

Utkal University

Syllabus of MPH

With effect from Academic Section 2019-20

First Semester: Core Courses

MPHC 101	Principle and practice of Public Health
MPHC 102	Introduction to Health System and Policy
MPHC 103	Health Management Principles & Practice
MPHC 104	Basic Epidemiology
MPHC 105	Basic Biostatistics
MPHC 106	Demography and Population Sciences

Principle and practice of Public Health (8 credit)

Objectives: This is an introductory course to public health, which will ensure that all students, within their first semester of study, are exposed to the fundamental concepts and theories of public health. This course will prepare students to work in public health with a sound theoretical, conceptual and historical basis for their work. This course is designed to give the students a general overview of the milestones in public health from ancient to modern age, with emphasis on evolution of Indian health systems. The course will also highlight on the transition of population health in India in pre-independence, post-independence and post globalization period.

Course Outline:

- 1. Introduction to Public Health and Evolution:** Defining Public Health: core functions, essentials services, History and evolution of Public Health; Major domains and scope of Public Health; levels and basic concepts of the public health system, Public Health Challenges

- 2. Role of Public Health Professionals:**The new Public Health Professional- role, responsibilities, competencies and opportunities; Leadership in Public Health, Case study: NHM; Role of Government, Non-Govt Organizations and civil society in Public Health, Role of Public Health professional in pandemic
- 3. Determinants of Health:**Introduction to determinants of health, Concept of Health and wellbeing, Social and economic environment, Physical environment, and Person's individual characteristics and behaviours, Modes of prevention; Community diagnosis, Genetics. Ecology of health focusing on one health concept, Community perception and priorities on health and diagnosis & need for assessment.
- 4. Approaches to Public Health & Effective Practice:**Effective Practice of Public Health, Right to health, Universal Health Coverage, Out-of-pocket expenditure, National Health Policy, Challenge in public health delivery. State specific public health challenges

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each.

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *The Oxford Textbook of Global Public Health, 6th Edition, Oxford Publisher*
- *IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Textbook of Community Medicine, 3rd Edition, Piyush Gupta, CBS publisher*
- *Text book of public health and community medicine, 1st Edition, Raj Bhalwar, AFMC*

Introduction to Health System and Policy (8Credit)

Objectives: The course will provide knowledge regarding basic concepts of Health Systems and its different components. This course will also explore health policies of different countries including developing and developed. At the end of this module students will be able to analyse health policies.

Course Outline:

- 1. Concept of Health Systems and its Components:** Concept of Health System, Building blocks of health system, Pillars of health system, Health system strengthening, Health systems in India and primary health care; Health infrastructure & Healthcare Delivery System; Concept of primary healthcare; Different sectors in health system including AYUSH; Role of PRI & WCD in public health;
- 2. Introduction to Health Policy:** Introductions to National Health Policies in India, understanding of global and national health policies, Health policies of developing and developed nation including current trends, Analyse the political system within which
- 3. Factors influencing Health Policy:** Contextual factors that influence to policy change, changing global health policy environment, Law and politics in Health policy, Policy making: key components, Policy framework, Stake holders in policy making, Effects of different interest and advocacy groups in influencing health policy, Effects of national and international affairs on health policy
- 4. Health Policy Analysis:** Health Policy Analysis: Basic theoretical approaches and concepts used in policy analysis, steps in Health policy analysis, Fundamental of health policy research, translating research in policy making

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each.

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *The Oxford Textbook of Global Public Health, 6th Edition, Oxford Publisher*
- *IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Public Health Management Principles and Practice, Sundar Lal and Vikas. 2nd Edition, CBS publishers*

- *Banerjee B. D.K. Taneja's Health policies and programmes in India. Jaypee Brothers Medical Publishers; Fifteenth edition*
- *National Health Programs of India, National Policies and Legislations Related to Health by J Kishore. 10th Edition. Century Publication.*

Health Management Principles & Practice (8 Credit)

Objectives: This course is designed to enable the student to understand the basic principles and practices of Public health management. The module is to train the students, who can plan and implement national health policies and programs, supervise the public health workforce. They will also be able to plan strategies to fulfil the need of the health system of the country

Course Outline:

- 1. Organization and Planning:** Introduction to Health management, principles of health management, Planning, implementation, Steps of Planning Cycle, Organization and Organizational behaviour, Leadership in Health management, public health governance, Project management, Strategic management, Monitoring and Evaluation
- 2. Resource Management and Quality:** Logistic, human resource, time management in Health, Conflict management, Types of Budgets, Introduction to MIS and HMIS, Health system reform, Human Resource in Health, Current status of HRH in India, Rural health statistics, recruitment planning, job analysis, Health care quality and performance management in Public Health, Quality control
- 3. Modern management techniques:** Modern management techniques, network analysis, PERT, fish bone technique, Management by Objectives, Health care marketing, health management during disasters and pandemics
- 4. Introduction to Operational Research:** Background of Operational Research, Meaning of Operations Research, Significance of Operations Research, Scope of Operations Research, History of Operations Research, Applications of Operations Research, Models of Operations Research

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Epidemiology and Management For Health Care. Sathe PV and Doke PP. 4th Edition, Vora Medical Publication*
- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Textbook of Hospital administration. Goel Sonu , Elsevier India, 1st edition*
- *Public Health Management Principles and Practice. 2nd Edition, CBS publishers, Sundar Lal and Vikas,*
- *IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*

Basic Epidemiology

(8 Credit)

Objectives: The course will provide knowledge regarding basic concepts and its application of epidemiology, in Public Health. This course will also explore the clinical epidemiology including communicable and non-communicable diseases. At the end of this module students will be able to investigate outbreaks and skilled with approaches in disease surveillance

Couse Outline:

- 1. Introduction to Epidemiology:** Definition, History and definition of epidemiology, application of epidemiology in public health, Dynamics of disease transmission, Theory of causation, Descriptive and analytical epidemiology, Application of epidemiology in health services, screening and policy decision, Basics of communicable and non-communicable disease epidemiology

