

**PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR**

**Allied Health Sciences Program: Master of Public Health (MPH) Part I Syllabus as per NEP**

**Cumulative Credits for One Year Post-Graduate Diploma = 44**

**Cumulative Credits for Two Years Post-Graduate Degree = 88**

**Master of Public Health (MPH) Semester I**

<b>Subject Code</b>	<b>Paper Title</b>	<b>Credits</b>
<b>Major Core Compulsory Courses</b>		
MPHCC01	Principles of Public Health	4T
MPHCC02	Public Healthcare Delivery System in India	4T
MPHCC03	Basic Epidemiology	4T
MPHCP01	Advanced Epidemiology (Practical)	2P
MPHCP02	Basics of Biostatistics – Descriptive (Practical)	2P
<b>Major Core Compulsory Elective Course: Research Methodology I</b>		
MPHCERM	Health Research Fundamentals, ICMR – National Institute of Epidemiology (SWAYAM Online)	4T
<b>Semester I Major Core Courses Credits</b>		<b>20 (16T + 4P)</b>
<b>Major Open Elective Courses</b>		
MPHOE01	Ethics Review of Health Research – NIE-ICMR (SWAYAM Online)	2T
MPHOE02	Basic Introductory Yoga (Interdepartmental)	1T + 1P
<b>Cumulative Credits required in Semester I</b>		<b>22</b>

**Master of Public Health (MPH) Semester II**

<b>Subject Code</b>	<b>Paper Title</b>	<b>Credits</b>
<b>Major Core Compulsory Courses</b>		
MPHCC04	Public Health Programs in India	4T
MPHCC05	Reproductive Maternal Neonatal Child and Adolescent Health (RMNCH+A)	4T
MPHCC06	Infectious Disease Epidemiology	4T
MPHCP03	Advanced Biostatistics – Inferential (Practical)	2P
MPHCP04	Applied Research Methods – Survey (Practical)	2P
<b>Semester II Major Core Courses Credits</b>		<b>16 (12T + 4P)</b>
<b>Major Open Elective Courses</b>		
MPHOE03	Clinical Trials Data Management and Quality Assurance – Johns Hopkins University (Coursera) (Online)	2T
MPHOE04	Basics of Health Promotion and Education Intervention – IIT Kharagpur (SWAYAM Online)	
<b>Internship/ On-Job Training (OJT)</b>		
MPHOJT	Public Health Internship/ Research Internship	4P
<b>Cumulative Credits required in Semester II</b>		<b>22</b>
<b>Total One-Year Cumulative Credits required</b>		<b>44</b>

## Credit and Workload Distribution

<b>Subject</b>	<b>Credits</b>	<b>Total Hours</b>	<b>Lecture Hours</b>	<b>Tutorial Hours</b>	<b>Assessment Hours</b>
Principles of Public Health	4	60	40	10	10
Public Healthcare Delivery System in India	4	60	40	10	10
Basic Epidemiology	4	60	40	10	10
Public Health Programs in India	4	60	40	10	10
Reproductive Maternal Neonatal Child and Adolescent Health (RMNCH+A)	4	60	40	10	10
Infectious Disease Epidemiology	4	60	40	10	10

Course Code	Course Title	Number of Credits
MPHCC01	Principles of Public Health	4 T

**Unit I: Foundations of Public Health (10L)**

- History and evolution of public health
- Determinants of health and disease
- Levels of prevention
- Core functions and essential services of public health

**Unit II: Concepts and Theories in Public Health (10L)**

- Health promotion and education: theories and models
- Health behaviour and risk factors
- Social determinants of health
- Equity, ethics, and human rights in public health

**Unit III: Public Health Systems and Policies (10L)**

- Organization of public health systems
- Role of government, NGOs, and international agencies
- Public health laws and regulations in India
- Health planning and national health policy

**Unit IV: Global Public Health and Emerging Issues (10L)**

- Globalization and health
- Sustainable Development Goals (SDGs)
- Climate change and health
- Disaster preparedness and response
- Emerging public health challenges

Course Code	Course Title	Number of Credits
MPHCC02	Public Healthcare Delivery System in India	4 T

**Unit I: Structure of Healthcare in India (10L)**

- Three-tier health system: primary, secondary, tertiary
- Rural and urban health infrastructure
- Public, private, and voluntary sectors
- National Health Policy 2017 and its implementation

**Unit II: Governance and Regulation (10L)**

- Ministry of Health and Family Welfare
- Regulatory bodies: NMC, INC, NHRC
- Decentralization: Panchayati Raj institutions
- Health financing and insurance schemes (PMJAY, CGHS)

