## Programme Structure

(For students admitted from the academic year 2019-2020)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours/Week</th>
<th>Marks</th>
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<td>Core 15: Practicals: Techniques of Demographic Analysis</td>
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**Note:**
1. Students shall take both Department Electives (DEs) and Interdepartmental Electives (IDEs) from a range of choices available.
2. Students may opt for any Value-added Courses listed in the University website.

### Elective Courses

#### Department Electives (DE)

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#### Interdepartmental Electives (IDE)

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Electives Offered to Other Departments

Value Added Course

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<td>CHEA415</td>
<td>Phytochemistry and Biological Activities of Medicinal Plants</td>
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Programme Outcomes

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<th>PO1:</th>
<th>Critical thinking</th>
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<td>PO2:</td>
<td>cultivating cognitive skills required in the job market</td>
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<td>PO3:</td>
<td>Effectvie communication</td>
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<td>PO4:</td>
<td>Familiarity with ICT to thrive in the information age</td>
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<td>PO5:</td>
<td>Cultivating aptitude for research</td>
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<td>PO6:</td>
<td>Respect fro alternate view points including those conflicting withones’ perceiveives</td>
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<td>PO7:</td>
<td>Ability to work individually and as memebers in ateam</td>
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<td>Acting local while thing global</td>
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<td>PO10:</td>
<td>Commitment to gender equality</td>
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<td>PO11:</td>
<td>Commitment to sustainabile development</td>
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<td>PO12:</td>
<td>Life long learning</td>
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Programme Specific Outcomes

At the end of the programme, the student will be able to

| PSO1: Acquire the knowledge on the study areas of Population dynamics, Health education and Nutrition, Data management, Theories, Policies and Programmes. |
| PSO2: Demonstrate an understanding of the basic courses in Sociology, Psychology, Economics, Statistics, Public Health and Nursing |
| PSO3: Develop technical skill to collect, compile and anlayse the Population Data. |
| PSO4: Exhibit the knowledge through survey research. |
| PSO5: Recognize to develop an aptitude for research. |

Semester-I

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<tr>
<th>19POSC101 INTRODUCTION TO POPULATION STUDIES</th>
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<tr>
<td>19POSC101 INTRODUCTION TO POPULATION STUDIES</td>
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Learning Objective (LO):
UNIT – I: Introduction
Demography and Population Studies; Concepts, Definition, Nature, Scope, and its interdisciplinary nature; Historical background; Demographic determinants of Population Change—Fertility, Mortality and Migration; Balancing equation; Development of Population Studies in India.

UNIT – II: World Population Growth
World Population Situation and its distribution, population Growth in world, developed and Developing Countries; Factors; World Population Prospects.

UNIT- III: India’s Population Growth
India’s Population Growth, Situation and Distribution; Trends and Differentials in India, States and Union Territories; Factors; Future Prospects of population growth in India and States;

UNIT – IV: Demographic Characteristics
Age: Definition, Uses, Sources and Classification of Age data: Measures; Factors affecting age Structure in Developing and Developed Countries; Trends in Age Structure in India; Aging and Younging Populations and their impact and problems.
Sex: Uses and Sources of sex-data; Measures: Trends in sex ratios in Developed and Developing countries including India; Factors governing changes in sex ratios; Impact of changing sex-ratios.

UNIT - V: Social and Economic Characteristics
Religion -Sources of data use and limitations Languages & Mother Tongue – Sources of data, uses and limitations.
Literacy and Educational Attainment-Definition, Sources, Uses, Measures and Limitations Marital Status: Concepts, sources, and uses; classification, Measures and limitations Manpower: Definitions, Concepts, Sources Importance of study, Measures and Limitations

Text Books

Supplementary Reading

Course Outcomes
At the end of the course, the student will be able to
CO1: Acquire the knowledge about basic components of population change.
CO2: Understand the growth of population in the globe.
CO3: Identify the distribution of population in various regions.
CO4: Demonstrate the population characteristics.
CO5: Comprehend the linkages of age and sex structure.

Outcome Mapping

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<tr>
<th>CO/PO</th>
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Semester-I 19POSC102 Demographic Data Management Credits: 5 Hours: 5

UNIT – I: Population Census

Census: Concept; Definition and Utility; Scope and Features of Census; History of Census-taking-World and India: Evolution of Indian Censuses; Census Organization; Census Questions: Meaning, definition, and their changes over Census periods; Method of data collection; post-enumeration check and Census Tabulation; Census Publications.

UNIT – II: Registration System

Concepts, objectives and utility of vital Statistics; UN Recommendations; History of Civil Registration System – World and India; Organizational set up and details covered; Limitations; Sample Registration Scheme in India: objectives, advantages and limitations; Model Registration Scheme in India: objectives, coverage, uses and limitations; Population Registers.

