



**Annamalai University**

**Department of Population Studies**

**M.A. Population Studies (Two Year) Programme**

**Programme Code: APOP21**

**Programme Structure**

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

Course Code	Course Title	Hours/Week		C	Marks		
		L	P		CIA	ESE	Total
<b>Semester-I</b>							
19POSC101	Core 1: Introduction to Population Studies	5		5	25	75	100
19POSC102	Core 2: Demographic Data Management	5		5	25	75	100
19POSC103	Core 3: Mortality and Morbidity	5		5	25	75	100
19POSC104	Core 4: Fertility and Nuptiality	4		4	25	75	100
19POSX105	Elective 1: Interdepartmental Elective Population and Health Research	3		3	25	75	100
				<b>22</b>			
<b>Semester-II</b>							
19POSC201	Core 5: Population Ecology, Urbanization and Migration	5		5	25	75	100
19POSC202	Core 6: Demographic Techniques	5		5	25	75	100
19POSC203	Core 7: Population Economics	5		5	25	75	100
19POSC204	Core 8: Population Sociology	4		4	25	75	100
19POSX205	Elective 2: Interdepartmental Elective Population Dynamics	3		3	25	75	100
				<b>22</b>			
<b>Semester-III</b>							
19POSC301	Core 9: Statistical Techniques	5		5	25	75	100
19POSC302	Core 10: Research Methodology	5		5	25	75	100
19POSC303	Core 11: Health, Nutrition, Communication and Population Education	4		4	25	75	100
19POSC304	Core 12: 8 Population and Development Planning	4		4	25	75	100
19POSX205	Elective 3: Interdepartmental Elective Health Planning and Policy	3		3	25	75	100
19SOSC306	Soft skills	3		3	25	75	100
				<b>24</b>			
<b>Semester-IV</b>							
19POSC401	Core 13: Population Theories and Policies	5		5	25	75	100
19POSC402	Core 14: Population Programmes and Evaluation	5		5	25	75	100
19POSP403	Core 15: Practicals: Techniques of Demographic Analysis	4	15	4	25	75	100

19POSC404	Core 16:Project and Viva-voce	5		5	25	75	100
19POSX405	Elective 4: Interdepartmental Elective Tamilnadu Demography	3		3	25	75	100
19POSE406	Elective 5: Department Elective Population and Environment	3		3	25	75	100
				<b>22</b>			
	<b>Total Credits</b>			<b>90</b>			
	<b>Value Added Courses</b>						

L- Lectures; P- Practical; C- Credits; CIA- Continuous Internal Assessment; ESE- End-Semester Examination

**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)**

S. No.	Course Code	Course Title	hours/week		C	Marks		
			L	P		CIA	ESE	Total
1.	19POSX105	Elective 1: Interdepartmental Elective Population and Health Research	3	0	3	25	75	100
2.	19POSX205	Elective 2: Interdepartmental Elective Population Dynamics	3	0	3	25	75	100
3.	19POSE306	Elective 3: Department Elective Health Planning and Policy	3	0	3	25	75	100
4.	19POSX405	Elective 4: Interdepartmental Elective Tamilnadu Demography	3	0	3	25	75	100
5.	19POSE406	Elective 5: Department Elective Population and Environment	3	0	3	25	75	100

**Interdepartmental Electives (IDE)**

S. No.	Course Code	Course Title	Department	Hours/week		C	Marks		
				L	P		CIA	ESE	Total
1.	19 SOSE 115.1	Soft Skills	English	3	0	3	25	75	100
2.	19 MATE 215.1	Discrete Mathematics	Mathematics	3	0	3	25	75	100
3.	19 MATE 215.2	Numerical Methods		3	0	3	25	75	100
4.	19 MATE 315.1	Differential Equations		3	0	3	25	75	100

5.	19 STSE 215.1	Statistical Methods	Statistics	3	0	3	25	75	100
6.	19 STSE 215.2	Mathematical Statistics		3	0	3	25	75	100
7.	19 STSE 315.1	Bio-Statistics		3	0	3	25	75	100
8.	19 PHYE 215.1	Classical Mechanics and Special Theory of Relativity	Physics	3	0	3	25	75	100
9.	19 PHYE 215.2	Physics of the Earth		3	0	3	25	75	100
10.	19 PHYE 315.1	Bio-Medical Instrumentation		3	0	3	25	75	100
11.	19 PHYE 315.2	Energy Physics		3	0	3	25	75	100
12.	19 CHEE 215.1	Applied Chemistry	Chemistry	3	0	3	25	75	100
13.	19 CHEE 315.1	Basic Chemistry		3	0	3	25	75	100
14.	19 CHEE 315.2	Instrumental Methods of Analysis		3	0	3	25	75	
15.	19 BOTE 215.1	Plant Tissue Culture	Botany	3	0	3	25	75	100
16.	19 BOTE 215.2	Plant Science – I		3	0	3	25	75	100
17.	19 BOTE 315.1	Gardening and Horticulture		3	0	3	25	75	100
18.	19 BOTE 315.2	Plant Science – II		3	0	3	25	75	100
19.	19 ZOOE 215.1	Animal Culture Techniques	Zoology	3	0	3	25	75	100
20.	19 ZOOE 315.1	Environmental Science		3	0	3	25	75	100
21.	19 GEOE 215.1	Environmental Geosciences	Earth Sciences	3	0	3	25	75	100
22.	19 GEOE 315.1	Applied Geophysics		3	0	3	25	75	100
23.	19 MIBE 315.1	Microbiology	Microbiology	3	0	3	25	75	100
24.	19 CISE 215.1	R Programming	Computer & Information Science	3	0	3	25	75	100

