

Branch Name:	BACHELOR OF PHYSIOTHERAPY
Program Code:	PT101
Course Title:	ENVIRONMENT STUDIES (Not for University Exam)
Course Code:	2PT1010109
Pre-requisite Course:	- NONE -

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)			Credit	Evaluation Scheme (Marks)					
Lecture	Tutorial	Practical		Theory(T)		Practical(P)		Total Marks	
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	Theory	Practical
01	-	-	02	-	-	-	-	-	-

COURSE OUTCOMES:

After completion of this course, student will be able to:

1. Be aware of the environment around us and develop an understanding of sustainable development.
Acquire a basic scientific understanding of environmental issues and their possible solutions.

Subject Contents:

Sr. No.	Topic	Total Hours
1	Multidisciplinary nature of environmental studies a) Definition, scope and importance b) Need for public awareness	03
2	Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people. b) Water resources: Use and over-utilization of surface and ground water, Floods, drought, conflicts over water, dams-benefits and problems. c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water Logging, salinity, case studies. e) Energy resources: Growing energy needs, renewable and nonrenewable energy sources, use of alternate energy sources. Case studies f) Land resources: Land as a resource, land degradation, man induced Landslides, soil erosion and desertification. g) Role of an individual in conservation of natural resources. h) Equitable use of resources for sustainable lifestyles.	05

3	Ecosystems a) Concept of an ecosystem. b) Structure and function of an ecosystem. c) Producers, consumers and decomposers. d) Energy flow in the ecosystem. e) Ecological succession. f) Food chains, food webs and ecological pyramids. g) Introduction, types, characteristic features, structure and function of the Following ecosystem :- ● Forest ecosystem ● Grassland ecosystem ● Desert ecosystem ● Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)	05
4	Biodiversity and its conservation a) Introduction – Definition: genetic, species and ecosystem diversity. b) Biogeographical classification of India c) Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic d) and option values e) Biodiversity at global, National and local levels. f) India as a mega-diversity nation g) Hot-spots of biodiversity. h) Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. i) Endangered and endemic species of India j) Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity	05
5	Environmental Pollution a) Definition, Cause, effects and control measures of:- b) Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, nuclear hazards c) Solid waste Management: Causes, effects and control measures of urban and Industrial wastes. d) Role of an individual in prevention of pollution. e) Pollution case studies. f) Disaster management: floods, earthquake, cyclone and landslides g) Environment Protection Act. h) Air (Prevention and Control of Pollution) Act. i) Water (Prevention and control of Pollution) Act j) Wildlife Protection Act k) Forest Conservation Act l) Issues involved in enforcement of environmental legislation. m) Public awareness.	05
6	Human Population and the Environment a) Population growth, variation among nations. b) Population explosion – Family Welfare Program. c) Environment and human health. d) Human Rights. e) Value Education. f) HIV/AIDS. g) Women and Child Welfare. h) Role of Information Technology in Environment and human health. i) Case Studies.	05

7	Field work a) Visit to a local area to document environmental assets river/ forest/grassland/ hill/ mountain b) Visit to a local polluted site-Urban/Rural/Industrial/Agricultural c) Study of common plants, insects, birds. Study of simple ecosystems-pond, river, hill slopes, etc	05
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