



CRITERIA 1.1.3

Different UG And PG Programme, Sample of Courses With Highlight On Ethics / Gender / Human Values / Environment And Sustainability Aspects Is Presented.

Programme: B.C.A.

1. ETHICS



2. GENDER



3. HUMAN VALUES



4. ENVIRONMENT AND SUSTAINIBILITY



Environmental & Sustainability of BCA

BCA-403 **ENVIORNMENTAL SCIENCE**

Unit 1	Ecosystems and how they work: Structure and function of an ecosystem, Types of Eco-Systems, Producers, Consumers and Decomposers, Food chains, food webs and ecological Pyramids, Energy flow in the ecosystem. Introduction, Types, Characteristic features, Structure and Function of Forest ecosystem, Desert ecosystem, Aquatic ecosystems Lithosphere, Biosphere and Hydrosphere, Major issues of Biodiversity, Biosphere reserves, National Parks and sanctuaries.
Unit 2	Concept of sustainability and international efforts for environmental protection: Concept of Sustainable Development, Emergence of Environmental Issues, International Agreement on Environmental Management.
Unit 3	Human Population Growth and its effects on the environment: Problem of Population growth, poverty and environment, Population Explosion, Family Welfare Programme.
Unit 4	Renewable and non-renewable resources: Defining resources, classification of resources, soil and land degradation, economic development and resources use, natural resources accounting. Energy needs, renewable and non renewable energy resources, Solar energy and its availability, wind power and its potential, hydropower as a clean source of energy, coal, oil, natural gas etc.
Unit 5	Water Pollution: Water resources of India, Hydrological Cycle, methods of water conservation and management, ground and surface water pollution. Recycling and management of water and wastewater (domestic and industrial). Water borne diseases and health related issues.

Unit 6	Air Pollution: Air pollution and air pollutants, sources of air pollution, its effect on human health and vegetation. Green house effect, global warming and climate change. Ambient air quality standards, steps taken by Government to control air pollution. Noise pollution and its impacts on human health.
Unit 7	Solid Waste: Municipal Solid Waste Management, segregation, disposal methods, composting, land fill sites etc. Hazardous waste management, biomedical waste management.
Unit 8	Environmental Impact Assessment (EIA) and Environmental Management System (EMS): Introduction to EIA, its impact and case study, environmental information system (EIS), role of information technology in environment.
Unit 9	Indian Environmental laws: Legal framework: Constitutional provisions, the Indian Penal Code, Role of Judiciary in Environmental Protection, Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974, Environment (Protection) Act, 1986, Air (Prevention & Control of Pollution) Act, 1981, Forest Conservation Act

Reference Books :

1. Gupta N.C.; Social Auditing of Environmental Law in India, edited book, New Century Publications, Delhi-2003.
2. Agarwal, A, Narain; S. State of India's Environment, Published by Centre for Science and Environment, New Delhi, 1999.
3. Ambasht, R.S. and P.K. Ambasht; Environment and Pollution-An Ecological Approach, third edition, CBS Publishers, New Delhi, 1999.