

**School of Medical Sciences  
University of Hyderabad**



**In Collaboration with**

**Indian Institute of Public Health – Hyderabad  
Public Health Foundation of India**



**Master of Public Health (MPH) Programme  
Course Curriculum, Syllabus & Schedule  
4 Semesters**

## **MPH COURSE CONTENT & SYLLABUS**

**JULY – NOVEMBER**

### **SCHOOL OF MEDICAL SCIENCES**

**1. INTRODUCTION TO PUBLIC HEALTH - Coursecode PU - 401**  
**Course Instructors – Dr. C T Anitha**

**4 credits – 40 hours of teaching (28 hours of teaching and 12 hours of learning activities)**

#### **Objectives**

- Introduce students to the broad concepts of public health
- Provide an in-depth understanding of various frameworks on social determinants of health and inter linkages between health and development at local, national and global levels and be able to apply that in health program planning.

#### **Unit I Introduction to Public Health**

1. Definition of Public Health and Associated Terms
2. Current Concerns in Public Health : Global and Local
3. Group work and students presentation on current public health challenges from their shared experiences or regions

#### **Unit II History and Evolution of Public Health**

1. Core functions and scope of public health.
2. History of public health and evolution of Public Health

#### **Unit III. Health, Disease, Ethics and Determinants**

1. Concept of health and disease,
2. Natural history of disease,
3. Levels of prevention
4. Concept of health and disease
5. Natural history of disease
6. Determinants of health
7. Infectious Disease and Germ Theory
8. Introduction to public health ethics
9. Globalization and Health
10. Governance in Health
11. Pharmaceuticals and Health
12. International Health Regulations
13. Introduction to Research Proposal Writing
14. Qualities of a good research proposal
15. Grant writing elements

#### **Unit IV. Overview of health systems**

1. Indian Health Systems
2. Systems thinking in public health
3. Case study on health systems units and key functions

**Essential Readings:**

Park's Textbook of Preventive and Social Medicine

Mary-Jane Schneider, Introduction to Public Health, 2nd Ed... Jones and Bartlett, 2006.

Essentials of Public Health - BJ Turnock. Jones & Bartlett, 2007

Oxford Textbook of Public Health, 4th edn

Maxcy's Textbook of Public Health.

**2. HEALTH POLICY AND DELIVERY SYSTEM – Course code PU 402 Course Instructors – Dr. B.R.Shamanna. 4 credits – 40 hours of teaching (28 hours of teaching and 12 hours of learning activities)**

***Objectives***

Introduce students to different types of health systems existing in the world, their merits and demerits

Familiarize students with concepts relating to health systems such as coverage, financing, quality of care, regulation, insurance etc

Impart a general understanding of the logic and process of public policy-making in health

To enable students to undertake preliminary analysis of health policy issues and decisions based on this understanding

Introduce students to some analytical tools used in policy studies.

Enable students to understand the role of consultancy in the policy process, with emphasis on the value of communication skills.

**Unit I. Health Policy and Health Systems**

1. Introducing Health Policy
2. Health superstructure key institutions
3. Health Services overview
4. Globalization and Health
5. Contemporary themes in National Health
6. Governance in Health

**Unit II. Policy making**

1. Foundations of health policy making
2. Theories of policy process
3. Equity, Access and Quality
4. Health Financing
5. Policy Analysis
6. Policy Brief
7. Writing a Policy Brief

**Unit III. Health Systems**

1. Comparative Health Systems
2. National Health Policy and Programmes
3. Human Resources in Health
4. Private Sector and Health
5. Regulating Pvt Health Sector
6. Health Sector Reform
7. Public-Pvt Partnerships / Civil Society and Health
8. Pharmaceuticals and Health
9. Primary Health
10. International health agreements
11. International health actors and processes

### 3. EPIDEMIOLOGY 1 – Course code – PU 405

Name of Module: Epidemiology - I Course Convenor – Dr. A. Raghupathy, IIPHH

Semester I, includes 40 hours of teaching - four credits

#### I. Course overview:

This course introduces the student to the principles and basic methods of modern epidemiology. Epidemiology is defined as the study distribution and determinants of health related states and events in defined populations and the application of this to study to solving public health problems. Presentation of epidemiologic data and basic measures of disease frequency are covered. Descriptive, analytical and interventional study designs are discussed in context to the health system with their corresponding analysis techniques. The concept of risk and its associated measures is also covered. It also covers the estimation and interpretation of odds ratio, attributable risk and their confidence intervals.

#### II. Learning Objectives

Upon completion of this course, students will be able to:

- To have a clear understanding of the definition and uses of epidemiology and appreciate its role in public health
- To be able to identify the key sources of data and have the ability to draw appropriate inferences from them.
- To understand the concept and practical application of various measures such as: measures of disease frequency (prevalence and incidence), measures of effect (e.g. rate/risk ratios and rate/risk differences), and measures of public health impact (e.g. population attributable risk / fraction)
- To know the various types of epidemiological study designs and, understand their basic principles and the main analytic methods used in each specific design
- To understand the concepts of epidemics, endemics and pandemics with a knowledge of data collecting techniques and analysis to be performed.
- Ascertain causality between an exposure and an outcome

#### III. Syllabus

Lectures	Lecture Topic	Learning Objectives	Activity
1-3	History and evolution of epidemiologic methods  Definitions, Basic concepts and applications	<ul style="list-style-type: none"> <li>• Describe historical roots of epidemiologic thinking and their contribution to the evolution of the scientific method.</li> <li>• Describe the concepts and application of epidemiology in public health</li> <li>• Describe the importance of safeguarding the population's interest</li> </ul>	Lecture – Readings
4-5	Sources of data Types of data collection methods	<ul style="list-style-type: none"> <li>• Describe various sources of data</li> <li>• Determine various types of data</li> </ul>	Lecture & Presentation,

