



Environmental Awareness
A Course in Environmental Science
[Ability Enhancement Compulsory Course]

Semester: III	Credits: 2	Subject Code: ACS42101	Lectures: 48
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Course Outcomes:

At the end of this course, the learner will be able to:

- Identify and apply the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment
- Discuss current scenario of environment
- Practice consciousness towards a cleaner and better managed environment

Unit 1: Multidisciplinary nature of environmental studies	04
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- Definition, scope and importance
- Multidisciplinary nature of environmental science
- Need for public awareness

Unit 2: Natural Resources	08
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- Concept and Types of resources
- Current Status of Major resources and associated problems
- Forest resources
- Water resources
- Mineral resources
- Food resources
- Energy resources
- Land resources
- Need for conservation of resources
- Rational use of resources

Unit 3: Ecosystem	09
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- Introduction : Definition, Concept of an ecosystem
- Energy flow in an ecosystem
- Community Ecology
- Ecological succession
- Types of Ecosystem in India
- Introduction, types, characteristic features, structure and function of the following ecosystems:

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<ul style="list-style-type: none"> • Forest ecosystems • Grassland ecosystems • Desert ecosystem • Introduction – Definition: genetic, species and ecosystem diversity. • Biogeographically classification of India • Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic adoption values • Biodiversity at global, National and local levels. • India as a mega-diversity nation • Hotspots of biodiversity. • Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. • Endangered and endemic species of India • Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. • Aquatic ecosystems • Environment And Tourism 	
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Unit 4: Biodiversity and its conservation	09
<ul style="list-style-type: none"> • Introduction – Definition: genetic, species and ecosystem diversity. • Biogeographically classification of India • Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic adoption values • Biodiversity at global, National and local levels. • India as a mega-diversity nation • Hotspots of biodiversity. • Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. • Endangered and endemic species of India • Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. • Aquatic ecosystems • Environment And Tourism 	

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

Reference Books:		
<ul style="list-style-type: none"> • Dr. D. N. Khairnar, <i>Environmental Awareness</i>, Vision Publications, 2006. • Dr. Kishore Pawar, <i>A Textbook of Environmental Awareness</i>, Nirali Publications, 2020. • Dr. R. G. Desai, <i>Environmental Studies</i>, Himalaya Publishing House, 2014. • Erach Bharucha, <i>Environmental Science</i>, Orient Blackswan 2021. • P.D. Sharma, <i>Economy and Environmental</i>, Rastogi publications, 2018. • Raven, P.H, Hassenzahl, D.M., Hager, M.C, Gift, N.Y., and Berg, L.R (2015), <i>Environment, 9th Edition</i>, Wiley Publishing house, USA 		

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Recommended websites:-

- https://en.wikipedia.org/wiki/Reference_ecosystem
- www.danielshealth.com
- www.ewaste1.com
- <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-pollution>

Board Of Studies	Name	Signature(In white cell)	
Chairperson (HoD)	Mrs.Shalini Iyer	<i>Shalini Iyer</i> 29/05/21	
Coordinator BSc	Mrs. Gitanjali Phadnis		<i>G.M. Phadnis</i> 29/05/21
Faculty	Mrs.Poonam Shrama	<i>P.S.</i> 29/05/21	
Faculty	Mrs. Ashwini Khaire		<i>Ashwini Khaire</i> 29/05/21
Faculty	Mrs Kanan Vyas	<i>K.V.</i> 29/05/21	
Faculty	Mrs. Sujata Dash		<i>S.D.</i> 29.05.21
Subject Expert (Outside SPPU)	Dr.Nirbhay Sudhir Pimple		<i>Nirbhay Pimple</i> 29/05/21

date

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**(A Course in Environmental Awareness)
(AECC)**

Semester: IV	Credits: 2	Subject Code: ACS42101	Lectures: 30
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Course Outcomes:
<p>At the end of this course the learners will be able to.</p> <ul style="list-style-type: none"> • Identify and apply the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment. • Discuss current scenario of environment. • Practice consciousness towards a cleaner and better managed environment. • Illustrate various local environment aspects.

Unit 1: Environmental Toxins	08
<ul style="list-style-type: none"> • Definition • Cause, effects and control measures • Thermal pollution • Nuclear hazard • Biomedical Waste • Electronic Waste • Solid waste Management: Causes, effects and control measures of urban and industrial wastes. • How to give up Plastic? • Pollution case studies • Manmade Disaster: Famine, Epidemics, Wildfires, Armed Conflict 	

Unit 2: Social Issues and the Environment	08
<p>From Unsustainable to Sustainable development</p> <ul style="list-style-type: none"> • Water conservation, rain water harvesting, watershed management Forest resources. • Resettlement and rehabilitation of people; its problems and concerns. • Case Studies. • Environmental ethics: Issues and possible solutions. Food resources. • Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Land resources. • Wasteland reclamation 	

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<ul style="list-style-type: none"> • Consumerism and waste products.. • Environment Protection Act • Air (Prevention and Control of Pollution) Act. • Water (Prevention and control of Pollution) Act • Wildlife Protection Act • Forest Conservation Act • Issues involved in enforcement of environmental legislation • Public awareness 	
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Unit 3: Human Health and the Environment	08
<ul style="list-style-type: none"> • Environment and Social health. • Human Rights. • Major Diseases: Cancer, AIDS, Covid-19 • Women and Child Welfare with Family Welfare Programme. • Information Technology and Environment • Case Studies. 	

Unit 4: Field work	06
<p>Visit to a local area to document environmental assets river/ forest/grassland/hill/ mountain</p> <ul style="list-style-type: none"> • Visit to a local polluted site-Urban/Rural/Industrial/Agricultural Study of common plants, insects, birds. • Study of simple ecosystems-pond, river, hill slopes, etc. 	

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Recommended websites:-
<ul style="list-style-type: none"> • https://www.geeksforgeeks.org/fundamentals-of-algorithms/edrawsoft.com/explain-algorithm-flowchart.html • https://www.visual-paradigm.com/tutorials/flowchart-tutorial/

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