2. **Measurements in Epidemiology:** Rate, ratio and proportion, standardization, mortality and morbidity indicators, Incidence and prevalence, point and period prevalence, incidence density and cumulative incidence, Causation and Association, Hill's criteria of causation, Measures of Association, Strength of association, Odd's ratio, relative risk, attributable risk, population attributable risk, prevalence rate ratio, Screening tests- validity and reliability methods.
3. **Epidemiological Study Design:** Outline and details of epidemiological study designs (including cross sectional study design, case control study design, cohort study design and interventional study), advantages and disadvantages of study designs, Confounding and Bias,
4. **Outbreak Investigation:** Disease surveillance, Outbreak investigation (ten steps of outbreak investigation), Data management in outbreak investigation, Laboratory investigation in outbreak, formulating recommendation, Communicating the results of an outbreak, and Principles of epidemic preparedness and response.

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each.

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Basic Epidemiology by Bonita and Beaglehole. WHO*
- *David Celentano and Moyses Szklo. Gordis Epidemiology. 6th edition, Elsevier*
- *IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Epidemiology an Introduction, KJ Rothman. 2nd Edition. Oxford*

Basic Biostatistics (8 Credits)

Objectives: The course will provide knowledge regarding basic concepts and its application of Biostatistics, in Public Health. This course will also explore the use of biostatistical procedures in research. This will deal with descriptive and inferential statistics. At the end of this module students will be able to understand basis of use of statistical procedure in testing the significance of various type of data and interpret the results.

Course Outline:

- 1. Introduction to Biostatistics and Data, Variables:** Types of variables: categorical, continuous and discrete, Scales of measurement: Ordinal, nominal and ratio, Central limit theorem, distribution, Types of distribution, Normal distribution, binomial distribution, normal distribution curve, skewed distribution, log normal, standard normal distribution,
- 2. Descriptive statistics:** Measures of central tendency: mean, median and mode, different types of mean, Measures of dispersion: range, inter quartile range, co-efficient of variation, standard deviation, standard error, sampling error, Methods of data presentations and interpretation, Graphs, bar diagram, pie chart, line diagram, ogive, frequency diagram, Bayes theorem
- 3. Inferential Statistics:** Type1 and type 2 error and power calculation, alfa and beta error, Inferential statistics- interpretation, Z value, P-value and 95% confidence Interval, Sample/sampling and population distribution,
- 4. Statistical Test of Significance:**Parametric and non-parametric test, Normality testing, How to choose the statistical test, test of significance, degree of freedom, frequency table, hypothesis testing using statistical tests, standard reporting of the result of tests, Correlation, Basics of regression, One statistical software (SPSS/Stata)

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Mahajan's Methods in Biostatistics 9th Edition, Bratati Banerjee, Jaypee Publishers*
- *Gravetter FJ, Wallnau LB. Statistics for the Behavioral Sciences 9th Edition. Cengage*
- *KVRao. Biostatistics a Manual of Statistical Methods for Use in Health, Nutrition and Anthropology*
- *Biostatistics. Basic concepts and methods for health sciences. Daniel and Cross. 10TH Edition, Willey*
- *Essential Biostatistics. Betty and Kirkwood, Willey*

Demography and Population Sciences (8 Credits)

Objectives: The aim of the course is to introduce the subject of Demography to the participants. Students will become familiar with basic concepts and sources of data in Demography and also will be able to comprehend the processes and events in Demography and their interactions

Course Outline:

1. **Introduction to Demography & Theories:** Definition and concepts of population and demography, Factors affecting population, Population growth and projection, Malthusian theory, Optimum theory, Cornucopian theory, Demographic transition theory, Implication of rapid population growth, Techniques for measuring population structure, growth and distribution, population pyramid, Demographic dividend, Population projection, National Population Policy
2. **Measures of fertility:** Sources of fertility data and their use, Crude birth rate, General Fertility rate, General fertility rate, General marital fertility rate, Age specific fertility rate, Total fertility rate, Gross reproduction rate, Net reproduction rate, replacement level, Factors affecting fertility
3. **Measures of mortality:** Sources of mortality data and their use, Crude death rate, Infant mortality rate, Neonatal mortality rate, Under 5 mortality rate, Age specific death rate, Standardisation methods, or disaster, Techniques for measuring longevity – Life Tables,

4. **Migration:**Immigration, Emigration, Factors affecting migration, migration and health, urbanization, Impact of migration on population changes, Dynamics of international migration

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Kadri AM., IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Textbook of Community Medicine, 3rd Edition, Piyush Gupta, CBS publisher*
- *Text book of public health and community medicine, 1st Edition, Raj Bhalwar, AFMC*
- *Demography- measuring and modelling Population Processes. Samuel Preston. Wiley-Blackwell*

Second Semester: Core Courses

MPHC 201	Research Methods & Ethics
MPHC 202	Socio Behavioural Science, Health Communication & promotion
MPHC 203	National Health Programs
MPHC 204	Health Economics & Health Care financing
MPHC 205	Maternal & Child Health

Research Methods & Ethics (8 Credit)

Objectives: The course will provide knowledge regarding basic research methodology. This course will also explore the proposal writing and scientific writing. At the end of this module students will be able to independently plan research and implement them on different settings. This course will enable students to conduct qualitative research in the community. At the end of this module students will be able to plan, implement and analyse data of qualitative research.

