

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. / B.Sc. / B.Com / B.C.A. / B.V.A. / B.S.W. DEGREE

SYLLABUS
(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE : 15SW/GC/ES12

CREDIT : 2

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TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction (6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment (10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste and Noise
- 2.2 Problems - Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications (10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.4 Environmental Acts – Policy Measures with Respect to India

3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the Campus: Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Biodiversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies (1st edition)*. Hyderabad: U P, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and V. Shiva. *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R. *Environmental Biology*. (1st edition), New Delhi: S. Chand, 2005.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component

List of evaluation modes:

Assignments

Quiz

Open book tests