UNIT – III: Secondary Sources


UNIT – IV: Evaluation Techniques

Evaluation of census Data: errors in Census; Coverage and content Errors; Measurement techniques; Types of errors in age data; Measurement of errors: Inspection of data, Comparison with Expected Configuration, Analysis of ratios computed from data, and Measurement of age.
accuracy by means of an Index: Whipple's Index, Myer's Index and U.N Secretariat Method;
Errors in Registration System and Vital statistics: Coverage errors; Content errors in time, place, accuracy of definition adopted and characteristics recorded in the certificates; Measurement of errors: Internal consistency of Vital Statistics, Balancing Equation, Direct check on Completeness of Vital Statistics and Chandrasekhar and Deming Method.

UNIT – V: Adjustment and Graduation techniques

Adjustment of Data; Interpolation: Meaning and Uses and Method: Newton’s Forward and Backward Formula, Use of Model life table in adjustment, Sex-Age Adjusted Birth Rate (SAABR); Graduation; of Data; Meaning: Need for graduation; Methods: Newton’s formula, Karup-Kings’ Formula, Greville’s formula, U.N. Secretariat formula.

TEXT BOOKS

SUPPLEMENTARY READING
8. ...................... Demographic Year Books (various years)

Course Outcomes
At the end of the course, the student will be able to

| CO1: | Impart knowledge on sources of population data and its management |
| CO2: | Familiarise the registration system objectives, coverage, uses and limitations |
CO3: understand the large scale demographic surveys and their advantages
CO4: illustrate the evaluation techniques of various source of population data
CO5: analyse he Adjustment and Graduation techniques, uses of life table in adjustment

Outcome Mapping

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<tr>
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Semester-I 19POS103 Mortality and Morbidity  Credits: 5  Hours: 5

UNIT – I: Morbidity

Morbidity: Concepts and definition, diseases: Types: Communicable and non-communicable; incidence and prevalence; Epidemiology of diseases; Agents, Environment and Host Factors; Sources of Infection and Modes of Transmission; Pathogenesis and Level of Prevention; WHO Classification of Causes of death; Changing patterns of Causes of death in developing and developed countries and in India; Epidemiological transition, Health transition; Reproductive and Child Health (RCH) and AIDS.

UNIT – II: Mortality

Mortality: Importance of Study; Concepts, definition, data Sources and limitations; Factors important in the analysis; Measures: Crude Death Rate, Specific death rates by Age, Sex, Causes of Death, Marital Status and other Characteristics, Standardization of Death Rates: Importance and Methods; Comparative Mortality Index and Standardized Mortality Ratio; Lexis Diagram and its Importance;

UNIT – III: Levels, Trends and Differentials

Mortality differentials by age, sex, residence and socio-economic Characteristics and trends in mortality in developed and developing countries and in India; Prospects of mortality decline in developed and developing countries and in India.

UNIT - IV

Infant, Childhood and Maternal Mortality
Infant and Child Mortality: Importance of study; Measures; Perinatal, neo-natal and post-neo-natal mortality rates; Causes: endogenous and exogenous; Trends and differentials in developed and developing Countries and in India; reasons for high IMR in India; Prospects of decline; Maternal mortality rates: levels and trends and future prospects.

UNIT --V: Life Table

Life Tables: Concepts, definition and columns; Current and Cohort Life-tables and their relationship; Method of Construction of Life tables from Age Specific Death Rates: Construction of life table on the basis of Single Census and two Censuses: Conversion of Abridged Life table into complete life table.

TEXT BOOKS:


Supplementary readings

7. United Nation, Age and Sex Patterns of Mortality Model Life table for under-developed countries population Branch, 1973

Course Outcomes

At the end of the course, the student will be able to

<table>
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<th>CO1:</th>
<th>Understand the basic concepts morbidity and level of prevention</th>
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<td>CO2:</td>
<td>Impart knowledge on mortality concepts and measures of mortality</td>
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<td>CO3:</td>
<td>Analyses the levels, trends and differentials of mortality</td>
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<tr>
<td>CO4:</td>
<td>Familiarize the Infant and Child Mortality: Importance of study; Measures; Perinatal, neo-natal and post-neo-natal mortality rates</td>
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</table>
CO5: Acquire knowledge on Life Tables: Concepts, definition and columns; Currents and Cohort Life-tables and their relationship

Outcome Mapping

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Semester-I 19POSC104 Fertility and Nuptiality Credits: 5

UNIT-I
Introduction
Fertility Concepts, Definitions, Importance of the study of Fertility and Nuptiality; data sources and errors; Factors important in the analysis of Fertility and Nuptiality; Historical background; Physiology and Anatomy of Human Reproduction.

UNIT-II
Measures
Crude Birth Rate, General Fertility Rate, Age Specific Fertility Rate, Total Fertility Rate, Rates Adjusted for Age and Sex; Cohort Fertility; Birth Probabilities; Child Woman Ratios, Children ever born, Children living; Childlessness; Duration Specific Rates: Rates specific of parity and duration of marriage; parity progression ratios; Cohort measures; Measures of Reproduction: Gross Reproduction Rate; Net Reproduction Rates.