Course Outline:

1. **Introduction to Research methods:** Objectives of research, Research question, hypothesis, aim and objective, PICO and FINER criteria, How to get research idea, Tools and Measurements in research, Validity and reliability, Review of literatures, information retrieval, database and physical form of information,
2. **Sampling, Sample size, data management:** Sample size calculation (manual and using software) and sampling (simple random sampling, systematic, cluster and stratified sampling, multi stage and multi phasic sampling), random number tables, sampling in trials, randomization and concealment, Data management and analysis, Result interpretation, Dissemination of research, Report writing
3. **Research using Qualitative methods:** Understanding and analysis of Qualitative data and research, Quantitative data and research, Mixed methods, Public health surveillance and research, Steps in development of Research Proposal, Criteria for topic selection, Research Problem, Rationale, Scope, Research Question, Objectives and Hypothesis, Ethical consideration in research, Standard reporting of research, Qualitative research methods overview, qualitative data collection methods, snow ball technique, trustworthiness in qualitative research, and qualitative data management and analysis process, Grounded theory, content analysis, thematic analysis, phenomenology, Ethnographic studies, Atlas- t and MaxQDA
4. **Ethics in Public Health Research:** Principles of ethics, Ethical Guidelines to conduct research in Community and laboratory. Ethical consideration during research in

vulnerable population, Process of Informed consent, Public health ethics, Research Integrity and Publication Ethics, GCP

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Indrayan A. Basic methods in medical research. AITBS publication, 4th ed*
- *Abrahamson and Abrahamson. Research Methods in Community Medicine, Sixth edition, John Wiley and Sons Ltd*
- *Qualitative methods for the Social Sciences. Howard lune, Bruce L. Berg, 9th Edition, Pearson Education India*
- *Qualitative Research Practice: A Guide for Social Science Students and Researchers, Jane Ritchi, 2nd edition, SAGE publication*
- *Adequacy of sample size in Health Studies. Lameshow and Hosmer. World Health Organization*

Socio behavioural Science, Communication & Health promotion (8 Credits)

Objectives: This course is designed to enable the student to understand the major issues and challenges in social determinants of health. The students will understand the influence of various social and cultural factors on health. This course will also help students to understand principles of health communication and health promotion.

Course Outline:

1. **Socio behavioural Science:** Introduction on sociological perspectives on health, Health & Society, Sociological structure and organization, Key concepts in sociology as applied to the study of health, Social and cultural processes impacting health status and access to health services, The relationship of culture, community, family, social networks and health,
2. **Health Communication:** Information Education and Communication (IEC), Inter Personal Communication (IPC), Behaviour Change Communication (BCC), Social Behaviour Change Communication (SBCC) Human behaviour and communication, its role in public health problems and solutions, Verbal vs. Non-verbal communication, Various forms of written communication,
3. **Introduction to Health Promotion:** Holistic view of health, Definition of health promotion, Evolution of the concept of health promotion and its importance in the contemporary public health scenario, Health Education vs. Health Promotion, Principles of health promotion, Ottawa Charter, Approaches for health promotion, Health promotion strategies, Health promotion action, Current legislative measures in India for health promotion, Techniques of needs assessment, Prioritization of needs, Principles processes and criteria for determining health promotion priorities,
4. **Models and Theories of Health Promotion:** Health Promotion program in different settings (School, health care organization, workplace, community), Intervention mapping process (PRECEDE-PROCEED model), Assessing and strengthening community resources, building health promotion plan, Substance abuse epidemic in parts of India, Stigmatization of health conditions, Behavioural issues in children and teens: substance abuse, suicide patterns

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Kadri AM. IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Health Behaviour and Health Education: Theory, Research, and Practice, 4th Edition by Karen Glanz, Barbara K.Rimer, K.Viswanath. Publ: Jossey-Bass: A Wiley Imprint, San Francisco, USA*
- *International Public Health, 2nd Edition, 2006 by Michael H. Mersion, Robert E. Black, Anne J. Mills, Publ: Jones and Bartlett Publishers, Boston, USA.*

National Health Programs (8 Credit)

Objectives: This course is intended to provide student basic knowledge about Health programmes and policies of India. At the end of the course students should be able to evaluate health programs and analyse health policies.

Course Outline:

- 1. National Programme on Communicable Diseases:** National AIDS control programme, National Leprosy Eradication Programme, Revised National Tuberculosis Control Programme, National Vector Borne Disease Control Programme, National Programme on Prevention and Control of Viral Hepatitis
- 2. National Programs on Non-Communicable diseases:** National Tobacco Control Programme, National Programme for Control and Treatment of Occupational Diseases, National Programme for Prevention and Control of Deafness (NPPCD), National Mental Health Program, National Programme for Control of Blindness, National Programme for

Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke, Pradhan Mantri National Dialysis Programme, and National Oral Health Programme.,

3. Other Programmes and Social security schemes National Health Mission, Financial Assistance to Poor, State Health programmes, Affordable Medicines and Reliable Implants for Treatment, Pradhan Mantri Swasthya Suraksha Yojana, Ayushman Bharat, National Health protection Scheme, National Ayush Mission, National Programme for the Health Care for the Elderly, and Health-related MDGs and SDGs.

4. Intellectual Disability Related Schemes: National Trust Schemes, Scheme of Assistance to Disabled Persons for Purchase/Fitting of Aids/Appliances (ADIP Scheme), and National Handicapped Finance and Development Corporation, and National Programme on Mental Health.

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Kadri AM. IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Banerjee B. D.K. Taneja's Health policies and programmes in India. Jaypee Brothers Medical Publishers; Fifteenth edition*
- *National Health Programs of India National Policies and Legislations Related to Health by J Kishore. 10th Edition. Century Publication.*
- *Textbook of Community Medicine. Sundarlal, Adarsh, Pankaj. 4th edition, CBS publications*

Health Economics & Health care financing (8 Credits)

Objectives: The course is intended to give the basic knowledge on principles health economics and how it does play a role in evaluation of health technologies. To impart knowledge about allocation of resources for different activities of health system.

Course Outline:

1. Introduction to Health Economics: Basic terminology and key components, Micro and macro-economic analysis in healthcare with example, Pareto’s theory, Opportunity cost, recurrent cost, Incremental cost, Law of demand and supply, GNP, GDP, Role of economics in health system with example, Rationale of public health economics.

