



**UNIVERSITY OF RAJASTHAN**

**JAIPUR**

**SYLLABUS**

**POST P.G. DIPLOMA IN POPULATION  
STUDIES**

**(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 Population Studies (Semester scheme)**

**2019-20**

Post P.G. Diploma in Population Studies 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.

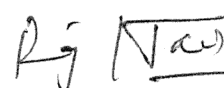
**Eligibility for admission:**

Master degree in Social Science, Science, Medical Science, Engineering, Law with at least 50% Marks (45% for SC and ST candidates).

**Post P.G. Diploma in Population Studies**

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

S.N.	Subject code	Course Title	Course category	Credit	Contact hours per week		
					Lecture	Tutorial	Practical
1.	DPS 701	The Ecology of Human Population	CCC	6	6	0	0
2.	DPS 702	Population Growth and Resource Development	CCC	6	6	0	0
3.	DPS 703	Population Control, Planning and Policies	CCC	6	6	0	0
4	DPS A01	Elective-1 The Human Population and Environment	ECC	6	6	0	0
5	DPS A02	Elective-2 Social Impact Assessment and Sustainable Development	ECC	6	6	0	0
6	DPS 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 Population Studies****II<sup>nd</sup> Semester**

S.N.	Subject code	Course Title	Course category	Credit	Contact hours per week		
					Lecture	Tutorial	Practical
1.	DPS 801	Development of Population Studies	CCC	6	6	0	0
2.	DPS 802	Population and Human Resources	CCC	6	6	0	0
3.	DPS 803	Demography	CCC	6	6	0	0
4	DPS B01	Elective-1 Epidemiology	ECC	6	6	0	0
5	DPS B02	Elective-2 Basic statistical tools for population studies	ECC	6	6	0	0
6	DPS B11	Elective-3 Field Studies in lieu of 3 <sup>rd</sup> Elective paper	ECC	5	0	0	6
		Total		<b>36</b>	30	0	6

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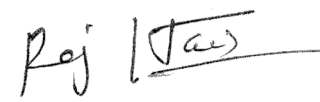
**Post P.G. Diploma in Population Studies****Semester-I****DPS 701: The Ecology of Human Population****80 Hours**

Ecology and the concept of human ecosystem; components of ecosystem; role of human beings in the global ecosystem, human food chain. Growing human population - a threat to the global ecological balance; ecological factors affecting human existence on earth. **(20 Hours)**

The human "Population bomb" impact of growing human population of the life support systems of Earth e.g. air, water, land soil flora and fauna. Ecological Pyramids of number and biomass and the impact of human population explosion on the global ecosystem; relationship between population, poverty and pollution; Impact of population on human health and environmental sanitation. **(20 Hours)**

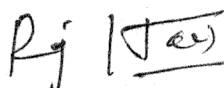
Current trends of population growth; population distribution, density and composition; population projections for the future; rural and the urban population and quality of life, migration of population-causes and consequences. **(20 Hours)**

Determinants of fertility and mortality, indicators of fertility, measurements of mortality, life expectancy and longevity; crowding behavior-social and psychological aspects. Human genetics, blood groups and Rh factors, fitness characteristics; meecological adaptions; genetical adaptions among primitive human societies (tribal population). Heterosis; inbreeding depression; social factors promoting hybridization, genetical disorders among human population; behavioural genetics. **(20 Hours)**

  
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<b>DPS 702: Population Growth and Resource Development</b>	<b>80 Hours</b>
Status of world human population; developing and the developed nations and their population problems; Population growth, economic development and the quality of life in the developing and the developed countries; Population growth curves of human beings and other species on earth.	<b>(20 Hours)</b>
Growth of population in India-pre and post-independence scenario; sex ratio; distribution of Population in India and the Population density.	<b>(20 Hours)</b>
Ecology Vs Economy-the concept of sustainable development with regard to growing human population; socio-economic impact of population explosion and their ecological consequences.	<b>(20 Hours)</b>
The finite natural resources(minerals and materials)of earth vis-a-vis the infinitely growing human population, the world food resources vis-a-vis the growing human population quality of food, malnutrition and deficiency diseases with special references to the developing countries. The relationship between population growth, increase in poverty and rise of pollution-the 3 P syndrome and the vicious circle.	<b>(20 Hours)</b>

