



M. C. E. Society's

Abeda Inamdar Senior College

Of Arts, Science and Commerce, Camp, Pune-1

(Autonomous) Affiliated to Savitribai Phule Pune University

NAAC accredited 'A' Grade

Syllabus for

FYBA, S.Y.B. Sc., S.Y.B.Sc. (Computer Science), SYBCA (Science), S.Y.B. Com,

SYBBA (CA), SYBBA,

2021-22 (CBCS – Autonomy 21 Pattern)

Course/ Paper Title	Environmental Science/ Environmental Awareness
Course Code	21ABAEV11- FYBA 21SBAEEV24- S.Y.B.Sc., S.Y.B.Sc. (Comp. Sci.), SYBCA (Science) 21CBAEEV23- S.Y.B. Com, SYBBA and SYBBA(CA)
Semester	I (FYBA) III (S.Y.B.Com., SYBBA and SYBBA(CA)) IV (S.Y.B.Sc., S.Y.B.Sc. (Comp. Sci.), SYBCA (Science))
No. of Credits	2 (36 Lectures of 50 minutes)

Aims & Objectives of the Course

Sr. No.	Objectives
1.	To ensure 'well variedness' with the basic, scientific concepts of many of the current environmental issues & happenings
2.	To encourage incitation of a thought process & hence, development of a practical perspective amongst the students
3.	To bring sensitization towards the environment but also increase student competency & employability.
4.	To inculcate sense of Scientific Temperament
5.	To inculcate the laws of Nature and to maintain the harmonious relationship with it.

Expected Course Specific Learning Outcomes

Sr. No.	Learning Outcome
1.	Students will understand the multidisciplinary nature of the subject and thus the Scope of study
2.	Students will understand the importance of the subject in day today's life, thus understanding the basics of sustainability
3.	Students will understand the intricate relationship between all types of life and the present trend of man – environment relationship
4.	Students will understand about how the subject knowledge helps in solving various social, economic and environment related problems
5.	Students of each faculty will be empowered with the knowledge of environment and sustainability, which they can implement in their daily life to achieve sustainable lifestyle

Syllabus

Unit No.	Title with Contents	No. of Lectures
I	Introduction to Environmental Studies 1. Multidisciplinary nature of Environmental Studies 2. Scope & Importance 3. Environmental ethics 4. Concept of sustainability and sustainable development	03
II	Natural Resources 1. Types of Resources-Exhaustible & Inexhaustible 2. Renewable & Non-Renewable-Forest-Mineral-Water-Land 3. Energy Resources 4. Usage 5. Reasons For Their Degradation- 6. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity	04

	<p>and tribal populations</p> <p>i. Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).</p> <p>7. Conservation of resources</p>	
III	<p>Ecosystem</p> <ol style="list-style-type: none"> 1. Structure & Function 2. Energy Flow 3. Food Chain & Food Web 4. Pyramids of Ecosystem 5. Ecological Succession 6. Types of Ecosystems- Terrestrial (Forest, Grassland, Desert), Aquatic ((ponds, streams, lakes, rivers, oceans, estuaries) 	04
IV	<p>Biodiversity & its Conservation</p> <ol style="list-style-type: none"> 1. Definition of Biodiversity 2. levels of Biodiversity (genetic, species and ecosystem diversity) 3. Biodiversity of India (Mega-diversed country) 4. Hotspots of Biodiversity 5. Endemic & Endangered species 6. Threats to biodiversity (Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions) 7. Biodiversity Conservation- In-situ & Ex-situ 8. National parks of India 	06
V	<p>Environmental Pollution</p> <ol style="list-style-type: none"> 1. Definition of Pollution 2. Pollutants 3. Air Pollution 4. Water Pollution 5. Noise Pollution 6. Soil Pollution 	06

	<p>7. Control measures of Pollution (choosing sustainable lifestyle)</p> <p>8. Solid Waste Management</p> <p>9. Case Studies</p>	
VI	<p>Environmental Issues & Solutions</p> <p>1. Climate change,</p> <p>2. Global warming,</p> <p>3. Ozone layer depletion,</p> <p>4. Introduction to Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act.</p> <p>5. International agreements: Paris, Montreal and Kyoto protocols and Convention on Biological Diversity (CBD)</p>	06
VII	<p>Human Communities and the Environment</p> <p>1. Human population growth: Impacts on environment, human health and welfare.</p> <p>2. Concept of Disaster management: floods, earthquake, cyclones and landslides.</p> <p>3. Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.</p>	06
VIII	<p>Field Visit Report</p> <p>Field Visit to Local Ecosystem Site/ Pollution site/ Solid Waste management site/ Pollution control lab</p>	01

References:

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3. Botbin, D., and Keller, E., Environmental Science, 1995. John Wiley and Sons, USA.
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5. Carson, R., Silent Spring, 2002, , Houghton Mifflin Hartcourt
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Philadelphia: Saunders
7. Sharma, P.D. Ecology and Environment 1994. Ashish Publications,
8. Wagner, K.D Environment Management 1998. W.B. Saunders Co, Philadelphia,
USA
9. Singh, G.B. and Sharma Fifty Years of Natural Resource Management Research B.R.
1998, Indian Council of Agriculture Research, New Delhi
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Indo-Gangetic Plains, India. Springer, Feb, 2002
11. Thapar, V. Land of the Tiger: A Natural History of the Indian Subcontinent 1998
12. World Commission on Environment and Development 1987, Our Common Future.
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