

# Preventive and Community Dentistry

## Head

Leonardo Marchini

**Graduate degree:** MS in dental public health

**Faculty:** <https://dentistry.uiowa.edu/directory>

**Website:** <https://dentistry.uiowa.edu/pcd>

The Department of Preventive and Community Dentistry educates future and practicing dental and oral health professionals, preparing them to understand and recognize:

- conditions that compromise patients;
- social, cultural, community, and political influences on dental practice;
- principles of preventive dentistry for individuals, groups, and communities; and
- considerations for preventing and treating oral disease in geriatric and special needs patients.

In addition to offering educational programs, the department provides patient care at the College of Dentistry and in a variety of off-campus settings. It is also home to research that advances dental public health. The department offers an MS in dental public health and the Certificate in Geriatric and Special Needs Dentistry.

## DDS Student Training

Predocutorial training in preventive, community, and geriatric dentistry is designed to increase Doctor of Dental Surgery students' awareness of preventive dental practices, aspects of dental practices affected by community factors, and care of compromised adult patients.

Community dentistry programs give students opportunities to interact with health care teams and the public in Iowa and around the world. The department conducts off-site community programs statewide, nationwide, and worldwide. It also operates the Geriatric and Special Needs Clinic, which is housed in the Dental Science Building.

Using the community dentistry programs as the classroom, DDS students observe and participate in a variety of activities that nurture their awareness of the societal obligations they must assume in order to become effective practitioners.

## Programs

### Graduate Program of Study

- Master of Science in Dental Public Health

## Courses

- Preventive and Community Dentistry Courses [p. 1]
- Dental Public Health Courses [p. 2]

## Preventive and Community Dentistry Courses

### PCD:8115 Patient Management: Ethics and Interprofessional Education **1 s.h.**

Preparation to deliver team-based interprofessional care through authentic lectures and group activities that reinforce interprofessional education (IPE) concepts by providing relevant and applicable health care experience; concepts and skills related to interprofessional education, team-based health care, interprofessional networking, ethics and professionalism, and person-centered care.

### PCD:8116 Preventive Dentistry: Introduction **2 s.h.**

Identification of health and disease in the mouth through self-assessment, nutritional self-assessment, practical methods of disease control, primary preventive dentistry methods and materials, and philosophy of preventive dentistry.

### PCD:8117 Cariology and Preventive Therapies **2 s.h.**

Principles of research design; introduction to microbiology and immunology; principles of oral microbiology with an emphasis on plaque development; microbiology of caries; coronal and root caries disease processes; dental caries epidemiology; roles of saliva and diet in dental health and disease; radiographic interpretation and clinical diagnosis; dental fluorosis; preventive dentistry treatment planning. Prerequisites: PCD:8116.

### PCD:8118 Preventive Dentistry Assessment and Patient Care **4 s.h.**

Patient oral assessment; charting sulcus depth, recession and hard tissues; progress notes, and entries in electronic patient record; preventive dentistry, caries, and periodontal risk assessment; oral hygiene instruction for collegiate recall patients; instrumentation for detection and removal of calculus deposits; practice with patient management skills and ergonomics. Prerequisites: PCD:8116 and PCD:8117.

### PCD:8119 Patient Management: Communication Fundamentals **1 s.h.**

Introduction to patient-centered care, interpersonal and professional communication with patient, information exchange, and preventive treatment plan formulation in patient encounters.

### PCD:8120 Introduction to Evidence-Based Dentistry I **1 s.h.**

Fundamental concepts needed to critique clinical research articles and health-related websites.

### PCD:8121 Introduction to Evidence-Based Dentistry II **1 s.h.**

Application of concepts needed to critique scientific literature.

### PCD:8218 Critical Thinking and Evidence-Based Dentistry in Treatment Planning **1 s.h.**

Continuation of PCD:8120; evidence-based dentistry, critical thinking and treatment planning sessions; online and small group sessions. Prerequisites: PCD:8120.

### PCD:8219 Patient Management: Communication Challenges **1 s.h.**

Continuation of PCD:8119; assessing patient understanding of practices for improving/maintaining oral health; overview of patient challenges to effective communication; application of behavioral science principles in dentistry and behavior theories. Prerequisites: PCD:8119.

**PCD:8245 Clinical Preventive Dentistry** 0,2 s.h.  
Experience providing complete prophylaxis and preventive services for college patients; application of nutrition principles and communication skills in a clinic setting. Prerequisites: PCD:8118.

**PCD:8319 Patient Management: Special Populations** 1 s.h.  
Continuation of PCD:8219; standardized patient exercises with chairside feedback and evaluation of communication skills; reflection regarding application of communication skills and behavioral science principles in patient encounters.

