

**PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY**

(Autonomous)

Kanuru, Vijayawada-520007

**DEPARTMENT OF CSE (AI&ML)**

**II B.Tech – I Semester CSE (AI&ML)**

**ENVIRONMENTAL SCIENCES**

<b>Course Code</b>	23AC1301	<b>Year</b>	II	<b>Semester</b>	I
<b>Course Category</b>	Audit course	<b>Branch</b>	CSE (AI&ML)	<b>Course Type</b>	Theory
<b>Credits</b>	3	<b>L-T-P</b>	3-0-0	<b>Prerequisites</b>	Basic Mathematics
<b>Continuous Internal Evaluation:</b>	30	<b>Semester End Evaluation:</b>	70	<b>Total Marks:</b>	100

**Course Outcomes**

Upon successful completion of the course, the student will be able to

<b>CO1</b>	Apply advanced solutions to measure the threats and hazards in environment to link with human natural systems	<b>L3</b>
<b>CO2</b>	Analyze the ethical, cultural and historical interactions between man and environment.	<b>L4</b>
<b>CO3</b>	Analyze various environmental assets and record for better management	<b>L4</b>
<b>CO4</b>	Analyze global issues to design and evaluate policies	<b>L4</b>
<b>CO5</b>	Apply system concepts to methodological social and environmental issues	<b>L3</b>

**SYLLABUS**

<b>UNIT NO</b>	<b>Contents</b>	<b>Mapped CO</b>
I	<b>INTRODUCTION TO ENVIRONMENT AND NATURAL RESOURCES</b> Introduction to environment. Natural resources & Management- Forest resources, Water resources, Mineral resources, Food resources, Energy resources - Uses, over-exploitation with case studies & Management	<b>CO1 CO2</b>
II	<b>ECOSYSTEMS AND BIODIVERSITY</b> Structural and Functional components of an ecosystem and Ecological succession. Biodiversity: Values, Threats and Conservation	<b>CO1 CO2</b>
III	<b>ENVIRONMENTAL POLLUTION AND CONTROL</b> Environmental Pollution - Air Pollution, Water pollution, Soil pollution and Noise pollution with case studies. Solid waste Management.	<b>CO3</b>
IV	<b>GLOBAL ENVIRONMENT PROBLEMS &amp; GLOBAL EFFORTS AND EIA</b> Global warming, Ozone Depletion, Acid rains and Climate change. Environmental Impact Assessment & Environmental Management Plans	<b>CO4 CO5</b>
V	<b>SOCIAL ISSUES AND ENVIRONMENTAL LEGISLATION</b> From Unsustainable to Sustainable development. Population growth, Environment and human health. Value Education. Women and Child Welfare. Environment Legislation	<b>CO4 CO5</b>

<b>Learning Recourses</b>
<b>Text Books</b>
<ol style="list-style-type: none"><li>1. Text book of environmental studies , Anubha Kaushik and C.P. Kaushik, 2014,New Age International Publisher.</li><li>2. Text book of environmental studies for undergraduates courses ,Erach Barucha ,2005, University Grants Commission, University Press.</li><li>3. Environmental Studies ,Anindita Basak, 2009,Pearson.</li></ol>
<b>Reference Books</b>
<ol style="list-style-type: none"><li>1. A Text book of Environmental Studies, D.K. Asthana and Meera Asthana, 2010, S. Chand.</li><li>2. Solid and Hazardous waste Management, P.M Cherry ,2016, CBS Publisher.</li><li>3. Environmental Impact Assessment, Charles H. Eccleston, 2011, CRC Press.</li></ol>