Measures of Nuptiality: Measures of incidence of age at first marriage; Widowhood, Divorce, Separation and Remarriage; Singulate Mean Age at Marriage (SMAM)

UNIT-III
Factors Affecting Nuptiality and Fertility
Physiological, Social, Economic, Demographic, Psychological, Cultural factors affecting nuptiality and fertility; Value of Children; Davis-Blake’s Intermediate Variables Framework; Bongart’s Proximate Variables; Their relevance to Indian situation.

UNIT-IV
Levels, Trends and Differentials in Nuptiality and Fertility
Levels and Trends in Nuptiality and Fertility in World, Developed and Developing countries and in India; Causes and Consequences; Fertility Differentials By age, religion, literacy and by residence, occupation, income, employment of wife and Status of women.

UNIT -V

Theories of Fertility

Theories of Demographic Transition, Threshold Hypothesis, Social Capillarity theory, Theory of change and Response, Theory of Diffusion or cultural Lag; Economic Theories; Leibenstien, Becker, Ronald Freedman’s and Caldwell’s Conceptual Models.

TEXT BOOKS:


Supplementary Readings


Course Outcomes

At the end of the course, the student will be able to

| CO1: | Understand the basic concepts Fertility and importance of fertility studies |
| CO2: | Familiarise the various measures of Fertility and Nuptiality |
| CO3: | Analyses the Factors Affecting Nuptiality and Fertility |
| CO4: | Acquire levels, trends and differentials |
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Semester-II Course Code: 19POSC201
Course Title: Population Ecology, Urbanisation and Migration Credits: 5

**UNIT-I**

**Population and Environment**

Human Geography and its importance; Ecology and eco-system; Population growth and environmental deterioration; Water pollution, Air pollution, noise pollution etc., Depletion of biotic resources; Ecological imbalance;

**UNIT-II**

**Population Distribution**

Importance of study; Measures; Factors affecting the spatial distribution of Population and temporal changes in them; Population distribution in the World and India; Determinants and Consequences.

**UNIT-III**

**Urbanization**

Urbanization; Meaning, definition, changing concept of urban in the Indian censuses and International comparison; Measures; Determinants of urbanization; process of urbanization; Levels and Trends of Urbanization in India; Urban-rural growth differentials; Problems of urbanization and over-urbanization; Policies and Programmes affecting urbanization.

**UNIT-IV**

**Migration**
Migration: concepts, definitions, Importance of study; Sources of data and limitations: Forms and types of Migration; Factors influencing Migration; Trends and differentials and pattern of internal migration in India; Characteristics of migrants; International migration.

UNIT-V

Migration Theories

Migration Theories: Push and Pull Factors, Everett Lee’s theory of migration, Revenstien’s laws of migration; Hypotheses related to volume of migration, streams and counter streams and characteristics of migrants.

TEXT BOOKS:


Supplementary Readings


Course Outcomes
At the end of the course, the student will be able to

| CO1 | Acquire knowledge ecology and eco-system |
| CO2 | Understand the importance of Population Distribution |
UNIT – I: Life Tables and Mortality Estimates

Life table: Model life table, U.N Model Life Tables, Coale and Demeny Regional model life tables :Multiple decrement life table and their importance; Indirect Techniques of Mortality estimates: overall survival ratio method; Differencing method; Census survival ratio method; Stable population Analysis method , Mortality estimate from Children Ever Born and Children Surviving;

UNIT – II: Fertility Models


UNIT – III: Migration Measurements

Measurement of Migration: Direct and Indirect methods: Place of Birth Approach, Place of Last Residence Approach; Duration of Stay at the Place of Residence; their advantages and limitations; Indirect techniques of estimating Net Internal Migration: National Growth Rate Method, Vital Statistical Method, Survival Ratio Method: advantages and limitations.

UNIT – IV: Population Estimates

statistically undeveloped areas; Tools of estimation: Model Life table technique, Stable Population models and methods based on the data from censuses and surveys;

**UNIT – V: Population Projections**

Interpolation smoothing of age data & Graduation techniques, Methods of Population Projection; Mathematical methods: Assumptions, types; Component methods; Assumptions, Projections of Fertility, Mortality and Migration; Ratio Method; Evaluation of Projection: Specific Projections;

**Textbooks:**


**Supplementary Readings**

6. __________, Methods of Estimating Basic Demographic Measure from Incomplete Data ST\SOA\, Series A,42
7. __________, Demographic Year Books (Various Years)

**Course Outcomes**

At the end of the course, the student will be able to

| CO1 | Acquire the knowledge about Life-table and mortality estimate |
| CO2 | Explore to Estimate the fertility by indirect methods |
| CO3 | Provide the relevant methods of Migration measurements |
| CO4 | Bring an Understanding of Population estimates |
| CO5 | Familiarize the methods of Population projection |

**Outcome Mapping**
UNIT – I: Element of Economics

Economics: Meaning, definitions, scope and subject matter; its relation to Population Studies; Concepts: Economic goods, wants; wealth, welfare and utility; Consumption; Law of Diminishing marginal utility; consumer's surplus; Law of Substitution; Engel's Law of Consumption; factors of production; laws of returns.

