

BHARATHIAR UNIVERSITY: COIMBATORE-46

DEPARTMENT OF POPULATION STUDIES

M. A. POPULATION STUDIES (CBCS Pattern)

(For the Students Admitted During the Academic Year 2007-2008 Batch and Onwards)

SEM	PAPER : CORE - ELECTIVE SUPPORTIVE	CODE	SUBJECT	CLASS HOUR	UNIVERSITY EXAMINATION			
					Internal	External	Total	Credits
I	Core – I	POPC 101	Introduction to Population Studies	4	40	60	100	4
	Core – II	POPC 102	Mortality and Morbidity	4	40	60	100	4
	Core – III	POPC 103	Research Methods	4	40	60	100	4
	Elective – 1	POPE 104	Demographic Scenario of Tamil Nadu	4	40	60	100	4
	Supportive-1*		Would be taken by the students depending upon their choice	2	20	30	50	2
II	Core – IV	POPC 201	Fertility and Nuptiality	4	40	60	100	4
	Core – V	POPC 202	Elementary Statistical Methods	4	40	60	100	4
	Core – VI	POPC 203	Elementary Demographic Methods	4	40	60	100	4
	Elective – 2	POPE 204	Adolescent Issues	4	40	60	100	4
	Supportive-2*		Would be taken by the students depending upon their choice	2	20	30	50	2
III	Core – VII	POPC 301	Human Ecology, Migration and Urbanization	4	40	60	100	4
	Core – VIII	POPC 302	Advanced Demographic Methods	4	40	60	100	4
	Core – IX	POPC 303	Population, Health and Nutrition Education	4	40	60	100	4
	Elective – 3	POPE 304	Reproductive and Child Health	4	40	60	100	4
	Supportive-3*		Would be taken by the students depending upon their choice	2	20	30	50	2
IV	Core – X	POPC 401	Population Policies, Programmes and Evaluation	4	40	60	100	4
	Core – XI	POPC 402	Population and Development	4	40	60	100	4
	Core – XII	POPC 403	Research Project Viva-Voce Examination	10 --	-- --	-- --	-- 50	8 2

SUPPORTIVE COURSES FROM OTHER DEPARTMENTS

Essential Mathematics-I. Matrix Algebra	2
Essential Mathematics-II. Calculus	2
Basic Concepts in Sociology	2
Introduction to Environmental Sciences	2
Basic Economics	4
Computer Applications-WINDOWS, WORD and DBM	4
Introduction to Statistical Inference and Multivariate Analysis	4

ELECTIVES OFFERED TO OTHER DEPARTMENTS

Introduction to Population Dynamics	4
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SUPPORTIVES OFFERED TO OTHER DEGREE PROGRAMMES

Basic Issues in Population	2
Population Policy and Programmes	2
Database Management and Analysis using SPSS	2

DIPLOMA IN ADVANCED RESEACH TECHNIQUES

(For the Students Admitted During the Academic Year 2007-2008 Batch and Onwards)

Scheme of Examination

SEMESTER	CODE	SUBJECT	CLASS HOUR	UNIVERSITY EXAMINATION			
				Intern	Extern	Total	Credits
I	POPD 01	Quantitative and Qualitative Research Techniques	4	40	60	100	4
II	POPD 02	Bio-statistics	4	40	60	100	4
III	POPD 03	Application of SPSS Package in Research	4	40	60	100	4
IV	POPD 04	Proposal Development and dissemination technique	4	40	60	100	4

The credits would not be included in the CGPA calculation and Passing the M.A. Programme

Introduction to Population Studies

Course Number: **POPC 101**

Number of Credits: **4 (Four)**

Subject Description:

This course portrays fundamentals of Population Studies including the population growth and distribution, population composition and theories of population.

Goals:

To facilitate the students to learn the elementary aspects of population and its nature and scope of population studies.

Objectives:

On successful completion of the course the students should enrich their knowledge about (i) the nature and scope of population studies, (ii) population growth and distribution around the world and India, and (iii) a historical sketch of population theories.

Contents:

Unit I Nature and Scope of Population Studies

Demography and Population Studies. Nature and Scope. Development of Population Studies and its interdisciplinary nature. Population Studies and Other Sciences.

Components of Population Change

Fertility, Mortality and Migration, and their interrelationships.

Unit II World Population: Growth and Distribution

History of World population growth, population growth in developed and developing countries, World population prospects.

Unit III Population Growth in India

Trends in India's population growth in the States and Union Territories. Factors responsible for the growth of population. Prospects for population growth in India.

Unit IV Population Composition in India

Age and Sex structure: measures, Factors affecting age and sex structure. Marital Status: measures and analysis of change, Socio-economic Characteristics: literacy and educational attainment, religion, language, and mother tongue, rural or urban residence, labour force participation, employment and occupation.

Unit V Population Theories: A Historical Survey

Early thinking of Population Issues: Confucius and other Chinese writers, Greek thought, Indian (Kautilya's writings) and Roman thought.

Religion and Population Issues: Hinduism, Judaism, Christianity and Islam.

Pre-Malthusian theories on population, mercantilist and physiocratic schools of thought, political arithmetic.

Malthusian Theory: Theme and Criticism.

The classical and the neo-classical schools of thought, Optimum population theory, socialist writings (Marx and Engels); Mathematical and Biological theories, Demographic Transition.

References:

Selected sections from the following:

1. Agarwala, S.N. *India's Population Problems*, New Delhi: Tata McGraw Hill, 1981.
2. *Bhende, Asha A. and Kanitkar, Tara, *Principles of Population Studies*, 9th edition, Mumbai: Himalaya Publishing House, 2000.
3. *Mishra B.D. *An Introduction to the Study of Population*, Second edition, New Delhi: South Asian Publishers Pvt. Ltd., 1995.
4. *Thompson, Warren S. and David Lewis, *Population Problems*, New Delhi: McGraw Hill Book Co., 1976.
5. *United Nations, *The Determinants and Consequences of Population Trends, Vol. I*, ST/SOA/SER.A/SO, Population Studies No: 50, New York: U.N., 1973.
6. *United Nations, *World Population Trends and Policies, 1979. Monitoring Report, Vol. I*, ST/ESA/SER.A /70 Population Studies No: 70, New York: U.N., 1980.
7. *United Nations, ESCAP, *Population of India. Country Monograph Series Number 10*. New York: UN ESCAP, 1982.

Note: * May be treated as Text Books.

Mortality and Morbidity

Course Number: **POPC 102**

Number of Credits: **4 (Four)**

Subject Description:

This course portrays the basic concepts and measures of mortality and morbidity as well as their related aspects.

Goals:

To enable the students to learn the various aspects of mortality and morbidity including life table and causes of death so as to understand such aspects on comparative basis across the countries of the world and different states and sub-groups of population in India.

Objectives:

On successful completion of the course the students should have knowledge about (i) various concepts and measure of mortality and morbidity, (ii) life table and (iii) causes of death.

Contents:

Unit I Basic Concepts and Measures

Importance of the study mortality, concepts, sources of data and limitations.
Basic measures of mortality: Crude death rate; age, sex, marital status, specific and standard death rates.

Unit II Life Table

Concepts, definitions of columns, current and cohort life tables, complete life tables and abridged life tables, construction of life tables.

Unit III Differentials and Trends in Mortality

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

Unit IV Infant and Childhood Mortality and Maternal Mortality

Importance of the study of infant and childhood mortality, measures; infant mortality rates; neonatal, post- neonatal and peri-natal mortality rates.
Differentials and trends in developed and developing countries and in India, Reasons for high IMR in India and prospects of decline.
Maternal mortality rate, ratio, levels and trends.

Unit V Morbidity and Causes of Death

Definition of morbidity, incidence and prevalence of disease. WHO classification of causes of death, changing patterns of causes of death; the epidemiological transition, health transition, Reproductive Health, AIDS.