**Unit III: Human Resources and Health Information (10L)**

- Health workforce: recruitment, training, and retention
- Role of ASHA, ANMs, MPWs
- Health Management Information System (HMIS)
- Telemedicine and digital health systems

**Unit IV: Service Delivery and Quality (10L)**

- Indian Public Health Standards (IPHS)
- Quality assurance and accreditation
- Referral systems and continuum of care
- Public-private partnerships in healthcare

Course Code	Course Title	Number of Credits
MPHCC03	Basic Epidemiology	4 T

**Unit I: Introduction to Epidemiology (10L)**

- Definition, scope, and uses of epidemiology
- Natural history and spectrum of disease
- Epidemiologic triad and web of causation
- Levels of prevention

**Unit II: Measures in Epidemiology (10L)**

- Measures of disease frequency: incidence, prevalence
- Measures of association: RR, OR, AR
- Screening and diagnostic tests: sensitivity, specificity, ROC

**Unit III: Epidemiologic Study Designs (10L)**

- Descriptive studies: case reports, cross-sectional studies
- Analytical studies: cohort, case-control
- Experimental studies: RCTs, community trials
- Bias, confounding, and effect modification

**Unit IV: Epidemiological Data Interpretation (10L)**

- Data sources and surveillance
- Outbreak investigation
- Use of software for data analysis
- Evidence-based public health practice

Course Code	Course Title	Number of Credits
MPHCC04	Public Health Programs in India	4 T

**Unit I: National Health Programs – Communicable Diseases (10L)**

- National Tuberculosis Elimination Program (NTEP)
- National AIDS Control Program (NACP)
- Vector-borne disease control programs
- Immunization and Universal Immunization Program (UIP)

**Unit II: National Health Programs – Non-Communicable Diseases (10L)**

- National Program for Prevention and Control of Cancer, Diabetes, CVD and Stroke (NPCDCS)
- Mental health program
- National Tobacco Control Program
- Ayushman Bharat and Health & Wellness Centers

**Unit III: Nutrition and Environmental Health Programs (10L)**

- POSHAN Abhiyan and ICDS
- Mid-Day Meal Scheme
- National Vector Borne Disease Control Program (NVBDCP)
- Swachh Bharat Mission and water sanitation initiatives

**Unit IV: Monitoring, Evaluation, and Governance (10L)**

- Planning, implementation, and monitoring of programs
- Program evaluation methods
- Role of NITI Aayog and National Health Mission (NHM)
- Innovations and best practices

Course Code	Course Title	Number of Credits
MPHCC05	Reproductive Maternal Neonatal Child and Adolescent Health (RMNCH+A)	4 T

**Unit I: Reproductive and Maternal Health (10L)**

- Family planning and contraception
- Antenatal, intranatal, and postnatal care
- High-risk pregnancy and maternal mortality
- Maternal Health Programs: Janani Suraksha Yojana, PMSMA

**Unit II: Child Health (10L)**

- Neonatal and infant care
- Growth monitoring and IMNCI
- Immunization and cold chain management
- Malnutrition and childhood morbidity

**Unit III: Adolescent Health (10L)**

- Adolescent growth and development
- Reproductive and sexual health
- School health programs
- Rashtriya Kishor Swasthya Karyakram (RKSK)

**Unit IV: Policies and Strategies in RMNCH+A (10L)**

- RMNCH+A approach and continuum of care
- National Population Policy
- Gender issues and rights-based approach
- Integration with Sustainable Development Goals

Course Code	Course Title	Number of Credits
MPHCC06	Infectious Disease Epidemiology	4 T

**Unit I: Principles of Infectious Disease Epidemiology (10L)**

- Host-agent-environment interaction
- Chain of infection and modes of transmission
- Outbreak investigation steps
- Surveillance systems: IDSP, IHIP

**Unit II: Epidemiology of Key Infectious Diseases (10L)**

- Tuberculosis, HIV/AIDS, and STIs
- Vector-borne diseases: malaria, dengue, chikungunya
- Zoonoses: rabies, leptospirosis, brucellosis
- Emerging and re-emerging diseases

**Unit III: Control and Prevention Strategies (10L)**

- Vaccination programs
- Isolation, quarantine, and containment
- WASH (Water, Sanitation and Hygiene)
- Antimicrobial resistance (AMR)

**Unit IV: Programmatic and Policy Frameworks (10L)**

- National and international guidelines
- IHR (2005), WHO recommendations
- Epidemic preparedness and pandemic response
- Integrated disease surveillance and reporting