

Course Modules of the Subject Taught for the Session Sept – Dec 2024-25 (Odd Semester)
Course Syllabi with CO's

Faculty Name: SHRUTHI H G				Academic Year: 2024-25			
Department: Civil Engineering							
Course Code	Course Title	Core/Elective	Prerequisite	Contact Hours			Total Hrs/ Sessions
				L	T	P	
BESK508	ENVIRONMENTAL STUDIES	Core	Engineering Physics And Engineering Chemistry Basics.	-	2	-	30
Course Learning Objectives:							
<ol style="list-style-type: none"> To create environmental and sustainability awareness among the students. To gain knowledge on different types of pollution in the environment, waste management and Environmental legislation. 							
Topics Covered as per Syllabus							
MODULE – 1							
ECOSYSTEM AND SUSTAINABILITY Ecosystems (Structure and Function): Forest, Desert, Wetlands, River, Oceanic and Lake. Sustainability: 17 SDGs-History, targets, implementation, Capacity Development. 3 Hours							
MODULE - 2 NATURAL RESOURCE MANAGEMENT							
Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind. Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining - case studies and Carbon Trading. 3 Hours							
MODULE -3 ENVIRONMENTAL POLLUTION & WASTE MANAGEMENT							
Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and Air Pollution. Waste Management: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge. 3 Hours							
MODULE -4 GLOBAL ENVIRONMENTAL ISSUES							
Global Environmental Concerns (Concept, policies and case-studies): Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology. 3 Hours							
MODULE -5: ENVIRONMENTAL LEGISLATION							
. Environmental Legislation: Water Act 1974, Air Act 1981, Environmental Protection Act 1984, Solid Waste Management Rules-2016, E- Waste management Rule - 2022, Biomedical Waste management- 2016. 3 Hours							

List of Text Books:

1. Environmental studies, Benny Joseph, Tata McGraw-Hill 2nd edition 2012
2. Environmental studies, S M Prakash, pristine publishing house, Mangalore 3rd edition-2018.

Reference Books:

1. Benny Joseph, Environmental studies, Tata McGraw-Hill 2nd edition 2009.
2. M.Ayi Reddy Textbook of environmental science and Technology, BS publications 2007.
3. Dr. B.S Chauhan, Environmental studies, university of science press 1st edition.

List of URLs, Text Books, Notes, Multimedia Content, etc

<https://sdgs.un.org/goals>, <https://archive.nptel.ac.in/courses/109/105/109105190/>

Course Outcomes

At the end of the course, the student will be able to,

1. Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale.
2. Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment as legislation.
3. Apply their ecological knowledge to illustrate and grasp the problem and describe the realities that managers face when dealing with complex issues.

The Correlation of Course Outcomes (CO's) and Program Outcomes (PO's)

Subject Code: BESK508		TITLE: ENVIRONMENTAL STUDIES						Faculty Name: SHRUTHI H G				
List of Course Outcomes	Program Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO-1	1	-	-	-	-	-	3	2	-	1	1	2
CO-2	1	1	1	1	-	1	2	2	-	-	1	3
CO-3	1	1	1	1	-	1	1	1	-	-	1	2

Note: 3 = Strong Contribution 2 = Average Contribution 1 = Weak Contribution - = No Contribution

The Correlation of Course Outcomes (CO's) and Program Specific Outcomes (PSO's)

List of Course Outcomes	Program Specific Outcomes	
	PSO1	PSO2
CO-1	-	3
CO-2	-	2
CO-3	-	2

Note: 3 = Strong Contribution 2 = Average Contribution 1 = Weak Contribution - = No Contribution



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