References:

References Selected sections from the following:

1. Barclay, George, *Techniques of Populations Analysis*, New York: John Willey & Sons, Inc., 1958.
2. Bhat P. N. Mari, Preston, S. N. and Tim Dyson, *Vital Rates in India, 1961-81*, Committee on Population and Demography, Report No: 24, Washington D.C., National Academy Press, 1984.
3. *Bhende, Asha A., and Tara Kanitkar, *Principles of Population Studies*, 9th Edition, Mumbai: Himalaya Publishing House, 2000.
4. *United Nations, ESCAP, *Population of India, Country Monograph Series No: 10*, New York: UN ESCAP, 1982.
5. Padmanabha, P., 'Mortality in India: A note on Trends and Implications', *Economic and Political Weekly*, 17 (32): 1285-90, 1982.
6. 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, Department of International Economic and Social Affairs, New York: U. N. 1984.
7. *Palmore, James. A. and Robert, W., Gardner, *Measuring Mortality Fertility and Natural Increase: A Self teaching guide to elementary measures*. Honolulu: The East-West Centre, 1983.
8. Ruzicka, L., and Hansluwka H, "Mortality Transition in South and East Asia Technology confronts Poverty", *Population and Development Review* 8 (3); 567-5888, 1982.
9. *Shryock, Henri S., Jacob S. Siegel and Associates, *The Methods and Materials in Demography*, Washington D.C; U.S. Bureau of the Census, 1980.
10. United Nations, *Determinants and Consequences of Population Trends*, New York: Department of Economic and Social Affairs, 1973.
11. Omran, A. R., "The epidemiological transition: a theory of the epidemiology of population change", *Milbank Memorial Fund Quarterly* .49: 509-538, 1971.

Note: *May be treated as Text Books.

Research Methods

Course Number: **POPC 103**

Number of Credits: **4 (Four)**

Subject Description:

This course portrays the basic research methods.

Goals:

To enable the students to learn the different aspects of research methods including data organisation and data analysis so as to apply the same while carrying out the project work.

Objectives:

On successful completion of the course the students should have an understanding about (i) steps in carrying out research, (ii) research designs, (iii) basic methods and instruments of data collection, (iv) data organisation, and (v) data analysis and presentation of research findings.

Contents:

Unit I Introduction

Science, meaning and characteristics, theory and facts, scientific methods and techniques, aims, objectives and scope of social research, Steps in research. Formulation of a research problem, framing objectives and hypotheses. Operationalisation of concepts.

Unit II Research Design

Exploratory, descriptive, experimental, diagnostic and evaluative designs; basic experimental and quasi experimental designs for research, sources of invalidity, sampling design.

Unit III Methods of Data Collection and Research Instruments

Interview, observation, focus group discussions, micro-demographic approach, secondary data. Preparations of instruments, reliability and validity of the instrument; questionnaire and interview schedule. Interview technique.

Unit IV Data Organization

Recruiting and training of field staff, field work organization. Basic principles of editing and coding, instructions for coding and transcription, errors in coding and transcription, verification procedures.

Unit V Analysis and Presentation of Data and Research Findings

Brief description of manual and machine tabulation. Uses of computers in data base management, spreadsheets, and statistical demographic software. Interrelationships between various steps in research. The purpose, the structure, and the writing procedures in preparing manuscripts for scientific journals and reports.

References:

Selected sections from the following:

1. Festinger, L. and D. Katz, *Research Methods in Behavioural Sciences*; New York: The Dyden Press, 1953.
2. Good W. J., and H. K. Hatt, *Methods in Social Research*, Tokyo: McGraw Hill, 1952.
3. Kerligner, F. N., *Foundation of Behavioural Research*, New Delhi: Surjeet Publication, 1983.
4. Forum: Focus Group for Health Research, *Health Transition Review* Vol. 4. No.1. 81-104, 1994.
5. Sharma, R. A. *Essentials of Scientific Behavioral Research*. Meerut: Surya Publications, 2000.

Demographic Scenario of Tamil Nadu

Course Number: **POPE 104**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the demographic scenario of Tamil Nadu state in detail over a period of time.

Goals:

To enable the students to study the different demographic aspects of Tamil Nadu state on historical basis as well as future prospects including their relationship with socio-economic development.

Objectives:

On successful completion of the course the students should have an understanding about (i) population situation, (ii) mortality and health transition and its association with nutritional programmes, (iii) fertility and family welfare programmes, (iv) migration and urbanization and (v) the interrelationship between population growth and socio-economic development.

Contents:

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, and Nutritional Programmes

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 foeticide and infanticide. Health situation, Health policies and programmes. Nutritional Status; Nutrition Programmes; Supplementary Nutrition Programmes: Applied Nutrition Programme, Chief Ministers Noon-Meal Programme, ICDS, Anganwadi and Balwadi Centres, etc.

Unit III Fertility and Family Welfare Programme

Fertility levels, trends and differentials in Tamil Nadu state, Customs and practices affecting fertility, value of children and women's status, Factors responsible for the recent decline in birth rate, Family welfare programme performance, Practices related to age at marriage and MTP, Births Averted due to family welfare programme.

Unit IV Migration and Urbanization

Migration in Tamil Nadu: Inter and intra-state migration; inter and intra-district migration and factors associated with it. Urbanization in Tamil Nadu: Levels and trends, Problems and policies; problems of slums and related policies.

Unit V Population Growth and Socio-Economic Development, and Labour Force
Interrelationship between Population growth and Socio-economic development in Tamil Nadu. Labor Force: Concept, Trends in Economic activity rates in comparison with India. Trends in Industrial sectors and occupational divisions.

References:

Selected sections from the following:

1. IIPS, Mumbai and ORC Macro, *National Family Health Survey (NFHS-2), 1998-99 Tamil Nadu*, Mumbai: IIPS, 2001.
2. MIDS, 1988, *Tamil Nadu Economy: Performance and Issues*, New Delhi: Oxford and IBH Publishing Company Private Limited.
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., and M. Sumangala, *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.

Note: * May be treated as text book.

Fertility and Nuptiality

Course Number: **POPC 201**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the various features of fertility and nuptiality including socio-economic theories of fertility.

Goals:

To enable the students to learn the different aspects of fertility and nuptiality, factors affecting the same and socio-economic theories of fertility.

Objectives:

On successful completion of the course the students should have an understanding about (i) the various concepts of fertility and nuptiality, (ii) measures of fertility and nuptiality, (iii) factors affecting fertility and nuptiality, (iv) levels and trends of fertility and nuptiality, and (v) socio-economic theories of fertility.

Contents:

Unit I Introduction

Importance of the study of fertility: Brief introduction to reproductive physiology, concepts and definitions of basic terms – fecundity, fertility, conception, contraception, pregnancy, abortion, still- birth, menarche – menstrual cycle, menopause, family size, marriage, widowhood, divorce, separation, sources of data and limitations.

Unit II Measures of Nuptiality and Fertility

Basic measures of nuptiality: measures of incidence of age at first marriage, widowhood, divorce, separation and remarriage, singulate mean age at marriage.

Basic measures of fertility: Crude birth rate, child-women ratio, children-ever-born, childlessness, general fertility rate, age-specific fertility rate, total fertility rate, marital fertility rate, rates specific for parity and duration of marriage, parity progression ratios, closed and open birth intervals, cohort fertility, gross reproduction rate, net reproduction rate.

Unit III Factors Affecting Nuptiality and Fertility

Demographic, physiological, social, cultural, economic and psychological factors affecting nuptiality and fertility, value of children. Age at marriage and fertility. Davis-Blake intermediate variables framework and Bongaarts' proximate determinants of fertility.

Unit IV Levels and Trends in Nuptiality and Fertility

Levels, trends and differentials in nuptiality and fertility in developed and developing countries and in India.

Unit V Social and Economic Theories of Fertility

Social capillarity theory, theory of change and response, fertility transition theory, threshold hypothesis, wealth flow theory, micro economic theories of fertility (theories by Liebenstein, Becker and Easterlin).

