Western philosophical logic (1 hour)
- Examining the intersections and divergences between Nyaya Shastra and contemporary logic (2 hours)
- Contemporary applications of Nyaya Shastra principles in logical analysis (2 hours)

Module 7: Case Studies and Practical Exercises (5 Hours)

- Analyzing selected Nyaya Shastra texts and arguments using mathematical and computer logic
- (2 hours)
- Solving logical puzzles and problems from Nyaya Shastra (1 hour)
- Critical thinking and problem-solving exercises based on Nyaya Shastra principles (2 hours)

CONCEPTS OF DRUG DESIGN IN AYURVEDA

Unit 1

Introduction to Bhaishajya Kalpana (preparation of herbal drugs) and Rasashastra (preparation of metallic/mineral drugs). Paribhasha (technical terms) used in the context of Ayurvedic pharmaceuticals. Importance of Compound formulations over Ekamoolika Prayoga (single drug therapy).

Unit 2

Knowledge about Pancha Vidha Kashaya Kalpana (basic pharmaceutical techniques). Swarasa (fresh juice), Kalka (paste), Kashaya (decoction), Phanta (hot infusion), Hima (cold infusion)- procedure of preparation, general dosage and 1-2 examples.

Demonstration of Ardraka swarasa, Tulasi Kalka, Guduchi Kashaya, Panchakola phanta, DhanyakaHima.

Unit 3

Knowledge about important compound formulations. Taila/ghrta paka (medicated oils and ghees), Avaleha (confectioneries), Asava-Arishtas (fermented preparations), Vati-Gutika (pills, tablets), Bhasmas (calcined metals/minerals) and Rasaushadhis (metallic preparations).

Unit 4

Introduction to toxic drugs of Ayurveda and principle of their purification. Purification procedures of Vatsanabha (*Aconitum ferox* Wall.), Vishatinduka (*Strychnos nux-vomica* L.), Parada (mercury) and Gandhaka (sulphur) will be briefed.

Unit 5

Concept of Ahara kalpana (nutraceuticals) will be explained. Procedure of preparation of Odana (different rice preparations), Yusha (soups) will be briefed. Demonstration of preparation of Mudga Yusha (green gram soup)

ANCIENT INDIAN MATHEMATICS

Introductory Overview

2. Geometry in Śulbasūtras
3. Development of the Place-value system
4. Āryabhaṭīya of Āryabhaṭa
5. Brahmasphuṭasiddhānta
6. Līlāvāt
7. Kuṭṭaka: Solutions of indeterminate equations and continued fractions •
8. Kerala school of Mathematics
9. Development of Trigonometry and Spherical trigonometry for solving astronomical problems.
10. Notion of Proofs in Indian mathematics and conclusion

References:

1. B. Datta and A. N. Singh, History of Hindu Mathematics, 2 Parts, Lahore, 1935, 1938; Reprint, Asia Publishing House, Bombay 1962; Reprint, Bharatiya Kala Prakashan, Delhi 2004.
2. C. N. Srinivasiengar, History of Indian Mathematics, The World Press, Calcutta, 1967.
3. T. A. Saraswati Amma, Geometry in Ancient and Medieval India, Motilal Banarsidass, Varanasi, 1979.
4. S. Balachandra Rao, Indian Mathematics and Astronomy: Some Landmarks, 3rd Ed. Bhavan's Gandhi Centre, Bangalore, 2004.
5. G. G. Emch, M. D. Srinivas and R. Sridharan, Eds., Contributions to the History of Mathematics in India, Hindustan Book Agency, Delhi, 2005.
6. C. S. Seshadri, Ed., Studies in History of Indian Mathematics, Hindustan Book Agency, Delhi, 2010.
7. G. G. Joseph, Indian Mathematics Engaging the World from Ancient to Modern Times, World Scientific, London, 2016.
8. P. P. Divakaran, The Mathematics of India Concepts Methods Connections, Hindustan Book Agency 2018. Rep Springer New York, 2018.
9. Gaṇitayuktibhāṣā (c.1530) of Jyeṣṭhadeva (in Malayalam), Ed. with Tr. by K. V. Sarma with Explanatory Notes by K.Ramasubramanian, M. D. Srinivas and M. S. Sriram, 2 Volumes, Hindustan Book Agency, Delhi, 200

INDIAN ASTRONOMY

Course Objective:

1. To equip the introductory knowledge of Indian astronomy from the time of the Rig-Veda all the way till the pre-modern period.
2. Participants will also be able to understand how our ancient scientists forecast eclipses and position of planets.