UNIT – II: National Income, Income Inequalities and Poverty

Meaning; GDP, GNP, NNP, Human Development Index; Types of Income: Personal, disposable, Money Income and Purchasing power parity; National Income Measurement; Methods of national income measurement in India; Disparities in Income and Wealth: Income distribution in India; causes and consequences of inequalities in Income; Incidence of poverty, its causes and consequences.

UNIT – III: Population and Food

Population and land: Availability and utilization, Pressure of population and resources depletion in India; Agricultural transformation and rural development; Green Revolution and Agricultural Development; Demand for food and possibilities of increasing food supplies.

UNIT – IV: Population and Man Power Analysis

Demographic Aspects of manpower; Concepts, definition and measures; levels and trends of activity rates; International comparison of labour force; Sex age pattern of labour force: Demographic and economic factors in labour force size, composition and growth; Occupational and Industrial composition of labour force; Changing occupational structure in the process of economic development.

UNIT – V: Population and Employment

Population and employment: concepts, definition and measures of employment and under employment; Levels and trends; causes and incidence of under employment and unemployment in India; programmes and policies for employment opportunities; population growth and growing unemployment situation in India.
Text Books:


Supplemenatry Readings


7. Sundaram, Indin Economics.

8. 9. United Nations, the Determinants and Consequences of Population Trends (New York: Department of Economic and Social Affairs, 1975)

Course Outcomes
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<td>CO4: Highlight the population and manpower analysis</td>
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Semester-II
Course Title: Statistical Techniques
Course Code: 19POSC204
Credits: 5
UNIT-I: Basic Concepts

Sociology: Definitions, nature, scope and its relation to other Social Sciences; Its role in understanding Demographic behaviour; Basic concepts; Culture, Society, Community, Associations, Institutions, Values and Norms; Role and Status, Socialization and Groups; Types: Primary and Secondary reference Groups;

UNIT-II: Population and Society

Social Stratification; Social Processes; Social Control; Social Structure: Class, Caste System and Gender roles: legislative, normative and behavioral context; Tribe and Minorities; Social Change and Modernization; Factors; Rural and Urban Communities: their characteristics and differences.

UNIT-III: Social Institutions

Marriage: Forms of Marriage; Social Change and Marriage Practices; Family: Types of family; functions and changes; Relevance of study of marriage and family in population dynamics; Religion: Origin, religious ideas; role of religion in individual and society; Religion and population growth; Education: Role in social development.

UNIT- IV: Social Consequences

Social Consequences of Demographic Change: Demographic Change affecting society; Effects of changes in fertility, mortality and migration on marriage, family, Kinship, life-cycle and society, social legislation and social change; Social Problems: Beggary, Prostitution, problems of slums, crimes, Juvenile delinquency, Dowry, poverty and unemployment.

UNIT- V: Demographic Behaviour


Text Books:


Supplementary Readings

4. Ogburn and Nimkaff, Sociology (Boston: Houghton Mifftin company, 1958)

Course Outcomes
At the end of the course, the student will be able to

| CO1: | Acquaint the elements of Sociology |
| CO2: | Understand the meanings of stratification and modernisation |
| CO3: | Explore the relation between social institution and social development |
| CO4: | Highlight the social consequences |
| CO5: | Identify the role of women in society gender equality |

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ELECTIVE COURSE

Semester-III
Course Title Statistical Techniques
Course Code: 19POSC301
Credits 5
UNIT – I: Statistical methods and Computer Applications

Statistical methods: Importance in Population Studies; Organizing a statistical investigation; Type of measurement: Nominal, Ordinal, Interval and Ratio Scales; Types of variables: Qualitative and Quantitative; Discrete and Continuous; Independent and Dependent; Computer: importance and applications; organization of a computer; input, output units: CPU, Hardware and Software; Computer packages for Demographic Analysis

UNIT – II: Descriptive Statistics

Measures of Central Tendency: Mean, Geometric mean, and Weighted average; Properties, merits and demerits of averages. Their empirical relationships; Dispersion: Meaning, definition, Uses, Measures: Range, Quartile deviation, Mean deviation and standard deviation; co-efficient of variation, Quartile Co-efficient of variability; Skewness and Kurtosis;

UNIT – III: Probability Theory and Theoretical Distribution

Elementary Probability Theory and Theoretical distribution: Meaning and importance in Demographic analysis: Probability: Event: Mutually exclusive, equally likely and exhaustive events Additional and Multiplication theorems and simple problems: Theoretical Distributions; Binomial: Assumptions, properties, fitting and simple problems, poisson: Assumptions properties, fitting and simple problems, Normal Distribution: Assumptions, properties, fitting and simple problems.

UNIT – IV: Correlation and regression

Correlation: Concepts; scatter diagram and its uses; pearsons co-efficient of correlation; Rank correlation Meaning and spearman co-efficient; partial and multiple correlation; Interpretation of Co-efficient; Regression: Meaning and uses; curve fitting; simple problems; partial and Multiple correlation; simple application, Interpretation of co-efficients; Multiple Regression: Step-Wise, Logit regression analysis and path Analysis.