References:

Selected sections from the following:

1. Agarwala, S. N., *Age at Marriage in India*, Allahabad: Kitab Mahal Private Limited, 1962.
2. *Agarwala, S. N., *India's Population Problems*, Bombay: Tata McGraw Hill Publishing Co., Ltd., 1985.
3. *Bhende Asha A. and Tara Kanitkar, *Principles of Population Studies*, 9th edition. Bombay: Himalaya Publishing House, 2000.
4. *Bongaarts J., and Potter, R.G., *Fertility, Biology and Behaviour. An Analysis of the Proximate Determinants*, New York: Academic Press, 1983.
5. *Bulatao, R. B., and R. D. Lee (eds.) *Determinants of Fertility in Developing Countries* Vol. I., New York: Academic Press, 1983.
6. Caldwell, J.C., *Theory of Fertility Decline*, London: Academic Press, 1982.
7. Driver, Edwin, D., *Differential Fertility in Central India*, Princeton; Princeton University Press, 1963.
8. Freedman, R., *The Sociology of Human Fertility: A Trend Report and Bibliography*. Oxford: Basil Blackwell, 1963.
9. Nag, Moni, *Factors Affecting Human Fertility in Non-Industrial Societies*, Yale University Publications in Anthropology No: 66. New Haven: Yale University, 1966.
10. *Shryock, Henry, S., Jacob S. Siegel and Associates, *The Methods and Materials of Demography, Vol. 1 & 2*, Washington D.C.: U.S. Bureau of the Census, 1980.
11. United Nations, *Population Bulletin of the United Nations*, No: 7, 1963, New York, United Nations, 1965.
12. *United Nations, *The Determinants and Consequences of Population Trends*, Vol.1, New York: United Nations, 1973.
13. *United Nations, ESCAP, *Population of India*, Country Monograph Series No: 10, New York; U.N. 1982.

Note: * May be treated as Text Books.

Elementary Statistical Methods

Course Number: **POPC 202**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the use of basic statistical methods including descriptive statistics, elementary probability theory, sampling methods and testing hypothesis.

Goals:

To enable the students to learn the theoretical aspects of basic statistical methods and its possible applications.

Objectives:

On successful completion of the course the students should have an understanding about (i) description of the data, (ii) measures of central tendency and dispersion, (iii) probability theory and its distributions, (iv) sampling and (v) methods of testing hypothesis.

Contents:

Unit I Introduction

Use of statistical methods; description of data, statistical inference.
Types of measurements: Nominal, ordinal, interval and ratio scales.
Frequency distributions: Raw data, frequency distributions, histograms and frequency polygons, relative frequency distributions, cumulative frequency distributions, ogives, frequency curves.

Unit II Descriptive Statistics

Measures of Central tendency: Arithmetic mean, weighted mean, median, mode, measures from grouped data, empirical relation between mean, median and mode. Measures of location; quartiles, deciles and percentiles.
Measures of dispersion; mean deviation, quartile deviation, standard deviation, variance, computation of these measures from ungrouped and grouped data, co-efficient of variation, standardized variables and scores.

Unit III Elementary Probability Theory and Probability Distributions

Definition of probability, conditional probability; independent and dependent events, mutually exclusive events. Random variables, discrete and continuous probability distributions. Mathematical expectation.
The binominal distribution, the Poisson distribution, the normal distribution, properties, Fitting theoretical distributions to sample data.

Unit IV Sampling Methods

Probability and Non-probability sampling; simple random sampling, systematic sampling, stratified sampling, cluster sampling and multi stage sampling.

Unit V Tests of Hypothesis

Concepts of statistical hypothesis, decision rule, critical region, level of significance, type I and type II errors. Large and small sample tests for means and proportions.

References:

Selected sections from the following:

1. Blalock, Jr. Hubert M., *Social Statistics*, 2nd Ed., New York; McGraw Hill Book Company: 1984.
2. Daniel, Wayne W., *Bio-Statistics: A Foundation for Analysis in the Health Sciences*: New York; John Wiley & Sons Inc., 1974.
3. Goon, A. M., M. K. Gupta and D. Das Gupta, *Basic Statistics*, Calcutta. World Press, 1966.
4. Kurtz, Norman L. R., *Introduction to Social Statistics*, Tokyo: McGraw Hill International Book Company, 1983.
5. *Snedecor, George, W and William, G. Cochran, *Statistical Methods*, 6th Ed., New Delhi, Oxford & IBH Publishing Co., 1967.
6. *Walpole, Ronald, E., *Introduction to Statistics*, 2nd Ed., New York: Macmillan Publishing Co., Inc.1974.

Note: * May be treated as Text Books.

Elementary Demographic Methods

Course Number: **POPC 203**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the sources of population data and elementary demographic methods.

Goals:

To enable the students to learn the various sources of population data, evaluation of data and elementary demographic methods.

Objectives:

On successful completion of the course the students should have an understanding about (i) various sources of population data, (ii) methods of evaluation of data, (iii) technical aspects of population growth and (iv) features of stable population.

Contents:

Unit I Population Census

Concept, objectives and utility, characteristics of modern population censuses. Planning, Organization and administration of national censuses. History of Census in India and Details of the latest Indian Census. Limitations and Errors, Post Enumeration Checks. Census Publications.

Unit II Vital Registration and Other Sources of Data

Vital Registration: Concept, objectives and utility of vital registration, UN-recommendations. History of Civil Registration in India, Organizational set up and items covered in vital statistics in India, limitations.

Sample Registration System in India, History, Objectives advantages and limitations. Model Registration System in India; Objectives, coverage, limitations. Large-scale Surveys in India: National Sample Surveys, Mysore Population Study, National Family Health Survey, Service Statistics.

Unit III Evaluation of data

Sources and types of errors and deficiencies in data; General methods of evaluation and detection of errors and deficiencies in data; Evaluation of errors in total count and population components such as age-sex data.

Adjustment of data for errors and deficiencies; Comparison with expected configuration; Interpolation and graduation such as graphic smoothing, moving averages, curve fitting and use of mathematical formula.

Unit IV Dynamics of Population Growth

Balancing equation, rates of population growth; arithmetic, geometric and exponential rates of growth, doubling time, location of events in time; the Lexis diagram; concepts of the cohort and the cross – section. Crude rates and standardized rates.

Unit V Stable Population

Definition, intrinsic rate of natural increase, intrinsic birth rate and death rates, mean length of generation, net reproduction rate, computation of rate of growth and birth rate of stable population from the fertility and mortality schedules.

References:

Selected sections from the following:

1. *Bhende, Asha A., and Tara Kanitkar, *Principles of Population Studies*, 9th Ed., Mumbai: Himalaya Publishing House, 2000.
2. India, Registrar General, *Civil Registration System in India—A Perspective, Census Centenary Monograph No: 4*, New Delhi: Office of the Registrar General.
3. Keyfitz, N., *Introduction to the Mathematics of Population*, Massachusetts: Addison Wesley, 1968.
4. Padmanabha, P., “Organization of Civil Registration and Vital Statistics System in India”. *Registrar General’s Newsletter*, 9 (1), January, 1991.
5. *Shryock, Henry, S., Jacob S. Siegel and Associates, *The Methods and Materials of Demography*, New York: U.S. Department of Commerce, Bureau of Census, 1980.
6. *Srinivasan, K., *Basic Demographic Techniques and Applications*, New Delhi: Sage Publications, 1998.
7. Srinivastava, S. C., *Indian Census in Perspective. Third Ed., Centenary Monograph No: 1 of 1971*. New Delhi: Office of the Registrar General, 1977.
8. Swamy V.S., “Sources of Demographic Data”, in *Population of India, Country Monograph Series No: 10*, New York: UN ESCAP, 1982.
9. United Nations, *Handbook of Vital Statistics Methods*. ST/STAT/Ser/F.No.7, New York: United Nations, 1954.
10. United Nations, *Handbook of Population Census Methods, Vol. I, Studies in Methods*, Series F. No: 5, New York: United Nations, 1958.
11. United Nations, *The Concept of a Stable Population – Application to the Study of Population of Countries with Incomplete Demographic Statistics*. New York: United Nations, 1966.
12. United Nation, *Asian and Pacific Recommendations for the 1980 Population and Housing Censuses*, Bangkok: U. N., 1978.
13. Various publications of NSSO, Sarvekshana.

Adolescent Issues

Course Number: **POPE 204**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the basic issues of adolescence.

Goals:

To enable the students to learn the various issues related to adolescence including marriage, fertility, problems during adolescence and policies and programmes for adolescents.

Objectives:

On successful completion of the course the students should have awareness about (i) the basic concepts related to adolescence, (ii) adolescence marriage and fertility, (iii) social, psychological and reproductive health problems of adolescents, (iv) information and counselling needs of adolescents and (v) policies and programmes for adolescents.

Contents:

Unit I Adolescence and Menarche

Adolescence: Concept and Definition, stages of Adolescence, size and composition of Adolescents in ESCAP, Asia, and India.

Process of growing up in Adolescence: Physical, sexual and emotional changes.

Menarche: Concept, age at menarche, factors affecting age at menarche.

Unit II Adolescent Marriage and Fertility

Adolescent Marriage; Levels and trends in adolescent marriage in India, factors influencing adolescent marriage.