S. No.	Course Code	Course Title	Hour s/we ek		C	Marks		
			L	P		CIA	ESE	Tota l
1.	19POSX305& 19POSIE 95	Health Education and Nutrition	3	0	3	25	75	100

2.	19POSE 15	Population and Health Research	3	0	3	25	75	100
3.	19POSE75	Population Dynamics	3	0	3	25	75	100

#### Electives Offered to Other Departments

#### Value Added Course

Course Code	Course Title	Hours/week		C	Marks		
		L	P		CIA	ESE	Total
CHEA415	Phytochemistry and Biological Activities of Medicinal Plants	3	0	3	25	75	100

#### Programme Outcomes

PO1:	Critical thinking
PO2:	cultivating cognitive skills required in the job market
PO3:	Effectvie communication
PO4:	Familiarity with ICT to thrive in the information age
PO5:	Cultivating aptitude for research
PO6:	Respect fro alternate view points including those conflicting withones' perseptceives
PO7:	Ability to work individually and as memebers in ateam
PO8:	Upholding ethical standards
PO9.	Acitng local while thing global
PO10:	Commitment to gender equality
PO11:	Commitment to sustainabile deelopment
PO12.	Life long learning

#### 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 anlyse the Population Data.
PSO4:	Exhibit the knowledge through survey research.
PSO5:	Recognize to develop an aptitude for research.

Semester-I

19POSC101 INTRODUCTION TO POPULATION STUDIES

Credits: 5

Hours:5

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**

1. Agarwala S.N India's Population Problems, New Delhi: Tata McGraw Hill, 1981.
2. Bhende Asha A. and Tara Kanitkar, principles of Population Studies (Bombay: Himalaya Publishing House, 1978)
3. Baskar D. Misra, The study of population (New Delhi: South Asian publishers (p) Ltd., 1980)

## **Supplementary Reading**

1. Chandrasekhar S., Infant Mortality, population Growth and Family planning in India: (London George Allen and Unwin, 1972)
2. Charles Nam, Population and Society (Boston: Houghton Mifflin co., 1969)
3. Barclay George W., Techniques of population Analysis (New York: John Wiley and Sons, 1958)
4. Henry Shnycock, et.al., The Methods and Materials of Demography (Washington: Bureau of Census, 1971) Vols., I and II
5. Srivastava, O.C., A Test Book of Demography (Delhi: Vikas publishing House Pvt. Ltd. 1982)
6. United Nations, The Determinants and Consequences of Population Trends (New York: Department of Economics and Social Affairs, 1973)

## **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

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**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**

Large Scale demographic Surveys: National Sample surveys and other Sample Surveys, Advantages and Limitations; Mysore Population Study, National Family Health Survey, Service Statistics; International Surveys, World Fertility Surveys; Demographic Year Book, Annual Reports, Statistical Year Books, Monthly Bulletins of statistics, Journals, etc.

#### **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**

1. Bhende, Asha A. and Tara Kanitkar, Principles of Population Studies, 5<sup>th</sup> Ed., (Bombay: Himalaya Publishing House, 1994).
2. Registrar General of India, Civil Registration System in India – A Perspective, census of India, 1971, Census Centenary Monograph No.4 (New Delhi: office of the Registrar General.
3. Padmanabha, P. "Organisation of Civil Registration and Vital Statistics System in India" Registrar General's Newsletter, vol. lx No.1 January 1991.