UNIT-V: Test of Significance

Test of significance: Meaning and importance; notion of confidence interval; Level of significance; parametric Test P, t and F; Test for mean, proportion and correlation; Non parametric test: Test for categorized data (goodness of fit test): sign test, Medium test, and Run test.

(Note: Emphasis is to be laid only on application, proof of any theorem or derivation of any formula should be avoided)

Text Books:

2. E.Freund John, Modern Elementary Statistics (New Delhi, Prentice Hall of India (P) Ltd., 1977)
3. C.B Gupta, An Introduction to Statistical methods (Delhi, Vikas Publishing House, 1976)

Supplementary Readings:

1. S.P Gupta, Statistical Methods (New Delhi, Sultan Chand and Sons, 1976)


**Course Outcomes**
At the end of the course, the student will be able to

| CO1: | Familiarize statistical application in demographic data |
| CO2: | understand the various methods of application of descriptive statistics |
| CO3: | Impart knowledge on probability theory Normal distribution and properties |
| CO4: | understand the correlation and regression method and its application |
| CO5: | Acquire knowledge on test of significance, and Non Parametric tests and applications |

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**Semester-III**
**Course Code: 19POSC302**
**Course Title Research Methodology**
**Credits** 5
UNIT – I: Social Research

Scientific Research: Meaning, Nature, Scope and Basic Assumptions: Utilities of research; Types of research: Pure, Applied and Action Research: Theory and facts; Major steps in Social Research; Formulation of a Research Problem; Framing of objectives;

Hypothesis: concepts, definitions, types, sources, formulation and its Role in Social Research and Testing of Hypothesis.

UNIT – II: Research Design and Sampling

Research Design : Meaning, Role in the Research process and Types: Exploratory, Descriptive and Experimental; Method of investigation: Social Survey method, Experimental methods, statistical methods, Case study method; Sampling techniques: Meaning, Definition, need; Types: Probability and Non-Probablity Sampling.

UNIT – III: Data Collection and Scaling Techniques

Data Collection: Type of data: Primary and Secondary; Method of data collection; Observation: Participant and Non-Participant, Interview Technique, Focus Group Discussion, Case Study, Indepth interviews; Tools of data collection: Schedule and Questionnaire; Advantages and disadvantages; Scaling Techniques: Problems of Measurement; Types of Scales used in Social Research; Organization of Field Survey and Data Collection.

UNIT – IV: Processing, representation and analysis of Data

Processing and Analysis of Data: Editing, Coding and Tabulation; Analysis of data; Use of Computer in the Processing and Analysis of data.

Diagrammatic and Graphical Representation of data: Uses and methods of construction; Diagrams: Simple, Multiple, Component and percentage bar diagrams; Pie diagrams and Pictograms; Graphs: Line diagram, Histogram, Frequency Polygon, Ogive and Lorenz Curve.

UNIT – V: Interpretation and Report Writing

Interpretation of results and report writing; Purpose of a Report, Writing style and content; Uses of reference materials; Bibliography and its compilation; Research Proposals preparation; Preparation of Manuscripts for a Scientific Journal.

Text Books :


Supplementary Readings:

2. Micheal Armer and Allen D. Grimshow (Eds.), Comparative Social Research
Methodological Problem and Strategies (New Delhi: John Wiley and Sons, 1973)
3. T.S. Wilkinson, and P.L Bhandarkar, Methodology, Techniques of the Social Research
(Bombay: Himalaya Publishing House, 1979)
4. P.V Young, Scientific Social Survey and Research (New York: Prentice Hall, 1949)

Course Outcomes
At the end of the course, the student will be able to

| CO1: | Understanding the basic concepts of research methodology and formulation of research problems |
| CO2: | Acquire knowledge of research design and sampling and types of sampling |
| CO3: | Understand the method of data collection and scaling techniques |
| CO4: | Impart knowledge on processing of data with computer and statistical tools |
| CO5: | Familiarised the method of interpretation and report writing, proposal preparation and manuscripts. |

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UNIT-I: Health
Health: Concepts, Definitions, Health and Public Health; Importance of Public Health; personal hygiene; various health aspects: curative, Promotive and Preventive; Indicators of Health; Health Facilities: Infrastructure, Personal and Funds allotted under various plans; Population Growth and demand for health services; Health delivery system in India.

UNIT-II: Nutrition
Nutrition: Concepts, Process, Types of Food, Nutritients, Functions and Sources; Balanced Diet; Nutritional requirements of special groups, pregnant and lactating women and Infant and children; Malnutrition, Under-nutrition and Factors; Nutritional Deficiency Diseases; Applied Nutrition Programmes; Nutritional feeding Programmes;

UNIT – III: Health Education
Health Education: Concepts, Definitions, objectives, scope, Principles and Contents; Health Education Methods; Role of Health Education; Development of Health Education Programmes; Evaluation of Health Education Programmes; Instructional Materials Preparation; Strategies for Implementation; Agencies Involved in the Health Education Programmes;

UNIT –IV: Communication
Communication: Concepts, Principles; Learning and Adoption Processes; Diffusion of Innovations; Communication Techniques; Mass, Group and Individual Approach; Role of Audio-visual Aids in Communication; Extension Programmes and its importance;

