SYLLABUS

FOR

M.A./M.SC IN POPULATION, HEALTH AND DEVELOPMENT

(UNDER NEP 2020)

EFFECTIVE FROM THE ACADEMIC SESSION 2025-2026

Department of Population, Health and Development

Vidyasagar University

Midnapore, PaschimMedinipur,

West Bengal PIN – 721102

SEMESTER I

DIVISION OF MARKS

Credits: 22 | Marks: 275

Course Code	Subject	Discipline Code	Marks		Credits
			End-term Exam	Internal Exam	
PHD-101T	Introduction to population studies	DSC1	40	10	4
PHD-102T	Public Health and Epidemiology	DSC2	40	10	4
PHD-103T	Foundations of Development Economics	DSC3	40	10	4
PHD-104T	Population, Health & Development nexus	DSC4	40	10	4
PHD-105P	Research Methods I: Qualitative & Quantitative	DSC5	40	10	4
PHD-106T	Indian Knowledge System (IKS)	IKS	20	5	2
PHD-107T	Vidyasagar: Life and Philosophy	NCC	Compulsory non-credit Course (NCC)		
Total			275		22

Program: Master's in Population, Health and Development

Program Outcomes (POs):

- The M.A./M.Sc program in *Population, Health, and Development* at Vidyasagar University aims to equip students with an integrated, interdisciplinary understanding of demographic processes, public health systems, and development trajectories.
- The program fosters critical thinking, data literacy, policy analysis, and research capabilities through a balanced combination of theoretical engagement and applied learning. Students will gain the ability to critically assess population dynamics, analyze structural determinants of health, understand development disparities, and evaluate public policies in both Indian and global contexts.
- Grounded in the UGC NEP 2020 framework, the program also encourages civic engagement, ethical reasoning, and practical field exposure, preparing graduates for careers in academia, public health, government planning, NGOs, and international development organizations. Emphasis on experiential learning, interdisciplinary linkages, digital and statistical literacy, and Indian knowledge systems ensures a holistic education aligned with sustainable development goals and contemporary policy needs.

PHD-101T: INTRODUCTION TO POPULATION STUDIES

Full Marks: 50 Credit: 4

Course Outcomes (COs)

The course will enable students to:

- Explain and differentiate between population studies and demography, and analyze population size, distribution, and composition using biostatistical and social indicators.
- Apply demographic measures of fertility, mortality, and migration to understand patterns of population change and evaluate their determinants.
- Critically assess classical and modern population theories and relate them to contemporary demographic challenges.
- Identify and evaluate demographic data sources and apply suitable methods of data collection for research and policy analysis.
- Integrate demographic knowledge with real-world applications, including ageing, health planning, education, and labour market policies, particularly in the Indian context.

Full Marks- 50 (End term Examination- 40 and Internal Assessment- 10)

- ✓ *Group A (Long Answer Type): TWO questions, each of 10 marks (without division), will be set, of which students will answer any ONE. [10 marks]*
- ✓ *Group B (Semi-long Answer Type): EIGHT questions, each of 5 marks (without division), will be set, of which students will answer any FOUR. [20 marks]*
- ✓ *Group C (Short Answer Type): TEN questions, each of 2 marks (without division), will be set, of which students will answer any FIVE. [10 marks]*

Course content:

1. Basic Demographic Concepts: Population Studies vs. Demography, Scope and Contents. Population Size, Distribution and Concentration; Population composition: biostatistical (age, sex and dependency ratio) and social characteristics (education, religion, and economic status).
2. Demographic Change: Fertility, Mortality and Migration. Determinants (Davis–Blake) of Change, Measures of Fertility, Mortality and Migration.
3. Population Theories: Malthusianism vs. Boserupian optimism, Demographic Transition Theory (DTT), Dumont's theory of social Capillarity, Backer and Lewis's quality/quantity trade-offs.
4. Data source for Demography: Data collection methods, Census, Vital Statistics, and Sample Registration System. Surveys: NFHS and NSSO.

PHD-102T: PUBLIC HEALTH AND EPIDEMIOLOGY

Full Marks: 50 Credit: 4

Course Outcomes (COs)

The course will enable students to:

- Explain the concepts, determinants, and indicators of health, and critically compare biomedical and social models through theoretical frameworks.
- Apply basic epidemiological tools to measure disease frequency, distribution, and determinants, and interpret global health metrics.
- Analyze the mechanisms of disease transmission and evaluate strategies of prevention and control, including approaches to communicable, non-communicable, and mental health challenges.
- Examine the evolution and principles of public health systems and assess the role of international frameworks and organizations in shaping global health governance.
- Translate public health concepts into practice through applications in health programmes, community interventions, and global health strategies.