Adolescent Fertility: Conceptual framework, adolescent fertility in India and States, factors affecting adolescent fertility.

Unit III Adolescent issues

Social problems – Drugs and alcohol, violence and abuse, prostitution.
Psychological problems – Depression, suicide, schizophrenia, masturbation.
Economic problems – Drops-outs, unemployment, street children.
Reproductive Health Issues: Unwanted pregnancy, complications of early pregnancy and child bearing, STD, HIV/AIDS.

Unit IV Information and Counselling needs of Adolescents

Family Life Education (FLE) – Focuses on family and relationships
Adolescent Reproductive Health (ARH) – Focuses on Reproductive Health needs of Association. Life Skills Education (LSE) – Focuses on skills (thinking, social, negotiating) to meet the challenges of life.

Unit V Policies and programmes for adolescents

Health and Welfare Programmes – RCH programme, Women and Child Development, Adolescent Education, Youth affairs.

Non-governmental programmes: Empowerment and General competency Income generation, policies against sexual abuse and violence, street children.

Out-reach Programmes –Adolescent/ Youth centres for pregnant and parenting youth, multi-service youth centres, youth peer groups.

References:

Selected sections from the following:

1. Tata Institute of Social Sciences. *A Compendium on Adolescence Education*, Mumbai: Dept. of Extra Mural Studies, 2001.
2. UNFPA. *Adolescents in India: A Profile*, UN System in India, New Delhi, 2000.
3. Sharma, K. *Understanding Adolescence*, New Delhi: National Book Trust, 1999.
4. UNFPA. *Adolescent Fertility in India: An analysis based on NFHS data*, New Delhi: JNU, Centre for the Study of Regional Development, 2000.
5. Mahadevan, K. et al. *Reproductive Health of Humankind in Asia and Africa: A Global Perspective*, Delhi: B.R. Publishers, 2000. Chapters 19 & 21-23.
6. Reddy, P.J., et al. “Menarche in Adolescent School Girls”, *Reproductive Health, Gender and Development*, (Eds) P. J. Reddy et al., Delhi: BRPC, 2002, pp. 115-134.
7. Govt. of India. *National Youth Policy – 2000*, Ministry of Culture, Youth Affairs and Sports, 2000.
8. PERC. *Adolescence Reproductive Health Education*, Chennai University of Madras, Dept. of Adult and Continuing Education, 2001.

Elective Course Offered to Other Departments
Introduction to Population Dynamics

4 Credits

- Unit I** **Basic Concepts:** Demography, Population Studies, Population size, structure and composition, and spatial distribution.
Components of Population Change: Fertility, Mortality and Migration and their interrelationships, Balancing Equation and its uses
Sources of Data: Census, Civil Registration System, Sample Registration System, Sample Surveys and Others: Brief history, major data available in these sources and limitations
- Unit II** **Population Growth and Distribution:** Measures of growth and distribution, History of population growth and distribution around the World and India. Factors responsible for the growth and distribution of population. Future Prospects of Population growth in the World and India
- Unit III** **Population Composition:** Age and Sex structure: Measures and factors influencing them. Socio-economic Characteristics: Literacy and Educational attainment, Rural-Urban residence, Labour force participation and Occupation - Measures
- Unit IV** **Fertility and Mortality:** Concepts, Definitions and Basic Measures: Crude rates. Demographic, Socio- economic and cultural factors influencing fertility and mortality
- Unit V** **Migration and Urbanisation:** Definitions and Basic Measures. Types of Migration and Differentials in Migration, Levels and Trends of Urbanisation in India, Problems associated with and policies and programmes affecting urbanisation in India

References:

1. *Bhende, A. Asha and Tara Kanitkar, 2000. *Principles of Population Studies*. Mumbai: Himalaya Publishing House.
2. *Misra, B. D. 1995. *An Introduction to the Study of Population*. New Delhi: South Asian Publishers Pvt. Ltd.
3. Shryock, Henry S., Jacob, S. Siegel and Associates, 1980. *The Methods and Materials in Demography*. Washington D.C.: US Bureau of the Census.
4. * United Nations, 1973. *The Determinants and Consequences of Population Trends. Vol. I*. ST/SOA/SER.A/SO. Population Studies No. 50. New York.
5. United Nations, 1982. *ESCAP Population of India: Country Monograph Series No. 10*. New York: United Nations.

Note: * May be treated as Text Books.

Supportive Courses Offered to Other Degree Programmes

Supportive Course 1

Basic Issues in Population

2 Credits

Basic Concepts: Demography, Population Studies, Population size, structure and composition, and spatial distribution.

Components of Population Change: Fertility, Mortality and Migration and their interrelationships. Balancing Equation.

Population Growth and Distribution: History of population growth and distribution around the World and India. Factors responsible for the growth of population.

Population Composition: Age and Sex structure: Measures and factors influencing them. Socio-economic Characteristics: Literacy and Educational attainment Rural-Urban residence, Labour force participation and Occupation - Measures.

Consequences of Population Growth: Population growth and social and economic development in India.

References:

1. *Bhende, A. Asha and Tara Kanitkar, 2000. *Principles of Population Studies*. Mumbai: Himalaya Publishing House.
2. *Misra, B. D. *An Introduction to the Study of Population*. New Delhi: South Asian Publishers Pvt. Ltd., 1995.
3. *United Nations. *The Determinants and Consequences of Population Trends. Vol. I*. ST/SOA/SER.A/SO. Population Studies No. 50. New York, 1973.
4. United Nations. *ESCAP Population of India: Country Monograph Series No. 10*. New York: United Nations, 1982.

Note: * May be treated as Text Books.

Supportive Course 2

Population Policies and Programmes

2 Credits

Scope of Population Policy and Programmes

Definition, types, process of policy formulation, policy goals,

Review of Policies in Developed and Developing Countries

Overview of population policies in various countries such as China, Indonesia, Singapore.

Evolution of Population Policy and Programmes in India

History of population policy in India, 1976, 1977 and 2000 and legal measures related to age at marriage and fertility.

Organizational set up of family planning (welfare) programme at National, state, district levels and at periphery in India.

Approaches in implementing family planning (welfare) programme: Cafeteria, extension, camp, incentives and disincentives, target setting, role of voluntary agencies, other programmes.

References:

1. *Bhende, A. Asha and Tara Kanitkar. *Principles of Population Studies*. Mumbai: Himalaya Publishing House, 2000.
2. Issacs, Stephen L. Gail S. Cairns and Nancy I, Heekal, *Population Policy: Manual for Policy Makers and Planners*, New York: Columbia University, 1983.
3. Miro, Carmen A and Joseph E. Potter, *Population Policy: A Fact Book*, New York, The Population Council, 1984.
4. Nortman, Dorothy, *Population and Family Planning Programmes, A Fact Book*, New York, The Population council, 1984.
5. ESCAP, *Population Policies and Programmes: Current Status and Future Directions*. Asian Population studies Series No. 84. Bangkok: ESCAP, 1987.

Note: * May be treated as Text Books.

Supportive Course 3

Database Management and Analysis Using SPSS

2 Credits

SPSS Main Menus and Functions: Operation commands, Data definition and manipulation commands, Procedure commands

Creating Data Files in SPSS

Data File Types, Opening data file options, Reading Database files, Saving data files

Editing Data

Data View, Variables, Variables View, Editing data in Data view, Identifying missing values and replacement, Consistency checking - checking of range of codes for variable

Data Transformation

Compute Variable, Creating new variable by transformation, Recoding values, Categorize variables, Select Cases, Weight Cases

Elementary Analysis of Data and Interpretation

Working With Command Syntax. Frequencies, Description. Cross tabs, Summarize, Means, Correlations, Chi-Square, T-Tests. Introduction to Linear Regression and Interpretation.

References:

1. *SPSS Inc. *SPSS Base 11.0 User's Guide*. Chicago: SPSS Inc., 1988.
2. Gaur. S. Ajai and Gaur. S. Sanjaya. 1977. *Statistical Methods for Practice and Research: A Guide to Data Analysis Using SPSS*. New Delhi: Sage Publications.
3. Shajahan. S. 2004. *Research Methods for Management*. Mumbai: Jaico Publishing House.

Quantitative and Qualitative Research Techniques

Course Number: **POPD 01**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the principles and methods of quantitative and qualitative research techniques and methods of collection of quantitative and qualitative data.

