## DEPARTMENT OF COMPUTER SCIENCE & APPLICATION

**GOUR MAHAVIDYALAYA** 



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ACCREDITED BY NAAC (2nd Cycle) B+

P.O. - Mangalbari, Dist.: Malda, PIN- 732142 (West Bengal)

All the students of the Department of Computer Science (Honours) have taken the course AECl (Ability Enhancement Course) during their Semester 1 which contains Cross cutting issues and Professional Ethics as described below.

Semester	Paper	Unit	Sub-Topic	Teacher
Ι	AEC 1	<b>Unit 1:</b> Introduction to Environmental Studies	Definition, Nature, Scope and Importance of Environmental studies, Multidisciplinary nature of Environmental studies, Types and Components of Environment.	Prabir Das
		Unit 2: Natural Resources: Renewable and Non- renewable Resources	• Energy resources: Renewable and non-renewable resources, use of alternative energy sources, growing energy needs Case studies.	Satyajit Paul
			• Water resources: Distribution of water on earth, use and over exploitation of water on earth, floods, drought, conflicts over water (international and national), Dams — benefits and problems.	Dr. Syfujjaman Tarafder
			• Forest Resources: Types and importance of forest resources, use and over exploitation, Deforestation and its effects. Conservation and protection of Forest, Wild life management.	Prajesh Dutta
			• Mineral resources: Types and importance of minerals, and exploration, effect of extraction on environment.	Prabir Das
		<mark>Unit 3:</mark> Ecosystem	<ul> <li>Concept of an ecosystem, structure and function of an ecosystem, different types of ecosystems: Forest, grassland, desert, aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries). Energy flow in air ecosystem, food chain, food webs and ecological pyramids, energy flow models.</li> <li>Definition and classification of biomes, ecological succession, biogeochemical cycles, pattern and basic types, biogeochemical cycles of nitrogen and phosphorous.</li> </ul>	
			• Definition, levels of biodiversity, genetic, species and ecosystem diversity, Biodiversity hotspot and Mega biodiversity countries: an overview, Value	Prajesh Dutta

	<ul> <li>of biodiversity, Threats to biodiversity, Man- wildlife conflicts, Biological - invasions.</li> <li>Convention of biodiversity: in- situ and ex- situ conservations, endangered and endemic species (plants and animals).</li> </ul>	Dr. Syfujjaman Tarafder
Unit 4:	• Air , water , soil and noise pollution causes and consequences	Prajesh Dutta
Biodiversity and its Conservations	• Thermal, nuclear and marine pollution causes, present status and consequences.	Prajesh Dutta
	<ul> <li>Solid waste management causes, effects and control of urban and industrial wastes.</li> <li>Role of an individual in prevention of pollution.</li> <li>Pollution: Case studies.</li> </ul>	Dr. Syfujjaman Tarafder

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