2. Economic Evaluation in Healthcare: Economic analysis and principles Various steps for economic evaluation, Economic Impact Analysis (VALUE), Programmatic Cost Analysis, Cost-Benefit Analysis (CBA), Cost Effectiveness Analysis (CEA), and Cost Utility Analysis (CUA), Incremental Cost-effective Ratio, Health Technology Assessment (HTA), Decision tree

3. Health Care financing: National and District Health Accounts, Allocation of finance to health sector, User fees, Resource pooling, mobilization and utilization, Costing and budgeting, Financial sustainability, Cost and dividends for health outcomes, Market model, market failure, Universal health coverage and role of health care financing,

4. Health Care Insurance: Health insurance coverage. (commercial, social security), rationale, benefits and challenge in India, Out of pocket expenditures, available insurance scheme and the roles and limitations of markets in health care, Community based Health Insurance Schemes,

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Drummond M et al. Methods of Economic Evaluation of Health Care Programmes, 3rd edition.*
- *The Oxford Textbook of Global Public Health, 6th Edition, Oxford Publisher*
- *Handbook on Impact Evaluation. Quantitative methods & Practice, World Bank*
- *Health Economics and Policy by James W. Henderson 6th edition. Cengage Publication*
- *WHO Guide to Cost-effective Analysis. Edejer, World Health Organization*

Maternal & Child Health (8 Credit)

Objectives: This course is designed to build knowledge of maternal, child, adolescent and reproductive health comprehensively. The students will be trained in burdens of morbidities and mortalities during these periods of life. They will be able to identify various interventions in maternal and child health and their impacts.

Course Outline:

1. Introduction to the RMNCH+A: Concept of RMNCHA, Historical context, evolution, Life cycle approach, Various components of service delivery under RMNCH+A (including GoI programs), coverage and innovations, Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) related to MCH

2. Maternal Health: Maternity cycle, Evolution of RCH services in the country, Antenatal care, Intra natal and Post-natal care services in the country, Maternity benefit scheme, Innovations in service delivery, Framework for evaluation of services, Role of gender in public health programs, Laws and acts ensuring maternal health

3. Neonatal, Child and Adolescent Health: Services available for Neonatal, Child and Adolescent in India, Growth and Development, Right of Child, National policy for children, Integrated Management of Neonatal and child health, ICDS, Universal Immunization program, India New-born action plan, ARSH clinic

4. Family planning: Family planning services: evolution in India, methods of family planning, Eligible couple, Couple protection rate, unmet need of family planning, barriers in family planning services, felt need, Quality indicators of family planning services in India, Community need assessment

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Banerjee B. D.K. Taneja's Health policies and programmes in India. Jaypee Brothers Medical Publishers; Fifteenth edition*
- *Textbook of Community Medicine. Sundarlal, Adarsh, Pankaj. 4th edition, CBS publications*
- *Kadri AM. IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Maternal, Newborn and Child Health Programmes in India: A Programme Science Approach. Ramesh, Hali, Krishnamurthy and Mohan. SAGE publisher*

Community Exposure Posting

(8 Credit)

Two months' community exposure posting/summer internship will be undertaken by all the candidates with an aim to integrate learning and practice in an active public health organization in last two months of 2nd semester. This can be undertaken at governmental or non-governmental public health organizations or program management units. The should include the candidate's role and support in assessing, monitoring, or conducting surveillance of health problems/services in a population; research on population-based health problems; developing and/or implementing policies and intervention strategies to meet public health needs. Overall it should contribute to the organization, and should help in understanding public health management and coordination and gaining personal confidence and leadership experience. After the completion of 2 months of internship, candidates will be expected to submit a brief summary of public of internship. The posting is worth thirteen (13) credits. Evaluation of the program will be conducted by the external host organization in the required format. (Annexure)

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	External	
8	200	NA	NA	100	100	

Third Semester: Core & Elective Modules

MPHC301	Environmental and Occupational Health
MPHC302	Public Health Nutrition
MPHC303-306	Health System Management (4 Elective module)
MPHC307-310	Health Behaviour, Communication, Health promotion (4 Elective modules)
MPHC311-314	Tribal Health & Vulnerable Population (4 Elective modules)
MPHC315-318	Advanced Epidemiology & Biostatistics (4 Elective modules)
MPHC319-322	Public Health Entomology & Microbiology (4 Elective modules)

Environmental and Occupational Health (8 Credit)

Objectives: This course will also explore the topics of environment and occupational health with respect to Public Health. It aims to build students' understanding of key theoretical concepts and principles.

Course Outline:

1. **Introduction to Environment & Health:** Principles of environment health and human ecology, Ecosystem approach, Environmental Sustainability, Environmental (water, air,

noise and soil) pollution and prevention strategy, Global Environmental Change, Environmental health impact assessment,

2. **Waste Management:** Classification wastes – solid and liquid; Public Health Implication of waste management; Solid Waste Management in India – Policy, Strategies, Bye-law and Implementation Status; Sanitation Value Chain, Liquid Waste Management in India – Policy, Strategies, Bye-law and Implementation Status. Comparisons of Waste Management in Urban and Rural Settings. Plastic Waste Management, and Hazardous Waste Management
3. **Climate Change and Environment health programmes in India:** Climate change and health, Impacts of Climate Change on Communicable Diseases and Non-Communicable Diseases. Response to Climate Change, National Sub-Mission to provide safe drinking water, Swachh Bharat Mission, Swachh Survekshan, Swachhta Udyami Yojana, “KAYAKALP Central Pollution Control Board (CPCB) guidelines, Biomedical Waste Management act,
4. **Occupational Health:** Occupational Hazards: Hazards at the workplace, Ergonomics, Occupational diseases, Workplace safety, Prevention of occupational hazards (including accident prevention), Legislations related to occupational health, Employees State Insurance Scheme

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *The Oxford Textbook of Global Public Health, 6th Edition, Oxford Publisher*

- *Environmental Health: From Global to Local* by Howard Frumkin. 3rd Edition. Wiley Publication.
- *Essentials of environmental health* by Robert Friis. 2nd Edition. Jones and Bartlet Publication.
- *Hunter's diseases of Occupation*. Peter Baxter. 10th Edition. Hodder Arnold; Tenth edition

Public Health Nutrition (8 Credits)

Objectives: The course will provide knowledge regarding concepts and principles of Public Health Nutrition. This course will enable students to plan, implement and evaluate Nutrition Education Programs in the community.