<b>DPS 703: Population Control, Planning and Policies</b>	<b>80 Hours</b>
Need of population education and awareness, and their objectives; Population education in India-achievements and failures.	<b>(20 Hours)</b>
Theories of population control; family planning and family welfare programme in India socio-economic prosperity as a key factor in population control.	<b>(20 Hours)</b>
The mechanical and oral contraceptives and devices of fertility control and prevention of birth sterilization and immunization; herbal contraceptives and anti-fertility plants.	<b>(20 Hours)</b>

  
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Population policies of developed and developing countries with special reference to China and Islamic countries one and two child norms population planning and policies of India since independence the socio-political and religious aspects of compulsory sterilization perspective of population planning for the future. (20 Hours)

### Elective-1

**DPS A01: The Human Population and Environment** 80 Hours

Population Explosion and status of Environment: Status of population, status of environment, sustainable development, deforestation, soil erosion, flooding, excessive ground water exploitation, water pollution, air pollution, mining, global warming, acid rain, ozone depletion. (20 Hours)

Population and Health: Concept of health, physical health, mental health, Social health, determinants of health, indicators of health, health profile-Indian scenario, communicable diseases, non communicable diseases, national health policy of India. (20 Hours)

Population and Nutrition: Economic status and food intake, food beliefs among population, nutritionally vulnerable groups, nutrition and fertility, nutrition and child survival, nutritional deficiency diseases among population, national nutritional programmes of India (20 Hours)

Population control Law: The Medical termination of pregnancy (MTP) Act of India, Population control laws in India, China and Islamic countries. (20 Hours)

### Elective-2

**DPS A02: Social Impact Assessment and Sustainable Development** 80 Hours

Economic Traits of Population: Economically active and inactive Population, employment status (unemployment, under employment and labour absorption), work force, occupation, structure, income and expenditure. (20 Hours)

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Technological Revolution: Industrialization, Farmization, Urbanization, meaning of urbanization, determinants of urbanization, urbanization in India, world urbanization. (20 Hours)

Sustainable Development: The Brundland Commission Report (1987) about sustainable development, the strategies for sustainable industrialization, sustainable agriculture, sustainable urbanization and sustainable transport system, developmental philosophy based on human needs and not greed, Gandhian philosophy of development. (20 Hours)

Eco-politics and Development: Politics and environment, the North and South ecopolitical divide on the issues of environment and development, national and international politics on the course of development and environment, role of politician, legislature, and constitution in environment and development. (20 Hours)

### Elective-3

DPS A11: Field Studies in lieu of 3<sup>rd</sup> Elective paper



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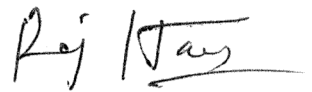
**Post P.G. Diploma in Population Studies****II<sup>nd</sup> Semester****DPS 801: Development of Population Studies****80 Hours**

History of Population: Past, present and future population trends across world, continents, major regions, India and Indian states, with brief description of causes. population pyramids, pre-Malthusian view on population, the theories of Malthus and his immediate predecessors, post-Malthusian views on population. **(20 Hours)**

Optimum Theories of Population: Optimum theory of population, explanation of the optimum theory, views of Dalton and Robbins, criticism of the optimum theory. **(20 Hours)**

Biological Theories of Population: Sadler's Density and Fecundity principle, Diet Theory of Thomas Doubleday, Logistic Curve Theory, CarradoGinni's principle, Herbert Spencer's Analysis of fertility function, Theories of protein consumption, Kaczynsky's Biological Theory. **(20 Hours)**