**SUPPLEMENTARY READING**

1. Prakasam, C.P.et.al., Basic Mathematics in Population Studies, (Bombay : Gemini Publishers, 1987)
2. Shryock, Henry's et.al., The Methods and Materials of demography, New York: U.S Department of Commerce, Bureau of Census, 1980.
3. Srinivasan, K. Basic Demographic Techniques and Applications, (New Delhi: Sage 1998).
4. Srivastava. S.C., Indian Census in Perspective (Third Edition), Centenary Monograph No.1 of 1971. (New Delhi office of the Registrar General, 1977.
5. Swamy V.S., "Sources of Demographic Data, in Population of India, Country Monograph Series No.10, (New York: United Nations, ESCAP, 1982).
6. ...., Handbook of Population Census Methods, Vol.1, Studies in Methods, Series F.No.5 New York: United Nations, 1958.
7. ...., Asian and pacific Recommendations for the 1980 Population and Housing Censuses, (Bangkok: U.N 1978).
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 the Adjustment and Graduation techniques, uses of life table in adjustment

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

Semester-I                      **19POSC103 Mortality nad 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:**

1. Barclay, George, Techniques of Population Analysis New York: John Wiley & Sons, Inc. 1958
2. Bhende, Asha A., and Tara Kanitkar Principles of Population Studies, 5<sup>th</sup> Edition, (Bombay: Himalaya Publishing House, 1994)
3. K.1 Kohli Mortality in India (New Delhi: Sterling Publishers Pvt. Ltd. 1977)

**Supplementary readings**

1. K. Mahadevan, et al, Culture, Nutrition and Infant and Child Mortality: A Study in South Central India (Mimeo-graphed) 1981
2. Padmanabha, P. Use of Sample Registration Systems for Studying levels, "Trends and Differentials in Mortality: The Experience of India, in United Nations, Data Base for Mortality Measurement, Population Studies No. 84, New York; U.N 1984)
3. Palmore, James, A and Report W Gardner Measuring Mortality Fertility and Natural Increase; A self teaching, guide to Elementary Measures, (Honolulu : The East-West Centre, 1983).
4. Shryock, Henry S. Jacob S. Siegel and Associates, The Methods and Materials in Demography, (Washington D.C: U.S Bureau of the Census, 1980).
5. United Nations, Determinants and Consequences of Population Trends, (New York: Department of Economic and Social Affairs, 1973)
6. United Nations, Methods of Estimating Basic Measures from incomplete Data (New York: UN 1967) Manual IV
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

CO1:	Understand the basic concepts morbidity and level of prevention
CO2:	Impart knowledge on mortality concepts and measures of mortality
CO3:	Analyses the levels, trends and differentials of mortality
CO4:	Familiarize the Infant and Child Mortality: Importance of study; Measures; Perinatal, neo-natal and post-neo-natal mortality rates

CO5:	Acquire knowledge on Life Tables: Concepts, definition and columns; Currents and Cohort Life-tables and their relationship
------	--

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-I**

**19POSC104**

**Fertility and Nuptiality**

**Credits: 5**

**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 back – ground; 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; Leibenstein, Becker, Ronald Freedman's and Caldwell's Conceptual Models.

### TEXT BOOKS:

1. Agarwala, S.N India; Population Problems, (Bombay: Tata McGraw Hill Publishing Co., Ltd., 1985).
2. Bhende Asha A bad Tara Kanitkar, Principles of Population Studies, 5<sup>th</sup> ed. Bombay: Himalaya Publishing House, 1994.
3. Bongaarts J., and Potter, R.G., Fertility, Biology and Behaviour: An Analysis of the Proximate Determinants, (New York: Academic Press, 1983).

### Supplementary Readings

1. Caldwell, J.C, Theory of Fertility Decline, (London: Academic Press, 1982).
2. Davis.K and Judith Blake, "Social Structure and Fertility: An Analytic Framework" Economic Development and Social Change, Vol.4, No.3 1956, pp. 221-235.
3. Driver, Edwin, D. Differential Fertility in central India, (Princeton: Princeton University Press, 1963).
4. Freedman. R., The Sociology of Human Fertility: A trend Report and Bibliography, (oxford: Basil Blackwell, 1963).
5. Shryock, Henry, S et.al., The Methods and Materials of Demography Vol. 1 & 2 (Washington D.C: U.S Bureau of the census, 1980).
6. Thomlinson, Ralph, Population Dynamics, New York: Random House, 1955.
7. United Nations, the Determinants and Consequences of Population Trends, Vol. 1 (New York: United Nations, 1973).
8. United Nations, ESCAP, Population of India, Country Monograph Series No.10, New York: U.N 1982.

### 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

CO5:	Impart the knowledge on various theories related to Fertility
------	---

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

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, Ravenstein's laws of migration; Hypotheses related to volume of migration, streams and counter streams and characteristics of migrants.