Full Marks- 50 (End term Examination- 40 and Internal Assessment- 10)

- ✓ *Group A (Long Answer Type): TWO questions, each of 10 marks (without division), will be set, of which students will answer any ONE. [10 marks]*
- ✓ *Group B (Semi-long Answer Type): EIGHT questions, each of 5 marks (without division), will be set, of which students will answer any FOUR. [20 marks]*
- ✓ *Group C (Short Answer Type): TEN questions, each of 2 marks (without division), will be set, of which students will answer any FIVE. [10 marks]*

Course content:

1. Foundations of Public Health: Concept of Health, Determinants of Health, Indicators of Health- mortality, morbidity, disability, Evolution of Public Health, Biomedical model vs. social models: Link & Phelan (Fundamental causes), Krieger's Ecosocial theory.
2. Introduction to epidemiology: Use of epidemiology, disease frequency, distribution and determinants, tools of measurement in epidemiology, incidence, prevalence, risk factors, DALYs, and global health metrics.
3. Disease transmission Prevention: Epidemiological triad theory, disease causation, immunisation, cold chain, Communicable and non-communicable diseases, Mental health; Principles of disease prevention and control: Primary, secondary, tertiary prevention.
4. Public Health Systems: Global health frameworks: Alma-Ata, Ottawa Charter, SDG 3, Public Health from a global perspective, Role of international organisations: WHO, CDC, GAVI, and global governance.

PHD-103T: FOUNDATIONS OF DEVELOPMENT ECONOMICS

Full Marks: 50 Credit: 4

Course Outcomes (COs)

By the end of this course, students will be able to:

- Explain core economic principles such as scarcity, opportunity cost, and relate them to development contexts.
- Analyze political economy perspectives—capitalism, socialism, mixed economies—and evaluate the role of the state, market efficiency, and equity–efficiency trade-offs.
- Critically assess classical and modern economic theories of development and underdevelopment.
- Evaluate diverse perspectives on Indian society and link them to processes of development and policy debates.
- Apply economic and social frameworks to real-world issues of inequality, poverty, and governance in the Indian and global development context.

Full Marks- 50 (End term Examination- 40 and Internal Assessment- 10)

- ✓ *Group A (Long Answer Type): TWO questions, each of 10 marks (without division), will be set, of which students will answer any ONE. [10 marks]*
- ✓ *Group B (Semi-long Answer Type): EIGHT questions, each of 5 marks (without division), will be set, of which students will answer any FOUR. [20 marks]*
- ✓ *Group C (Short Answer Type): TEN questions, each of 2 marks (without division), will be set, of which students will answer any FIVE. [10 marks]*

Course content:

1. Introduction to Economic Analysis: Basic Economic Principles in Development Contexts: Scarcity, Opportunity Cost, Supply and Demand, Public Goods and Micro and Macro Development Indicators.

2. Political Economy of Development: Capitalism, Socialism, and Mixed Economies, Market efficiency vs. market failures, Pareto efficiency, efficiency and equity trade-offs. Role of the state (laissez-faire vs. intervention)
3. Economic Foundations of Development: Classical Economics (Smith, Ricardo), Neo-classical Economics, Theories of Underdevelopment and Development, Rawls' Justice Theory, Capability Approach.
4. Indian society and development: Approaches to study Indian society- Ideological, structural, functional, subaltern perspective.

PHD-104T: POPULATION, HEALTH & DEVELOPMENT NEXUS

Full Marks: 50 Credit: 4

Course Outcomes (COs)

By the end of this course, students will be able to:

- Explain the demographic–health linkages, including ageing, fertility decline, maternal and child health, and youth mental health.
- Analyze intersections between economic development and health outcomes, considering causality and inequality.
- Critically evaluate population–development debates.
- Apply integrated case studies from India and global contexts to assess how health systems and demographic dynamics shape development policies.