**PCD:8355 Introduction to Geriatric Dentistry** 2 s.h.  
Biological, psychological, and social aspects of aging; normal aging and disease processes associated with aging; pathological changes that affect oral health treatment of dental diseases; and patient-centered treatment planning and management. Requirements: DDS enrollment or completion of dental hygiene program.

**PCD:8360 The Practice of Dentistry in the Community I** 1-2 s.h.  
Factors that affect the practice of dentistry and the dental profession including health care systems in the U.S. and abroad, Medicaid/Medicare, health/dental insurance, health care delivery systems, malpractice, role of the Iowa Dental Board, dental workforce, and quality of care.

**PCD:8361 The Practice of Dentistry in the Community II** 1-2 s.h.  
Issues related to the role of dental professionals at local and state levels; students build skills and knowledge in development of a community outreach dental program.

**PCD:8489 Geriatrics and Special Needs Program** arr.  
Experience in the Delta Dental of Iowa Geriatric and Special Needs Clinic and the Geriatric Mobile Dental Unit providing comprehensive care for medically, physically, intellectually, and/or cognitively compromised adults, functionally dependent elderly nursing home residents with portable dental equipment, and other underserved populations.

**PCD:8494 Extramural Rotation in Oral Health** 5 s.h.  
Dental care for underserved populations; community experiences in a variety of settings including hospital-based clinics, federally qualified health centers, community health centers, and private practices.

**PCD:8500 Dental Student Research Honors Program** arr.  
Experience in conducting research. Requirements: DDS enrollment and approval of mentor and program director.

## Dental Public Health Courses

**DPH:5000 Introduction to Dental Public Health** 0,2 s.h.  
Science, philosophy, practice of dental public health.

**DPH:5001 Literature Review Methods: Dental Public Health** 0,2 s.h.  
Concepts and process of literature review, particularly in area of student's interest.

**DPH:5005 Administration of Public Dental Programs** 0,2 s.h.  
Application of general management concepts; practical aspects of planning, financing, staffing, implementing, operating, evaluating dental public health programs at federal, state, local levels.

**DPH:5006 Preventive Programs in Dental Public Health** 0,2 s.h.  
Prevention and control methods for major dental conditions, primarily dental caries and periodontal diseases; clinical efficacy and cost-effectiveness; development of comprehensive preventive oral health plan for a community.

**DPH:5008 Field Experience in Dental Public Health** arr.  
Arranged with public and voluntary health agencies according to students' and agencies' needs.

**DPH:5009 Advanced Field Experience in Dental Public Health** 1-3 s.h.  
Opportunity to research, develop, and implement programmatic objectives with local, state, national, and/or federal agencies and organizations on an issue that is both relevant to the student and the agency; may require off-site visits to agencies or organizations. Prerequisites: DPH:5008.

**DPH:5014 Dental Care Policy and Financing** 0,2 s.h.  
Dental financing and policy issues: payment mechanisms for health care service providers, third-party prepayment plans, salaried and public-financed programs, Medicaid and Medicare programs, dental insurance systems, and care of the underserved.

**DPH:5016 Introduction to Statistical Computing** arr.  
Use of statistical packages on a personal computer for data management and analysis. Offered summer session.

**DPH:5031 Geriatric Care** 0,2 s.h.  
Aging demographics; effects of aging on the human body with emphasis on the masticatory system; diseases commonly found among the elderly; and dental care for the elderly in different settings.

**DPH:6002 Research Protocol Seminar** 0,2 s.h.  
Development of a master's thesis protocol; identification of thesis topic, review of relevant literature, development of research methods, writing.

**DPH:6003 Independent Study: Dental Public Health** 1-3 s.h.

**DPH:6004 Principles of Oral Epidemiology** 0-3 s.h.  
Interpretation of scientific literature, with respect to the distribution and determinants of oral diseases and conditions, including caries, periodontal diseases, tooth loss, oral cancer, and more.

**DPH:6011 Thesis: Dental Public Health** arr.  
Protocol preparation; data collection, analysis, organization; writing, defense of research.

**DPH:6017 Teaching Methods and Evaluation** arr.  
Philosophies of dental education, teaching methodologies, evaluation; focus on learning to write educational objectives, writing and analyzing exam items.

**DPH:6018 Clinical Teaching Practicum: Preventive Dentistry** 0-3 s.h.  
Teaching experience in preventive dentistry clinic setting with first-year dental students; outcomes focused on methods in clinical teaching, evaluation, and remediation.