MPH Curriculum, Syllabus & Schedule – Semester 1, 2, 3 & 4

5-8	Measurement of disease frequency Person-time exposure	<ul style="list-style-type: none"> <li>Describe the different types of descriptive epidemiologic studies</li> <li>Describe the differences between descriptive and analytic studies</li> <li>List two uses of descriptive studies</li> <li>Develop a case definition</li> </ul>	Lecture, Exercise
9-12	Measures of association and impact OR, RR, AR and PAR Preventable and prevented fractions	<ul style="list-style-type: none"> <li>Use rates and proportions to numerically express the amount and distribution of health and non health related outcomes.</li> </ul>	Lecture Group work Exercises
13-14	Natural history of a disease and its application in disease control Levels of prevention and modes of intervention		Lecture Lecture
15-16	Formulation and Importance of a case definition Development of a case definition over time		Lecture & Collaborative learning-
17-22	Methods of data collection – reliability and validity Sensitivity, specificity and predictive values		Lectures- Assignments Hands on Exercise
22-28	Epidemiological study designs Overview of study designs Descriptive studies Ecological studies		Group discussion ,Participants Assignments , Report writing Article review
29-30	Case control		Lectures
31-32	Cohort		Lectures
33-34	Randomized control trials	Objectives for Randomized control trials: 1. Understand the design features of randomized controlled clinical trials. 2. Understand strengths and limitations of a randomized clinical trial. 3. Understand the use of random allocation and blinding in RCTs. 4. Be able to identify the most suitable study design to use to investigate a given exposure/disease relationship.	Lectures Case studies Assignment

35-36	Systematic review and meta-analysis – Hybrid designs in epidemiology –  Community based epidemiologic studies -	1. Understand the design features of case-control and case-crossover studies. 2. Understand strengths and limitations of case-control and case-crossover studies. 3. Recognize potential biases from case-control and case-crossover studies. 4. Recognize the difficulty in selecting an appropriate control group in case-control	Lectures discussion
37-38	Causation and association	Hills Criterion	
39-40	Revision classes on incidence, prevalence, OR, RR, AR, sensitivity, specificity	Exercises	

#### IV. Course grading scheme - Internal Evaluation

ACTIVITIES	MARKS
Assignment one* on measures of frequency and association	20
Assignment two* on study designs and reliability and validity	20
Assignment three* on causation	20
End of semester exam	60
Total	100

**\*Best of two assignments will be taken for final marks**

#### V. Reading Material

1. Leon Gordis – Epidemiology. 4<sup>th</sup> Edition. Saunders
2. Rothman KJ. (1998). Modern epidemiology. Little Brown and Company, Boston/Toronto

**4. MEDICAL ANTHROPOLOGY – Course code – PU 404**

**Semester: 01**

**Credits: 04**

**Course Instructor: BV SHARMA**

***Broad Course Objectives***

This course is essentially to expose the students to the socio-cultural dimensions of health, disease and health care. The students are expected to learn the contribution of Anthropology to the understanding of disease patterns, Medical systems in folk and complex societies; Health seeking and illness behavior, sick role and therapy management, Medical pluralism and health choices and to the examination of acceptance and rejection of health innovations. The course is designed to gain some insights into the concepts and theoretical perspectives - specifically on a) Socio-cultural perspectives, b. Bio-cultural perspective c. Applied and “Clinical Anthropology” perspective; d. Cultural mediation in the Bio-cultural perspective, e) Comparative health systems and medical care - in Medical Anthropology.

**Students of Public Health need to attend some introductory lectures on the following before commencement of classes on the medical anthropology related topics specified in Units 01 to 05 below.**

Nature and scope of Anthropology; Concepts of Group, Community, Society, Culture, and Social Institution; Social norms, values, social sanctions; Social status and role; Ethnocentrism and cultural relativism

An outline of theories of Culture and Society – Evolutionism; Diffusionism; functionalism; Structure-functionalism; Structuralism, Symbolism; Post modernism

**UNIT 01**

***a) Medical Anthropology: Definition and major areas of study; Goals and basic premises; Anthropology in Medicine and Anthropology of Medicine; Clinical Anthropology and Applied Medical Anthropology; Medical Anthropology and Medical Sociology; Emergence of medical anthropology as a distinct sub-discipline and the current status of the discipline.***

**Leiban R W (1974):** Medical Anthropology In Hand Book of Social and Cultural Anthropology (Ed) Honnigman; Chicago, Rand McNally & Co (pages 1031 -1071)

**Brown J Peter, Ronald L. Barret, Mark B Padilla ( 1998)** Medical Anthropology: An Understanding to the Fields; In Understanding and Applying Medical Anthropology (Ed) Brown J Peter; California, Mayfield Publishing Company.

**Foster M George & Anderson B G (1977):** Medical Anthropology, New York, John Wiley & Sons

**Suggested additional readings:**

**Fabrega H (1972):** Medical Anthropology, Biennial Review of Anthropology; 167 – 229

**Mores Micozzi (1985):** Introduction to Medical Anthropology and Anthropology of medicine: Patient care and Public health; Human Organization, Vol. 44, No. 1, PP 63 -82



**Janzen M. John (2002):** The Social Fabric of Health: An Introduction to Medical Anthropology, New York, McGraw Hill (Pages 1-42)

***b) Medical Anthropology: Central Concepts and major Theoretical Frame works***

**Janzen M. John (2002):** The Social Fabric of Health: An Introduction to Medical Anthropology, New York, McGraw Hill

**Johnson T.M & Sargent FG (Ed)( 1990):** Medical Anthropology: A Hand Book of Theory and Method; New York, Green wood Press

**Suggested additional readings:**

**Good J. Byron (1994):** Medicine, rationality and experience: An anthropological perspective, Cambridge, Cambridge University Press.

**Colson . A and KE Selby (1974):** Medical Anthropology, Annual Review of Anthropology, 3; 245 – 262

**Allen Young (1982)**The Anthropologies of Illness and Sickness, Annual Review of Anthropology, 11

**UNIT 02**

***a) Ecology, Culture, Human Behaviour and Disease occurrence; Human evolution and disease patterns; Diseases and human adaptations; health transition and diseases of civilization***

**Dubos Rene(1977):** Determinants of Health and Disease In Culture, Disease and Healing (Ed), David Landy, New York, Mac Millan Pub.

