

Deccan Education Society's

**Kirti M. Doongursee College of  
Arts, Science and Commerce  
(AUTONOMOUS)**



Affiliated to

**UNIVERSITY OF MUMBAI**

Syllabus for  
Program: Bachelor of Commerce  
Course: First Year

Subject:  
**ENVIRONMENTAL STUDIES**

Choice Based Credit System (CBCS)  
with effect from  
Academic Year 2023-2024

## **PROGRAM OUTCOMES**

<b>PO</b>	<b>Description</b>
A student completing bachelor's degree will be able to	
PO1	<b>Disciplinary Knowledge:</b> Capability of executing comprehensive knowledge and understanding of one or more discipline that form part of commerce.
PO2	<b>Communication Skills:</b> Ability to communicate long standing unsolved problems in commerce; Ability to show the importance of commerce as precursor to various market developments since the beginning of the civilization.
PO3	<b>Critical Thinking:</b> Ability to engage in reflective and independent thinking by understanding the concepts in every area of Commerce and Business; Ability to examine the results and apply them to various problems appearing in different branches of Commerce and Business.
PO4	<b>Problem solving:</b> Capability to deduce a business problem and apply the classroom learning into practice to offer a solution for the same. Capabilities to analyze and synthesize data and derive inferences for valid conclusion.
PO5	<b>Research Related Skills:</b> Ability to search for, locate, extract, organize, evaluate, and use or present information that is relevant to a particular topic
PO6	<b>Self-directed Learning:</b> Capability to work independently in diverse projects and ensure detailed study of various facets of Commerce and Business.
PO7	<b>Moral and Ethical Awareness/Reasoning:</b> Ability to ascertain unethical behavior, falsification, and manipulation of information. Ability to manage self and various social systems.
PO8	<b>Lifelong learning:</b> Capability of self-paced and self-directed learning aimed at personal development and for improving knowledge/skill development and reskilling in all areas of Commerce

**Curriculum as per NEP 2020 Year of implementation-  
2023-24**

**Name of the Department: ENVIRONMENTAL STUDIES**

<b>Semester</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Vertical</b>	<b>Credit</b>
<b>I</b>	<b>KUCEVS23101</b>	<b>FUNDAMENTAL OF ENVIRONMENTAL STUDIES</b>		2
<b>II</b>	<b>KUCEVS23201</b>	<b>FUNDAMENTAL OF ENVIRONMENTAL STUDIES</b>		2

<b>Course Code</b>	<b>SEM – I - Course Title</b>	<b>Credits</b>	<b>Lectures/Week</b>
<b>KUCEVS23101</b>	<b>FUNDAMENTAL OF ENVIRONMENTAL STUDIES</b>	<b>2</b>	<b>2</b>
<b>Course Outcomes:</b>			
<ul style="list-style-type: none"> <li>• Learners will be able to define and describe the concept of environment. It will make them aware about the interdependency of Man &amp; Environment upon each other.</li> <li>• Enables them to identify, organize and discover the resources, its types, and its utilization and understand the importance of sustainable development and environment management skills.</li> <li>• Spreading awareness on the pattern of population growth, explosion, and its effects.</li> <li>• Develops the understanding towards the urban environment, and its effects over the land and biodiversity.</li> <li>• Enables learners to interpret thematic maps and get theoretical and practical exposure in environmental studies, values, and importance. etc.</li> </ul>			
<b>Unit</b>			
<b>Unit</b>	<b>Topics</b>	<b>No of Lectures</b>	
I	<b>Environment, Ecosystem, Natural Resources and</b> <ul style="list-style-type: none"> <li>• Environment: Meaning, definition, scope.</li> <li>• Ecosystem: Definition, components, and types, functioning.</li> <li>• Food Chain and Food Web- Ecological Pyramids</li> <li>• Definitions, Classification of resources, factors influencing resource utilization and conservation.</li> </ul>	<b>15</b>	
II	<b>Urbanization and Environment, Ecosystem Climate Change</b> <ul style="list-style-type: none"> <li>• Concept of Urbanization, Problems of migration and urban environment-Problems associated with Population Explosion and its effects - Measures.</li> <li>• Degradation of air and water, loss of soil cover impact on biodiversity, Urban heat islands.</li> <li>• Case study of Emerging Smart Cities and safe cities Sustainable Cities in India.</li> <li>• Climate Change: Understanding Climate Change: Adaptation and Mitigation</li> </ul>	<b>15</b>	

Textbooks:

1. Environmental Studies – P.G. Shinde, Dr. H. M. Pednekar, et. al.
2. Environmental studies – Amrite and Chakraborti.

Additional References:

