University of Rajasthan
Jaipur
SYLLABUS
POST P.G. DIPLOMA IN
HUMAN ECOLOGY
(SEMESTER SCHEME)
2020-2021

Dy. Registrar (Acad.)
University of Rajasthan
JAIPUR
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

### 1st Semester

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Subject code</th>
<th>Course Title</th>
<th>Course category</th>
<th>Credit</th>
<th>Lecture</th>
<th>Tutorial</th>
<th>Practical</th>
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<tr>
<td>1.</td>
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<td>CCC</td>
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<td>ECC</td>
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Post P.G. Diploma in Human Ecology

II\textsuperscript{nd} Semester

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<th>Credit</th>
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<td>Ecopolitics and Development</td>
<td>CCC</td>
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<td>DHE 802</td>
<td>Ethnobiology</td>
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<td>Elective-1 Diversity of Ecosystem</td>
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<td>Elective-3 Field Studies in lieu of 3\textsuperscript{rd} Elective paper</td>
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Total

36  30  0  6

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 (20 Hours) environment, impact of human activity on environment.

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

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

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\[\text{University of Rajasthan} \]
\[\text{Jaipur}\]
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

Classification of natural resources, Renewable and Non-renewable resources their availability and distribution.

Solar Energy, Wind energy, Geothermal energy, Hydroelectricity and Tidal energy.

Hydrogen as fuel, Biomass energy.

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

Elective-2

DHE A02: Development and Environment

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

The ecological and moral principles in development, Gandhian ideology of development, Equitable development.

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

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

Elective-3

DHE A11: Field Studies in lieu of 3rd Elective paper

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II\textsuperscript{nd} Semester

DHE 801: Ecopolitics and Development  
80 Hours (20 Hours)

The global and Indian Perspective, the interlinked national and international environmental issue of development.

The ecological status of the developed, developing and the underdeveloped 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)


DHE 802: Ethnobiology  
80 Hours (20 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 (20 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  
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 (20 Hours)  
ergy requirements for the maintenance of human ecosystems on earth.  
(20 Hours)

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

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

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

Elective 2-

DHE B02: Biological Diversity  
Meaning and scope of Biological diversity, causes of loss of Biological  
diversity, Importance of Biological diversity. (20 Hours)

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

Bio-geographical zones of India, Diversity and distribution of major  
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. (20 Hours)

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

Elective-3

DHE B11: Field Studies in lieu of 3rd Elective paper

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