Full Marks- 50 (End term Examination- 40 and Internal Assessment- 10)

- ✓ *Group A (Long Answer Type): TWO questions, each of 10 marks (without division), will be set, of which students will answer any ONE. [10 marks]*
- ✓ *Group B (Semi-long Answer Type): EIGHT questions, each of 5 marks (without division), will be set, of which students will answer any FOUR. [20 marks]*
- ✓ *Group C (Short Answer Type): TEN questions, each of 2 marks (without division), will be set, of which students will answer any FIVE. [10 marks]*

Course content:

1. Population–Health Intersections: Ageing Populations & Epidemiological Transition, Fertility Decline, Youth Bulges, Maternal and Child Health, Mental Health
2. Development–Health Intersections: The Preston Curve Revisited, Economic development and health outcomes; Reverse Causality: Health → Development, Inequality as a Health Determinant
3. Population–Development Intersections: Carrying Capacity, Concept of optimum population, Population growth as obstacle to development (Coale and Hoover), population growth as conducive to development (Colin Clark), population resource region, Kuznets's Curve.
4. Integrated Case Studies: India and Global contexts—linking Demography, Health Services, Economic Progress: Universal Health Coverage, NHM, PHCs, ASHAs.

PHD-105P: RESEARCH METHODS I: QUALITATIVE & QUANTITATIVE

Full Marks: 50 Credit: 4

Course Outcomes (COs)

By the end of this course, students will be able to:

- Identify and utilise key sources of secondary data, and apply primary data collection techniques effectively.

- Differentiate between qualitative and quantitative methods, and design research using surveys, case studies, and participatory approaches.
- Apply descriptive and inferential statistical techniques to analyze social science data.
- Conduct ethnographic fieldwork, generate systematic field notes, and synthesize findings into structured reports and case studies.

Full Marks- 50 (End term Examination- 40 and Internal Assessment- 10)

- ✓ *Group A (Long Answer Type): TWO questions, each of 10 marks (without division), will be set, of which students will answer any ONE. [10 marks]*
- ✓ *Group B (Semi-long Answer Type): EIGHT questions, each of 5 marks (without division), will be set, of which students will answer any FOUR. [20 marks]*
- ✓ *Group C (Short Answer Type): TEN questions, each of 2 marks (without division), will be set, of which students will answer any FIVE. [10 marks]*

Course content:

1. Data literacy: sources of secondary data, data extraction, primary data gathering techniques.
2. Qualitative vs. Quantitative Methods, Surveys, Case Studies, and Participatory Approaches
3. Statistical Analysis: Descriptive statistics, measures of central tendency, Bivariate Techniques: correlation, chi-square, t-tests, ANOVA.
4. Human digitization: Ethnography, Fieldwork and Report Writing, Ethnography, Field Notes, Focus Group Interviews, Introducing Case Study Research

PAPER PHD 106T: INDIAN KNOWLEDGE SYSTEM IN NATURE CONSERVATION

Full Marks: 25 Credit: 2

Course Outcomes (COs)

- Critically engage with Indian epistemologies on nature and ecology
- Evaluate community-based practices and their ecological relevance
- Apply IKS principles in geographical and environmental research
- Integrate indigenous frameworks into policy and academic discourse

Course content:

1. Traditional Indian Environmental Ethics and Practices: Ancient Indian philosophies (e.g., Vedic, Buddhist, and tribal perspectives) on nature, emphasizing harmony with ecosystems, sacred groves, and sustainable land-use practices.
2. Traditional Practices and Community Conservation Models: Sacred groves (*Devrai*, *Sarna*) and biodiversity hotspots, Sacred rivers, mountains, and conservation ethics (e.g., Ganga, Himalayas)..
3. Traditional agro-ecological systems (e.g., Zabo, Apatani, Vedic agriculture), Water harvesting and irrigation traditions (e.g., stepwells, tanks, Johads), Folk religion, festivals, and ecological symbolism
4. Integrating Indian Knowledge with Modern Geospatial Tools and Contemporary Relevance: Application of traditional conservation insights using GIS, remote sensing, and landscape analysis to assess biodiversity hotspots, ecological corridors, and sustainable development planning.Contemporary Relevance and Integration with Modern Conservation

PAPER PHD 107T: VIDYASAGAR LIFE AND PHILOSOPHY

Compulsory non-credit Course (NCC)