Course Outline:

1. Introduction to Public Health Nutrition: Understanding Nutrition, Energy, Carbohydrates, Proteins, Lipids, Water, Micro and macro nutrients, Concept of Public Nutrition, Nutritional Ecology, Food, Nutrition, and Behaviour, Multidisciplinary Concept, Nutritional Problems, Malnutrition and Nutrition of Vulnerable group (Mother, child, pregnant women, Elderly and adolescent, chronic disease), Other Nutritional problems in India

2. Nutritional Assessment: Assessment of Nutritional Status in Community Setting – measurement and Nutrition Monitoring and Surveillance, Anthropometry, Dietary assessment, Screening for Nutritional deficiency, Meal Planning and Balanced Diets for Adults

3. National Programmes on Nutrition: National Nutrition Policy, Nutrition Programmes, National Nutrition Mission, Vit-A supplementation program, Iodine disorder deficiency Program, Integrated Child Development Services Scheme and Strategies to Combating Nutrition Problems and Fieldwork in Public Health Nutrition, State specific case studies, Nutrition Education Programmes, Case Studies, Strategies for Nutrition Education and Health Behaviour Change, Nutrition Counselling,

4. Food Microbiology and Safety: Food Safety – Basic Concept, Occurrence and Growth of Microorganisms in Foods, Food Spoilage, Food Contaminants, Food Additives and Adulteration, Food Packaging, Food Safety Assurance System, Food Regulations – Standards and Quality Control. Principles of food sanitation, safety & hygiene.

Credit Points	Total Marks	Theory: 100 Marks		Practical Items: 100 Marks	Teaching Methods	
		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each

SUGGESTED READING

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Dietary guidelines for Indians- A manual. National Institute of Nutrition, Hyderabad.*
- *Banerjee B. D.K. Taneja's Health policies and programmes in India. Jaypee Brothers Medical Publishers; Fifteenth edition*
- *Kadri AM. IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Nutrition in Public Health. Sari Edelstein. 4th Edition Jones & Bartlett Learning*

Elective Tracks and Modules

Track	Code	Module
Health System Management	MPHC 303	Strategic Management & Entrepreneurship in Healthcare
	MPHC 304	Advanced Operations Research

	MPHC 305	Advanced Financial management and budgeting
	MPHC 306	Organizational management and services
Health Behaviour, Communication and Promotion	MPHC 307	Effective communication in public health
	MPHC 308	Advanced Health Promotion
	MPHC 309	Public Health advocacy and Leadership
	MPHC 310	Tobacco Control
Tribal Health & Vulnerable Population	MPHC 311	Tribal Health
	MPHC 312	PVTG
	MPHC 313	Tribal Health & Nutrition
	MPHC 314	Health Care for Urban Poor
Advanced Epidemiology & Biostatistics	MPHC 315	Advanced Epidemiology
	MPHC 316	Advanced Biostatistics
	MPHC 317	Survey design and Method
	MPHC 318	Disease related Epidemiology
Public Health Entomology & Microbiology	MPHC 319	Public Health Entomology
	MPHC 320	Public Health Microbiology
	MPHC 321	Integrated Vector Management
	MPHC 322	Remote Sensing and GIS

Centre will select any one of the electivetracks at the beginning of each batch. Each module will be evaluated as per format given below. Details outline of the elective track modules are given in

Annexure -I

Credit Points	Total Marks	Theory: 100 Marks	Practical Items: 100 Marks	Teaching Methods
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		Internal	End Sem.	Project/Practical	Seminar	Class room teaching, field visits, case studies, assignments
8	200	30	70	70	30 [Internal]	

***Question Pattern:** Five long answer type questions of Ten marks each and four short notes of Five marks each.

Strategic Management & Entrepreneurship in Healthcare

(8 Credit)

1.Strategic Management in Health care: Concept of Strategic management, Strategic management cycle, benefits of strategic planning in the healthcare system, phases of creating a successful strategic plan, pitfalls in healthcare strategic plan, common mistakes made during strategic planning, SWOT analysis to improve health care, strategic prioritization

2. Models of strategic management: Performance prism model for healthcare management, EFQM Excellence model for understanding cause and effect relationship in the healthcare system, balanced scorecard model for healthcare system balancing, capability and marketing analysis models strategy, strategic scenario model for problem tackling in the health care system, Cause effect modelling, V-Most model for healthcare projection, performance management system

3. Strategy Implementation: Concept and steps of strategy implementation, translating strategy into goals and metrics, aligning strategy and organization structure, communication of strategic plan, managing resistance and identifying possible risks, leveraging the organizational culture, power and the need of informal networks, DASHOARD, scorecard and SMART strategy implementation in Health care, Health impact pyramid

4. Entrepreneurship in Healthcare: definitions and concepts that include the innovation process, design thinking, “intrapreneurship,” entrepreneurship, six sigma principles of process improvement, regulatory issues, patent law, and the market forces that impact the healthcare innovation process. Start up in Public health

Advanced Operational Research

(8 Credit)

1. Analysis of health care operations, and particularly flow operations, using a health systems engineering perspective, and applying tools of quality management and operations research modelling methods (statistical process control charts, flow charting, flow analysis, queueing, forecasting, linear programming, simulation, lean, etc).