Learning Outcome:

The study of astronomy in our culture has deep roots and provides scientific explanations for various phenomena. As it broadens their view and comprehension of the world, it is crucial to teach the younger generation about the cosmos and how it functions. Students via this course will develop a broader understanding of various viewpoints about how different cultures have observed the universe and the tools discovered for its understanding. Indian Astronomy course will also bring students closer to our culture and foster critical thinking by combining scientific and metaphysical approaches, fostering creativity and connecting subjects like mathematics, physics, and chemistry in practical ways. This course will help student to discern the facts and bust the conceptions about the beginnings of the life and universe. The course will provide ample scope to students for their own discoveries and novel scientific improvements.

SYLLABUS

1. Preliminaries of Indian Astronomy
2. Developments from the Vedic period up to the Siddhāntic period
3. Indian Calendar
4. Solar and Lunar Eclipses
5. Tripraśna Topics (Diurnal problems)
6. Planetary longitudes and latitudes and Nīlakaṅṭha Somayājī's revised planetary model
7. Rates of motion of planets
8. Tripraśna
9. Rising times of Rāśis and finding Lagna
10. Eclipse calculations
11. The Vākya system

References:

1. S. N. Sen and K. S. Shukla, History of Astronomy in India, 2nd Ed., INSA, Delhi, 2001.
2. S. Balachandra Rao, Indian Astronomy An Introduction, Universities Press, Hyderabad, 2000
3. History of Astronomy: A Handbook, Edited by K. Ramasubramanian, Aniket Sule and Mayank Vahia, SandHI, IIT Bombay, and T.I.F.R. Mumbai, 2016.
4. B.V. Subbarayappa and K.V. Sarma, Indian Astronomy: A Source Book, Nehru Centre, Bombay, 1985.
5. Tantrasaṅgraha of Nīlakaṅṭha Somayājī, Translation and Notes, K. Ramasubramanian and M. S. Sriram, Hindustan Book Agency, New Delhi, 2011
6. Karaṇapaddhati of Putumana Somayājī, Venketeswara Pai et al., HBA New Delhi and Springer 2018

Course Objective:

1. Students would be introduced to the glorious past and achievements of the Indian subcontinent ranging from the “ancient period” to the “medieval period” concerning architecture and town planning.
2. To develop a sense of pride and belongingness amongst the students towards Indian Knowledge Systems and further motivate them to bridge the gap between knowledge and application.
3. To understand the nuances of site location, design, layout, architectural elements and planning of residences, temple architecture, forts, town and city planning.

Learning Outcome:

1. The course is devised to acquaint the students with the vast expanse of knowledge on Vastu Vidya and Vastu Shastra.
2. Students would be introduced to ancient Indian scriptures on Architecture and Planning; temple architecture styles and Town Planning in ancient India.

Module 1: Introduction and Fundamental Concepts

- Concept of space in Indian Art and Architecture

Module 2: Temple Architecture

- Historical timeline for dynasty mapping and their important architectural and planning developments.
- Evolution of temple architecture from rock-cut to isolated to structural temples
- Temple construction and style: Nagara, Vesara and Dravida
- Ancient Indian treatise on Temple Architecture
- Iconography in Temples

Module 3: Irrigation and Water Management System

- Irrigation and Water Management System in Ancient India

Module 4: Town Planning

- Ancient Indian Town Planning with reference to Indus Valley Civilization
- Classification of towns according to Manasara
- Town Planning as per cosmic orientation
- Planning of temple towns and sacred geometry of ancient cities

References:

1. Mayamatam : Treatise of Housing Architecture and Iconography by Bruno Dagens
2. Architecture of Manasara by Prasanna Kumar Acharya
3. Encyclopaedia of Indian Temple Architecture by Michael W. Meister (Editor), M. A. Dhaky
4. Theory and Practice of Temple Architecture in Medieval India by Adam Hardy
5. The Hindu Temple: An Introduction to Its Meaning and Forms by George Michell

6. Rediscovering the Hindu Temple: The Sacred Architecture and Urbanism of India by Vinayak Bharne and Krupali Krusche
7. Elements of Indian Art: Including Temple Architecture, Iconography and Iconometry by S.P.Gupt

INDIAN ETHICS

Course Objective:

This course is very important in many senses. One, it will cultivate an idea of Indian Ethics in the students. Second, it will throw some light on that traditional knowledge which is ignored but highly important for Individuals and the State as well. Third, it will aware to the students and others of our holistic approach to Ethics and Value from the Cosmic level to Social and Political policy. There is already a course on Ethics and Value running to the students but that is far beyond from Indian Niti concept. This course will create holistic awareness among the students about Indian Ethics.