UNIT-V: Population Education

Text Books:

Supplementary Readings:
5. Park’s Text Book of Preventative and Social Medicine (M/S. Banarsidas Bhanot Jabalpur)
Course Outcomes
At the end of the course, the student will be able to

| CO1 | Acquire basic knowledge of health and public health and its importance |
| CO2 | Understand the nutrition, malnutrition and nutritional feeding programme |
| CO3 | Impart knowledge on health education and agencies involved in the health education programme |
| CO4 | Familiarize communication techniques and extension programme |
| CO5 | Illustrate scope, need for population education and mass communication |

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Semester-III
Course Title Population And Development Planning
Credits:4

UNIT – I: Development Planning

Concept and indicators of economic development, Approaches to development; changing concept-emphasis of distributive aspect, social aspects, quality of life, PQLI, Human Development Index and modernization.

UNIT – II: Population and Development

Consequences of population growth on total and per capita income, Income distribution, Capital formation, Rate of investment, allocation of resources, size of the labour force, industrialization, Demographic Behaviour in the context of socio-economic changes.

UNIT – III: Development Planning and Population

Concept of planning, approaches, choice of a suitable strategy, population planning as an integral part of overall development planning, demographic considerations in planning for different sectors.
UNIT – IV: Food Planning and Health in India

Population and Food security; Food requirements and production, poverty and malnutrition; agricultural development; Health services: Primary health care, preventive, promotive and curative services, delivery system, access to health care, Reproductive and Child Health components;

UNIT – V: Planning Other Aspects

Planning for education, employment and manpower, Housing needs, rural development, urbanization, environmental aspects.

Text Books:


Supplementary Readings:


Course Outcomes
At the end of the course, the student will be able to

| CO1: | To expose in the basics of development, inter linkages between population |
| CO2: | Understand the indicators of economic development |
| CO3: | Impart knowledge on population planning as an integral part of overall development planning |
| CO4: | Familiarize on Health services: Primary health care, preventive, curative services and delivery system |
| CO5: | Illustrate Planning for education, employment and manpower |
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Semester-III  
Course Title: Soft Skills  
Credits: 3

UNIT-I: Soft Skills and Personality Development

Listening: Types of Listening, Effective Listening and Barriers to Listening – Assertive Communication.

UNIT-II: Communication Skills


Non-verbal Communication: Body Language and Proxemics.

UNIT-III: Interpersonal Skills
Interpersonal Skills: Relationship Development and Maintenance and Transactional Analysis.


UNIT-IV: Employability Skills
Goal Setting – Career Planning – Corporate Skills – Group Discussion – Interview Skills – Types of Interview - Email Writing – Job Application – Cover Letter - Resume Preparation.
UNIT-V: Professional Skills


Text Books:


Supplementary Readings:


ELECTIVE COURSE

Semester-IV Course Title Population Theories And Policies Course Code: 19POSC401 Credits:5

UNIT – I: Early Views on Population

Early thinking on Population issues; Confucius and other Chinese Writers, Greek thought, Indian and Roman thought; Religion and Population issues; Pre-Malthusian views: Ancient and medieval writings on Population: Mercantilists; Physiocrats and others.

UNIT – II: Malthusian and Neo-Classical Theories

Malthusian Theory and its criticism and relevance; The Neo-Classical school of thought on Population Theory; Biological Theories; Socialists Theories; Mathematical Theories; Marxists views on Population issues.

UNIT – III: Modern Population Theories

UNIT – IV: Population Policies and World Population Conferences

Population Policies: Definitions; Types; Policy Goals; World Population and Health Conferences: Bucharest, Alma Ata, Cairo, Beijing; Overview of Population Policies in Developing and Developed Countries;

UNIT – V: India’s Population Policy

India’s Population Policy: Pre-Independence and Post-Independence era; Policy during emergency and after; Legal measures relating to Age at Marriage, Health, Abortion, Fertility and Migration; Population Policies of 1976, 1977 and 1994 and their Significance; Target Free Approach and Reproductive and Child Health Programmes in India.

Text Books:


Supplementary Readings:


Course Outcomes
At the end of the course, the student will be able to

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UNIT – I: Family Planning

Family Planning: Meaning, objectives, Principles, Characteristics, and; Need for Family Planning: History of Family Planning Movement in the World, Developed and Developing countries; Evolution of Family Planning programme in India.

UNIT – II: Organizational Structure, Approaches and FP Methods

Organizational Structure: Central level, State level, District level and Implementation at the Primary health Centre; Methods of Family Planning: Rhythm Method, Coitus interrupts, condom, oral pills, Foam Tablets, Diaphragm/Jelly, IUD, Sterilization: Tubectomy, Vasectomy and Laparoscopic; Effectiveness and acceptability of each method; Approaches to Family Planning: Clinical Approach, Extension Approach, Camp Approach, Cafeteria Approach and Integrated Approach.

UNIT – III: Targets and Achievements

Targets Approach and its importance; Trends in the Family Welfare Programme: Trends in the acceptance and non-acceptance of Family Planning methods; Community Resistance; Misconceptions; prejudices, bias and other impediments to the acceptance of family planning; Funds allocation, Targets and Achievements under various plan periods.