**Hahn A.Robert (1995):** Sickness and Healing: An Anthropological Perspective; London, Yale University (Pages 99-131)

**Stanley MF et al (Ed) (1980):** Changing Disease Patterns and Human Behaviour, London, Academic Press

**Suggested additional readings:**

**Baer A Hans et al (2000):** Medical Anthropology and the World systems; PP 57 -82

**ChaudhariBudhadeb (Ed) (1990):** Culture and Environmental Dimensions on Health, New Delhi, Inter India Publications

**Logan H M et al (1978):** Health and Human Condition: Perspectives on Medical Anthropology; Massachusetts, Durabury Press

**Brown J P et al (Ed) (1994):** Symposium Papers: Agrarian Transformations and Health: Human Organization, Volume 53, No. 4, PP: 345 – 386)

**b) *Epidemiology and Medical Anthropology – Need for collaboration.***

**Janes RC Craig et al (Ed.) (1986):** Anthropology and Epidemiology: Interdisciplinary Approaches to the Study of Health and Disease, Boston, D. Reidel Publishing Company

**Trostle A James and Johannes Sommerfield (1996):** Medical Anthropology and Epidemiology, Annual Review of Anthropology 25, PP 253 – 74

**UNIT 03**

**a) *Ethnomedicine: Disease aetiology, disease classification, diagnosis and healing in folk societies; Culture bound syndromes***

**b) *Traditional Medicine in Asia with specific reference to AYUSH in India – Basic premises; status and organization; Choice of traditional medicine***

**Johnson T.M & Sargent FG (Ed) (1990):** Medical Anthropology: A Hand Book of Theory and Method; New York, Green wood Press

**Foster M George & Anderson B G (1978):** Medical Anthropology, New York, John Wiley & Sons; PP51 -79

**Leslie Charles C (1976):** Asian Medical Systems, Berkeley, University of California Press

**Suggested additional readings:**

**Banarjee B G and Ritual J(1988):** Folk Illness and Ethno medicine, New Delhi, Northern Book Centre

**Loudon JB (Ed) (1976):** Social Anthropology and Medicine, London, Academic Press.

**Joshi PC & Anil Mahajan (Ed) (1990):** Medical Anthropology, New Delhi, Reliance Publishing House.

**SalilBasu (Ed) (1994):** Tribal Health in India, Delhi, Manak Publications

**UNIT 04**

**a) *Cultural Context of Health and Illness behavior: Health behavior and illness behavior; Definitions/perceptions of health; Disease, illness and sickness; Response to pain and illness; Concept of sick role; models of illness behavior; Therapy management and Therapy management group; significance of social support and social networks during illness***

**David Mechanic (1978):** Medical Sociology, New York, Free Press PP 249 – 286

**Rodney M Coe (1978):** Sociology of Medicine, New York, Mac Graw Hill Book Comp, PP 95 – 114

**Denton (1978):** Medical Sociology, Houston, Moffillin Company PP 73 -85

**Igun U A(1979):** Stages in Health Seeking: A Descriptive Model, Social Sciences and Medicine Vol 13

***b) Medical Pluralism, Utilization of medical services; Folk societies and Determinants of utilization of Modern medical services; Globalization and health care***

**Logan H M et al (1978):** Health and Human Condition: Perspectives on Medical Anthropology; Massachusetts, Durabury Press

**Foster M George & Anderson B G (1978):** Medical Anthropology, New York, John Wiley & Sons

**Leslie C (Ed) (1980):** Medical Pluralism in World Perspective, Social Sciences and Medicine, Vol 14 B 191

**Benyoussef A et al (1974):** Utilization of health services in developing countries; Social Sciences and Medicine Vol 8

**UNIT 05**

***a) Factors influencing health programmes and problems of health change***

**Foster GM (1984):** Anthropological Research Perspectives on Health Problems in Developing Countries, Social Sciences and Medicine, Vol 18

**Foster GM (1962):** Traditional Societies and Technological Change, Bombay, Allied Publishers

**Suchman A Edward( 1967):** A model for research on community Health Complaints; In Preventive Health Behaviour, Suchman AE, Pittsburgh, University of Pittsburgh

**Foster GM (1982):** Applied Anthropology and International Health: Retrospect and Prospect; Human Organization, Vol 41, No 3 PP 189 – 198

**Nichter Mark (1996):** Anthropology and International Health: South Asian Case Studies ( Culture, Illness and Healing), London, Rutledge

**Hahn, Robert A & Marcia Inborn (2009):** Anthropology and Public health (Bridging differences in Culture and Society), Oxford, Oxford university press.

**SCHOOL OF MANAGEMENT STUDIES (SMS)**

**UNIVERSITY OF HYDERABAD**

**I SEMESTER**

**Course: Quantitative Methods/ Bio-Statistics – Course code – PU403 - 3 + 1 - DM credits**

**Program (s): MBA (15<sup>th</sup> Batch), MBA (HC & HM), MPH, Ph.D. and others**

**Instructor: Prof. B. Raja Shekhar/Dr.G.V.R.K. Acharyulu**

**Venue: Conference Hall, SMS**

**Timings: As per time table**

**Objectives of the Course:**

In the current scenario the managers are having large amount of information and data pool available with them. But to make adequate decisions relying upon these data sets is creating hurdles in their overall development as Business Managers. With regards to this the “Quantitative Methods” course outline will help them in making quality decisions and thereby minimizing their risk factors. The course is designed to enable students to think and act rationally by using statistical applications and reasoning in their business world. *Subject specific knowledge and skills:* on completing the course you will be able to: (a) use statistical techniques in business decision making, (b) develop skills in structuring and analyzing business problems statistically and (c) Formulate answers to common business decision problems through statistical analysis.