### TEXT BOOKS:

1. Behende, Asha A and Tara Kanitkar, Principles of Population Studies, (Fifth edition), (Bombay: Himalaya Publishing House, 1994).
2. Bogue, Donald J., Principles of Demography (New Delhi: John Wiley Sons, 1981)
3. Charles Kendigh, S., Ecology with special reference to Animals and Man (New Delhi: Prentice Hall of India Pvt. Limited, 1980)

### Supplementary Readings

1. Bose, Ashish, India's Urbanization 1901-2001 (New Delhi: Tata McGraw Hill Publishing Company Ltd. 1980).
2. Ehrlich, Paul R., et al. Conscience, Population Resources, Environment (San Francisco: W.N. Freeman and Company, 1977).
3. Goldstein, S and A Goldstein, Survey of Migration in developing Countries A Methodological Review, (Honolulu: East-West Center, 1981).
4. Misra B.D an Introduction to the Study of Population, Second Edition, (New Delhi: South Asian Publishers Pvt. Ltd., 1995).
5. Murdock, William, Environmental, Resources, Pollution and Society, (New York: 1974)
6. Shryock Henry et al., Methods and Materials of Demography Vol. II (Washington D.C: U.S, Bureau of Census, 1973).
7. Thompson, Warren S. and Davis Lewis, Population Problems, (New York, McGraw Hill Book Co., 1953).
8. United Nations, Manual IV. Methods of Measuring Internal Migration ST/ SOA/ SER A /47 Population Studies No.47 New York: U.N 1970
9. United Nations, The Determinants and Consequences of Population Trends, Vol. I (New York: Dept. of Economic and Social Affairs, 1973).
10. Hartshorne, the Nature of Geography (Rawat Publications, New Delhi).

### 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

CO3:	Describe Urbanization and its related policies.
CO4:	Enlighten the various forms of migration and its impact
CO5:	Explore the theories of migration

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-II**  
**Course Title Demographic Techniques**

**Course Code: 19POSC202**  
**Credits: 5**

#### 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

Stable Population Theory: Concepts, Definitions , Assumptions, Derivations; Intrinsic rate of natural increases and Stable age distribution; Fertility Models: Estimation of Vital rates through stable population technique, Quasi-stable and Stationary population Models; Ansley Coale, Brass, Bourgeois-pichat; Reverse Survival Method; Own Children Method, Fertility estimate from survey data on birth and children ever born,; Current fertility estimate from pregnancy histories.

#### 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

Digit preference indexes, U.N. Age sex Accuracy index, Balancing equation, Population growth Rates: Linear, Geometric and Exponential; Doubling time, Location of events in time; Lexis diagram and its uses. Population Estimate: Nature, uses, types, methods of estimates for

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;

#### Text books:

1. Barclay, G.W., Techniques of Population Analysis, (London: John Wiley & Sons, 1966).
2. Coale, A.J and Demeny, P., Regional Model Life Table and stable Populations 2<sup>nd</sup> Ed. (New York: Academic Press, 1983).
3. Pathak K.B and Fauzdar Ram. Techniques of Demographic Analysis , (Bombay: Himalaya Publishing House, 1992).

#### Supplementary Readings

1. Srinivasan K. Basic Demographic Techniques and Applications, (New Delhi: Sage, 1998)
2. United Nations, Manual II: Methods for Population Projection Sex and Age, (New York: United Nations, 1956).
3. Shryock Henry et al., Methods and Materials of Demography Vol. II (Washington D.C: U.S, Bureau of Census, 1973).
4. United Nations, Manual IV. Methods of Measuring Internal Migration ST\SOA\SERA\47 Population Studies No.47 New York: U.N 1970
5. United Nations, The Determinants and Consequences of Population Trends, Vol.I (New York: Dept. of Economic and Social
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

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-II**  
**Course Title Population Economics**

**Course Code: 19POSC203**  
**Credits 5**

### **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:**

1. Alfred W. Stonier and Douglas C. Hague, A Text Book Economics Theory (London: Longman group Limited, 1980)
2. Ansely J. Coale and E.M Hoover, Population and Economic Development in Low-income Countries (New Jersey: Princeton University Press, 1958)
3. Asha A. Bhenda and Tara Kanitkar, Principles of Population Studies, (Bombay: Himalaya Publishing House, 1978)

**Supplemenatry Readings**

1. 4. George Lealand Bach, Economics: An Introduction to Analysis and Policy (New Delhi: Prentice Hall of India Ltd., 1982)
2. 5. K. N. Prasad, Problems of Indian Economic Development National and Regional Dimensions(New Delhi: Sterling Publishers Private Limited,1983)
3. 6. Robert A.Leon, Basic Economic Principle (New Delhi: McGraw Hill International Book Company, 1981)
4. Rudder Dutt and K.P.M Sundaram, Indian Economics (New Delhi: Sultan Chand
5. and Co., (P) Ltd., 1982)
6. M.L Seth, Principles of Economics (Agra: Lakshmi Narai Agarwal, 1982) K.V.
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**

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

CO1:	Acquaint the elements of Economics
CO2:	Understand the meanings of National Income inequalities and poverty
CO3:	Explore the relation between population and food..
CO4:	Highlight the population and manpower analysis
CO5:	: Identify the relationship between population and employment

**Outcome Mapping**

CO/	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO1	PS	PS	PS	PS	PS	PS
-----	----	----	----	----	----	----	----	----	----	-----	----	----	----	----	----	----

PO	1	2	3	4	5	6	7	8	9	0	O1	O2	O3	O4	O5	O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**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; Tibe 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**

Demographic Behaviour in Social Context: Family Size Desires, Norms, Family Building Decisions, Choice of Contraception, Socio-cultural taboos relating to fertility and contraception; value of children and Gender discrimination in fertility and health behaviour; Women in society: role and status; Population Aging and Problems old Aged.