UNIT – IV: Family Planning Programme Evaluation

Family Planning Programme Evaluation: Sources of data and limitation, Definition of Terms and Concepts in Family Planning Evaluation: Acceptance, Use-effectiveness and extended-use-effectiveness; Characteristics; Family Planning Programme impact measures: Acceptance rate, Percent Protected couple years, Fertility indices and Births Averted.

UNIT – V: Role of Different Agencies in Family Planning Programme
Role of Government Agencies: mass media: Television, Radio, The Press etc, Family Planning Association of India (FPAI), Population Foundation of India and IASP; Educational Institutions; ICSSR, ICMR UGC and Other research Institutions; Role of world Agencies; UN, World Bank, WHO, UNFPA, UNICEF, etc.; Non-Governmental Organizations; International Planned Parenthood Federation; Rockfeller Foundation and the Population Council etc.

Text Books:
2. C. Chandrasekaran and A.L. Hermalin (Eds.) Measuring the Effect of Family Planning Programme on Fertility Dolhain (Belgium) Editor, 1970)

Supplementary Readings:

Course Outcomes
At the end of the course, the student will be able to

| CO1: | Acquire the knowledge about Family Planning Programme |
| CO2: | Understand the organizational structure of family planning at various levels, methods and approaches |
| CO3: | Analyse the levels and trends, of family planning programme |
| CO4: | Bring an understanding of Family Planning Programme evaluation. |
| CO5: | Enlighten the role of National and International Agencies in Family Planning Programme |

Outcome Mapping

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1. Technique of construction of life table from age specific death rates.
2. Computation of Intrinsic Rate of Natural Increase and Construction of stable age distribution
5. Brass technique (P/F Ratio) of fertility estimate.
7. Indirect estimation of fertility by reverse survival method
8. Chandrasekar – Deming method
10. Indirect measures of internal migration: Natural growth rate method and Life Table and census survival ratio method.
11. Assessment of digit preference – computation of whipple’s and Myer’s indexes
12. Computation of age ratios and U.N Age sex accuracy Index
13. Interpolation, graphical, and mathematical methods

Course Outcomes
At the end of the course, the student will be able to

| CO1: | Understand the construction of life table |
| CO2: | Analyse mortality estimates through techniques |
| CO3: | Explain various methods to estimate fertility by indirect method |
CO4: Engage analysis of internal migration through indirect measures

CO5: Describe Population projection under component method and Mathematical Method

Outcome Mapping

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Course Outcomes

At the end of the course, the student will be able to

CO1: Develop in-depth knowledge of Field study

CO2: Understand the plan and use adequate methods to evaluate a task

CO3: Acquire the capability to present and discuss the conclusions from the findings

CO4: Attain capability to contribute to research

Outcome Mapping
UNIT – 1: Public Health

Concepts, Definition, Importance of Public Health; personal hygiene; Various health aspects: curative, Primitive and Preventive; Indicators of Health.

UNIT –II: Environment and Health


UNIT –III: Nutrition

Food and its classification; concept of nutrition, process, Concepts, Nutritients, Functions and Sources; Balanced Diet; Nutritional requirements of special groups, pregnant and lactating women and Infant and children.

UNIT –IV: Nutritional Policies and Programmes

Factors, Nutritional Deficiency Diseases; Recommended Nutrition Standards; Supplementary Nutritional Programs: Applied Nutrition Programmes; Nutritional feeding Programmes etc.

UNIT – V: Health Education

Health Education: Concepts, definitions, objectives, scope, principles and contents; Health Education Methods; Role of Health Educator; Development of Health Education Programmes; Evaluation of Health Education Programmes; Agencies involved in the Health Education.

REFERENCES:

POP 15: POPULATION AND HEALTH RESEARCH (3 CREDITS)

UNIT-I: Social Research

Scientific Method; Types of research: Pure, Applied and Action Research; Theory and facts; Major steps in Social Research; Selection of research problems, Formulation of Hypothesis.

UNIT-II: Research Design and Sampling

Research Design; Sampling techniques: Data collection: methods and tools; data processing, Scaling techniques, qualitative and quantitative methods

UNIT-III: Interpretation and Report Writing

Interpretation of results and report writing; Purpose of a Report, Writing style and content; Uses of reference materials; Bibliography and its compilation; Research Proposals preparation; Preparation of Manuscripts for a Scientific Journal.

UNIT-IV: Integrating theory and methods in health research

A Theoretical basis for research on health; Integrating theory and Methods in population health research; age, period and cohort analyses of health-related behaviour; Intraindividual variability: Methodological issues for population health research

UNIT-V: Index scales and statistical modeling

A methodological approach for assessing the stability of variables used in population research on health; validation of index scales for analysis of survey data: the symptom index; graphical interaction models: a new approach for statistical modeling.