<b>Topic</b>
Introduction to QM
Data Collection, Editing, and Classification
Data Processing and Presentation
Diagrammatic and Graphical representation of data
Introduction to Measures of Central Tendency and Dispersion
Measures of Central Tendency: Ungrouped data
Measures of Central Tendency: Grouped data
Measures of Central Tendency: problems
Measures of Dispersion: Mean Deviation and Quartile Deviation
Measures of Dispersion: Standard Deviation
Measures of Dispersion: Skewness

Measures of Dispersion: Kurtosis and Moments
Introduction to Probability
Additive and Multiplicative laws of Probability
Baye's Theorem
Binomial Distributions
Poisson Distributions
Normal Distribution
Normal Distribution
<b>I Internal Test</b>
Introduction to Correlation analysis
Product Moment Correlation
Rank and Bi-Variate Correlation
Introduction to Regression
Linear Regression
Introduction to Time Series
Trend Analysis
Forecasting
Introduction to Sampling
Sampling Distributions
Estimation
<b>II Internal Test</b>
Introduction to Testing of Hypothesis
Steps in Hypothesis testing
Testing of Hypothesis: Large samples
Testing of Hypothesis: Small samples
Hypothesis testing: Independent Means
Hypothesis testing: Proportions

Hypothesis testing: Differences
Analysis of Variance: One way
Analysis of Variance: Two way
Introduction to Non- Parametric tests
Chi-Square Test
Sign test
Mann-Whitney U test and Kolmogorov-Smirnov test
<b>III Internal Test</b>

### Suggested Readings

1. Richard I. Levin & David S. Rubin, Statistics for Management, PHI.1999, New Delhi.
2. Kishor S. Trivedi, Probability and Statistics with Reliability, Queuing and Computer Science Applications, John Wiley & Sons, Singapore, 2002.
3. John E. Freund & Ronald E. Walpole, Mathematical statistics, PH, New Jersey, 1980.
4. E.L. Lehmann, Testing Statistical Hypotheses, John Wiley & Sons, New York, 1986.
5. S.P. Gupta, Statistical Methods, Sultan Chand & Sons, New Delhi 1998.
6. Sundar Rao P.S.S, Richard J, Introduction to Biostatistics – A manual for students in Health Sciences, PHI Learning Pvt. Ltd. 1996, New Delhi.
7. Susan Milton, Statistical METHODS IN THE Biological and Health Sciences, 1999, McGraw-Hill
8. B. Burt Gerstman, Basic Biostatistics: Statistics for Public Health Practice, Jones & Bartlett Learning, 2008.
9. Wayne W. Daniel, John Wiley, Biostatistics: A Foundation for analysis in the Health Sciences, New York.

**Assessment:** Assessment is based on class participation, internal and end term examinations. The assignments at the end of each session (non-graded), internal and end term examinations on application of quantitative methods. The nature of examinations and class participations weightage are as follows:

**Internal Examinations:** 30% (Average of the best two of the three Tests)

**Attendance & In-Class Contribution:** 10%


**Final Examination:** 60%

**DATA MANAGEMENT – 1 credit – Course Instructor – Invited faculty**

1. Different spreadsheet formats-MS Excel, MS Access, Epi-Info, STATA, R
2. Creating forms
3. Entering data-coding and labelling
4. Flat files and relational databases
5. Creating Quality checks
6. Creating new variables
7. Documentation
8. Data dictionaries
9. Creating and managing Project Workspaces

**READING**

1. Biostatistical analysis-Jerrold H. Zar. 2010 Prentice hall
2. McCullagh, P. and Nelder, J. A. (1989). Generalized Linear Models. New York: Chapman & Hall.

	<b>UNIVERSITY OF HYDERABAD</b> School/ Department/ Centre  <b>School of Medical Sciences</b>	
Course : MPH- PU  Semester: II	Duration: January-April Course Instructor: Dr.Ajitha Katta	
Course Number: PU 452 Core/ Optional : Core No. of Credits : 4 (Four) Lectures: 2 sessions /week (2 hour/session)	Title of the Course: <b>Quantitative Research Methodology and Data                  Management</b>	

**Aim:** To combat the skills deficit in quantitative research methods across the social determinants of health research base. This course will also provide the capacity to plan, conduct, analyze, interpret and apply quantitative research methods across the public health spectrum

#### Unit I

- Research – Building blocks
- Research – Fundamental characteristics of good research
- Developing a research question and problem statement
- Ethical Issues, Research Process / plan your research.

#### Unit II

- Literature review
- Data variables and sources and surveys
- Developing SMART objectives

#### Unit III

- Methods
- Study Designs
- Sample Size
- Sampling
- Data Collection Tools


#### Unit IV

- Exploratory Data analysis (EDA)
- Inferential Statistics
- Report Writing

#### Unit V

- Data Management
- Update and retrieve Data from data base management system (DBMS)
- Generate reports
- Retrieve data from tables or Views
- Combine data from tables or views
- Create Tables, Views and Indexes



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<p>Course : MPH- PU</p> <p>Semester: II</p>	<p align="right">Duration: January-April</p> <p align="right">Course Instructor: Dr. B.R. Shamanna</p> <p align="right">Phone Number/Email: nppss@uohyd.ernet.in</p>	
<p>Course Number: PU 451</p> <p>Core/ Optional : Core</p> <p>No. of Credits : 4</p> <p>Lectures: 2 sessions /week ( 2 hour/session)</p>	<p align="center">Title of the Course : <b>Sociology of Health, Sickness and Healing</b></p>	


**Aim:** This course aims at providing various perspectives in understanding the relation between medicine, health, and society. This course critically examines some of the basic premises of knowledge production and its location within the socio-political and economic structure of a society. The course will be dealt in two sections. The first section gives an introduction to some of the main assumptions and theoretical perspectives in the sociological study of health while the second section deals with the substantive health research themes relevant to the Indian context.

### Section I

- **Unit 1:** Basic concepts and approaches in sociology of health - Disease and Sickness; Illness as metaphor; Language of Pain and Suffering.
- **Unit 2:** Medicine, Health and Society- Different Perspectives (Functionalist, Marxist, Post-Modernist, Feminist and Subaltern)
- **Unit 3:** Body and Society – The concept of Embodiment; the invention and reinvention of Bodies; Bodies Perceived and Depicted; the Gendered Body.

### Section II

- **Unit 4:** Health Systems in pre and Post Independent India; Public and Private Health Care in India. Health Policy Framework - Specific Disease Programmes (Malaria, TB, Leprosy, AIDS, and Epidemics).
- **Unit 5:** Pharmaceuticals in Third World: Policies, Patents, and Regulations. Clinical Trials in India. Medicines: Prescriptions, Self-Medications and OCTs.
- **Unit 6:** Issues of Equity: Women's Health, Mental Health, Disability. Medical Ethics: Surrogacy, Euthanasia.