#### **Text Books:**

1. T.B Bottomore, Sociology: A\* Guide to Problems of Literature (London: George Allen and Unwin Ltd., 1962)
2. Indira Avashi, Rural Women of India (New Delhi: B.R. Publishing Corporation, 1982)
3. B.N Ganguli (Ed.) Social Development (New Delhi : Sterling Publishers Pvt. Ltd 1983)

#### **Supplementary Readings**

1. B. Kuppasamy, Introduction to Social Psychology (New Sterling Publishers Pvt. Ltd 1983)
2. \*R.M MacIver H. Page, Society: An Introductory Analysis (London: Macmillan, 1961)
3. G.R.Madan, Indian Social Problems, Vol. I and II (New Delhi, Allied Publishers (P) Ltd., 1981)
4. Ogburn and Nimkaff, Sociology (Boston: Houghton Mifftin company, 1958)

5. \*M.K Premir A. Ramanna and Usha Banhawale, An Introduction to Social Demography (Delhi: Vikas Publishing House Pvt, Ltd., 1979)
6. United Nations, The Determinants and Consequences of Population Trends (New York: Department of Economic and Social Affairs, 1975)
7. C.H Hanumantha Rao and P.C. Joshi, Reflection of Economic Development and Social Change (New Delhi: Allied Publishers Pvt, Ltd., 1980)
8. S. Manzoor Alane and G. Ram Reddy, Socio Economic Development Problems in South and South East Asia (Bombay: Popular Prakashan, 1978)

### 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

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

### 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:**

1. D.N. Elbance, Fundamentals of Statistics, (Allahabad, Kitab Mahal, 1973)
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)
2. Gupta and Kaspoor, Applied Statistics (New Delhi: Sultan Chand and Sons 1976)
3. P.G. Hoel, Introduction to mathematical Statistics (Bombay, Asia Publishing House, 1961)

4. G.Sankaranarayanan, Elementary Theory of Statistics and its Applications (Madras: The National Publishing Co., 1969)
5. Katzan, Henry, Jr. Introduction to Computer Data Processing, (New York: Vonnstrand, 1980)
6. Statistical Methods (Sultan Chand & Sons Educational Publishers, New Delhi).

### 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

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

Semester-III  
Course Title Research Methodology

Course Code: 19POSC302  
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-Probability 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 :**

1. Bernard S. Philips, Social Research Strategy and Tactics (New York: Macmillan Publishing Co., Incl 1971)
2. Fred N. Kerlinger, Fundamentals of the Behaviours, Research in Education and Psychological Enquiry (New York: Halt Ranchart and Winston, 1965)
3. W.J Goode and Hatt, Methods in Social Research (Tokyo, McGraw Hill Book Co., 1952)

### **Supplementary Readings:**

1. D.Kenneth and Bailey, Methods of Social Research (New York: Longman's Green Co., 1942)G.A Landberg, Social Research: (New York: Longman's Green and Co., 1942)

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.

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

Semester-III

Course Code: 19POSC303

Course Title Health,Nutrition,Communication And Population Education Credits: 4



### **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, Nutrients, 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**

Population Education: Concepts, Definitions; Scope, and Need for Population Education; Development of Population Activities; Implementation Strategies; Agencies involved in the Population Education Programmes.

### **Text Books:**

1. R.P Devadas, Nutrition in Tamil Nadu, (Madras: Sangam Publishers, 1972)
2. C.Gopalan, B.V Ramasastry and S.C Balasubramanian, The Nutrition Value of Indian Foods (New Delhi: ICMR 1978)
3. R.Gosh, A Treatise on Hygiene and Public Health (Calcutta: Scientific Publishing Company Inc. 1950)

### **Supplementary Readings:**

1. M.Swaminathan, Essentials of Nutrition – Vol. I and II (Madras: The Ganesh and Co., 1974)
2. \*J.E Park and K. Park, Preventive and Social Medicine (India: Bannersidas Bhanot and Company Limited, 1976)
3. \*Rogers, Everest M., Communication Strategies for Family Planning (New York: Free Press, 1973)
4. Srinivasan Rao (Ed.) Hand Book on Population Education (Tripathi: S.V University, 1975)
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

### Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

### Semester-III

Course Title Population And Development Planning

Course Code: 19POSC304

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:

1. Asha A. Bhenda and Tara kanitkar, Principles of Population Studies, (Bombay: Himalaya Publishing House, 1978)
2. Charles P. Kindilberger and Bruce Herrice, Economic Development (London: Mc Graw Hill Ltd., 1977)
3. C.H. Hanumanta Rao and P.C. Joshi, Reflection on Economic Development and Social change (New Delhi: Allied Publishers Pvt. Ltd. 1980)

### Supplementary Readings:

1. Higgins, Benjamin, Economic Development (Delhi: UBS, 1976)
2. S. Manzoor Alane and G. Ram Reddy, Socio-Economic development Problems in South East Asia (Bombay: Popular Prakashan, 1978)
3. K.N. Prasad, Problems of Indian Economic Development National and Regional Dimensions (New Delhi: Sterling Publishers Private. Limited, 1983)
4. \*Rudder Dutt and K.P.M Sundaram, Indian Economics (New Delhi: Sultan Chand and Co., (P) Ltd., 1998)
5. \*M.L Seth, Principles of Economics (Agra: Lakshmi Narai Agarwal, 1982)
6. United Nations, The determinants and Consequences of Population Trends (New York: Department of Economic and Social Affairs, 1975)

### 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

## Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-III**  
**Course Title Soft Skills**

**Course Code: 19POSC306**  
**Credits:3**

### **UNIT-I: Soft Skills and Personality Development**

Soft Skills: Meaning and Importance - Hard Skills versus Soft Skills - Self Concept: Self Awareness, Self Development and Self Realisation – Power of Positive Attitude – Etiquette and Manners.

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

### **UNIT-II: Communication Skills**

Oral Communication: Forms, Types of Speeches and Public Speaking – Presentation: Elements of Effective Presentation and Use of Visual Aids in Presentation.

Written Communication: Strategies of Writing – Business Letters: Form, Structure and Formats – Types of Business Letters – Memos – Agenda and Minutes.

Non-verbal Communication: Body Language and Proxemics.

### **UNIT-III: Interpersonal Skills**

Interpersonal Skills: Relationship Development and Maintenance and Transactional Analysis.

Conflict Resolution Skills: Levels of Conflict and Handling Conflict - Persuasion – Empathy – Managing Emotions – Negotiation: Types, Stages and Skills – Counselling Skills.

### **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**

Decision Making Skills – Problem Solving – Emotional Intelligence – Team Building Skills – Team Spirit – Time Management – Stress Management: Resolving Techniques.

### **Text Books:**

1. Ghosh, B.N. Managing Soft Skills for Personality Development. (Ed). New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2012.
2. Krishna Mohan and Meera Banerji. Developing Communication Skills. (2<sup>nd</sup> Edition). New Delhi: MacMillan Publishers India Ltd., 2009.
3. Neera Jain and Shoma Mukherji. Effective Business Communication. New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2012.

### **Supplementary Readings:**

1. Rao, M.S. Soft Skills - Enhancing Employability: Connecting Campus with Corporate. New Delhi: I.K International Publishing House Pvt. Ltd., 2011.
2. Ashraf Rizwi, M. Effective Technical Communication. New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2010.
3. Bretag Tracey, Crossman Joanna and Bordia Sarbari. Communication Skills. New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2012.

## **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**

Modern Theories: Theory of Demographic Transition: Critical evaluation of the theory and its applicability in developing countries; Leibenstein's Critical Minimum effort thesis; Lewis economic development with unlimited supplies of Labour and Coale and Hoover Models.

## **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 Polices of 1976, 1977 and 1994 and their Significance; Target Free Approach and Reproductive and Child Health Programmes in India.

### **Text Books:**

1. Asha A. Bhende and Tara kanitkar, Principles of Population Studies, (Bombay: Himalaya Publishing House, 1978)
2. Bernard Berelson, (ed) Population Policy in developed Countries (New York: McGraw Hill Book Co., 1974)
3. Chandrasekhar, S., Infant Morality, Population Growth and Family Planning in India (London: Geroge Allen and Unwin 1972).

### **Supplementary Readings:**

1. India’s Population Policy Reports 1976, 1977 and 1993.
2. Khan, M.E., C.V.S prased and Ashok majimdar, People’s Precetion about Family Planning in India; (New Delhi: concept Publishing company, 1980)
3. \*Rele, J.R. and Tara Kanitkar, Fertility and Family Planning in Greater Bombay (Bombay; Papular Prakashan 1982)
4. \*Srinivasan, K. and others, Evaluation of Family Planning Orientation on Camps (Bombay: International Institute for Population Studies, 1982)
5. United Nations, The Determinants and consequences of population of Economic Trends (New York: Department of Economic and Social Affairs 1972)
6. Vatsala narain and C.P. Prakasam Population Policy Perspectives in Developing countires (Bombay L: Himalaya Publishing House, 1983)

### **Course Outcomes**

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

CO1:	Acquire knowledge about early views on Population issues
CO2:	Understand Malthusian and Neo-Classical theories
CO3:	Acquaint knowledge on Modern Population theories
CO4:	Familiarize Population policies
CO5:	Highlight India’s Population policy