Goals:

To enable the students to learn the basic principles and concepts of quantitative and qualitative technique in collection of primary data.

Objectives:

On successful completion of the course the students should have an understanding about (i) the various types of quantitative and qualitative research techniques, and (ii) the methods of measuring the quantitative and qualitative data

Contents:

Unit I Introduction

Definition for types of data - primary, secondary, quantitative and qualitative. Types of quantitative data - metric, non-metric, discrete, continuous. Scope of types of data and need for data.

Unit II Techniques / Instruments for Collecting Quantitative Data

Personal interview and clinical interview- advantages and limitations. Steps in conducting interview, Methods to overcome problems during interview. Questionnaires: Importance and types of questionnaire. Steps in preparation of questionnaire. Interview Schedule Importance and types of schedule. Steps in preparation of interview schedule.

Unit III Methods of Measurement of Quantitative Data

Definition and need for measurement. Characteristics, purpose of measurement, conditions of measurement. Measurement: scales for quantitative data – Thurstone, Likert Scale and Guttaman scales. Reliability and validity. Preparation of Indexes, Scales, and their differences.

Unit IV Types of qualitative research techniques

Qualitative research: Importance in social sciences. Types of qualitative research techniques: case study, focus group discussion, content analysis, Participatory Rural Appraisal (PRA), Health Impact Assessment (HIA), key informant, free listing, socio metric, narrative analysis, discourse analysis, and visual culture.

Unit V Methods of Quantifying Qualitative Data

Quantifying the attributes, traits. Methods of measurement - test methods, observational methods, mixed methods. Test objectivity, scoring, validity, reliability. Errors in measurement. Scaling – Definition, difficulties in scaling, norms and standardization. Types of scaling – social behavior and personality, cultural and social environment, rating scale, rank order scale and attitude scale.

References:

1. Sharma, R. A. *Essentials of Scientific Behavioral Research*. Meerut: Surya Publications, 2000.
2. Kothari. C. R. *Quantitative Techniques*. 2nd Edition. New Delhi: Vikas Publishing House Pvt. Ltd., 2004.
3. Maxwell, Albert. E. *Analysing Qualitative Data*. New York: John Wiley & Sons, 1961.
4. Kultar Singh. *Quantitative Social Research Methods*. New Delhi: Sage Publications, 2007.
5. Davidson. M. L. *Multidimensional Scaling*. New York: John Wiley and Sons, 1983.
6. Hessler, R. M. *Social Research Methods*. St. Paul: West Publishing Company, 1997.
7. Klecka, William. R. *Discriminate Analysis Series: Quantitative Application in the Social Sciences*. New bury Park CA: Sage Publications, 1980.
8. Reid. S. *Working with Statistics: An Introduction to Quantitative Methods for Social Scientists*. Totowa, NJ: Rowman & Littlefield, 1987.

Bio-statistics

Course Number: **POPD 02**

Number of Credits: **4 (Four)**

Subject Description:

This course presents the importance of Bio-statistics in Health research, concept of probability and its laws, application of test of significance and drawing inferences, basic bio-statistics and advanced statistical methods in health research.

Goals:

To enable the students to learn the basic and advanced statistical methods and practice in application.

Objectives:

On successful completion of the course the students should have an understanding of the (i) basic concepts of bio-statistics and probability, (ii).testing of hypothesis and drawing inferences, and (iii) advanced bio-statistical methods in research using software packages.

Contents:

Unit I Introduction

Definition of bio-statistics. Scope of bio-statistics, Role of statistics in clinical medicine, public health and preventive medicine, observation in medicine.

Unit II Probability

Concepts of probability. Measurement of probability - A priori or classical probability and post-priori frequency probability, Laws of probability- Addition law and conditional probability, Bayes' theorem, applied probability.

Unit III Testing and Inference

Statistical inference and decision theory. Estimation, testing a hypothesis, Type I and Type II errors, Test of significance - parametric and non-parametric tests. Two sample tests and test for paired observations.

Unit IV Application of Bio-statistics

Definition of Rate, ratio, relative risk and odds ratios and their application and uses. Practical exercise on computation of statistics and drawing inference.

Unit V Application of Advanced Statistical Methods in Health Research using Software Packages

Correlation and Regression-Linear, logistic, and proportional-hazards regression, survival analysis, odds ratios, and hazard ratios-advantages and limitations. Interpretation of results in computer output while using software packages.

References:

1. Anderson, T.W. *Introduction to Multivariate Statistical Analysis*. New Delhi: Wiley Eastern, 1972.
2. Armitage, P. *Statistical Methods in Medical Research*. Oxford: Blackwell Scientific Publications, 1971.
3. Bishop, O.N. *Statistics for Biology*. Boston: Houghton Mifflin Company, 1996.
4. Croxton, F. E. *Elementary Statistics with Applications in Medical and Biological Sciences*. New York: Dower Publications, 1953.
5. Feller, W. 1969. *An introduction to Probability Theory and Its Applications, Vol. I and Vol II*. New Delhi: Wiley Eastern Pvt. Ltd.
6. Guentter, W. C. *Concepts of Statistical Interface*. New York: McGraw-Hill Book Company, 1995.
7. Goldstein, A. *Bio-statistics*. London: Mac Millan & Co., Ltd., 1995.
8. Rao, C.R. *Linear Statistical Inference and Its Applications*. New Delhi: Wiley Eastern Private Limited, 1974.
9. Siegel, S. *Non-parametric Statistics for the Behavioral Sciences*. New York: McGraw-Hill, 1956.
10. Sundar Rao, P.S.S. *An Introduction to Bio-statistics*. Vellore, Tamil Nadu: Department of Bio-statistics, Christian Medical College, 1983.

HUMAN ECOLOGY, MIGRATION AND URBANIZATION

Course Number: **POPC 301**

Number of Credits: **4 (Four)**

Subject Description:

This course describes the issues related to human ecology, migration and urbanization.

Goals:

To facilitate the students to learn the different aspects of population and environment and the role of migration in population distribution leading to urbanization.

Objectives:

On successful completion of the course the students should enrich their knowledge about (i) inter-relationship between population and environment, (ii) spatial distribution of population, (iii) different dimensions of migration including theories of migration, and (iv) various aspects of urbanization.

Contents:

Unit I Ecology, Environment and Population

Ecology and Ecosystems; Man and Environment from the early history of human lineage; Human impact on agriculture, fisheries, wild life and forestry, and energy and material resources; Population growth and environmental deterioration: Land use, Water pollution, Air pollution, Noise pollution, Depletion of biotic resources, and Ecological imbalance; Effects of Environmental pollution on human beings.

Unit II Spatial Distribution of Population

Importance of the study and Measures of density or concentration; Factors affecting the spatial population distribution and temporal changes in them. Population distribution in the World and in India.

Unit III Migration

Importance of the study of migration, Basic concepts and definitions; Sources of data and limitations; Types of migration: internal, international, temporary and refugee; Trends and differentials in internal migration in India and its states, and International migration.

Unit IV Urbanization

Importance of the study, Basic concepts, Sources of data and limitations, Concept of urban and its definitional change in the Indian censuses, and Measures of degree, tempo and concentration of urban population.

Levels and trends of urbanization in developed and developing countries including India; Process of urbanization and suburbanization, and rural urban continuum; Problems associated with and policies and programmes affecting urbanization in India.

Unit V Theories of Migration

Theories of migration: pull and push factors, Ravenstein's laws of migration, Lee's theory of migration, Peterson's typology, Stouffer's model of intervening opportunities and competing migrants, and Zipf and Kant gravity models.

