

**UNIVERSITY OF RAJASTHAN**

**JAIPUR**

**SYLLABUS**

**POST P.G. DIPLOMA IN HUMAN  
ECOLOGY**

**(Semester Scheme)**

**2019-20**

*Raj / Jas*

**Dy. Registrar  
(Academic)**

**University of Rajasthan  
JAIPUR**

**INDIRA GANDHI CENTRE FOR HUMAN ECOLOGY,  
ENVIRONMENTAL AND POPULATION STUDIES,  
UNIVERSITY OF RAJASTHAN, JAIPUR-302004**

**Post P.G. Diploma in Human Ecology (Semester Scheme)  
2019-20**

Post P.G. Diploma in Human Ecology is divided into two semesters. There are Five theory papers and One field study in each semester. Grades will be awarded as per norms considered for faculty of science.

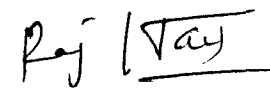
**Eligibility for Admission**

Masters Degree in Social Science, Science, Medical Science, Engineering, Law with atleast 50% marks (45% for SC and ST candidates).

**Post P.G.Diploma in Human Ecology**

**I<sup>st</sup> Semester**

S.N.	Subject code	Course Title	Course category	Credit	Contact hours per week		
					Lecture	Tutorial	Practical
1.	DHE 701	Man and Environment	CCC	6	6	0	0
2.	DHE 702	The Human Ecosystem	CCC	6	6	0	0
3.	DHE 703	Technological Revolution	CCC	6	6	0	0
4.	DHE A01	Elective-1 Natural Resources	ECC	6	6	0	0
5.	DHE A02	Elective-2 Development and Environment	ECC	6	6	0	0
6.	DHE A11	Elective-3 Field Studies in lieu of 3 <sup>rd</sup> Elective paper	ECC	6	0	0	6
		Total		<b>36</b>	30	0	6

  
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**Post P.G.Diploma in Human Ecology****II<sup>nd</sup> Semester**

S.N.	Subject code	Course Title	Course category	Credit	Contact hours per week		
					Lecture	Tutorial	Practical
1.	DHE 801	Ecopolitics and Development	CCC	6	6	0	0
2.	DHE 802	Ethnobiology	CCC	6	6	0	0
3.	DHE 803	Ecological Economics	CCC	6	6	0	0
4	DHE B01	Elective-1 Diversity of Ecosystem	ECC	6	6	0	0
5	DHE B02	Elective 2- Biological Diversity	ECC	6	6	0	0
6	DHE B11	Elective-3 Field Studies in lieu of 3 <sup>rd</sup> Elective paper	ECC	6	0	0	6
		Total		<b>36</b>	<b>30</b>	<b>0</b>	<b>6</b>

**Post P.G. Diploma in Human Ecology****Semester-I**

*Note: Each paper will have five questions. Questions No.1 containing short answer type questions from the entire syllabus and will be compulsory.*

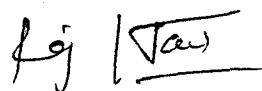
**DHE 701: Man and Environment**

**80 Hours**

The natural and the built environment of man, attempt to modify environment, impact of human activity on environment. **(20 Hours)**

Human diseases resulting from environmental degradation: Air, Water, Noise and Radiation Pollution, Hazardous waste accumulation. **(20 Hours)**

Human genetics and heredity, role of heredity and environment in human growth and development. **(20 Hours)**

  
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Cultural evolution of man and the impact of human culture on the environment, role of faith and beliefs and tradition in ecosystem preservation. Modernization, Consumerism and extravagant life style and their effect on environment. (20 Hours)

**DHE 702: The Human Ecosystem 80 Hours**

Fundamentals of Ecology, ecological principles and factors determining survival of life on earth. The concept of Global ecological balance and threats of its imbalances due to rising human population. (20 Hours)

The urban ecosystem and its relationship with the rural ecosystem urban human ecosystem as highly energy intensive and unsustainable. Strategies for sustainable urbanization. (20 Hours)

The rural ecosystem as ecologically more sustainable development, rural development an ecological necessity. Ecology of forest dwellers, The 'tribals' of India. (20 Hours)

Quality of life in the rural and urban areas. Environmental problems arising from the rapid urban development. (20 Hours)

**DHE 703: Technological Revolution 80 Hours**

Industrialization, Motorization and Farmization, their positive and negative impacts on man and environment. Eco-farming, Eco-housing and Eco-automobiles. (20 Hours)

Green Revolution, its economical and ecological consequences. (20 Hours)

Environmental principles of 3R: Waste reduction, waste recycle, waste reuse and recovery. (20 Hours)