## Outcome Mapping

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-IV**  
**Course Title Population Programmes And Evaluation**

**Course Code: 19POSC402**  
**Credits:5**

### 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; Rockefeller Foundation and the Population Council etc.

**Text Books:**

1. Asha A. Bhende and Tara kanitkar, Principles of Population Studies, (Bombay: Himalaya Publishing House, 1978)
2. C. Chandrasekaran and A.L. Hermalin (Eds.) Measuring the Effect of Family Planning Programme on Fertility Dolhain (Belgium) Editor, 1970)
3. Jain, Anrudh K. (ed.) Managing quality care in Population Programmes, (West Hartford, Com; Kumarian, 1992)

**Supplementary Readings:**

1. Roy, T.K and G. Rama Rao, Introduction of Evaluation of Demographic Impact of Family Planning, (Bombay: Himalaya Publishing House, 1985)
2. United Nations, The Methodology of measuring the Impact of Family Planning Programme on Fertility, Manual IX, Population Studies, No. 66, (New York: United Nations, 1979).
3. United Nations, The Determinants and consequences of Population Trends (New York: Department of Economic and Social Affairs 1972)

**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**

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓



CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-IV**

**Course Code: 19POSC403**

**Course Title Practicals: Techniques Of Demographic Analysis Credits:4**

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
3. Estimation of vital rates through stable Population technique.
4. Standardization of birth rates and death rates and infant mortality rates.
5. Brass technique (P/F Ratio) of fertility estimate.
6. Mortality estimates from children ever born and children surviving.
7. Indirect estimation of fertility by reverse survival method
8. Chandrasekar – Deming method
9. Computation of U.N and coale – Demney Model Life tables
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
14. Population projection under component method.
15. Population Projection by Mathematical Method.

**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

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO5	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

**Semester-IV**  
**Course Title Project And Viva-Voce**

**Course Code: 19POSC404**  
**Credits:6**

### 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

CO/ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6
CO1	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO2	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO3	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓
CO4	✓	-	-	✓	-	-	✓	✓	-	✓	✓	✓	-	-	✓	✓

## ELECTIVE COURSE

### POPE: 305 HEALTH EDUCATION AND NUTRITION (3 CREDITS)

#### 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

Sanitation, Water Supply and Public Hygiene: Household, Community, Industrial; Occupational Health Hazards - physical, Chemical, Biological, Mechanical and Psycho-social.

#### UNIT –III: Nutrition

Food and its classification; concept of nutrition, process, Concepts, Nutrients, 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:

1. \*R.P Devadas, Nutrition in Tamil Nadu,(Madras: Sangam Publishers, 1972)
2. \*S.Davidson, R.Passmore and J.F Brode Truswel, Human Nutrition and Dietetics (Livingston: The English Language Book Society and Churchill, 1975)
3. C.Gopalan, S.C Balasubramanian and B.V Ramasastry, Diet Atlas of India (New Delhi: ICMR 1972)
4. \*C.Gopalan, B.V Ramasastry and S.C Balasubramanian, The Nutrition Value of Indian Foods (New Delhi: ICMR 1978)
5. C.Gopalan and K,Vijayaragavan, Nutrition Atlas of India (New Delhi: 1971)
6. \*R.Gosh, A Treatise on Hygiene and Public Health (Calcutta: Scientific Publishing Company Inc. 1950)
7. M.Swaminathan, Essentials of Nutrition - Vol. I and II (Madras: The Ganesh and Co., 1974)
8. \*J.E Park and K.park, Preventive and Social Medicine (India: Bannersidas Bhanot and Company Limited, 1976)
9. P.S Venkatachalam and L.M Revello, Nutrition for Mother and Child, Special Report Series No.40 Nutrition Research Laboratories, 1962)

## **POPC 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-4: 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:**

1. Bernard S.Philips, Social Research Strategy and Tactics (New York: Macmillan Publishing Co., Incl 1971)
2. U.V Cocharan, Sampling Techniques (New York: John Wiley and Sons, 1963)
3. Eari R.Babbie, The Practice of social Research (California: Wordswoth Publishing Company Inc. 1979)
4. Fred N. Kerlinger, Fundamentals of the Behaviours, Research in Education and Psychological Enquiry (New York: Halt Ranchart and Winston, 1965)
5. W.J Goode and Hatt, Methods in Social Research (Tokyo, McGraw Hill Book Co., 1952)
6. T.S. Wilkinson, and P.L Bhandarkar, Methodology, Techniques of the Social Research (Bombay: Himalaya Publishing House, 1979)
7. P.V Young, Scientific Social Survey and Research (New York: Prentice Hall, 1949)
8. 8. Dean Kathryn (ed.), Population Health Research: Linking Theory and methods, New Delhi: Sage Publications, 1993.