References:

Selected sections from the following:

1. Bhende, Asha A. and Tara Kanitkar, *Principles of Population Studies*, 13th Edition, Mumbai: Himalaya Publishing House, 2006.
2. Bose, Ashish, *India's Urbanization 1901-1971*. New Delhi. Tata McGraw- Hill Publishing Company Ltd., 1980.
3. *Ehrlich, Paul R., et al., *Ecoscience, Population, Resources and Environment*. W.N. Freeman and Company San Francisco, 1977.
4. Goldstein, S. and A. Goldstein *Survey of Migration in Developing Countries - A Methodological Review*. Honolulu: East-West Centre, 1981.
5. Goldstein, S. and David F. Sly (Eds.) *Basic Data Needed for the Study of Urbanization*, Belgium: IUSSP, Ordina Editions, 1975.
6. Kritz, M., Keely, CB. And S.M. Tomari (Eds.) *Global Trends in Migration*. Centre for Migration Studies.
7. *Misra B. D. *An Introduction to the Study of Population*, 2nd Edition, New Delhi: South Asian Publishers Pvt. Ltd., 1995.
8. Shryock Henry et. al., *Methods of Materials of Demography, Vol. II*, Washington D.C.: U.S. Bureau of Census, 1973.
9. *United Nations, Manual IV, *Methods of Measuring Internal Migration*. ST/SOA/SER. A/47 Population Studies No: 47, New York: U.N. 1970.
10. *United Nations, *The Determinants and Consequences of Population Trends*. Vol.1, New York: Dept., of Economic and Social Affairs, 1973.
11. United Nations, ESCAP, *Population of India*. Country Monograph Number 10, New York: United Nations, 1982.

Note: * May be treated as Text Books.

ADVANCED DEMOGRAPHIC METHODS

Course Number: **POPC 302**

Number of Credits: **4 (Four)**

Subject Description:

This course portrays primarily on the estimation of fertility, mortality and migration in addition to population projections through various demographic models (indirect techniques).

Goals:

To facilitate the students to understand the indirect techniques of estimating fertility, mortality and migration as well as projecting population and its sub-groups.

Objectives:

On successful completion of the course the students should develop the skills to learn the techniques and demographic models that are useful for (i) estimating fertility, mortality and migration, and (ii) projecting the total as well as sub-groups of population.

Contents:

Unit I Model Life Tables and Fertility Models

Coale and Demeny Model Life Tables, and UN Model Life Tables; Fertility Models: Brass models, Coale–Trussell model, P/F Ratio, Rele method, Bongaarts method and Stable Population model.

Unit II Indirect Methods of Estimating Mortality

Chandra-Deming technique, Differencing method, Inter-censual Survival method and Stable Population approach; Methods based on Children Ever Born and Children Surviving to estimate Infant and Childhood mortality.

Unit III Indirect Methods of Estimating Fertility

Reverse Survival methods of estimating fertility and Stable Population methods; Estimating fertility from Children Ever Born data, Own Children method of estimating fertility, Estimating fertility from Survey data on Births and Children Ever Born and Current Fertility from Pregnancy histories.

Unit IV Measuring Migration

Place of Birth approach, Place of Last Residence approach, Duration of Stay-approach, combinations of the three, Indirect methods of estimating Migration: Growth Rate method, Vital Statistics method, Life Table and Census Survival Ratio methods.

Unit V Projections

Population Projections: Issues and principles; Methods of population projections: Mathematical models, Component method, Age-disaggregated method, projection of fertility, mortality and migration, and Auto regression model.

Methodology of projecting total population, age-wise population, urban–rural population, labour force population, households and families, and school enrollment; Data requirements and assumptions, and Use of Computer software for different projections.

References:

Selected sections from the following:

1. *Barclay, G.W., *Techniques of Population Analysis*. 2nd Edition, London: J. Wiley & Sons, 1966.
2. Coale, A. J. and Demeny, P., *Regional Model Life Table and Stable Populations*. 2nd Edition, New York: Academic Press, 1983.
3. ECAFE, Population Division; *Projections of Population of Sub-National Areas*, Asian Population Studies Series, Bangkok, ECAFE, 1969.
4. *Pathak K.B. and Faujdar Ram. *Techniques of Demographic Analysis*. Bombay: Himalaya Publishing House, 1992.
5. *Srinivasan K. *Basic Demographic Techniques and Applications*. New Delhi: Sage, 1986.
6. United Nations: Manual II: *Methods for Population Projections Sex and Age*. New York: United Nations, 1956.
7. *United Nations: Manual IV, *Methods of Estimating Basic Demographic Measures from Incomplete Data*. New York: United Nations, 1967.
8. United Nations: Manual V. *Methods of Projecting Economically Active Population*. ST/SOA/Series A/A/43, New York: United Nations, 1971.
9. United Nations: *Model Life Table for Developing Countries*, Population Studies No: 77. Department of International Economic and Social Affairs, New York: U.N., 1982.
10. *United Nations, *Manual X: Indirect Techniques for Demographic Estimation*, Population Studies No: 81, Department of International Economic and Social Affairs, New York: UN, Department of International Economic and Social Affairs, 1983.
11. UN/UNESCO. *Estimating Future School Enrolment in Developing Countries*. Population Studies Series No: 40, New York: United Nations, 1966.

Note: * May be treated as Text Books.

POPULATION, HEALTH AND NUTRITION EDUCATION

Course Number: **POPC 303**

Number of Credits: **4 (Four)**

Subject Description:

This course demonstrates the different aspects of population, health and nutrition education and their importance.

Goals:

To facilitate the students to understand the need, nature and scope of population, health and nutrition education and the methods to impart the same to the needed population.

Objectives:

On successful completion of the course the students should be able to grasp the (i) importance and different dimensions of population, health and nutrition education, (ii) methodologies to impart these to different sub-groups of population and (iii) the importance of communication and its dimensions.

Contents:

Unit I Population Education

Concept and Definition, Scope, Need Objectives, and Components of Population Education, Development of Population Education in India and Agencies involved in Population Education. Role of Non-Governmental Organisations and Universities in the Promotion of Population Education Programmes

Unit II Health Education

Concepts of Health, Communicable and Non-communicable diseases; Epidemiology of Communicable diseases: Agent, Environment and Host factors, and Sources of Infection and Modes of Transmission, Pathogenesis and Levels of Prevention.

Health Education: Concept, Definition, Objectives, Scope, Principles and Content; Health Education Methods, National Health Programmes in India.

Unit III Nutrition Education

Nutrients, their Functions and Sources, Balanced Diet, and Nutritional Deficiency Diseases; Nutritional Requirement of Special groups: Pregnant and Lactating women and Infant and Children; Social and Cultural Factors affecting Nutrition, Nutritional Programmes in India with special reference to Women and Children.

Unit IV Process of Communication

Basic Elements of Communication; Different approaches: Learning and Adoption processes, and Diffusion of Innovative behaviour. Communication Techniques for Mass, Group and Individual level, Inter-spouse Communication, and Role of audio-visual aids in communication.

Unit V Imparting Population, Health and Nutrition Education

Imparting Population, Health and Nutrition Education in the Formal, Informal, Adult and Extension Education systems; Formulation of Objectives, preparation of Instructional Materials and Strategies for Implementation.

References:

Selected section from the following:

1. Dept. of Population Studies, *Readings in Population Education*. Tirupati: S.V. University, 1993.
- 2.
3. *Kline, David and David Harman, *Issues in Population Education*. Lexington, D.C. Health and Co., 1976.
4. MacMahon and Pugh, Epidemiology: *Principles and Methods*. Boston: Little, Brown and Company 1970.
5. Nagda, Sohanlal, et al., (Eds.), *Handbook on Population Education*. Tirupati: S.V. University, 1975.
6. *Park, J.E., and K.Park, *Text Book of Preventive and Social Medicine*. Jabalpur: Banarasidas Bhanot, 2006.
7. Rogers, E. M., *Communication – Strategies for Family Planning*. New York: Free Press, 1973.
8. *Swaminathan, M., *Essentials of Food and Nutrition*. Madras: The Ganesh and Company, 1974.
9. Various *Population Reports* of Johns Hopkins University, USA.

Note: * May be treated as Text Books.

REPRODUCTIVE AND CHILD HEALTH

Course Number: **POPE 304**

Number of Credits: **4 (Four)**

Subject Description:

This course portrays fundamentals of Reproductive and Child Health and its importance in population control and health programmes.

Goals:

To facilitate the students to learn the different dimensions of reproductive and child health.

Objectives:

On successful completion of the course the students should enrich their knowledge about (i) the concept and scope of reproductive and child health, (ii) reproductive morbidity, and (iii) reproductive health programmes for different special groups of population.

Contents:

Unit I Reproductive Health

The Concept, Evolution (ICPD conference), Framework of Reproductive Health, and Reproductive Rights; Anatomy and Physiology of Human Reproduction, Mechanism of Conception and Pregnancy, Methods of Contraception, Effectiveness of methods and Medical Termination of Pregnancy.

Unit II Reproductive Morbidity

Gynaecological Problems: Menstrual problems and Reproductive Tract Infections (RTIs); Obstetrical Problems: Pregnancy Complications, Delivery Complications and Post-natal Problems; Male Reproductive Health Problems, Infertility and Reproductive Technologies such as in-vitro fertilization.