Technological and Development disasters and their impact on Human ecology, construction of big dams and highways and their environmental consequences. (20 Hours)

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**Elective-1****DHE A01: Natural Resources****80 Hours**

Classification of natural resources, Renewable and Non-renewable resources their availability and distribution. (20 Hours)

Solar Energy, Wind energy, Geothermal energy, Hydroelectricity and Tidal energy. (20 Hours)

Hydrogen as fuel, Biomass energy. (20 Hours)

Need for judicious conservation and consumption of natural resources. Ecological problems involved in the harnessing of resources for human development. (20 Hours)

**Elective-2****DHE A02: Development and Environment****80 Hours**


The dilemma of human development, economic development vis-a vis ecological destruction. Need for a balance between economy and ecology. (20 Hours)

The ecological and moral principles in development, Gandhian ideology of development, Equitable development. (20 Hours)

Preliminary aspects of Environmental Impact Assessment (EIA) and Social Impact Assessment. Corporate Social Responsibilities. (20 Hours)

The Brundtland commission report on "Our common future" (1987) and concept of sustainable development, Agenda 21. (20 Hours)

**Elective-3****DHE A11: Field Studies in lieu of 3<sup>rd</sup> Elective paper**

  
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**Post P.G.Diploma in Human Ecology**  
**II<sup>nd</sup> Semester**

**DHE 801: Ecopolitics and Development** **80 Hours**  
The global and Indian Perspective, the interlinked national and international environmental issue of development. **(20 Hours)**

The ecological status of the developed, developing and the under developed nations. **(20 Hours)**

Ecopolitics with regard to global distribution of natural resources inequities in its consumption, provision of Eco-fund for environmental cleaning. **(25 Hours)**

The Stockholm Conference (1972), The United Nations Conference on Environment and Development (1992). **(15 Hours)**

**DHE 802: Ethnobiology** **80 Hours**

Introduction to Ethnobiology, plant and animal resources of India. **(20 Hours)**

Medicinal and food crops of Rajasthan used by tribal communities. **(20 Hours)**

Ethnoecology, traditional ecological knowledge and its use in environmental protection. **(20 Hours)**

Traditional Environmental Management and its contribution in forest, water and soil conservation and wildlife protection. **(20 Hours)**

**DHE 803 : Ecological Economics** **80 Hours**

History and development of Ecological economics, objective of Ecological Economics, Need of Ecological Economics, reintegration of Ecology and Economics. **(20 Hours)**

Sustainable scale, fair distribution and efficient allocation; ecosystem, biodiversity and ecological services. **(20 Hours)**

Substitutability versus complimentary of natural, human and manufactured capital; trade and community. **(20 Hours)**

History of environmental institutes and instruments, success, failures and remedies; policy instruments. **(20 Hours)**

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**Elective-1****DHE B01: Diversity of Ecosystem****80 Hours**

The ecological principles and factors determining survival of life on earth, (20 Hours)  
The global ecosystem and the place of man in it; human food chain and the energy requirements for the maintenance of human ecosystems on earth.

Forest ecosystem- Forest as an ecosystem, economics and ecology of forest, (20 Hours)  
role of forests in protection of species, climate regulation and production of various produce.

Grassland ecosystem - Distribution and types of grasslands, Wetland (20 Hours)  
Ecosystem- Distribution and economic importance of wetlands.

Desert Ecosystem and Wastelands- Structure, types and global distribution (20 Hours)  
of deserts, Types and distribution of wastelands in India, Aquatic  
Ecosystem: structure and distribution of fresh water ecosystem, estuaries and  
marine ecosystem.

**Elective 2-****DHE B02: Biological Diversity****80 Hours**

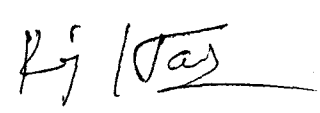
Meaning and scope of Biological diversity, causes of loss of Biological (20 Hours)  
diversity, Importance of Biological diversity.

Levels of biodiversity, Alpha, Beta and Gamma diversity, Endangered and (20 Hours)  
threatened species, Hot spots of Biodiversity, Red data book.

Bio-geographical zones of India, Diversity and distribution of major (20 Hours)  
forests at National and Global level, Status of biodiversity in India, Agro-  
ecological regions of crop diversity in India, Biodiversity conservation in  
folk-beliefs in Rajasthan.

Modern techniques of Measurements and monitoring of biodiversity, The (20 Hours)  
concept of global "ecological balance" and the threats of its imbalances  
due to rising human population.

**Elective-3****DHE B11: Field Studies in lieu of 3<sup>rd</sup> Elective paper**

  
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