

PG Diploma in Bio-Statistics and Demography (PGDBSD)

Course Structure:

Paper No.	Course Code	Title of the Course	Terminal Examination	Assignment/Internal	Total	Credits
	PGDBSD-01	Concepts of Demography	70	30	100	8
	PGDBSD-02	Demographic Models	70	30	100	8
	PGDBSD-03	Research Methodology	70	30	100	8
	PGDBSD-04	Bio-Statistics	70	30	100	8
	PGDBSD-05	Practical and Viva-voice	100		100	8
	Total		380	120	500	40

PGDBSD-01 Concepts of Demography

Block- 1: Introduction to Demography

Unit-1: Definition and Scope of Demography, Sources of Demographic Data: Censuses, National Sample Survey, Simple Registration System, Demographic Health Surveys, Others, Basic Demographic Concepts,

Unit-2: Dynamics of Age Sex Structure, Factors Affecting the Structure, Aging of Population, Factors Affected Age Structure

Unit-3: Errors in Census and Vital Statistics and their Adjustment, Whipples and Myer's Indecies, Chandrasekharan Deming Formulae to Check of Reglsfation Data.

Block- 2: Demographic Parameters

Unit-1: About Fertility, Different Measurements of Fertility, Basic Fertility Measures, Cole Fertility Indices, Reproduction Measures, Bongarts Proximate Determination, Birth Interval Analysis

Unit-2: About Mortality, Different Measurements of Mortality, Basic Measures, Infant Mortality Rate, Maternal Mortality Rate, Basic Concepts of Life Table its types and forms, Model Life Table

Unit-3: Concept of Mobility and Migration, Types of Migration, Different Measurements of Migration, Basic Measures, Causes and Consequences of International Migration.

PGDBSD-02

Demographic Models

Block- 1: Fertility Models

Unit-1: Brass P/F Ratio to Estimate Current Fertility Levels, Coales Models for Age Pattern of Fertility, Elementary Stochastic Processes. Fertility Models.

Unit-2: Time of First Birth/Conception; Number of Births/Conceptions in a Specified Time; Birth Intervals. Study of fertility through Birth Interval Analysis

Block- 2: Mortality and Migration Models

Unit-1: Life table and its Constitution. Makeham's and Gompertz Curve, Abridged Life Tables, Model-Life-Tables, National Life Tables and Nuptiality tables.

Unit-2: Migration Rates and Ratio's Methods of Estimate Inter-Censal, Migration Using-Vital Statistics, Survival Ratio and Growth Rate, Migration Models.

Indirect Measure of Net Internal Migration Based on Growth Rate Method, Methods to Estimate Inter-Censal Migration – Using Vital Statistics, Life Time Survival Ratio Method and Census Survival Methods, Estimation of International Migration.

Block- 3: Population Growth Models

Unit-1: Stable and Stationary Populations. Use of Leslie's Matrix. Inter Censal And Post Censal Estimates. Growth Curves and Method of Their Fitting, Stochastic Models for Population Growth.

- Unit-1:** About Hypothesis and its Types, Level of Significance, Chi-Square Tests, t-tests, z-tests.
- Unit-2:** Analysis of Variance and Co-Variance, Basic Principles of ANOVA and ANCOVA. (One Way, Two Way and Three Way Analysis)
- Unit-3:** Non Parametric Tests, Sign Tests, Run Tests, Wilcoxon Tests, Kendall Tests. Etc.

PGDBSD-05

Practical and Viva-voice

Based on PGDBSD- 01, 02, 03 and