Syllabus to be given by the University

SUGGESTED READINGS

PHD-101T: Introduction to Population Studies

1. Bhende, Asha A., and Tara Kanitkar. *Principles of Population Studies*. Himalaya Publishing House, 2000.
2. Preston, Samuel, Patrick Heuveline, and Michel Guillot. *Demography: Measuring and Modeling Population Processes*. Wiley-Blackwell, 2001.
3. Srinivasan, K. *Basic Demographic Techniques and Applications*. Sage Publications, 1998.
4. Swanson, David A., and Jacob S. Siegel, eds. *The Methods and Materials of Demography*. Academic Press, 2004.
5. Haupt, Arthur, and Thomas T. Kane. *Population Handbook*. Population Reference Bureau, 6th ed., 2011.
6. Yaukey, David, Douglas L. Anderton, and Jennifer Hickes Lundquist. *Demography: The Study of Human Population*. Waveland Press, 2007.
7. Poston Jr., Dudley L., and Leon F. Bouvier. *Population and Society: An Introduction to Demography*. Cambridge University Press, 2010.
8. Weeks, John R. *Population: An Introduction to Concepts and Issues*. Cengage Learning, 13th ed., 2021.
9. Bogue, Donald J. *Principles of Demography*. John Wiley & Sons, 1969.

PHD-102T: Public Health and Epidemiology

1. Detels, Roger, et al. (eds.). *Oxford Textbook of Global Public Health*. Oxford University Press, 7th ed., 2021.
2. Gordis, Leon. *Epidemiology*. Elsevier, 6th ed., 2018.
3. Rothman, Kenneth J. *Epidemiology: An Introduction*. Oxford University Press, 2nd ed., 2012.
4. Gillam, Stephen, et al. *Essential Public Health*. Cambridge University Press, 2012.
5. Webb, Penny, et al. *Essential Epidemiology: An Introduction for Students and Health Professionals*. Cambridge University Press, 3rd ed., 2017.
6. Bonita, Ruth, Robert Beaglehole, and Tord Kjellström. *Basic Epidemiology*. World Health Organization, 2nd ed., 2006.
7. Heymann, David, ed. *Control of Communicable Diseases Manual*. American Public Health Association, 20th ed., 2015.
8. Hawker, Jeremy, et al. *Communicable Disease Control and Health Protection Handbook*. Wiley-Blackwell, 4th ed., 2012.

PHD-103T: Foundations of Development Economics

1. Ray, Debraj. *Development Economics*. Princeton University Press, 1998.
2. Currie-Alder, Bruce, Ravi Kanbur, David Malone, and Rohinton Medhora, eds. *International Development: Ideas, Experience, and Prospects*. Oxford University Press, 2014.
3. Peet, Richard, and Elaine Hartwick. *Theories of Development: Contentions, Arguments, Alternatives*. Routledge, 3rd ed., 2015.
4. Todaro, Michael P., and Stephen C. Smith. *Economic Development*. Pearson, 13th ed., 2020.
5. Sen, Amartya. *Development as Freedom*. Oxford University Press, 1999.
6. Payne, Anthony, and Nicola Phillips. *Development*. Polity Press, 2010.

PHD-104T: Population, Health & Development Nexus

1. Benatar, Solomon, and Gillian Brock. *Global Health and Global Health Ethics*. Cambridge University Press, 2011.
2. Bloom, David E., et al. *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*. Oxford University Press, 2003.
3. Cleland, John, et al. *Population and Development: The Demographic Transition*. Oxford University Press, 2001.

4. Deaton, Angus. *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton University Press, 2013.
5. Preston, Samuel H. "The Changing Relation between Mortality and Level of Economic Development." *Population Studies* 29(2), 1975.

PHD-105P: Research Methods I: Qualitative & Quantitative

1. Frankfort-Nachmias, Chava, and David Nachmias. *Research Methods in the Social Sciences*. Worth Publishers, 8th ed., 2007.
2. Neuman, W. Lawrence. *Social Research Methods: Qualitative and Quantitative Approaches*. Pearson, 7th ed., 2013.
3. Creswell, John W., and J. David Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications, 5th ed., 2018.
4. Babbie, Earl R. *The Practice of Social Research*. Cengage Learning, 15th ed., 2021.
5. Goon, A. M., Gupta, M. K., and Dasgupta, B. *Fundamentals of Statistics (Vol. 1 & 2)*. World Press, 2008.
6. Gupta, S. P. *Statistical Methods*. Sultan Chand & Sons, 2012.
7. Elhance, D. N. *Fundamentals of Statistics*. Kitab Mahal, 2007.