

P. G. Department of Population Studies

Syllabus: 2023-24

Ph. D. Course Work (Population Studies)



Fakir Mohan University
Vyasa Vihar, Nuapadhi
Balasore - 756 089, Odisha

Syllabus of Ph. D. Course Work in Population Studies
(With effect from the 2023 – 2024 batch)

COURSE STRUCTURE

Paper Code	Title	Paper Type	Credit Hours	Marks [Internal + End Term]
PS-701	Research Methodology and Computer Applications	Theory	4	100 [40+60]
PS-702	Recent Trends in Population Studies	Theory	4	100 [40+60]
PS-703	Research and Publication Ethics	Theory and Practical	2	50 [20+30]
PS-704	Literature Review	Project	4	100
PS-705	Preparation of Research Proposal/ Synopsis	Project	2	50
Total			16	400

MARKING PATTERN

Paper	Internal Evaluation				End Term Examination				Total
	Home Assignment	Presentation	Quiz	Written	Written	Presentation	Report	Viva-Voce	
PS-701	10	NA	10	20	60	NA	NA	NA	100
PS-702	10	NA	10	20	60	NA	NA	NA	100
PS-703	10	05 (GD)	05	NA	30*	NA	NA	NA	50
PS-704	NA	NA	NA	NA	NA	20	60	20	100
PS-705	NA	NA	NA	NA	NA	10	30	10	50

* Includes experiments in case of practical papers

Scheme of Internal Evaluation (Theory):

Each theory paper consists of five units and irrespective of the credit hours assigned, will be of 100 marks, out of which, 40 will be internal marks (continuous evaluation) and 60 will be end term examination marks. There will be three components of internal evaluation – Quiz, Mid Term Written Test and Home Assignment as per the details below.

Component	Unit(s)	Marks	Remarks
Quiz – I	I	10	Best of the two quizzes will be considered
Quiz – II	III	10	
Mid Term (Written)	I & II	20	There will be no internal evaluation for the last unit (V)
Home Assignment	IV	10	
Total	I – IV	40	Q – 10 + HA – 10 + W – 20

BOARD OF EXAMINERS

Sl. No.	Section	Examiner(s)
01	Home Assignment and Quiz	Internal Course Teacher/ Instructor from the University P. G. Department
02	Seminar Presentation	Faculty Members of the University P. G. Department, as nominated by the Head of the Department including the RAC. The proposed Supervisor, if from outside the University Campus, may be coopted as a member examiner.
03	Written (Mid Term)	Internal Course Teacher/ Instructor from the University P. G. Department
04	Report	Department Research Committee (DRC) and Research Advisory Committee (RAC)
05	Viva-Voce	Department Research Committee (DRC) and Research Advisory Committee (RAC)
06	Written (End Term)	Examiner as appointed by the Board of Studies

About the Department

The P.G. Department of Population Studies was established in the year 2004 to cater to the needs of imparting education and carrying out research on issues of population, migration and urbanization and public health. It has been thus offering *M. A., and Ph. D.* programmes in *Population Studies*.

The P.G. Department of Population Studies holds a unique position in Odisha for being the only Department of Population Studies. It draws well-trained faculties from the Universities/Institutes of international repute. It is student-friendly environment, competitive job-oriented syllabus and development/ action-based work exposure to enhance their skill and vision. Practical classes with well-equipped infrastructure and statistical packages like SPSS/ STATA helps them to handle large database such as NFHS/ DLHS/ Census etc. Further students are also trained on different data entry tools and data management softwares like KoboToolbox, which make them competent in the current job market.

Ph. D. Coursework

OBJECTIVES AND OUTCOMES OF THE PROGRAMME:

The objective of the program is to understand the characteristics and dynamics of human populations, including their size, distribution, composition, growth, and movement over time. This involves examining patterns of fertility, mortality, migration, and population aging, as well as social, economic, and environmental factors that influence population dynamics. Population studies use a range of methods to collect and analyze data, including surveys, censuses, vital registration systems, and demographic models. By studying population dynamics, researchers and policymakers can gain insights into important issues such as health, education, economic development, social inequality, and environmental sustainability, and develop strategies to address these issues at local, national, and global levels. The ultimate goal of population studies is to promote the well-being of individuals and societies by generating knowledge that can inform policies and programs that improve the lives of people around the world.

The opportunities are not limited to various educational institutions like universities and research institutes. But there are opportunities at UN organizations, Philanthropic foundations, market research agencies, survey organizations and NGO/ Development sectors, etc. With the expansion of research institutes and CSR funds, more number of job opportunities opens for the population studies students. The curriculum and pedagogic structure of this program is designed in line with the emerging needs of population scientist profession for research, monitoring and evaluation. The research scholar will be able to analyses, interpret and critically understand the issues pertaining to the dynamics of demographic problems like health, ageing, migration, urbanization, poverty etc. for their further research.

