

ABILITY ENHANCEMENT COMPULSORY COURSE -II(AECC-II)
INDIAN KNOWLEDGE SYSTEM
(2026-2027 Onwards)

Semester I	Internal Marks: 100		External Marks: -	
COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
26UGIKS	INDIAN KNOWLEDGE SYSTEM	ABILITY ENHANCEMENT COMPULSORY COURSE	2	2

Course Objectives

- To introduce the fundamental concepts of Indian Knowledge System, including Vedas, Vedangas and philosophical traditions.
- To develop understanding of traditional Indian scientific knowledge in areas such as astronomy, mathematics, agriculture and architecture.
- To analyze the relevance and application of Indian traditional knowledge in modern society and sustainable development.

S. NO	Course Features	Relevance Status
1	Course emphasis on Employability/Entrepreneurship/Skill Development	Skill Development, Employability.
2	Course integrates cross cutting issues relevant to Professional Ethics/Gender sensitization/Environment and Sustainability/Human Values/Indian Knowledge System	Human Values, Environment and Sustainability, Professional Ethics, Indian Knowledge System.
3	Course relevant to Local/Regional/National/Global needs	Local, National, Global needs.
4	Course focus on Sustainable Development Goals	SDG 3, 4,5, 9, 12 , 15,16

Course Outcomes

Course Outcome and Cognitive Level Mapping

CO Number	CO Statement On the successful completion of the course, students will be able to	Cognitive Level
CO1	Explain the fundamental concepts, classifications, and philosophical foundations of Indian Knowledge System.	K1, K2
CO2	Illustrate traditional Indian scientific practices and their application in sustainable resource management and daily life.	K2, K3
CO3	Describe the development of Indian astronomy and apply concepts of number systems, measurement and calendar calculations.	K3
CO4	Explain the principles of Ayurveda and Yoga and apply their concepts for health, well-being and balanced living.	K4
CO5	Describe the evolution of Indian architecture and interpret its scientific and environmental significance in traditional designs.	K5

Mapping of CO with PO and PSO

Cos	PSO1	PSO2	PSO3	PSO4	PSO5	PO1	PO2	PO3	PO4	PO5
CO1	2	2	2	3	2	3	2	2	2	2
CO2	2	2	2	3	2	3	2	2	2	2
CO3	2	2	2	3	2	3	2	2	2	2
CO4	2	2	2	3	2	3	2	2	2	2
CO5	2	2	2	3	2	3	2	2	2	2

“1” – Slight (Low) Correlation

“3” – Substantial (High) Correlation

“2” – Moderate (Medium) Correlation

“-“ indicates there is no correlation

Syllabus

UNIT	CONTENT	HOURS	COS	COGNITIVE LEVEL
I	Introduction to IKS: Four Vedas – Vedanga, Indian Philosophical Systems – Vedic Schools of Philosophy – Non-Vedic Schools of Philosophical Systems.	6	CO1	K1, K2
II	Indian Traditional Knowledge; Science and Practices: Introduction to the Science and way of doing science and research in India – Ancient Science in Intra & Inter Culture Dialogue & coevolution – Traditional agricultural practices – Traditional water-harvesting practices – Traditional Houses & villages.	6	CO1, CO2	K1, K2, K3
III	Vedic Mathematics Addition : Purna puranabhyam, Sankalan Vyavkalanabhyam and Ekadhikena Purvena. Subtraction : Nikhilam Navatascaramam Dastatah and Vinculam. Multiplication : Antyayor dasakepi, Nikhilam Navatascaramam Dastatah, Ekanyuena Purvena, Antyayoshatakepi, Multiplication of three numbers and four numbers.	6	CO1, CO2, CO3	K1, K2, K3
IV	Ayurveda for Life, Health and Well-being: Introduction to Ayurveda - The Knowledge of Life - Understanding composition of Human body through the concept of Dosha Dhatu Mala, the Mind – Body constitution.	6	CO1, CO2, CO3, CO4	K1, K2, K3, K4
V	Ancient Architecture: Evolution of Hindu Temples in Different Periods: Dravidian Style in Chola, Chalukyan, Pandya, Pallava. Scientific achievements though ancient architect: Musical Pillars of Vitthal temple – construction of eight shiva temple in straight line from Kedarnath to Rameshwaram.	6	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4, K5
VI	Self-Study for Enrichment (Not to be included for End Semester Examination) Guru-Shishya Parampara – Purusharthas – Agriculture: types of crops – Types of land – use of animals in warfare. Astronomy:	-	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4, K5

	Brahmasphutasiddhanta – Ayurveda and Yoga: Concept of Means in Ayurveda and understanding Mind Body harmony – Triguna based Psychology in Ayurveda and Yoga – Ancient Architecture: relationship between Man, Nature, Culture and city forms.			
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References

1. B. Mahadevan, Vinayak Rajat Bhat, and Nagendra Pavana R.N., Introduction to Indian Knowledge System: Concepts and Applications, PHI Learning Private Limited, Delhi, 2022.
2. The Essential of Vedic Mathematics, Rajesh Kumar Thakur, Rupa publications, New Delhi 2019.
3. Kapil Kapoor and Avadhesh Kumar Singh, Indian Knowledge System, Indian Institute of Advanced Study, Shimla, 2005.
4. Vasant lad, Ayurveda, the Science of Self-healing: A Practical Guide: Science of Self-healing, lotus press, 1984.
5. M.C. Bora, Bharatiya Knowledge Systems, Khanna Publishing House, 2024.
6. S. Maheshwari, R. Garg, Ancient Indian Architecture, CBS publisher, 2001.

Web References

1. https://fmuniversity.nic.in/getdata?dir=deptnotice&rid=notice2033_29520251748517050501.pdf
2. https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004120632194475nishi_Indian_Knowledge_Systems.pdf
3. <https://youtu.be/3qA3bJEPHXg?si=vuDRTArQBT7SzNwV>
4. https://youtu.be/Gexiwsa7Gc0?si=jutGHxchd8_hJZDV
5. https://youtu.be/jcV0LIp570A?si=2mF2P95VeD_Xn1S1

Pedagogy

Chalk and talk, PPT, Discussion, Assignment, Quiz, Seminar.

Course Designer

Dr. K. Kalaiarasi

Ability Enhancement Compulsory Course II (AECC-II)

INDIAN KNOWLEDGE SYSTEM (IKS) (26UGIKS)

Assessment Rubrics for 100 Marks

1. Seminar/Paper Presentation. - **20 marks**
2. Narration of stories describing Ayurveda-based healthy lifestyle, traditional agricultural practices and Indian philosophical systems. - **20 Marks**
3. Video making about Vedic Mathematics techniques, traditional water-harvesting systems and temple architecture. (minimum 5 minutes) - **20 Marks**
4. VIVA VOCE - **40 Marks**

S.NO	Rubrics for VIVA VOCE	MARKS
1	Subject content <ul style="list-style-type: none">• Quality – what is in or out/ depth;• Quantity – coverage of the subject/ breadth;• Accuracy of information in terms of subject matter	20
2	Command of the subject: <ul style="list-style-type: none">• Response to questions• Conceptual understanding• Ability to explain	10
3	Mannerism, interest generated: <ul style="list-style-type: none">• Engaging presentation and communication;• Eye contact and confidence• Ability to connect	10
Total		40

There will be no End Semester Examination for this course. The subject teacher will make an assessment of the students' performance based on the above-mentioned components and an internal VIVA VOCE will be conducted by the subject teacher and marks will be awarded and submitted to COE in the prescribed format specified by the Controller of Examinations with the approval of the Head of the respective Departments.