2. Identification of data needs and data sources to assess structures, processes and outcomes of health care systems, with particular emphasis on utilizing clinical data and electronic timestamp data generated by electronic medical records systems, scheduling systems, and bed management systems, System, system thinking, system engineering in Health Care
3. Process, Process flow and measures, Flow time analysis, Flow rate and capacity analysis, Queuing, Simulation, Advanced inventory management, supply chain in health care, EOQ, Variability and time series forecasting
4. Modelling medical treatment using Markov decision process, Dynamic influence diagram application, treatment design and programming, optimization of tools, transmission model analysis

Advanced financial management and budgeting

(8 Credit)

1. Role of Finance & Accounting in a Hospital, Implications of finance on the Organization's activities, Importance of financial statements, Costing of products and services, Funding and Capital Budgeting, Investments -Decision making
2. System of Health accounts, methodology, tools for health accounts, WHO guideline based on System of Health accounts, National health care financing system, Basic flow in health care financing, Accounting foreign aids, Global health expenditure data base
3. Types of budgeting in health, Performance budgeting, ZB Budgeting, Fiscal space for health, Strategic purchasing, Budget cycle steps, Budget cycle, Budget evaluation, Flex budgeting, rolling budget, Artificial intelligence in Health care budgeting, forecasting

Organizational management and services

(8 Credit)

1. Components of organization, Purpose, Coordination, Division of labour and Hierarchy, Introduction to Management Services Organization (MSO), Foundation of Organization management, Human resource management in Public Health,
2. Project management lifecycle, setting common goals and objectives, project planning, Execution and control, project close out and sustainability, Project Communications and Risk Management for the Healthcare Environment
3. Analytical thinking, Risk identification and control, Leadership, Priority setting and resource allocation, Interdisciplinary interface of public administration law, System framework and its major components

4. Why organizations fail? learning from case stories, Attributes and warning signs of organization failure, Control mechanism

Suggested Readings:

- *Epidemiology and Management For Health Care. Sathe PV and Doke PP. 4th Edition, Vora Medical Publication*
- *Textbook of Hospital administration. Goel Sonu , Elsevier India, 1st edition*
- *Public Health Management Principles and Practice. 2nd Edition, CBS publishers, Sundar Lal and Vikas,*
- *IAPSM's Textbook of Community Medicine, 1st Edition, Jaypee Publisher*
- *Operations Research and Health Care: A hand book of Methods and Application*

Effective communication in public health

(8 Credit)

Public speaking- Basic elements of the speech communication process, methods of controlling public speaking anxiety, impactful speech, design of argument, Steps in public speaking, Contemporary Issues in Health Communication

Effective Communication: Verbal versus Non – verbal communication, Various forms of written communication, Using audio-visual aid in communication, Target audience research, Regulatory vs. Non regulatory content

Evidence based advocacy, Consensus building Etiquettes and professionalism, Implementing and managing social and behaviour change communication in public health, Evidence based advocacy, Consensus building, Using audio visual aid in communication

Advanced Health Promotion

(8 Credit)

Health Promotion in the New Century – Overview, Global Health Promotion, Health Promotion theory: Concepts and construct, Family Theory, Change Theory, Ethical, Cultural & Spiritual/Value Implication in Health Promotion, Health promotion and health protection with underserved/vulnerable populations, Risk assessment and stratification using Family history,

family form and functioning, genograms, genetic testing and community networks, Substance abuse assessment, prevention and intervention

Population health analysis, Evidence-based practice in health promotion, health protection and disease prevention, National standards and guidelines for screening in various age groups, Identification of strategies to address internal and external barriers to change

Health promotion competencies, Partnerships, Economics, Health Promotion Toolkit Components, Use of family history, family form and functioning, genograms, genetic testing and community networks in risk assessment and stratification, Establishment of coaching relationship in partnership with the client for personalized health planning, healthy lifestyles: diet, exercise, sleep, stress management, screenings, and safety, Injury prevention and violence prevention, Substance abuse prevention and intervention

Public Health Advocacy and Leadership

Health advocacy, Media advocacy- theory and practice, Introduction to campaigning and Organizing for advocacy in Public Health, Policy advocacy in Low-middle income countries – Case studies, Advocacy skills, Challenges of Public Health Advocacy, Community based public health advocacy campaign- process and products, Case studies,

Public health leadership- competencies and quality, Mechanics of Leadership: Influencing Interpersonal and Group Outcomes, Achieving Outcomes through Best Process Program Design and Evaluation, Culturally Competent Management, Advanced Advocacy, Conflict Competent Leader, Social Marketing to Influence Decision Makers, Teambuilding, Social style strategies for strengthening team communication, motivation of a team, leadership and intersectionality

Tobacco Control

Epidemiology of Tobacco use, Tobacco- Health and Socio-economic impact, NCD Tobacco – risk factor approach, Second hand smoking, Global response to tobacco control, Framework convention on tobacco control, MPOWER, COTPA

National Tobacco Control Program, Monitor Tobacco use, Tobacco caseation, Role of Public Health professional in tobacco caseation, Role of Civil Society, BCC and community participation in Tobacco control

Multi-sectoral approach in tobacco control, Economics of tobacco control, Tobacco industry interference, End-game strategy of Tobacco control

Suggested Readings:

- *Evidence based Health Promotion. Willey Publishers*
- *The Health Belief Model and Personal Health Behavior, Marshal H. Becker*
- *Essentials of Public Health Communication, Jones and Bartlett publishers*
- *Building Blocks of Tobacco Control, a Handbook. World Health Organization*
- *Operations Research and Health Care: A hand book of Methods and Application*

Advanced Epidemiology

Directed acyclic graphs and conceptual framework, Confounding bias and methods to reduce confounding, Selection bias, Information bias, Interaction, effect modifiers, strategy to address confounding, MH ratio, Stratification and adjustment, Measures of validity and reliability, Nested study designs, Advanced designs in clinical trial, Systematic reviews and meta-analysis, Sensitivity analysis, publication bias, Communicating results of epidemiological studies,

Epidemiology and management of Vector Borne Diseases, Health measures following disasters, Various public data sources: CRS, SRS, Census, NFHS, DLHS, HMIS, MCTS, etc, Use of epidemiology to evaluate health services, Epidemiological approach to evaluate screening programs, Epidemiology and public policy