COURSE STRUCTURE

SEMESTER-WISE LIST OF PAPERS FOR PH. D COURSEWORK IN ECONOMICS/ POPULATION STUDIES						
Paper	Title	Paper Type	Credit	Mark Distribution		
				Mid- Term	End- Term	Total
One Semester						
PS-701	Research Methodology and Computer Applications	Theory	6	40	60	100
PS-702	Recent Trends in Population Studies	Theory	6	40	60	100
PS-703	Research and Publication Ethics	Theory & Practical	2	20	30	50
PS-704	Literature Review (Specialization)	Project	6	--	100	100
PS-705	Preparation of Research Proposal/ Synopsis (Specialization)	Project	4	--	50	50
Total Marks/ Credit Hours			24	100	300	400

PS-701: RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS

Learning objectives: The primary objective of research methodology is to provide a systematic and structured approach to conducting research in a way that ensures that the findings are valid, reliable, and generalizable. Research methodology refers to the strategies, techniques, and tools used to collect, analyze, and interpret data in order to answer research questions or test hypotheses.

Course outcomes: At the end of this course, including lectures and assignments, the students are expected to get complete skill on Schedule and questionnaire developing. With this student will get to use statistics methods like regression and coefficients which will help them in validating the research. Then student will get hands on practice of analysis software SPSS, it will help them to analyze small data as well as large scale data like NFHS, LASI etc.

Unit I: Steps in Research Process

Research: Meaning and Objectives of Research, Different Types of Research; Research Steps; Formulation of Research Problem; Research Design; Sampling: Concept and Types, Sampling and Non-Sampling Errors and Sample Size Determination; Report Writing: Content and References/Bibliography; Ethics in Social Research; Plagiarism.

Unit II: Techniques of Data Collection in Research

Data Collection Methods-Quantitative and Qualitative: Direct Interview, Observation and Focus Group Discussion; Types of Scales: Nominal and Ordinal, Likert Scale, Semantic differential, Thurstone, Bogardus Social Distance Scale Reliability and Validity of measurement; Variable: Meaning and Types; Construction of Interview Schedule/Questionnaire; Presentation of Data: Tabular and Graphic.

Unit III: Basic Statistical Tools in Research

Statistical Measures: Mean, Median, Mode, Standard Deviation, Variance; Bi -variate Analysis: Cross-Tabulation, Pearson Correlation Coefficient, Linear Regression; Concept of hypothesis Testing in Research; Test of Significance: Parametric ('t' and 'F') and Non-parametric (Chi- square and Kruskal-Wallis) Tests.

Unit IV: Application of Statistical Tools in Research

Probability: Concept and Basic Properties, Distribution: Normal and Abnormal; Moving Average and Exponential Growth Rates; Interpolation and Extrapolation; Dependent and Independent Variables; Bi-variate and Multivariate Association between Different Variables.

Unit V: Computer Applications

Components of Personal Computer: Central Processing Unit (CPU), Storage Device, Input Output Device, Other Accessories and Ports; Software: Language, Utility and Application Software; Windows: Basic Operations – File Management, System Maintenance, Protection from virus, worms, malware and spyware; Functions of MS-Office: Basic functions of Word, Excel and Power Point.

Suggested Readings:

Ahuja, Ram (2001), Research Methods, Rawat Publications, Jaipur. Blalock (Jr.), Hubert M. (1979), Social Statistics, McGraw -Hill, New York.

Croxtan, F. E., D. J. Cowden and S. Klein (1982), Applied General Statistics, Prentice-Hall of India, New Delhi.

Goel, A. (2010), Computer Fundamentals, Pearson Education India, Delhi.

Goode, William J. and Paul K. Hatt (1952), Methods in Social Research, McGraw -Hill, New York.

Goon, A. M., M. K. Gupta and D. Dasgupta (1985), Basic Statistics, World Press, Calcutta. Kothari, C.

R. (2004), Research Methodology: Methods and Techniques, New Age International Publishers, New Delhi.

Norton, Peter (2017), Introduction to Computers, Sixth Edition, Tata McGraw Hill, Noida. Rajaraman,

V. (2014), Fundamentals of Computers, 6th Edition, PHI Publications, Delhi.

Sinha, Pradeep K. and Priti Sinha (2004), Computer Fundamentals, 8th Edition, BPB Publications, Kolkata.

Summer M, Englewood and Cliffs (1988), Computers: Concepts and Uses 2nd ed., Prentice Hall Inc., New Jersey.

Weiss, Robert S. (1968), Statistics in Social Research: Introduction, John Wiley and Sons, New York.

Young, V. P. and F. C. Schmid (1973), Scientific Social Survey and Research: An Introduction to the Background, Contents, Methods, Principles and Analysis of Social Studies, Prentice- Hall of India.