1. Dr. Pushpendra, Basics in Environmental Studies
2. Swapan Deb, Environmental Management.
3. Ministry of Urban Development official Website for Smart Cities
4. Ward, Hugh eds, The Sage Handbook of Environment and Society
5. Sundar I, Environment and Sustainable Development.
6. Majid Hussain, Human Geography.
7. World Development Report- Annual
8. Census of India, 2011
9. Pandey, B ed, Natural Resource Management
10. Sarsby, R. eds, The Exploitation of Natural Resources and the Consequences.
11. Knight. et. al. eds, A New Century for Natural Resources Management.
12. Bagad Anjali, Environmental Studies.
13. Beuren, Allan et. Al, Sustainable Urban Environments: An Ecosystem Approach.
14. Ward, Hugh eds, The Sage Handbook of Environment and Society.
15. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
16. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380013, India, Email: mapin @icenet.net (R)
17. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
18. Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
19. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
20. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
21. Down to Earth. Centre for Science and Environment (R)
22. Gleick H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
23. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
24. Heywood, V.H & Watson R.T. 1995. Global Biodiversity Assessment. Cambridge Univ.
25. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. McKinney M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web House, Delhi 284 p. enhanced edition. 639p

Course Code	SEM – II - Course Title	Credits	Lectures /Week
KUCEVS23201	FUNDAMENTAL OF ENVIRONMENTAL STUDIES	2	2
<b>Course Outcomes:</b>			
<ul style="list-style-type: none"> <li>• The student can explain the problem of Solid Waste Management, its sources and classification, significance of sustainable agricultural practices and critically analyze sustainable industrial practices.</li> <li>• The learner elucidates the role of CSR in environmental protection, Bioremediation tourism potential in the Konkan and interpret impact of tourism on environment, and Geospatial Technology for environmental management.</li> <li>• The students would be able to identify various issues related to the environment and learn to empathize with these problems.</li> <li>• The learner will design and interpret thematic maps and will be able to fill map of Mumbai and Konkan region.</li> </ul>			
<b>Unit</b>			
	<b>Topics</b>		<b>No of Lectures</b>
I	<p><b>Solid Waste Management for Sustainable Society and Environmental Movements</b></p> <ul style="list-style-type: none"> <li>• Classification and Sources of solid wastes and its Impact.</li> <li>• Waste management Schemes and initiatives in India, Role of citizens in Waste Management.</li> <li>• Role and functions of Corporate Social Responsibility and NGOs towards environment Management.</li> <li>• Sustainable Development: Concept and meaning, Concept of Carbon Bank and Carbon Credit, ecological footprint.</li> </ul>	15	
II	<p><b>Agriculture and Industrial Development</b></p> <ul style="list-style-type: none"> <li>• Environmental Problems Associated with Agriculture: Loss of Productivity, Land Degradation, desertification uneven Food Production.</li> <li>• Food security Act, Sustainable Agriculture practices.</li> <li>• Environmental Problems Associated with Industries: Sustainable Industrial practices — Green Business and Green Consumerism,</li> <li>• Concept, and importance of SDG's</li> </ul>	15	

Textbooks:

1. Environmental Studies – P.G. Shinde, Dr. H. M. Pednekar, et. al.
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18. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380013, India, Email: mapin@icenet.net (R)
19. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
20. Clark R.S., Marine Pollution, Clarendon Press Oxford (TB)
21. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
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26. Heywood, V.H & Watson R.T. 1995. Global Biodiversity Assessment. Cambridge Univ.
27. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub.
- 28.** McKinney M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web House, Delhi 284 p. enhanced edition. 639p

## **Evaluation Scheme for First Year (UG) under NEP (2 credits)**

### **I. Internal Evaluation for Theory Courses – 20 Marks**

**1) Continuous Internal Assessment (CIA) Assignment** - Tutorial/ Case Study/ Project /Presentations/ Group Discussion / Ind. Visit. – 10 marks

**2) Continuous Internal Assessment (CIA) ONLINE Unit Test** – 10 marks

### **II. External Examination for Theory Courses – 30 Marks**

Duration: 1 Hours

Theory question paper pattern: All questions are compulsory.

<b>Question</b>	<b>Based on</b>	<b>Marks</b>
Q.1	Unit I	15
Q.2	Unit II	15

- All questions shall be compulsory with internal choice within the questions.
- Each Question may be subdivided into sub questions as a, b, c, d, etc. & the allocation of Marks depends on the weightage of the topic.

**NOTE: To pass the examination, attendance is compulsory in both Internal & External (Theory + Practical) Examinations**