REFERENCES:

7. P.V. Young, Scientific Social Survey and Research (New York: Prentice Hall, 1949)
UNIT-I: Demography
Nature and Scope, Interdisciplinary Nature; Determinants of population change; sources of demographic data: Population Census, Registration systems, sample surveys, Secondary sources; population growth, population structure and characteristics in India.

UNIT-II: Fertility
Fertility, concepts, Basic measures of fertility. Fertility trends and differentials in India. Factors affecting fertility; Davis-Blake and Bongarts models; Theories of fertility: Threshold hypothesis and Social Capillarity theory and Theory of Demographic Transition;

UNIT-III: Mortality
Mortality: concepts, factors, basic measures of mortality; infant mortality: meaning, measures, factors affecting infant mortality; Mortality trends and differentials in India; Life Table: meaning, functions, and uses.

UNIT-IV: Migration and Urbanization
Migration: Meaning, concepts, types of Migration, migration streams, characteristics of migrants, trends in internal migration; Migration theories.; urbanization: concepts, measures; levels, trends and differentials; problems of over urbanization;

UNIT-V: Population Policies and Programmes
Population Policy: goals and objectives; types: Population responsive policies; mortality, migration and fertility influencing policies: Pro-natalist and anti-natalist policies: direct and indirect policies; Population policy in India; Family Welfare Programmes: approaches, targets and achievements; Reproductive and Child health components.

REFERENCES:
UNIT – I: Health Situation

Historical review of origin of various branches of public Health, Health services in India, Indicators of Health Morbidity & Mortality, Health in the context of development and Five Year Plan.

UNIT – II: Health Planning

Planning process: Decision making, qualitative and quantitative decisions, Policies Strategies, budget: Health planning in India, National Health Policy, goals, objectives and target setting, assessment of Health situation, Resource analysis, priorities, design of programme.

UNIT – III: Health Organization

Design, Structure, Principles, formal/informal types, Coordination within and outside. Span of control, centralization and decentralization, Staffing, job description, outlining role and responsibilities, Training, Placement and Evaluation.

UNIT – IV: Health Care Service

Preventive, promotive and curative services: Approaches adults in health care service: Risk and Epidemiological Health care services for Mother, adults and aged population & Children, industrial workers, Health legislation and social welfare.

UNIT – V: Health Programmes


REFERENCES:

- *Dutt P.R., rural Health Service in India, Primary Health Services (H.E.P, 1965).
- *Park J.E., Park K, Preventive and Social Medicine (Jabalpur Bannersidas Bhanot and company Ltd., 1995).
UNIT – I: Population Situation

Tamil Nadu and Tamil Culture; Population Data availability and their quality. History of population growth, present situation and future prospects; Demographic profile of Tamil Nadu.

UNIT – II: Mortality and Health Transition

Mortality levels, trends and differentials, in Tamil Nadu; sex, age patterns of mortality. Infant and child mortality - levels and trends; causes of death; Incidence of female feticide and infanticide Health situation, Health policies and programmes.

UNIT – III: Fertility and Family Welfare

Fertility levels, trends and differentials in Tamil Nadu state, customs and practices affecting fertility, value of children and women status, factors responsible for the recent decline in birth rates, Family welfare programme performance, Practices related to age at marriage and MTP, Birth Averted due to family welfare programme.

UNIT – IV: Migration and Urbanization

Migration transition in Tamil Nadu; inter and intra-state migration; inter and intra-district migration factors; urbanization in Tamil Nadu: Levels and trends Problems and policies; problems of slums and related policies.

UNIT – V: Socio-Economic Status and Policies & Programmes

Per Capita Income and Poverty - Trends policies and programmes; Literacy and Education, Trends policies and Programmes; Women's status and policies and programmes; Economic activity rates - trends, occupational categories and policies programmes; Nutritional Status; Nutrition Programmes; Supplemyntry Nutrition Programme: Applied Nutrition Programme, Chief Ministers Noon-Meal Programme, ICDS, Anganwadi and Balwadi Centres etc.

REFERENCES:


2. MIDS, 1988, Tamil Nadu Economy: performance and issues, New Delhi: oxford and IBH publishing co., pvt Ltd. on Human Development Report, India for various Years.


**19POSX406 POPULATION AND ENVIRONMENT (3 CREDITS)**

**UNIT – I: Ecology and Eco-System**

Ecology and Ecosystem; Human Geography and its relevance to Population Studies; Residential and Social Environment: Elements of Social Environment; Patterns of Social contact, Examination of the relationship among these factors. Human Ecology and its relevance to population studies.

**UNIT – II: Population Distribution**

Special distribution of population: Importance of the study, measures of density, factors affecting special distribution. Population distribution in India and in the World.

**UNIT – III: Land and other Resources**

Land use: Changing patterns, conservation and management of resources. Policies and programmes for better management.

**UNIT – IV: Environmental Degradation**

Environmental crisis; Air-pollution, water pollution and Noise pollution depletion of biotic resources, ecological imbalances etc.

**UNIT – V: Population Growth and Ecological imbalance**

Global warming, Green house effect, El-nino effect, Soil erosion, Deforestation Desertification, Salinity and water logging. Man's Perception and adjustment to ecological imbalances;

**REFERENCES:**