PS-702: RECENT TRENDS IN POPULATION STUDIES

Learning objectives:

This paper is intended to provide students with basic knowledge about recent advances in Population Studies.

Outcomes:

This course will help the students to acquire knowledge about fertility, mortality, morbidity, migration and nutrition. It will further help them to explore the inter-relationship between population, nutrition and morbidity. The students can also learn the recent dynamics of population in the context of development which will be useful for their research.

Unit I: Fertility and Mortality

Basic Concepts in Fertility and its Measures; Gross Reproduction and Net Reproduction Rates; Recent Trends of Fertility in India; Basic Concepts of Mortality and its measures; Recent Trends of Infant and Child Mortality in India; Life table: Basic Concepts and its measures, types of life table; Recent trends of life expectancy in developed and developing countries; Recent trends of Demographic Dividend in India.

Unit II: Migration and Urbanization

Urbanization: Concepts and definition; Sources of Data; Level and Tempo of Urbanization; Pattern of Urbanization in Developed and Developing Countries; Patterns of Urbanization in India; Migration: concepts, sources of data; Types of migration; Recent trends of migration in India; Determinants and consequences of internal and international migration.

Unit III: Nutrition

Introduction to Nutrition; Interrelationship between Food, Nutrition and Health; Nutritional Problems in Public Health: Low Birth Weight, Protein Energy Malnutrition, Nutritional Anaemia, Iodine Deficiency Disorders, Endemic fluorosis; Recent trends of Nutrition Transition; Food Consumption Patterns, Poverty Alleviation Programme.

Unit IV: Population Health and Epidemiology

Measurement of Health & Disease Burden: Measures of morbidity - prevalence and incidence rates; Quality of life including DALY, HALE, etc., Burden of disease: basic concepts; measurement and current global scenario, Recent trends of epidemiology in developed and developing countries.

Unit V: Population and Development

Linkages of Population on Development: Divergent views regarding relationship between population and development: (i) Classical views: Malthus and Marx, concept of optimum population; population growth as obstacle to development: Coale and Hoover study; Enke's investment model; population growth as conducive to development – views of Colin Clark, Ester Boserup and Julian Simon.

Suggested Readings:

Bisht Prabha. (2017). Community Nutrition in India. Star Publications, Agra

Bamji M. S. et. al. (2017). Textbook Of Human Nutrition, 4Th Edition, Oxford & IBH Publishing.

Bhende, A. and T. Kanitkar (2010), Principles of Population Studies, Himalaya Publishing House, Mumbai.

Bose, Ashish and Jatinder Bhatia (1978), India's Urbanization: 1901 -2001, Tata McGraw -Hill, New Delhi.

Bouge, Donald Joseph (1969), Principles of Demography, John Wiley and Sons, New York.

Chandana, R. C. (2002), Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi.

Chopra, Kanchan (2001), Migration, Common Property, Resources and Environmental Degradation, Sage Publications, New Delhi.

Coale, A. J. and E. M. Hoover (1958), Population Growth and Economic Development in Low Income Countries, Princeton University Press, New Jersey.

Das Suryatapa. (2016). TEXTBOOK OF COMMUNITY NUTRITION, Academic Publishers, Kolkata

Davis, Kingsley (1965), "The Urbanization of the Human Population", Scientific American, Vol. 213, No. 3 (September), pp. 41-53.

Desai, A. R. and S. Devidas Pillai (eds.) (1990), Slums and Urbanisation, Popular Prakashan, Bombay.

Eilender Elizabeth. (2016). Public Health and Community Nutrition. Momentum Press

Halton, T. J. and J. G. Willianson (1998), The Age of Mass Migration: Causes and Economic

International Institute for Population Science and ORC Macro. (2000). 'National Family Health Survey (NFHS -2), 1998-99, India', Mumbai.

International Institute for Population Science. (2017). National Family Health Survey (NFHS-4), 2015-16, India; Mumbai.

Kuznets, Simon (1966), *Modern Economic Growth: Rate, Structure and Spread*, Yale University Press, New Haven.

Muthu V.K. (2014). *A Short Book of Public Health (2nd Edition)*, Jaypee Brothers Medical Publishers.

Murray, C. J. L., (1994): Quantifying the Burden of Disease: The Technical Basis for Disability Adjusted Life Years, *Bulletin of the WHO*, Vol. 72(3), pp.429-445

NITI Aayog. (2015). *A Quick Evaluation Study of Anganwadis Under ICDS*, Programme Evaluation Organisation Government of India, New Delhi

Park, K. (2009), *Text Book of Preventive and Social Medicine*, Banarsidas Bhanot Publishers, Jabalpur.

Pathak, K. B. and F. Ram (1992), *Techniques of Demographic Analysis*, Himalaya Publishing House, Bombay.