Unit III STDs and HIV/AIDS

Sexually Transmitted Diseases (STDs) and HIV/AIDS: Prevalence Rates and Regional Variations in India, Medical and Social Aspects; Commercial Sex Workers and Other Vulnerable Groups; Interventions by Government and Non-governmental Organizations.

Unit IV Various forms of Sexual Behaviour and Reproductive Health Programme Management

Various Forms of Sexual Behaviour, Homosexuality, Extramarital Sex, Adolescent Sexuality and Eunuch; Social and Cultural Determinants of Reproductive Health, and Blood Transfusions.

Reproductive Health Programme Management: Community Needs Assessment and Health Seeking Behaviour.

Unit V Reproductive Health of Special Groups and Programmes

Focus on Reproductive Health of Special Groups: Commercial Sex Workers, Truck Drivers, Jail Inmates and Street Children; Policy Issues and Quality of Care: RCH Programmes in India, Research Studies on Reproductive Health.

References:

Selected section from the following:

1. Mahadevan, K. et al., *Reproductive Health, AIDS Prevention and Development of Women*. Delhi: B.R. Publishers, 1998.
2. Padbidri V. G. and S. N. Daftary, *Shaw's Text Book of Gynaecology*. New Delhi: B. I. Churchill Livingstone, 1999, pp. 33-45, 214-239, 351-360.
3. Krishna Menon, M. K. and B. Palaniappan, *Clinical Obstetrics*. Chennai: Orient Longman, 1988, pp. 8-23, 127-192.
4. United Nations, *Chapter 16 Human Reproduction Student's Study Guide on Biology of Population*. New York: United Nations, 1975, pp. 357-379.

POPULATION POLICIES, PROGRAMMES AND EVALUATION

Course Number: **POPC 401**

Number of Credits: **4 (Four)**

Subject Description:

This course highlights the various aspects of population policies, programmes and evaluation.

Goals:

To facilitate the students to learn the different population policies and programmes, and evaluation of family planning programmes with special reference to India.

Objectives:

On successful completion of the course the students should enrich their knowledge about (i) the development of population policy in India and selected other countries, (ii) historical development of family planning programme in India, (iii) demographic evaluation of family planning programmes, and (iv) selected other aspects of programme evaluation.

Contents:

Unit I Population Policy

Definition, Types, Process of Policy Formulation and Policy Goals; World Population and Health Conferences: Bucharest, Alma Ata, Cairo and Beijing. Overview of population policies in various countries such as China, Indonesia, and Singapore.

History of Population Policy in India, National Population Policy 2000, and Policies and/or Legal measures related to Age at Marriage and Health.

Unit II Family Welfare Programme Implementation

Organization set up of Family Planning (Welfare) programme at National, State, District, and Primary Health Centre (PHC) levels in India; Approaches: Cafeteria, Extension, Camp, Incentives and Disincentives and Target Setting; Programme Expenditure, and Role of Voluntary Agencies in Family Welfare Programme.

Unit III General Principles of Programme Evaluation

Long Term and Short Term Goals, Intermediate Objectives, Assessment of the Effort, Measurement of the Impact, Efficiency of the Components of Programme, Process Evaluation and Ultimate Goal Evaluation.

Unit IV Demographic Evaluation of Family Planning Programmes

The Process of Evaluating Family Planning Programmes, Indices of Impact, Computation of Couples Protected, Couple Years of Protection, Births Averted, Sources of Data, and Limitations. Special Studies on Use of Contraception and Acceptor Characteristics: National Family Health Surveys, and Reproductive and Child Health Surveys.

Unit V Other Aspects of Evaluation

Cost-Benefit Analysis, Experiments and Field Trials, Evaluation of Programme Management, Operations Research, Case Studies, Evaluation of Individual Programme Components; Quality of Services, Effect of Non-Programme Factors, and Programme Personnel and their Characteristics.

References:

Selected sections from the following:

1. *Chandrasekaran C. and Albert I. Hermalin, (Eds.), *Measuring the Effect of Family Planning Programme of Fertility*. Belgium: Ordina Edition, 1975.
2. *ESCAP, *Population Policies and Programmes: Current Status and Future Directions*. Asian Population Studies Series No: 84, Bangkok: ESCAP, 1987.
3. Government of India, *National Population Policy 2000*. New Delhi: Ministry of Health and Family Welfare, 2000.
4. Fisher, Andrew, John Stoeckel, *Handbook for Family Planning Operations Research Design*. New York: The Population Council, 1983.
5. Issacs, Stephen L. Gail S. Cairns and Nancy I Heekal, *Population Policy: Manual for Policy makers and Planners*, New York: Columbia University, 1983.
6. Jain, Anrudh K., (Ed.) *Managing Quality of Care in Population Programmes*. West Hartford, Com; Kumarian, 1992.
7. Miro, Carmen, A. and Joseph, E., Potter, *Population Policy: A Fact book*. New York: The Population Council, 1984.
8. *Nortman, Dorothy, *Population and Family Planning Programmes: A Fact book*, New York: The Population Council, 1984.
9. Roy, T. K. and G. Rama Rao, *Introduction of Evaluation of Demographic Impact of Family Planning Programme*, Bombay: Himalaya Publish. House, 1985.
10. *United Nations, *The Methodology of Measuring the Impact of Family Planning Programme on Fertility, Manual IX*, Pop. Studies, No: 66, New York: U. N., 1979.

Note: * May be treated as Text Books.

POPULATION AND DEVELOPMENT

Course Number: **POPC 402**

Number of Credits: **4 (Four)**

Subject Description:*

This course exhibits the various aspects of development and its inter-relationship with different aspects of population.

Goals:

To facilitate the students to learn the different aspects of development, man power and relationship of population growth with developmental aspects.

Objectives:

On successful completion of the course the students should enrich their knowledge about (i) the nature and scope of development, (ii) inter-relationship between population growth and development, and (iii) the dimensions of labour force and its importance in development with special reference to India.

Contents:

Unit I Basic Concepts in Development

Concept and Indicators of Economic Development, Classical and Harrod-Domar Models of Economic Growth, Approaches to Development, Changing Concept of Development, Emphasis of Distributive Aspect, Social Aspects, Physical Quality of Life Index (PQLI), Human Development Index (HDI), and the Concept of Sustainable Development.

Unit II Population Growth and Development

Effects of Change in Population Size, Structure, and Composition on Economic Development and Social Development, and vice-versa. Growth and Development, Marxian, Malthusian and Boserupian Perspectives.

Unit III Demographic Aspects of Development

Development and Modernization, Population and Natural Resources, Factors of Production, Socio-economic and Demographic factors influencing Capital Formation; National Income, Per Capital Income, Savings and Investment and Demographic Implications.

Unit IV Manpower and Labour Force

Economic Structure of Labour Force: Industrial and Occupational Classifications, Age-sex Patterns of Participation, Social, Economic, Cultural, Factors Influencing Participation, Manpower Demand and Utilization, Unemployment and Underemployment, and Factors Influencing Manpower Supply and Patterns.

Effects of Factor Pricing and Factor Proportions on the Labour Market. Labour Force and Migration, and Brain Drain

Unit V Labour Force in India

Measurement of Labour Force Participation in India, Census and NSS Data, Changes in the Concept, Structure, Levels and Trends in Labour Force Participation. Unemployment and Underemployment, and Employment Generation in India.

