



# **BAGALKOT UNIVERSITY**

Mudhol Road, Jamkhandi-587301 Dist: Bagalkot

## **ENVIRONMENTAL STUDIES – (CC)**

For  
**Undergraduate Programs**

I / II Semester

w.e.f.

Academic Year 2024-25

# ENVIRONMENTAL STUDIES

## COMMON COURSE (SEP)

This module consists of 4 units, covering 26 lecture hours which are classroom based. Intended to create awareness, enhance knowledge, and develop skills and attitudes necessary to understand the Environment in its totality and enables students to participate proactively for the cause of the environment.

**Qualifications to teach Environmental Studies (SEP):** A candidate with minimum qualifications of M . A / M.Sc. in G e o g r a p h y subject/ M.Sc. in Chemistry/ M.Sc. in Botany.

- 1. Pattern of Examination:** Total marks – 50 (Internal Assessment - 10marks and Final Examination - 40 marks).
- 2. Final Examination Question Paper Pattern: Multiple Objective questions 40 of 1 mark each.**
- 3. Duration of the examination:** 2 hours ( hours)
- 4. Teaching hours and credits:** 2 hours of teaching per week and 2 credits.

# ENVIRONMENTAL STUDIES

## COMMON COURSE (CC)

Number of Theory Credits	Number of lecture hours per week
<b>2</b>	<b>2</b>
<b>Course Code:</b> 2S1XXXC02T	<b>Course Title :</b> Environmental Studies

Content of ENVIRONMENTAL STUDIES – AECC		26 Hours
Unit-I	<p><b>Introduction to Environmental Studies:</b> Multidisciplinary nature of environmental studies. Scope and importance; Concept of sustainability and sustainable development.</p> <p><b>Ecosystems:</b> What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, foodwebs and ecological succession. Case studies of the following ecosystems:</p> <ul style="list-style-type: none"> <li>a) Forest ecosystem</li> <li>b) Grassland ecosystem</li> <li>c) Desert ecosystem</li> </ul> <p>Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)</p>	6 hrs
Unit-II	<p><b>Natural Resources: Renewable and Non-Renewable Resources</b></p> <p>Land resources and land-use change; Land degradation, soil erosion and desertification.</p> <p>Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.</p> <p>Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (International &amp; Inter-state).</p> <p>Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.</p>	7hrs
Unit-III	<p><b>Environmental Pollution:</b> Types, causes, effects and controls;</p>	6 hrs

	<p>Air, water, soil and noise pollution. Nuclear hazards and human health risks.</p> <p>Solid waste management, Control measures of urban and industrial waste.</p> <p>Pollution case studies.</p>	
Unit-IV	<p><b>Environmental Policies and Practices:</b> Climate change, global warming, ozone layer depletion, acid rain and impactson human communities and agriculture.</p> <p>Environment Laws: Environment Protection Act; Air (Prevention &amp; Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife (Protection) Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).</p> <p>Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.</p> <p><b>Human Communities and the Environment</b></p> <p>Human population growth: Impacts on environment, human health and welfare.</p> <p>Resettlement and rehabilitation of project affected persons;case studies.</p> <p>Disaster management: Floods, Earthquake, Cyclones and Landslides.</p> <p>Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.</p> <p>Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.</p> <p>Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).</p>	7 hrs

## Reference

Bharucha, E. (2015). *Textbook of Environmental Studies*.

Carson, R. (2002). *Silent Spring*. Houghton Mifflin Harcourt.

Climate Change: Science and Politics. (2021). *Centre Science and Environment*, New Delhi.

- Gadgil, M., & Guha, R. (1993). *This Fissured Land: An Ecological History of India*. Univ. of California Press.
- Gleeson, B. and Low, N. (eds.) (1999). *Global Ethics and Environment*, London, Routledge.
- Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. (2006). *Principles of Conservation Biology*. Sunderland: Sinauer Associates.
- Nandini, N., Sunitha N., & Sucharita Tandon. (2019). *A text book on Environmental Studies (AECC)*. Sapna Book House, Bengaluru.
- Odum, E.P., Odum, H.T. & Andrews, J. (1971). *Fundamentals of Ecology*. Philadelphia: Saunders.
- Pepper, I.L, Gerba, C.P. & Brusseau, M.L. (2011). *Environmental and Pollution Science*. Academic Press.
- Rajit Sengupta and Kiran Pandey. (2021). *State of India's Environment 2021: In Figures*. Centre Science and Environment.
- Singh, J.S., Singh, S.P. and Gupta, S.R. (2014). *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
- Sodhi, N.S., Gibson, L. & Raven, P.H. (Eds). (2013). *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
- Wilson, E. O. (2006). *The Creation: An appeal to save life on Earth*. New York: Norton.
- World Commission on Environment and Development. (1987). *Our CommonFuture*. Oxford University Press