



ADD On (BASIC ENVIRONMENTAL SCIENCE)
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[ABILITY ENHANCEMENT COMPULSORY COURSE]

Semester: III	Credits: 2	Subject Code: ADBC32101	Lectures: 30
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Course Outcomes:

At the end of this course, the learners will be able to,

- Identify and recognize the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.
- Discuss current scenario of environment.
- Develop consciousness towards a cleaner and better managed environment.
- Analyze various local environment aspects.

Unit 1: Environmental studies and Ecosphere	08
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- Introduction - Environmental studies Definition, scope importance and need for public awareness. (Multidisciplinary nature of environmental studies).

Ecosphere:

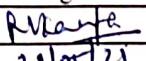
- Atmosphere: Physico-chemical characteristics, division, composition & significance of components.
- Hydrosphere: Water resource and water cycle, physico-chemical characteristics of aquatic environment.
- Lithosphere: Composition, inorganic & organic components in soil, types of soil.
- Biosphere: Composition of Biosphere and brief account of types of Biosphere.

Unit 2: Environmental Pollution	08
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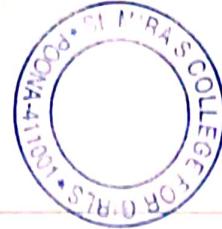
- Definition, Causes, effects on human, water, soil, air (Mother Earth)
- Case studies: Air pollution, Water pollution and Soil pollution.
- Marine pollution
- Thermal pollution
- Nuclear hazards

Unit 3: Waste and Disaster Management	08
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- Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
- Electronic waste management in India
- Disaster management: floods, earthquake, cyclone and landslides.

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no date



Unit 4: Field Work

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- Visit to a local area to document environmental assets - river / forest / grassland / hill / mountain.
- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural
- Effects on plants, insects, birds – As Elements of ecosystem

#12 hours for Library work, assignments, practical or field work

Reference Books:

- Erach Bharucha ,*Environmental Science*, Orient Blackswan 2018.
- Dr. D. N. Khairnar ,*Environmental Awareness*, Vision Publications,2006.
- Dr. Kishore Pawar ,*A Textbook of Environmental Awareness* - Nirali Publications,2020.
- P.D. Sharma,,*Economy and Environmental*, Rastogi publications, 2018.
- Dr. R. G. Desai ,*Environmental Studies*, Himalaya Publishing House, 2014.
- Dr D.D Misra,S.Chand ,*Environmental Studies*, Publications 2020.
- Raven, P.H,Hassenzahl, D.M.,Hager, M.C,Gift, N.Y.,and Berg,L.R(2015), *Environment*, 9thEdition,Wiley Publishing house,USA

Recommended websites:-

- https://en.wikipedia.org/wiki/Reference_ecosystem
- www.ewastel.com
- <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-pollution>

Board Of Studies	Name	Signature
Chairperson (HoD)	Mrs Rekha Kankariya	<i>Rekha Kankariya</i> 29/05/21
Faculty	Mrs.Poonam Shrama	<i>Poonam Shrama</i>
Faculty	Mrs .Kanan Vyas	<i>Kanan Vyas</i> 29/05/21
Faculty	Mrs. Ashwini Khaire Mrs. Sujata Dash	<i>Ashwini Khaire</i> 29/05/21 <i>Sujata Dash</i> 29/05/21
Subject Expert (Outside SPPU)	Dr.Nirbhay Sudhir Pimple	<i>Nirbhay Sudhir Pimple</i> 29/05/21

with date

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Chairperson (HoD)	Mrs Rekha Kankariya	<i>Rekha Kankariya</i> 29/05/21