	<b>UNIVERSITY OF HYDERABAD</b> School/ Department/ Centre <b>School of Medical Sciences</b>	
Course : MPH- PU Semester: II	Duration: January-April Course Instructor: Dr. A.Raghupathy Phone Number/Email:raghupathy.a@iiph.org	
Course Number: PU 453 Core/ Optional : Core No. of Credits : 4 (Four) Lectures: 2 sessions /week (2 hour/session)	Title of the Course: <b>Advanced Epidemiology</b>	

**Aim:**The Advanced Epidemiology or Epidemiology II course covers the role of chance, bias and confounding in epidemiologic research with the appropriate methods of their minimization. The course also discusses the concept of screening and diseases surveillance, outbreak investigation. Emphasis will be placed on areas of application of epidemiological methods in disease control and field applications of epidemiological methods.

**Unit 1:** Revision of Basic Epidemiology – Run down of Semester 1.

**Unit 2:** Identifying the Roles of Genetic and Environmental Factors in Disease Causation.

**Unit 3:** Using Epidemiology to evaluate health services

**Unit 4:** The Epidemiologic approach to screening programmes.

**Unit 5:** Epidemiology and Public Policy including Ethical and Professional Issues in it.


**Unit 6:** Designing a valid, reliable and responsive questionnaire.

**Unit 7:** Surveillance and Outbreak Investigations.

**Unit 8:** Burden of infectious, chronic and nutritional diseases in India


**Unit 9:** Critical Appraisal of Published articles in Epidemiology

**Unit 10:** Understanding and undertaking systematic reviews – an overview

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Course : MPH- PU  Semester: II	Duration: January-April Course Instructor: Dr. Anitha C.T Phone Number/Email: actmd@uohyd.ernet.in	
Course Number: PU 454 Core/ Optional : Core No. of Credits : 4 Lectures: 2 sessions /week (2 hour/session)	Title of the Course : <b>Work, Environment and Health Ethics</b>	

**Aim:** The goals of environment and occupational safety and health programs include fostering a safe and healthy environment including the internal work environment. This course will endeavor to provide an overview of prevention of incidents or accidents that might result from abnormal operating conditions on the one hand and reduction of adverse effects that result from normal operating conditions on the other hand in the context of our prevailing environment.

- Unit I:** Introduction to the environmental burden of disease in India and Globally
- Unit II:** Estimating Exposure, dose, response and outcome
- Unit III:** Water Pollution
- Unit IV:** Indoor and outdoor Air pollution
- Unit V:** Environmental Impact assessment
- Unit VI:** Environmental legislations in India
- Unit VII:** Environmental Health Economics
- Unit VIII:** Introduction to Occupational Health
- Unit IX:** Occupational health Hazards
- Unit X:** OH & Safety: Identification of hazards, risk assessment and communication
- Unit XI:** Gender, women and work, women and occupational health
- Unit XII:** Occupational health Legislations in India and its real Implementation

	<p align="center"><b>UNIVERSITY OF HYDERABAD</b></p> <p align="center">School/ Department/ Centre</p> <p align="center"><b>School of Medical Sciences</b></p>	
<p>Course : MPH- PU</p> <p>Semester: II</p>	<p align="right">Duration: January-April</p> <p align="right">Course Instructor: Dr.Varalakshmi Manchana</p> <p align="right">Phone Number/Email:mvmd@uohyd.ernet.in</p>	
<p>Course Number: PU 455</p> <p>Core/ Optional : Core</p> <p>No. of Credits : 4 (Four)</p> <p>Lectures: 2 sessions /week (2 hour/session)</p>	<p>Title of the Course: <b>Gender and Health</b></p>	

**Aim:** This is a core course that introduces the concept of gender to enable students to understand how the category of gender and conceptualizations of health, health care and health policy intersect. The course will provide critical insights into feminist perspectives that question the mainstream frameworks of health and health policy. There is a need for integrating gender into all areas and issues of public health.

**Module 1:** Conceptualizing Gender

**Module 2:** Understanding Feminism, Body, Embodiment

**Module 3:** Feminism in India


**Module 4:** Gender and Health

**Module 5:** India: Gender as a Determinant of Health

**Module 6:** Health Policy and Women : Experiences of Population Policy in India

**Module 7:** Gender Perspective in Public Health in India :Examples of Case Studies

**Module 8:** Wrapping Up

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<p>Course : MPH- PU</p> <p>Semester: III</p>	<p align="right">Duration: July - November</p> <p align="right">Course Instructor: Guest Faculty <b>Dr. Anitha C T.</b></p> <p align="right">Phone Number/Email: <a href="mailto:actmd@uohyd.ernet.in">actmd@uohyd.ernet.in</a></p>	
<p>Course Number: PU 501</p> <p>Core/ Optional : Core</p> <p>No. of Credits : 4 (Four)</p> <p>Lectures: 2 sessions /week (2 hour/session)</p>	<p>Title of the Course: <b>Public Health Nutrition</b></p>	

This course aims to provide an appropriate orientation and sufficient training in public health nutrition in an emerging country setting. It provides an integrated program covering life cycle approach to nutrition, epidemiological, public health, social and biological aspects of nutritional science. It will also cover the epidemiological methods of research, community nutrition and new innovations in aspects of nutritional science.

UNIT — I : Concept of different food groups, Recommended Dietary Allowances & Nutrition in pregnancy

UNIT — II: Nutrition in Lactation

UNIT — III: Nutrition in infants & Nutrition in preschool children.

UNIT–IV: Nutrition in school age and Nutrition during adolescence

UNIT – V: Nutrition during adulthood & Nutrition during old age

UNIT VI: Energy- Energy content of foods, Energy

UNIT VII: Macro and Micronutrient metabolism and uses.


UNIT – VIII: Relation of nutrition to development in terms of socio economic, industrial and agricultural development and consequences of malnutrition

UNIT – IX: Meaning, nature and importance of nutrition education to the community.

