



# TEERTHANKER MAHAVEER UNIVERSITY

(Established under Govt. of U. P. Act No. 30, 2008)

Delhi Road, Moradabad (U.P.)

## PhD PROGRAMME

### SYLLABUS FOR DISCIPLINE-SPECIFIC COURSE PUBLIC HEALTH DENTISTRY

Course Code: PDS240125	PUBLIC HEALTH DENTISTRY	L	T	P	C
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<b>Objective:</b>	The following are the Objectives: <ol style="list-style-type: none"> <li>1. Understanding Public Health Principles</li> <li>2. Oral Health and Disease Prevention</li> <li>3. Epidemiology of Oral Diseases</li> <li>4. Community-Based Dental Programs</li> <li>5. Policy and Advocacy</li> <li>6. Research Methodologies in Public Health Dentistry</li> <li>7. Interdisciplinary Collaboration</li> <li>8. Global and Local Health Challenges</li> <li>9. Ethical and Legal Issues in Public Health Dentistry</li> <li>10. Sustainable Development Goals (SDGs) in Oral Health</li> </ol>				
<b>Course Outcomes:</b>					
<b>CO 1:</b>	Comprehension of Public Health Principles Demonstrate a thorough understanding of the principles of public health and their application to oral health care.				
<b>CO 2:</b>	Application of Epidemiological Skills Use epidemiological methods to analyze the distribution and determinants of oral health conditions in populations.				
<b>CO 3:</b>	Designing Community Programs Plan and implement effective community-based dental health programs targeting prevention and health promotion.				
<b>CO 4:</b>	Research Competence Conduct research using appropriate methodologies to address public health issues related to dentistry.				
<b>CO 5:</b>	Ethical Practice Apply ethical principles in decision-making processes, particularly in the context of community health initiatives and resource allocation.				
<b>Course Content:</b>					
<b>Unit 1:</b>	<b>Public Health:</b> Definition, concepts, and philosophy of dental health History of public health in India and at international level Terminologies used in public health				

	<p><b>Health:</b>  Definition, concepts, and philosophy of health  Health indicators  Health determinants  Community and its characteristics and relation to health</p> <p><b>Disease:</b>  Definition, concepts  Multifactorial causation, natural history, risk factors  Disease control and eradication, evaluation and causation, infection of specific diseases  Vaccines and immunization</p>
<p><b>Unit 2:</b></p>	<p><b>General Epidemiology:</b>  Definition and aims, general principles  Multifactorial causation, natural history, risk factors  Methods in epidemiology, descriptive, analytical, experimental, and classic  epidemiology of specific diseases, uses of epidemiology  Duties of epidemiologist  General idea of method of investigating chronic diseases, mostly non-infectious nature, epidemic, endemic, and pandemic.  Ethical conversation in any study requirement  New knowledge regarding ethical subjects  Screening of diseases and standard procedures used</p>
<p><b>Unit 3:</b></p>	<p><b>Environmental Health:</b>  Impact of important components of the environment on health  Principles and methods of identification, evaluation, and control of such health hazards  Pollution of air, water, soil, noise, food  Water purification, international standards of water  Domestic and industrial toxins, ionizing radiation Occupational hazards  Waste disposal- various methods and sanitation</p> <p><b>Public Health Education:</b>  Definition, aims, and principles of health education  Health education, methods, models, contents, planning health education programs</p>
<p><b>Unit 4:</b></p>	<p>Public Health Practice and Administration System in India.</p> <p><b>Ethics and Jurisprudence:</b>  Basic principles of law  Contract laws- dentist-patient relationships &amp; Legal forms of practice  Dental Malpractice  Person identification through dentistry  Legal protection for practicing dentist  Consumer protection act</p>

**Nutrition in Public Health:**

Study of science of nutrition and its application to human problem  
Nutritional surveys and their evaluations  
Influence of nutrition and diet on general health and oral health, dental caries, periodontal disease and oral cancers  
Dietary constituents and carcinogenicity  
Guidelines for nutrition

**Behavioral Sciences:**

Definition and introduction  
Sociology: social class, social group, family types, communities and social relationships, culture, its effect on oral health.  
Psychology: definition, development of child psychology, anxiety, fear and phobia, intelligence, learning, motivation, personalities, fear, dentist-patient relationship, modeling and experience

**Hospital Administration:**

Departmental maintenance, organizational structures  
Types of practices  
Biomedical waste management

**Health Care Delivery System:**

International oral health care delivery systems – Review  
Central and state system in general and oral health care delivery system if any  
National and health policy  
National health programs  
Health Planning and Evaluation  
Primary health care – concepts, oral health in PHC and its implications  
National and international health organizations  
Dentists Act 1928, Dental council of India, Ethics, Indian Dental Association  
Role of W.H.O. and Voluntary organizations in Health Care for the Community  
Oral Biology and Genetics:  
A detailed study of cell structure  
Introduction to Genetics, Gene structure, DNA, RNA  
Genetic counseling, gene typing  
Genetic approaches in the study of oral disorders  
Genetic Engineering - Answer to current health problems

**Demography & Family Planning:**

Demographic trends, family planning methods, milestones in population control in India.