## 19POSX205 POPULATION DYNAMICS (3 CREDITS)

### 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:

1. Agarwala S.N India's Population Problems, (New Delhi: Tata McGraw Hill, 1981).
2. \*Bhen0de Asha A. and Tara kanitkar, Principles of Population Studies, (Bombay: Himalaya Publishing House, 1978)
3. \*Basker D. Misra, The study of Population (New Delhi: South Asian Publishers (P) Ltd., 1980)
4. Chandrasekhar S., Infant Mortality, Population Growth and Family Planning in India: (London : George Allen and Unwin, 1972)
5. \*Charles Nam, Population and Society (Boston: Houghton Mifflin Co., 1969) (New York: John Wiley and Sons, 1958)
6. \*Henry Shnycok, et. al., The Methods Material of Demography (Washington: Bureau of Census, 1971 Vols,. I and II)
7. Srivastava, O.C., A Test Book of Demography (Delhi: Vikas Publishing House Pvt. Ltd. 1982)
8. United Nations, The Determinants and Consequences of Population Trends (New York: Department of Economics and Social Affairs, 1973)
9. -----, ESCAP, Population of India: Country Monograph Series Number 10, (New York: United Nations, 1982).
10. Warren Thompson, and David Lewis, Population Problems (New York: Macmillan, 1968)

## **19POSX306 HEALTH PLANNING AND POLICY (3 CREDIT)**

### **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**

National Health Programmes – National leprosy eradication programme, National Tuberculosis Control Programme, National Malaria Eradication Programme, Universal Immunization Programme, National Programme for control and prevention of blindness, National programme for prevention of AIDS, National Filariasis Control Programme, STD control Programmes. National programme for control of Iodine Deficiency Diseases, National Family Welfare Programme.

Non-Governmental organization, Indian Red Cross, DANIDA Tuberculosis Association in India. International health agencies – UNICEF, WHO, USAID, Rock Feller & Ford Foundation.

#### **REFERENCES:**

- \*Dutt P.R., rural Health Service in India, Primary Health Services (H.E.P, 1965).
- \*Ghosh B.N. Hygiene and public Health, Scientific Publishing Company, 1972.
- \*Park J.E., Park K, Preventive and Social Medicine (Jabalpur Bannersidas Bhanot and company Ltd., 1995).
- Ashok shan et.al., Community Paricipation In Health and Family Welfare Programme, Innovative Experience in India, Indian Society of Health Administrators, Bangalore, 1990.
- \*Freeman R.B. and Holmes E.M., Administration of Public Health Services, W.B. Sanuders Company, 1960.
- National Institute of Health and Family Welfare Management Training Modules for District level Health officers, New Delhi, 1990.

## 19POSX405 TAMIL NADU DEMOGRAPHY

### 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; Suppliemntry Nutrition Programme: Applied Nutrition Programme, Chief Ministers Noon-Meal Programme, ICDS, Anganwadi and Balwadi Centres etc.

### REFERENCES:

1. IIPS & ORG Macro, 2002, National Family Health Survey (NFHS-2), India, 1998-99: Tamil Nadu, Mumbai: IIPS.
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.
3. Elango.P, 2002, Demographic Transition in Tamil Nadu, Mayiladuthurai, Vasuki Publications.
4. Elango, P., 1983, Population Growth and Socio-Economic Development in Tamil Nadu., M.Phil Thesis, (Unpublished).
5. \*Mahadevan.K., M.Sumangala, 1997, Welfare Model of Development and Demographic Transition Delhi: B.R. Publishing Corporation, 1977.

6. \*Tamil Nadu Government, 1995-96, Policy Note on Medical and Public Health, Chennai: Government of Tamil Nadu.
7. \*Tamil Nadu Government, 1995-96, Policy note on Education, Chennai: Government of Tamil Nadu and other Reports on Social Welfare.
8. Venketaragan.L.B., and P.Elango, 1992, Baseline Survey of Tribals in Kalrayan Hills, Danida Health Care Report, Unpublished.

## **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:**

1. \*Demko et.al: 1970. Population Geography: A Reader, New York: McGraw Hill.
2. Sharma, R.C., Population Trends, Resources and Environment, Hand Book on Population Education. Delhi: Dhampet Rai & Sons.
3. \*United Nations, 1983. Population Resources, Environment and development: Proceedings of the expert group on Population and Resources, Environment and development Geneva.



4. Population Reports, Series M, No. 15, Special Topics on Population and Environment: The Global Challenge, Feb. 2001.
5. Charles Kendigh, S., Ecology with special reference to Animals and Man (New Delhi: Prentice Hall of India pvt. Limited, 1980)
6. \*Ehrlich, Paul R., et al. Ecoscience, Population Resources, Environment (San Francisco: W.N Freeman and Company, 1977).
7. \*Murdock, William, Environmental, Resources, Pollution and Society, (New York: 1974)