UNIT X: Assessment of nutritional status

UNIT XII : Nutrition Intervention programmes in India

UNIT- XIII: National organization concerned with food and nutrition

	<b>UNIVERSITY OF HYDERABAD</b> School/ Department/ Centre  <b>School of Medical Sciences</b>	
Course : MPH- PU  Semester: III	Duration: July - November Course Instructor: Dr.B.R.Shamanna/ Dr.RamachandraRao (SE) Phone Number/Email: brsmd@uohyd.ernet.in	
Course Number: PU 502 Core/ Optional : Core No. of Credits : 4 (Four) Lectures: 2 sessions /week (2 hour/session)	Title of the Course: <b>Health Economics</b>	


Health Economics brings together the issues of generating, pooling, purchasing and delivering health services with the aid of the knowledge of economics.

**Module 1: The National and International Health Scene:** Organisation of health care delivery in India. General Issues concerning health care delivery in India. Health indicators of India and some other countries. Correlation with the level of economic development, and with public expenditure on health as a share of total public expenditure. Review of the Indian National Health Policy is made along with a discussion of other feasible alternatives. Interface between health and economics. Nature and scope of health economics, fields of health economics. Special characteristics of health care.

**Module II: Resource Allocation in the Health Sector:** This module deals with resource allocation problems in private and Govt. hospitals and with resource allocation problems facing a private practitioner. General problems of Resource allocations in health care sector. Production function, productivity, efficiency and equity and considerations, all applied to the hospital and physician services are covered. This section also deals with resource allocation between the private and the public provision of health services, between preventive and curative care, between traditional and modern systems and between general and referral (specialised) services.

**Module III: Evaluation of Benefits and Costs of Health Services:** The application of benefit cost analysis to public health and family planning projects; the role of health in economic development; value of output-loss due to no. of sick days; and benefits and costs, both private and social, of training professional manpower such as physicians, dentists, pharmacists, nurses, etc.

**Module IV: Financing of Health Services:** A review of per capita private and public expenditure on health services over time and in different parts of the country. An analysis of the sources of (public) finance for health. The need for a general health insurance due to failure of private health insurance markets. The need for a social health insurance for the poor, disabled and the aged. A comparative analysis of alternative payment systems such as health insurance,

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<p>Course : MPH- PU</p> <p>Semester: III</p>	<p style="text-align: right;">Duration: July - November</p> <p style="text-align: right;">Course Instructor: Ms. M. Varalakshmi</p> <p style="text-align: right;">Phone Number/Email: <a href="mailto:mvmd@uohyd.ernet.in">mvmd@uohyd.ernet.in</a></p>	
<p>Course Number: PU 521</p> <p>Core/ Optional : Track</p> <p>No. of Credits : 8 (Eight)/4 (Elective)</p> <p>Lectures: 2 sessions /week (2 hour/session)</p>	<p>Title of the Course: <b>Public Health Nursing</b></p>	

This Course is to prepare students in developing expertise in the field of Public health Nursing. It will prepare students to acquire advanced skills in various aspects of public health at various health care settings. It will enable the students to function as Public health Nurse practitioner and/or consultant.

**Unit I:** Introduction to Public Health Nursing

**Unit II:** Concepts of Holistic and Family Health

**Unit III:** Information, Education and Communication for health

**Unit IV:** Community Geriatrics

**Unit V:** Practical Visits to cover the above topics


**Unit VI:** Health Concepts and Occupational Health

**Unit VII:** Adolescent Health Services

**Unit VIII:** Concepts of International Health

**Unit IX:** Quality assurance and Management

**Unit X:** Practical activities as Public Health Nurse

	<b>UNIVERSITY OF HYDERABAD</b> School/ Department/ Centre  <b>School of Medical Sciences</b>	
Course : MPH- PU  Semester: III	Duration: July - November Course Instructor: <b>Dr. K.Ajitha</b> Phone Number/Email: <b>kasmd@uohyd.ernet.in</b>	
Course Number: PU 522 Core/ Optional : Elective No. of Credits : 4 (Four) Lectures: 1.5 sessions /week (2 hour/session)	Title of the Course: <b>Public Health Disability</b>	

Disability, in all its forms, has a global prevalence rate of nearly 20%, with the rates in developing countries believed to be vastly underestimated. Finding ways then to develop interventions targeting the disabled and increase services for this population is very important, especially since the disabled face higher levels of poverty. As a result, the interdisciplinary nature of Public Health is well suited to dealing with the needs of the disabled and finding ways of targeting the issues that the disabled face, especially in developing countries.

### **Unit I. Introduction: Disability, Public health and Development**

- What is Disability?
- Disability Facts - Globally and Within India
- Public Health Approaches to Disability- Interdisciplinary Nature of Public Health
- Principles of Planning: Programme Planning Cycle
- Social and Psychological Experience of disability -Types of Stigma, Poverty Disability Cycle, Disability Stigma, etc.

### **Unit II: Defining Disability**

- ICF and Medical Model of Disability
- Social Model of Disability
- Human Rights and Disability- Inclusionment Theory/ UN Convention on the Rights of persons with Disabilities.


### **Unit III: Disability Epidemiology**

- Assessing and Diagnosing Disability
- Disability Surveys, Survey Designs, and Examples of Survey Data
- Disability Statistics and Demographics
- Determinants of Disability and Preventable Disability
- Developing preventative strategies for avoidable disabling conditions in own areas
- Disability Disparities- return discussion of disability and poverty cycle

### **Unit IV: Managing Disability**

- Introduction to the Community Based Rehabilitation Matrix
- Convergence of CBR with public health approach
- Public Resources and Services for the Disabled, Disability Policy
- Public and Private Interaction in providing Disabled Services.



	<b>UNIVERSITY OF HYDERABAD</b> School/ Department/ Centre  <b>School of Medical Sciences</b>	
Course : MPH- PU  Semester: III	Duration: July - November Course Instructor: <b>Dr. B.R. Shamanna</b> Phone Number/Email: <b>brsmd@uohyd.ernet.in</b>	
Course Number: PU 523 Core/ Optional : Elective No. of Credits : 4 (Four) Lectures: 1.5 sessions /week (2 hour/session)	Title of the Course: <b>Monitoring and Evaluation of Health Care Programs</b>	

The course is pitched in a generic way, and would look at Monitoring & Evaluation (M & E) as an integrated component, of any health system, development of capacity among the course attendees and developing frameworks of how to do M & E and lastly ask them to undertake an evaluation.

