

| Course Title: Ancient Indian Sustainable Practices | | | | |
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| Course code: VAC 102 | No. of credits: 2 | L-T-P: 20-10-0 | Learning hours: 30 | |
| L: Lectures; T: Tutorials; P: Practical | | | | |
| Pre-requisite course code and title (if any): None | | | | |
| Department: Natural and Applied Sciences | | | | |
| Course coordinator: | | Course instructor: | | |
| Contact details: | | | | |
| Course type: Value Added Course | | Course offered in: Semester 2 | | |
| Course Description This course offers a thorough examination of Ancient Indian Sustainable Practices, exploring the intricate web of ecological knowledge woven throughout the historical and cultural context of ancient India. Students will study traditional crafts, spiritual ecology, sustainable farming methods, and moral principles that led societies to peaceful cohabitation with the natural world through an interdisciplinary approach. The goal of the course is to apply important historical lessons to guide current sustainability initiatives | | | | |
| Course objectives | | | | |
| <ol style="list-style-type: none"> 1. Analyse Traditional Ecological Knowledge (TEK): examine the traditional ecological knowledge embedded in ancient Indian practices, with a focus on sustainable agriculture, water management, and forest conservation. 2. Evaluate sustainable agricultural practices: critically assess organic farming techniques, water harvesting methods, and biodiversity conservation strategies employed in ancient Indian agriculture. 3. Examine spiritual ecology and environmental ethics: analyze the connection between spirituality, environmental ethics, and the establishment of sacred landscapes in ancient India. 4. Explore contemporary relevance: assess the adaptability and relevance of ancient practices in addressing modern sustainability challenges. | | | | |
| Course Content | | | | |
| Module | Topic | L | T | P |
| 1 | Introduction to Ancient Indian Wisdom on Sustainability | | | |
| | <ol style="list-style-type: none"> Overview of ancient Indian civilization Indus valley civilization vedic period Maurya and Gupta empires Philosophical foundations of sustainability based on ancient vedic scriptures - 4 vedas, upanishads, puranas etc - concepts of dharma and ahimsa harmony with nature in hinduism, buddhism, and jainism. The cyclical view of time in Indian philosophy. Traditional Ecological Knowledge (TEK) in ancient India practices for sustainable agriculture water management techniques, forest conservation and sacred groves. | 6 | | |
| 2 | Sustainable Agriculture in Ancient India | | | |
| | <ol style="list-style-type: none"> Organic farming practices crop rotation and companion planting use of natural fertilizers (e.g., cow dung, compost) traditional pest control methods (stubble issue - pollution) Water harvesting and management, stepwell systems, tank irrigation, aqueducts, and canals Biodiversity conservation in agriculture, sacred groves, and their ecological significance, indigenous crop varieties, and seed saving | 4 | | |

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| 3 | Traditional Crafts and Sustainable Lifestyles | | | |
| | <ul style="list-style-type: none"> i. Handicrafts and cottage industries, handloom, weaving pottery, and terracotta, traditional carpentry ii. Barter system and local economies community-based economies, role of trade guilds iii. Material recycling and upcycling in ancient India, reuse of materials in construction, upcycling of clothing and accessories iv. Sustainable health practice and lifestyle management - ayurveda and yoga, other alternate medicinal channels like naturopathy | 4 | | |
| 4 | Spiritual Ecology and Environmental Ethics | | | |
| | <ul style="list-style-type: none"> i. Sacred landscapes and environmental sanctity, pilgrimage sites with ecological importance, environmental protection as a religious duty ii. Ethical guidelines for sustainable living, non-violence (ahimsa) and its application in daily life, responsible consumption, and minimalism iii. Case studies: eco-friendly monasteries and temples, architectural designs promoting natural ventilation and lighting, sustainable practices in religious institutions | 4 | | |
| 5 | Contemporary Relevance and Adaptation | | | |
| | <ul style="list-style-type: none"> i. Learning from the past: modern applications incorporating ancient practices in contemporary agriculture, reviving traditional crafts for sustainable livelihoods ii. Challenges and opportunities in implementing ancient practices, balancing tradition with technological advancements, community engagement for sustainable development iii. Field visits and practical applications: visits to eco-friendly villages iv. Hands-on experience in traditional crafts and farming | 2 | 5 | |
| 6 | Project Work | | 5 | |
| | <ul style="list-style-type: none"> i. Group projects on sustainable community development, developing sustainable models for a chosen community presentation and evaluation of project outcomes ii. Research paper on a specific ancient practice, in-depth study of a selected sustainable practice, analysis of its potential application in the modern context. | | | |
| | Total | 20 | 10 | |
| Evaluation criteria | | | | |
| <ul style="list-style-type: none"> • Minor Test 1: Written test [at the end of teaching of modules 1 and 2] -- 25% • Minor Test 2: Written test [at the end of teaching of module 3] -- 25% • Major Test: Written test [at the end of the semester, full syllabus] -- 50% | | | | |
| Learning outcomes | | | | |
| By the end of the course, students will: | | | | |
| <ul style="list-style-type: none"> • Demonstrate knowledge: exhibit a comprehensive understanding of the philosophical, ecological, and cultural foundations of ancient Indian sustainable practices. • Evaluate sustainable agricultural techniques: critically evaluate and compare sustainable agricultural practices from ancient India and assess their contemporary applicability. • Integrate spiritual ecology and ethics: integrate spiritual and ethical dimensions into discussions on environmental conservation and sustainable living. | | | | |

- Contribute to sustainable development: propose and implement sustainable community development projects based on lessons learned from ancient Indian practices.
- Reflect on contemporary issues: reflect on contemporary sustainability issues considering historical practices, fostering a critical perspective on current environmental challenges

Pedagogical approach

- The course critically evaluates the concepts of data sciences and develops discussion in classroom through lectures, case studies and tutorials.
- The course will have the field visits like some villages, cow sheds etc to understand the sustainable practices in the modern context

Reading Resources

Here are some key references that can serve as valuable sources for understanding sustainable practices in ancient India:

- Guha, R. (2000). *The unquiet woods: Ecological change and peasant resistance in the Himalaya*. University of California Press.
- Hodge, H. N. (2013). *Ancient futures: learning from Ladakh*. Random House.
- Patel, S. K., Sharma, A., & Singh, G. S. (2020). *Traditional agricultural practices in India: an approach for environmental sustainability and food security*. *Energy, Ecology and Environment*, 5, 253-271.

Research Papers and Journals: Explore academic journals like the

"Journal of Ethnobiology and Ethnomedicine" and "Environmental History" for specific research

Student Responsibilities

The students are required to come prepared with readings that would be given in the class. The students are required to participate in the discussion.

Course Designed by:

- Dr. Neeraj Sharma, Professor of Practice, Department of Policy and Management Studies, TERI School of Advanced Studies, New Delhi

Course Reviewers:

The course is reviewed by the following reviewers:

1. Dr. Sushil, Professor Emeritus, Department of Management Studies, Indian Institute of Technology, Delhi.
2. Dr. Sanjay Verma, Professor, Indian Institute of Management
3. Dr. Priyanka A Arora, Asst. Professor, Adhia College of Law, JVPD-Juhu, Mumbai