**Health Economics:**

Health benefit analysis and cost-effective analysis

<p><b>Unit 5:</b></p>	<p><b>Dental Public Health:</b>  History  Definition and concepts of dental public health  Differences between clinical and community dentistry  Critical review of current practice  Dental problems of specific population groups such as chronically ill, handicapped, and institutionalized group</p>
<p><b>Unit 6:</b></p>	<p><b>Epidemiology of Oral Diseases and Conditions:</b>  Dental caries, gingival, periodontal disease malocclusion, dental Fluorosis, oral cancer, TMJ disorders and other oral health related problems.</p> <p><b>Oral Survey Procedures:</b>  Planning  Implementation  WHO basic oral health methods 1997  Indices for dental diseases and conditions  Evaluation</p> <p><b>Delivery of Dental Care:</b>  Dental person power – dental auxiliaries  Dentist – population ratios,  Public dental care programs  School dental health programs- Incremental and comprehensive care  Private practice and group practice  Oral health policy – National and international policy</p> <p><b>Payment for Dental Care:</b>  Prepayment  Post-payment  Reimbursement plans  Voluntary agencies  Health insurance</p>
<p><b>Unit 7:</b></p>	<p><b>Evaluation of Quality of Dental Care:</b>  Problems in public and private oral health care system program  Evaluation of quality of services, governmental control</p> <p><b>Preventive Dentistry:</b>  Levels of prevention  Preventive oral health programs screening, health education, and motivation  Prevention of all dental diseases-dental caries, periodontal diseases, oral cancer, malocclusion, and Dentofacial anomalies  Role of dentist in the prevention of oral diseases at individual and community levels.</p>

	<p><b>Fluoride:</b></p> <p>History  Mechanism of action  Metabolism  Fluoride toxicity  Fluorosis  Systemic and topical preparations  Advantages and disadvantages of each  Update regarding Fluorosis  Epidemiological studies  Methods of fluoride supplements  De fluoridation techniques  Antifluoridation lobby</p> <p>Plaque control measures-  Health Education  Personal oral hygiene  Tooth brushing technique  Dentifrices, mouth rinses</p> <p>Pit and fissure sealant, ART, Preventive resin restoration  Preventive oral health care for medically compromised individual  Update on recent preventive modalities  Caries vaccines  Dietary counseling</p> <p><b>Practice Management:</b></p> <p>Definition  Principles of management of dental practice and types  Organization and administration of dental practice  Ethical and legal issues in dental practice  Current trends  Infection control in dental practice</p> <p><b>Tobacco Counseling:</b></p> <p>Health Consequences  Tobacco dependence  Benefits of intervention  Tobacco cessation  Role of dentist.</p> <p>Health Manpower Planning</p>
<p><b>Textbooks:</b></p>	<ol style="list-style-type: none"> <li>1. "Textbook of Public Health Dentistry" by Soben Peter</li> <li>2. "Oral Health Epidemiology: Principles and Practice" by Amit Chattopadhyay</li> <li>3. "Dentistry, Dental Practice, and the Community" by Brian A. Burt and Steven A. Eklund</li> <li>4. "Principles of Dental Public Health" by James Morse Dunning</li> <li>5. "Essential Dental Public Health" by Blanaid Daly, Paul Batchelor, Elizabeth Treasure, and Richard Watt</li> </ol>

<b>Reference Books:</b>	<ol style="list-style-type: none"><li>1. "Introduction to Public Health" by Mary-Jane Schneider</li><li>2. Unity Oral Health Practice for the Dental Hygienist" by Kathy Voigt Geurink</li><li>3. "Preventive and Community Dentistry" by Dr. Hiremath</li><li>4. "Public Health and Community Dentistry" by K. Park and B. K. Mahajan</li></ol>
<b>Additional Electronic Reference Material:</b>	<ol style="list-style-type: none"><li>1. <a href="#">Wiley Online Library</a></li><li>2. PubMed</li><li>3. Cochrane Library</li><li>4. WHO Oral Health</li><li>5. NIDCR</li></ol>