**Unit 1** - Introduction to M&E. Difference between Monitoring and Evaluation

- Understanding M&E Plans

**Unit 2** - Conceptual and Logical frameworks

- M&E framework – Relation between M&E framework and Logical framework
- Case studies on M&E

**Unit 3** - Developing Objectives and indicators for M&E

- Quantitative and qualitative indicators - Characteristics of indicators
- Linking indicators to Plans

**Unit 4** - Types of data sources for Monitoring and Evaluation

- Collection and quality of data

**Unit 5** - The how to do an evaluation

- The Evaluation Question
- The Terms of Reference
- The aftermath of an evaluation.

**Unit 6** - Reviewing evaluations


- Developing an own plan

**Unit 7** - The nuts and bolts of a Health Management Information System

- Health Management Information Systems and its use in monitoring
- Existing HMIS systems in India
- HMIS system under National Rural Health Mission (NRHM)

**Unit 8** - Use of computers in HMIS

- HMIS architecture
- e-Surveillance
- Informatics System Evaluation/ Socio Technical issues

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<p>Course : MPH- PU</p> <p>Semester: III</p>	<p align="right">Duration: July - November</p> <p align="right">Course Instructor: <b>Dr. Nandakishore Kannuri, IIPHH</b></p> <p align="right">Phone Number/Email: <b>nandu.k@iiph.org</b></p>	
<p>Course Number: PU 524</p> <p>Core/ Optional : Elective</p> <p>No. of Credits : 4 (Four)</p> <p>Lectures: 1.5 sessions /week (2 hour/session)</p>	<p>Title of the Course:</p> <p><b>Health Policy and Systems Research</b></p>	

This course introduces how health policy is shaped and health systems function through the types of research undertaken in this domain. Further, to expand on the role health system research plays in evidence informed policy-making and implementation. HPSR is concerned with improving health of community by enhancing the efficiency and effectiveness of the health system as an integral part of the overall process of socio-economic development with involvement of all the partners.


The module equips the students with the necessary skills to understand the health problem s cenario and devise appropriately focused strategies. This module also gives students a holistic overview of conducting a research study and brings together concepts and methods of research taught in social and behavioural sciences.

**Unit 1:** The health policy framework: context, content, process and actors;

**Unit 2:** The WHO framework for analysing health systems;

**Unit 3:** Policy – process and power;

**Unit 4:** Health system and policy research and evaluation: research and evaluation designs, qualitative methods, synthesising and communicating research evidence

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<p>Course : MPH- PU</p> <p>Semester: III</p>	<p align="right">Duration: July - November</p> <p align="center">Course Instructor: <b>Dr. G.V.R.K. Acharyulu/Guest Faculty</b></p> <p align="right">Phone Number/Email:23135010</p>	
<p>Course Number: PU 525</p> <p>Core/ Optional : Elective</p> <p>No. of Credits : 3 + 1 (Four)</p> <p>Lectures: 1.5 sessions /week (2 hour/session)</p>	<p>Title of the Course:</p> <p align="center"><b>Environmental Health &amp; Disaster Management</b></p>	

## **HEALTH PROJECT MANAGEMENT**

**4 credits**

**Course Code: PU 571**

**JANUARY TO APRIL**

The course is aimed at developing the capacity of the students to design, manage and learn how to plan and implement health and development projects in a systematic and organized manner. This is done through understanding of the various stages of ‘project cycle management’ including pre-project analysis, project design, project implementation including appraisal, project monitoring and evaluation and reprogramming.

The course is structured using a logical sequence to promote better student understanding with emphasis on being a more inclusive approach. Relevant Case studies are used at each phase to illustrate the embedding of the learning. This is an added advantage.

### **Course Objective**

1. The course would provide students with the capacity to conceptualise and develop a health related project going through various stages of preparation.
2. The course would also help students to appraise, implement, monitor and evaluate a project.
3. The students would get to understand the techniques and tools in project management with particular reference to health and development projects.

### **Course Units:**

**Unit 1:**Introducing the project cycle.

**Unit 2:**Assessing needs- covering participatory needs assessment, techniques and community involvement.

**Unit 3:**Planning the project- covering definition of project aims and objectives, tasks involved in project planning, and sequence of events.

**Unit 4:**Implementing and monitoring the project- covering an introduction to monitoring, and exploration of the role of on-going monitoring in adjusting and refining projects.

**Unit 5:**Evaluating the project - - covering an introduction to evaluation, interpretation of data, and exploration of reactions to evaluation processes.

**Unit 6:**Learning from the project and evolving- Covering organisational learning, negative impact of failure to learn.

**Unit 7:**Management of the project cycle- covering issues of organisational structure, and roles and responsibilities including summarising a project.

**Unit 8:** Sustaining a project.

**Teaching methods:** Didactic, Case study discussions and self-directed reading and learning.

**Essential Reading:**

1. EUROPEAN COMMISSION - JOINT RELEX SERVICE FOR THE MANAGEMENT OF COMMUNITY AID TO NON-MEMBER COUNTRIES (SCR), Resources, relations with the other institutions, evaluation, and information, Evaluation, Version 1.0, May 1999 – Project Cycle Management – Training handbook.
2. Basic Introduction to Project Cycle Management Using the Logical Framework Approach. European Commission Civil Society Fund in Ethiopia. Developed by Umhlaba Development Services, Noswal Hall, Braamfontein, Johannesburg, South Africa
3. MAKE DEVELOPMENT INCLUSIVE. How to include the perspectives of persons with disabilities in the project cycle management guidelines of the EC. cbm 2012.