Advanced Biostatistics

Introduction to regression, Logistic regression, Odds and adjusted Odds computation in regression, Maximum likelihood techniques and its statistical inference, Modelling strategy, Binary and Multivariate logistic regression, Assessing goodness of fit, Ordinal logistic regression, Logistic regression for co-related data, GEE, Linear regression, GLM, R square, Variation inflation factor, Computational program for regression, ROC, multilevel modelling, Time series analysis, Data imputation

Introduction to Survival analysis, Kaplan–Meier Survival Curves and the Log–Rank Test, The Cox Proportional Hazards Model and Its Characteristics, Stratified Cox Procedure, Extension of the Cox Proportional Hazards Model for Time-Dependent Variables, Recurrent Event Survival Analysis, Parametric survival model

Survey design and Method

Overview of survey research, Pre survey formative research, Sampling and sample size calculations for large surveys- NFHS, DLHS, Ethical issues in surveys, Survey design- design effect, Sample surveys, Tool development- structuring and designing the questionnaire

Conduct of Survey, identify appropriate research designs for a range of questions in health, Describe the steps involved in planning and conducting a research project, mode of survey, Quality control and assurance in surveys, Address to non-response

Survey data analysis, Sampling weight consideration, design weight, post stratification weight and non-response weight, Weighted and non-weighted analysis, Interpretation of survey results Evaluate the strengths and weaknesses of various data collection methods

Survey methods in National Family Health Survey, District Level Household Survey, Census, Global Adult Tobacco Survey, MICS, Sample registration Survey, Immunization Coverage Survey, National Sample Survey Organization Rounds of Survey

Disease related Epidemiology

Infectious disease epidemiology: Introduction to basic principles of infectious disease epidemiology, Disease transmission, contact and air, vehicle-borne transmission, Nosocomial infections, Hospital infection control

Vaccine: Development, evaluation and immunization, Emerging and re-emerging infection; Tuberculosis, Hepatitis, Diarrhea, Sepsis, Influenza, Bird flu, Swine flu, SARS, COVID-19- epidemiology, host, agent, environment and prevention

Current Issues and Challenges in Chronic Disease and its Control, Epidemiology of Lifestyle related diseases, Hypertension, Chronic Obstructive Pulmonary Disease, Asthma, Obesity, Diabetes, Musculo-skeletal disorders, Blindness, Snake bite, Injury, Mental Health problem

Suggested Readings:

- *Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur*
- *Epidemiology Beyond Basics. Szklo and Neito. Jones and Bartlett Publishers*
- *David Celentano and Moyses Szklo. Gordis Epidemiology. 6th edition, Elsevier*
- *Sampling of Populations: Methods and Application. Wiley series in Survey methodology*
- *Statistics for Biology and Health. Kleinbaum and Klein. Springer*

Public Health Entomology

(8 credits)

Introduction to arthropods of public health importance- Mosquitoes, sand flies, fleas, bugs and lice, Ticks and mites, Vector ecology

Morphology and taxonomy of vectors, Classification of arthropods, Collection and preservation techniques and Bio diversity

Vector borne parasites and pathogens of public health importance- malaria, lymphatic filariasis, arboviral pathogens, Applications of molecular biology, immunology and bio-informatics in Public Health importance,

Pesticide used in public health- pesticide application equipment, Pesticide regulation, insecticides and regulations, insecticide resistance, Environment and Entomology

Public Health Microbiology

(8 credits)

The scope of Public Health Microbiology, Public health virology, Micro-organisms in Health and disease, Biology of Infection and fundamental microbiology, Vulnerability to Infections: host immune response, Nutrition and infection

Role of environment in Infection (air, water, food and vector), Microbiological hazards, Bioterrorism, Molecular biology techniques of public health importance, Quantitative Microbial Risk Assessment, Nosocomial infection, Role of sanitation, WaSH practice, Disinfection

Air borne infections: air and its composition – indoor air – outdoor air – air borne diseases (bacterial, fungal and viral) – methods of enumeration of microorganisms in air – air sanitation.

Water borne infections: kinds of water – water borne diseases (viral, bacterial, protozoan) – methods of enumeration of microorganisms in water – indicator organism – water treatment, control of water borne diseases

Integrated Vector Management

(8 credits)

Introduction to vector control- aim, objectives, goal, principles, importance and advantages, Vector control for individual and community, selection of appropriate vector control methods, Control of mosquito, sand flies, bed bugs and cockroaches

Principles of Integrated vector management (IVM), Success stories- case studies, Key elements of IVM-Role of vector control in prevention of vector borne diseases, planning of IVM, Need assessment, Implementation plan

Response to vector borne diseases in an eco-system framework, water management, eco-epidemiological approach, evidence based integration of vector control options, intersectoral collaboration and partnership, public health acts in IVM strategy, advocacy and social mobilization for IVM

Remote Sensing and GIS

(8 credits)

Introduction to GIS in Epidemiology and public health context, Planning for a GIS system installation, GIS Data sources for Epidemiology and public health, Public health and epidemiology GIS Database creation, Data Types and Data Sources in Epidemiology and public health, Working with GIS Data, Working with data from different sources (databases, shape files

and spreadsheets), Facilitated Practical exercises in working with GIS Data Styling and symbolization

Mapping Project activities, GIS mapping of priority public health problems (Malaria, Dengue and other vector borne diseases), GIS mapping of most at risk populations (MARPS), GIS Mapping of health facilities and health resources.