Learning Outcome:

Ethics as a discipline deals with concepts such as 'ought' 'right' 'good' 'virtue' and 'duty' and the principles that define them and make them universally applicable through the ages. When it comes to public policy one tends to expound these concepts in the context of welfare, development, and growth. While Western philosophy approaches these concepts from several different theories. In Indian philosophy, the concept of Dharma encompasses all the above and thus allows for Dharma to be nonnegotiable while the principles may change from one situation to another. Indian Ethics gives various theories for the moral self-development of the individual.

SYLLABUS

Unit I: Definition and Foundation of Nitishastra

1. Definition of Nitishastra and the difference between Niti and Western morality
2. Dharma and Niti
3. Ethics of Vedas: Ṛta and Ṛṇa, Yajña
4. Ethics of Upanisads: Śreyah, Preyah, Nišreyah
5. Purusartha Chatushtaya: Dharma, Artha, Kama and Moksha.

Unit II: Individual Ethics: vyaktidharma and Niti

1. Svabhāva, Svadharma, Sthitaprajña
2. Highest Goal; Synthesis of Karma, Jñāna and Bhakti Marga.
3. Niskāma Karma Yoga and Lokasamgraha
4. Law of Karma.

Unit III: Important Thinkers and Their Important Niti for Society

1. Brihaspati
2. Shukra
3. Kautilya
4. Kamandak
5. Bhishma Niti
6. Vidur Niti
7. Yudhisthir Niti
8. Bhrtrihari's Niti
9. Nit-tatva in Manusmriti
10. Panch Tantra and Hitopdesh

Unit IV: Dandaniti- State, Society, and Dharma

1. Rajneeti in Nitishastras
2. Rajneeti and Dharma
3. Rajneeti and Society
4. Qualities and Character of King
5. Danda-Vidhan in different crimes
6. Taxation in Nitishastras.
7. Sam, Dan, danda, Bhed: Four upayas and essential gunas.
8. Secret Police: appointment, Division, and duties.
9. Appointment of Ministers, ambassador, and other royal officials and their work.
10. War-related ethics in Scriptures.

References:

1. Sitaram Jayaram Joshi. 1933. Niti Manjari of Dya Dviveda. Saligram Sharma, Banaras.
2. Khemraj Shrikrishnadas. 1961. Kamndakiyanitisarh. Mumbai
3. Prof. Sriyut Prannath Vidyalankar. 1923. Kautilya Arthshstra, Lahore.
4. Bimal Krishna Matilal (Editor). 1992. Moral Dilemmas in the Mahabharata. Indian Institute of Advance Study, Shimla.
5. R. Samashastrri. 1999. Kautilya's Arthshastra. Parimal Publication Delhi.
6. Ganapati Sastri. 1920. Kamndaka's Nitisar. Trivandrum Sanskrit Series. Kerala.
7. Madhvacharya's. 1900. Parasar Smriti. Trivandrum Sanskrit Series. Kerala.
8. Aiyangar, K.V. Rangaswamy. 1916. Some Aspect of Ancient Indian Polity. Madras.
9. Veda Vyas, Shri. Vidura Niti.2018. Chaukhamba Sanskrit Sirij, Varanasi.
10. Bhartrihari. Nitishatakam. 2021. Chaukhamba Surbharati Prakasha

HEALTH CULTURE OF BHARAT

Course Objective:

1. To introduce ancient India as an Arogyasamskriti or Health Culture to the participants.

2. To familiarise participants with health information codified in non-Ayurvedic Sanskrit literature
3. To nurture health intelligence (Arogyabuddhi) in the participants in alignment with the Sustainable Development Goal 3 – ensuring healthy lives and promoting well-being for all.

Learning Outcome:

1. Participants will get exposed to health information classified into subject headings and subheadings corroborating with modern medical knowledge.
2. Participants will understand India as a health culture and rooted in awareness of health.
3. Participants will become aware of behavioural changes that can be incorporated in their lives to nurture health and well being.

Unit 1. Classification of Sanskrit Literature

Unit 2. Overview of health information in non-Ayurvedic Sanskrit literature

Unit 3. Examples of non-Ayurvedic Sanskrit texts with health information

Unit 4. Health topics in non-Ayurvedic Sanskrit Literature.

Unit 5. The concept of Arogyasamskriti

Unit 6. The concept of Arogyabuddhi

Unit 7. Healthy Diet

Unit 8. Healthy Life Style – Sleep, Daily Routine, Exercise, Meditation

Unit 9. Mental Health

Unit 10. Environmental Health

Unit 11. Good conduct for well being.

References:

1. Vaidyakiya Subhashitam by Bhaskara Govinda Ghanekar
2. History of Indian Medical Literature by Meulenbel