Ramchandran, R. (1989), *Urbanisation and Urban Systems in India*, Oxford University Press, Delhi.

Siegel, Jacob S. and David A. Swanson (eds.) (2004), *The Methods and Materials of Demography*, Elsevier Academic Press, San Diego.

Yadava, K. N. S. (1989), *Rural-Urban Migration in India: Determinants, Patterns and Consequences*, Independent Publishing Company, Delhi.

PS-703: RESEARCH AND PUBLICATION ETHICS

Learning Objective: The primary objective of the paper is to promote the responsible conduct of research and ensure the integrity of the scientific record. This involves upholding certain ethical principles and standards of conduct throughout the entire research process, from the design and implementation of a study to the reporting and dissemination of the results.

Course outcomes: At the end of the paper research scholar will be trained by upholding ethical principles and standards of conduct throughout the entire research process, researchers can help to ensure the accuracy, transparency, and validity of their findings, and ensure that they are reported in a manner that is consistent with established ethical and legal standards and guidelines.

PS-703: RESEARCH AND PUBLICATION ETHICS

Unit I: Philosophy and Ethics (Theory) [4 Hours]

1. Introduction to Philosophy: definition, nature and scope, concept, branches
2. Ethics: Definition, moral philosophy, nature of moral judgments and reactions.

Unit II: Scientific Conduct (Theory) [4 Hours]

1. Ethics with respect to science and research
2. Intellectual honesty and research integrity
3. Scientific misconducts: Falsification, Fabrication and Plagiarism (FFP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data

Unit III: Publication Ethics (Theory) [7 Hours]

1. Publication ethics: definition, introduction and importance
2. Best practices/standards setting initiatives and guidelines: COPE, WAME etc.
3. Conflicts of interest
4. Publication misconduct: Definition, concept, problems that lead to unethical behavior and vice versa, types
5. Violation of publication ethics, authorship and contributorship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals

Unit IV: Open Access Publishing (Practice) [4 Hours]

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
3. Software tool to identify predatory publications developed by SPPU: UGC-CARE list of journals
4. Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

Unit V: Publication Misconduct (Practice) [4 Hours]

A. Group discussions (2 hrs)

1. Subject specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad

B. Software tools (2 hrs)

Use of reference management software like Mendeley, Zotero etc. and anti-plagiarism software like Turnitin, Urkund

Unit VI: Databases and Research Metrics (Practice)

[7 Hours]

A. Databases (4 hrs)

1. Indexing databases
2. Citation databases: Web of Science, Scopus etc.

B. Research Metrics (3 hrs)

1. Impact factor of journal as per Journal Citation Report, SNIP, SJR, IPP, CiteScore
2. Metrics: h-index, g-index, i-10 index, altmetrics

Suggested Readings:

Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489(7415), 179-179. <https://doi.org/10.1038/489179a>

Bird, A. (2006). *Philosophy of Science*. Routledge.

Chaddah, P. (2018). *Ethics in Competitive Research: Do not get Scooped; do not get Plagiarized*. ISBN: 978-938748086

Indian National Science Academy (INSA) (2019). *Ethics in Science Education, Research and Governance*. ISBN: 978-81-939482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf

MacIntyre, Alasdair (1967). *A Short History of Ethics*. London.

National Academy of Sciences, National Academy of Engineering and Institute of Medicine (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.

Resnik, D.B. (2011). What is Ethics in Research & Why is it Important. National Institute of Environmental Health Sciences, 1-10. Retrieved

from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>

Suggested Readings:

Academic Integrity and Research Quality, <https://www.ugc.ac.in/e-book/Academic> and

Chaddah, P. *Ethics in Competitive Research: Do not get scooped: do not get plagiarized*, 2018

ISBN:978-9387480865

Consortium for Academic Research and Ethics CARE, source: <https://www.ugc.ac.in/e-book>

Indian National Science Academy (INSA), *Ethics in Science Education, Research and Governance* (2019), ISBN:978-81-939482-1-7. http://insaindia.res.in/pdf/Ethics_Book.pdf.

Patwardhan B., Desai A., Chourasia A, Nag S., Bhatnagar R. 2020. *Guidance Document: Good Academic Research Practices*. New Delhi: University Grants Commission.

[Research/mobile/index.html](https://www.ugc.ac.in/e-book/Academic)

Resnik, D. B. *What is ethics in research & why is it important*. National Institute of Environmental Health Sciences, 1-10, 2011. Retrieved from

<https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>

PS-704: LITERATURE REVIEW (Specialization)

EC/PS-705: PREPARATION OF RESEARCH PROPOSAL/ SYNOPSIS (Specialization)

*Bold-marked bit(s) in each unit of the paper is/are for self -study by the students under the guidance of concerned teacher.