REFERENCES:

Selected sections from the following:

1. *Ansley J. Coale and E.M Hoover, *Population and Economic Development in Low-income Countries*. New Jersey: Princeton University Press, 1958.
2. Asha A. Bhenda and Tara Kanitkar, *Principles of Population Studies*. Bombay: Himalaya Publishing House, 2000.
3. *Charles P. Kindilberger and Bruce Herring, *Economic Development*. London: McGraw Hill Ltd., 1977.
4. *Hanumantha Rao, C. H., and P. C. Joshi, *Reflection on Economic Development and Social Change*. New Delhi: Allied Publishers Pvt. Ltd., 1980.
5. Higgins, Benjamin, *Economic Development*. Delhi: UBS, 1976.
6. Hultman, et al., (Eds.) *Problems of Economic Development*. Boston: Heath and Co., 1968.
7. *Malgarkar, P. D., and V. A. Panandikar, *Population and Development*. Bombay: Somaiya Publication Pvt. Ltd., 1982.
8. Manzoor Alane, S., and G. Ram Reddy, *Socio-Economic Development Problems in South East Asia*. Bombay: Popular Prakashan, 1978.
9. Marcus F. Fraud, (Ed.), *Responses to Population Growth in India, Changes in Social, Political and Economic Behaviour*. New York: Prager Publishers, 1975.
10. Prasad, K. N., *Problems of Indian Economic Development National and Regional Dimensions*. New Delhi: Sterling Publishers Private Limited, 1983.
11. Rudder Dutt and K.P.M. Sundaram, *Indian Economics*. New Delhi: Sultan Chand and Co., (P) Ltd., 1982.
12. Seth, M.L., *Principles of Economics*. Agra: Lakshmi Narai Agarwal, 1982.
13. Sydney Coontz, N., *Population Theories and Economic Interpretations*. London: Routledge: Kegan Paul, 1968.
14. Todaro, Michal P, *Economic Development in the Third World*. New York: P. Longman, 1981.
15. United Nations, *The Determinants and Consequences of Population Trends*. New York: Department of Economic and Social Affairs, 1975.
16. *Yves, Bizien, *Population and Economic Development*. New York: Prager Publishers, 1973.
17. Visaria, P. M., "Structure of the Indian Workforce, 1961-1994", *The Indian Journal of Labour Economics*. Vol. 39, No. 4, 1996.
18. Human Development Reports
19. Indian Census Reports
20. World Development Reports

Note: * May be treated as Text Books.

RESEARCH PROJECT

Course Number: **POPC 403**

Number of Credits: **10 (Ten)**

Subject Description:

The research project would be done by the students taking up a simple research problem related to different dimensions of population preferably with field based survey.

Goals:

To facilitate the students to develop the skills of conducting and applying the theoretical aspects of research methodology and also the application of various demographic techniques.

Objectives:

On successful completion of the course the students should enrich their understanding of (i) selecting a research problem, review of literature and application of methodological aspects, (ii) collecting and analyzing data related to population and other aspects, and (iii) presenting the findings in a dissertation form.

Contents:

After the completion of the research project, the student is expected to submit a dissertation on the following lines:

- Introduction
- Review of Literature
- Research Methodology
- Results / Findings
- Summary and Implications

The student is has also facing viva-voce examination (to be conducted by External, Internal Guide and Head of the Department).

APPLICATION OF SPSS PACKAGE IN RESEARCH

Course Number: **POPD 03**

Number of Credit: **4 (Four)**

Subject Description:

This course presents the functions of SPSS, creation of data files and entry of data, editing of data, and transformation and analysis of data and interpretation.

Goals:

To enable the students to learn the operational functions and analysis of data and interpretation of results.

Objectives:

On successful completion of the course the students should possess the skills to (i) operate SPSS functions, (ii) data entry, editing and transformation of data, and (iii) analysis and interpretation of data.

Contents:

Unit I Introduction

SPSS Main Menus and Functions: Operation Commands, Data Definition and Manipulation Commands, Procedure Commands.

Unit II Creating Data Files in SPSS and Entry of Data

Opening Data File, Variables, Values, Variable Labels, Value Labels and Entry of Data. Coding Categories of Variables, Recoding Values, Renaming Variables, Computing Variables, Recode of Variables, Specifying Conditional Transformation, Transform Excel File into SPSS form and Merging Data Files.

Unit III Editing Data and Transformation

Editing Data in Data View, Identifying Missing Values and Replacement, Restructuring Adding Files, Selecting Cases, Managing Variables, Matching Files: Same Variables and Different Variables; Non-parallel Files: Different Cases and Different Variables. Sorting Data by Variables, Consistency checking: Checking of Range of Codes for Variables; Creating New Variable by Transformation.

Unit IV Analysis of Data and Interpretation – I (Practical)

Frequency Tables with Selection of Statistics Using Sub-commands - Central Tendency, Charts and Graphs; Cross-tabulation with Selection of Statistics using Sub-commands; Correlation and ANOVA using Sub- commands; and Interpretation of Results Using Computer Output.

Unit V Analysis of Data and Interpretation - II (Practical)

Discriminant Analysis, Multivariate Regression Analysis - Linear Regression, Logit Regression, Path Analysis, Factor Analysis and Canonical Analysis. Interpretation of Results Using Computer Output.

References:

1. Cronk, Brain C., *How to Use SPSS: A Step by Step Guide to Analysis and Interpretation*. Los Angeles: Pyraczak Publishing, 1999.
2. George, Darren and Paul Mallery. *SPSS for Window Step by Step: A Simple Guide for Reference 13.0 update*. 6th Edition. Boston: Allyn & Bacon., 2006.
3. SPSS, I. C., *SPSS/PC+v 2.0 Base Manual*. Chicago: SPSS. Inc., 1988.
4. Gaur. S. Ajai and Gaur. S. Sanjaya, *Statistical Methods for Practice and Research: A Guide to Data Analysis Using SPSS*. New Delhi: Sage Publications, 1977.
5. Shajahan. S., *Research Methods for Management*. Mumbai: Jaico Publishing House, 2004.

RESEARCH PROPOSAL DEVELOPMENT AND DISSEMINATION TECHNIQUES

Course Number: **POPD 04**

Number of Credit hours: **4 (Four)**

Subject Description:

This course presents the scope and need of research proposal development, and dissemination of research findings.

Goals:

To enable the students to learn the methods of different types of research proposal, preparation of research report and methods of dissemination of research findings.

Objectives:

On successful completion of the course the students should have a clear understanding about: (i) need and scope of research proposal and dissemination of research findings, (ii) preparation of research proposal for academic and funding, (iii) skills in report writing, and (iv) the methods of disseminating the research findings.

Contents:

Unit I Introduction

Definition, Scope and Need for Research Proposal Development (Academic and Funding) and Dissemination of Research Findings, and Merits and Limitations.

Unit II Preparation of Research Proposal (Academic)

Importance and Basic Steps in Preparation of Research Proposal: Selection and Defining the Research Problem / Topic, Review of Literature, Objectives/ Hypotheses, Research Design, Sample Frame and Size, Data Collection Instruments and Proposed Data Analysis.

Unit III Preparation of Research Proposal (Funding)

Importance and Basic Steps in Preparation of Research Proposal: Selection and Defining the Research Problem, Review of Literature, Objectives / Hypotheses, Research Design, Sample Frame and Size, Data Collection Instruments and Proposed Data Analysis, Duration of the Project, Manpower and Budget Estimation, Uses of Outcome and Users of Outcome, and Procedures for Identifying Funding Agencies.

Unit IV Preparation of Research Report

Definition and Importance of Report; Audience: Scientists, Service Providers, Sponsors of Research and Public; Types of Report: Scientific / Technical Report, Popular Report; Form and Length of Report: Language, Writing Style, Simplicity, Clarity, Content and Ethical Responsibility; Organization of Report, Interpretation of Results, and Summary and Policy Implications.

Unit V Dissemination of Research Findings

Need and Importance of Dissemination of Research Findings; Target Population for Dissemination, Methods of Dissemination: Printed Material and Oral Presentation Using Audio-Visual Aids; Modes of Dissemination: Publication in Journals / Newspapers / Magazines / Dissemination Seminars / Workshops and Feedback; Steps in Preparation of Manuscripts for Publishing in Scientific / Peer Reviewed Journals.

References:

1. Desai, Vandana, and Robert B. Potter, (Eds.), *Doing Development Research*. New Delhi: Vistaar Publications, 2006.
2. Joseph Gibaldi, *MLA Handbook for Writers of Research Papers*. 6th Edition. New Delhi: East West Press Pvt. Ltd., 2004.
3. Kitchin, Rob, and Duncan Fuller, *The Academic's Guide to Publishing*. New Delhi: Vistaar Publications, 2005.
4. Man Lin, *Foundation of Social Research*. New York: McGraw-Hill Book Company, 1976.
5. Paul Oliver, *Writing Your Thesis*. New Delhi: Vistaar Publications, 2004.
6. Robin D. Tribhuwan, and S. R. Shevkari, *How to Write Funding Project Proposals*. New Delhi: Discovery Publishing House, 2002.
7. Zina O'Leary, *The Essential Guide to Doing Research*. New Delhi: Vistaar Publications, 2005.