GIS in Environmental management and Public health (case studies or practical), Participatory GIS in public health, Use of mobile GIS in health surveillance and assessments, Integrating GIS into Electronic Medical Records (case studies or practical), Remote sensing data. Satellite image correction

Suggested Readings:

- *Anantkrishnan TN. Bioresources Ecology. Oxford and IBH Publishing co.*
- *Gullan P.J. The Insect- An outline of Entomology. Blackwell publishing ltd*
- *Guideline of Integrated Vector Management. World Health Organization*
- *Principles of Public Health Microbiology. Burlage. Jones and Bartlett Publishers*
- *Spatial Analysis, GIS and Remote Sensing: Applications in the Health Sciences. CRC*

Tribal Health

(8 credits)

UNIT 1: Health Scenario of Tribal people, Health culture in tribal area, pattern of health problems among tribal, Disease burden factors affecting health care access and, Health system in tribal area, Tribal health seeking behaviour,

UNIT 2: Reproductive Practice, Maternal and child care practice among tribal, Case Studies- Best practices, Tribal mental Health, Tribal community health assessment, Traditional practices in tribes, Health issues-accessibility, mortality & morbidity, reproductive health, Tribal sickle cell anemia. Superstitions, addiction, isolation

UNIT 3: Health indicators in tribal area, Health initiatives in tribal area, impact of the globalization, modernization, and industrialization in the life of the tribal communities, ethno-medicinal practices

UNIT 4: Tribal policies, planning & programmes (Ist to 12th Plan) through five years plan Commission & committees on tribal Development: Dhebur Commission, Virginius Committee. National Tribal Development Policy, Tribal health action plan, Tribal health in NHM

Tribal Health & Nutrition

(8 credit)

UNIT 1: Nutrition status of Tribal people, Food culture and practices in tribal area, Burden & pattern of nutritional problems among tribal, Malnutrition among tribal children, factors affecting nutrition, Tribal health seeking behaviour for nutritional problem

UNIT 2: Indigenous food of tribal and nutritive values, Food diversity, Food adulteration in Tribal foods, Nutritional disorders in tribal, Case Studies-Best practices, Tribal community Nutritional assessment, Traditional practices in tribes,

UNIT 3: Food and Nutrition Insecurity- causes and consequences among tribal in India, Breast feeding Practice in tribal, PDS in tribal area, Policy and programmes for Nutrition of Tribals, ICDS in tribal area, ITDA

PVTG

(8 Credit)

UNIT 1: About Particularly Vulnerable Tribal Groups (PVTGs); The need for identification; Criteria followed for determination of PVTGs; Characteristics of PVTGs; Social conditions and declining population; Livelihood strategies and their sustainability: occupation, source of income, cultivated land & average size of landholding; Lifestyle and language, Traditional skills of PVTGs, Tribal Identity in a Modern World

UNIT 2: Establishment of Micro Project Areas; Demographic profile of PVTGs: distribution, population, sex ratio, households, literacy rate; Geographical distribution of PVTGs; Development indices: HDI, GDI; Life expectancy; Socio-Economic aspect of PVTGs; Poverty status of PVTGs PVTGs Culture in Odisha: Religion; belief and practices

UNIT 3: Overview of health status of PVTGs; Disease profile of PVTGs; Analysing PVTGs health indicators; Underlying determinants for poor health status; Nutritional status; Health infrastructure for PVTGs; Point of contact for ill-health: their health related beliefs and practices; PVTGs health gap. Socio-economic Issues and Concern: Socio-Cultural Issues; Social Issues: Protective Discrimination; Problems of Educating among PVTGs; Economical Issues: Livelihood Pattern; Shifting-Cultivation; Forest Rights and Unemployment; Alienation; Indebtedness and Migration

UNIT 4: PVTGs Development: An Overview; Historical Perspectives of policies; Constitutional Provisions and Acts; Priorities for the development during 11th Plan, Education and Training; Strategies for PVTGs Development-Schemes and Programmes; NGOs working in PVTGs Areas

and their Field of Activities. PVTGs Children and their Childhood; Changing Status of Women in PVTGs Society; Aged in PVTGs

Health Care of Urban Poor

(8 credits)

Unit 1: Slums- types, urbanization, Health Scenario of Urban poor, Health culture in urban area, Burden and pattern of health problems among urban poor, Disease burden factors affecting health care access and, Health system in Urban area, health seeking behaviour among urban poor

Unit 2: Maternal and child care practice among urban poor, Case Studies-Best practices, Community health assessment, Health issues-accessibility, mortality & morbidity, reproductive health, addiction, isolation, migration

Unit 3: Health indicators in urban area, Health initiatives for urban poor, impact of urbanization and industrialization in the life of the urban poor communities, ethno-medicinal practices

Unit 4: Policies, planning & programmes through five years plan Commission & committees for Urban poor: Best case practice, National Health mission (Urban)

Suggested Readings:

- *Tribal Health and Nutrition, SN Chaudhary*
- *Tribal Health and Medicines, Kalla & Joshi*
- *Nutrition and Health Among Tribal Populations of India: A Bio Cultural Approach. Nitish Mondal & Jayadeep Singh*
- *Tribal Health in India: Bridging the gap and A road map to the future, Ministry of Health & Family Welfare & Ministry of Tribal Affairs, GoI*
- *Tribal Action Plan Guidelines 2011*
- *The Particularly Vulnerable Tribal Groups in India: Privileges and Predicaments*
- *Urbanisation, Urban Poverty and Slums in India.*
- *Slums in India, H Tabassum*

Fourth Semester: Dissertation (48 Credit)

A dissertation is compulsory for the students of Master of Public Health to provide the students an opportunity to plan and design a study, prepare research tools, collect, analyse the data and write up the research under the guidance of a faculty in the fourth semester. It carries 48 Credits as per follows:

1. Design of the Study – 8Credit

2. Tool Development –8 Credit

3. Data collection and field work – 8 Credit

4. Data analysis and Interim presentation – 8 Credit

5. Final Write up – 8 Credit

6. Dissertation defence – 8 Credit

The dissertation should be prepared according to the guidance given in **Annexure-II**

Ethical Clearance of the research proposal

The student research proposal must be cleared by ethical Review Committee of the Institute/University/College

Evaluation of Dissertation

The dissertation should be evaluated by two external examiners. The average grade given by the two examiners shall be taken as the final grade of the dissertation.

Re-evaluation of dissertation

In case of failure in dissertation, the comments of the external examiners should be incorporated in consultation with the guide and the dissertation resubmitted within a period of 6 months after the declaration of the result along with the required fees.