Socio-Cultural, Economic and Demographic Transition of Population: Dumont Theory of social capillarity, Frank Fetter Theory of voluntarism, Nitti Principle of Individuality, L. Brente Theory of Prosperity and Pleasure, Ungern Sternberg Theory of Rationalism, Henry George and Harvey Liebenstein Theory of population growth, Theory of Demographic Transition. **(20 Hours)**



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<b>DPS802 :Population and Human Resources</b>	<b>80 Hours</b>
Population as a resource, relation of Population growth and development, The Food and Population Balance.	<b>(20 Hours)</b>
The Population Perspective Population growth, changes in mobility, Managing Distribution and Mobility.	<b>(20 Hours)</b>
Conditions of health and education, Managing the human resources, Improving Health, Broadening Education, Empowering Vulnerable Groups.	<b>(20 Hours)</b>
Targets and indicators of the Millennium Development Goals, Status of Human Resource Development in India.	<b>(20 Hours)</b>
 <b>DPS 803 : Demography</b>	 <b>80 Hours</b>
Definition and Evolution of demography as a scientific discipline; Nature and scope of demography, Multi-disciplinary nature of demography, its links with other disciplines. Basic demographic concepts.	<b>(20 Hours)</b>
Types and different sources Demographic Data, Population censuses across the world, Indian censuses, vital registration system, sample registration system, survey on causes of death, National Sample Survey Organization's surveys, details of different rounds collecting population and health data.	<b>(20 Hours)</b>
Age-Sex Structure and its Dynamics, Role of age-sex structure in demography. Present status, past trends and probable future changes in age-sex structure of India, Determinants and consequences of sex-age structure of population.	<b>(20 Hours)</b>
Demographic dividend, Ageing of the population. Relative role of low fertility and low mortality in ageing. Socio-economic consequences of population ageing. Components of population change. Demographic transition.	<b>(20 Hours)</b>

  
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**Elective-1****DPS B01: Epidemiology****80 Hours**

Definition and objectives of epidemiology; Epidemiology and clinical practice; The epidemiologic approach; Infectious disease epidemiology, occupational epidemiology, disaster epidemiology, (20 Hours)

Disease outbreak; Determinants of disease outbreak, Identifying the roles of genetic and environmental factors in disease causation: Association with known genetic diseases; Age at onset; Family studies; Interaction of genetic and environmental factors. (20 Hours)

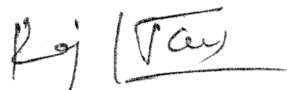
Epidemiology and public policy: Epidemiology and prevention; Population versus high risk approaches to prevention; epidemiology and clinical medicine; Risk assessment; Meta Analysis. (20 Hours)

Cohort studies – design, types of cohort studies; Case control study –design, selection of cases and controls, problems in control selection, matching, problems of recall, use of multiple controls, when case control study warranted, nested case-control study; cross-sectional studies. (20 Hours)

**Elective-2****DPS B02: Basic statistical tools for population studies****80 Hours**

Descriptive and Inductive statistics, Concept of variables, Tabulation of data, conversion of raw data into frequency distribution, graphical presentation of data. Measures of Central Tendency- Mean (arithmetic, geometric, harmonic) Median, Mode; their merits and demerits. (20 Hours)

Measures of dispersion: Range, Variance, Standard Deviation, Merits and demerits of different measures of dispersion. Probability, Laws of probability. Correlation- Pearson correlation coefficient, and its properties; Spearman ranks correlation coefficient. Concept of linear regression. (20 Hours)

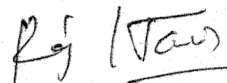
  
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Inductive statistics: Population, sample parameter, standard error. (20 Hours)  
Testing statistical hypothesis and test of significance. Testing the association of attributes and Chi-square goodness of fit. Analysis of Variance and Covariance. Introduction to Multivariate Analysis.

Introduction to sampling; Simple random and systematic sampling; (20 Hours)  
Sample size and power estimation; Stratified sampling; Cluster sampling; Concept of design effect and its estimation; Concept of weighting; Sampling and non-sampling errors.

### Elective-3

DPS B11: Field Studies in lieu of 3<sup>rd</sup> Elective paper

  
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