**Desirable Reading:**

- (1) <http://www.un.org/esa/socdev/enable/rights/convtexte.htm>
- (2) [http://ec.europa.eu/europeaid/multimedia/publications/documents/tools/europeaid\\_adm\\_pcm\\_guidelines\\_2004\\_en.pdf](http://ec.europa.eu/europeaid/multimedia/publications/documents/tools/europeaid_adm_pcm_guidelines_2004_en.pdf)
- (3) Project Management for Healthcare. David Shirley. April 25, 2011 by CRC Press ISBN 9781439819531

**Maternal and Child Health**

**4 credits**

**Course Code: PU 573**

**Dr.C.T.Anitha**

**Course overview**

This module is designed to build upon concepts taught in earlier courses under MPH program towards effective utilization of skills in the context of the MCH programs. In addition, it will also refresh an understanding of the salient features of MCH. The course will also be designed to improve the evaluation skills of supervisors for the program activities.

Learning objectives: At the end of the module, the participants will be able to

1. Develop an acquaintance with the MCH Program
2. Identify the impact of improved management skills on programmatic outcomes
3. Outline the management aspects relevant to their level of functioning in the context of the MCH
4. Perform an evaluation of the programmatic activities in their area

- 1 History of Maternal and Child health Programs in India, Lecture
- 2 Scope & Functions of RCH programs Lecture
3. Maternal death audits Video, lecture and assignment
4. Access and utilization of care under RCH Class discussion based on video/ article
5. Components of adolescent care under RCH Video and class discussion
6. PIP for vulnerable groups in RCH Lecture and exercise
7. MDG 4- IMR Lecture
8. Neonatal health Lecture
9. IMNCI Operational plan Lectures & Hands on exercise
10. Supportive supervision and monitoring in RCH Exercise
11. Quality of care in RCH Video/ article, lecture
12. Assignment Presentation by participants

**Course resources**

**Key Readings**

1. Jugal Kishore. National Health Programmes: National Policies & Legislation related to Health. 7th Edition, 2005
2. IMNCI-Module No. 1-9 (UNICEF-India)
3. State & National PIP documents of RCH-II (Government of India)
4. A Strategic Approach to Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) in India. Ministry of Health & Family Welfare Government of India February 2013
5. Revised operating manual for preparation and monitoring of RCH-II & immunization component of NRHM state programme implementation plans (PIPs). Ministry of Health & Family Welfare Government of India. November 2010
6. Guidelines for Preparation of Annual Programme Implementation Plan National Rural Health Mission. 2013-2014



**UNIVERSITY OF HYDERABAD  
SCHOOL OF MEDICAL SCIENCES  
MASTER OF PUBLIC HEALTH COURSE (PU-MH) – Course code - 551**

**GUIDELINES FOR THE PREPARATION OF PROJECT WORK**

The Master of Public Health Program of the University of Hyderabad requires a mandatory fulfilment of a **four (4) credit** task that encompasses the conceptualization, preparation and undertaking of a project in Semester 4 of the MPH coursework.

**Definition of a project**

The Project has to have a direct or indirect relationship relevant to Public Health. It has to be an independent piece of work of each student. A mandatory project as partial fulfilment of the requirements of 4 credits for the award of MPH degree shall fall under either one of the below mentioned categories. An overlap of more than 1 category is also acceptable. The categories are:

- Any research project following the research methods structure.
- A white paper or policy review.
- A review of an issue of public health importance.
- An exploratory study in the area of public health.
- A part of a combined large project with more than one investigator.
- A health management issue.
- A systematic review in health studies area.
- A project decided in consultation with the allotted supervisor of the School of Medical Sciences.

**Purpose of a project**

The purpose of the project is:

- a. To mandatorily fulfil a part requirement for completion and award of the Master of Public Health degree.
- b. To understand scientifically how to conceptualise, undertake and deliver a project report as part of the practical learning in the area of Public Health.



### **Project Process**

All the successful MPH students entering 4<sup>th</sup> semester shall compulsorily undertake the project as part of the coursework – (January to March).

The following will be the process to be followed for the project work.

- a. Allocation of a project supervisor by the co-ordinator of the MPH course. The main project supervisor will be a member on the faculty of the School of Medical Sciences of the University of Hyderabad. Students are welcome to request anyone who has participated in the teaching or have expertise in the area of their project title within or outside the university to be as co-supervisors. A minimum of 1 and maximum of 2 co-supervisors are allowed.
- b. In consultation with the main project supervisor and co-supervisors, the student should select any topic that falls into the category of the project described above to work on.
- c. The outline proposal consisting of the title, brief background, objectives and proposed methods (data collection tools) and outline analysis plan should be submitted with the required consent and information sheets for participants to the university ethics committee for human research in the prescribed format. This is currently being looked after by the School of Medical Sciences.
- d. On approval of the ethics committee, necessary permissions are to be secured from the authorities where the data collection is planned.
- e. Data collection can be undertaken anywhere across India in the time period allocated for the same. The school or the university does not provide any financial or in kind support for this activity.
- f. A project report described as under has to be presented to the school and defended in a presentation as part of the assessment and examination for the project work in the time period specified.

### **Project Report**

The project report for this 4 credit exercise shall follow the guidelines as specified as under.

1. 1 hard and 1 soft copy of the project report has to be submitted to the MPH course co-ordinator within the time specified.
2. The report shall not exceed 40 pages using 1.5 lines spacing with 12 point Times New Roman font.
3. The report should include title page, certificate of fulfilment (duly signed by supervisor, co-supervisors, MPH course Coordinator and Dean of the School), content page, introduction and background, brief review of literature, relevance to public health, objectives, methods, results, discussions, recommendations, conclusions, any limitations, references and annexures/appendices.
4. The hard copy of the report should preferably be spiral bound.

### **Project Assessment**

- The 4 credit project work shall have both formative and summative assessment for 100 marks.
- The formative assessment will be for 40 marks including 3 assessments from the conceptualization to the completion of the same within the project specified time period.

This will be marked by the project supervisor using any objective means devised by the supervisor

- The summative assessment will be a project report presentation using PowerPoint to a committee constituted for the same which will include faculty of the university and marked independently for 60 marks and averaged to arrive at a total out of 60 marks.
- The University of Hyderabad guidelines shall be followed while evaluating the project work and also for collation of marks and declaration of results.
- Failure in a project would require that the project be undertaken again as per university guidelines.