

**Virginia Western Community College**  
**DNH 226**  
**PUBLIC HEALTH DENTAL HYGIENE I**

**Prerequisites**

None

**Course Description**

Studies and compares concepts of delivery of health care, applying the public health delivery model. Utilizes epidemiologic methods, research and biostatistics as applied to oral health program planning, implementation, and evaluation. Incorporates and applies current health issues and trends. Learning experiences will include lecture, PowerPoints, discussion, group activities, and service learning. Lecture 2 hours per week.

**Semester Credits: 2 Lecture Hours: 0 Lab Hours:**

**Required Materials****Textbook:**

Dental Public Health & Research, Author: Christine Nathe    Edition: 4th    ISBN: 9780134255460

**Other Required Materials:**

None

**Course Outcomes**

**At the completion of this course, the student should be able to:**

**UNIT I:**

1. Compare and contrast public health care and private dental practice delivery models.
2. Relate the components of the public health care delivery model to the components of dental hygiene care provided to individuals as part of your current clinical practice.
3. Differentiate between primary, secondary, and tertiary prevention.
4. Distinguish between health promotion and health education.
5. Identify the elements of a public health problem.
7. Relate the unique characteristics of the two most common oral diseases to the elements of a public health problem.
8. Demonstrate understanding of the interactions between federal, state, and local public health agencies in the delivery of health care in the United States.
9. Compare the roles and employment settings of dental hygienists employed in public health in the US and in other countries.
10. Discuss the relationship between access to care and legal restrictions on the supervision of dental hygienists.

11. Differentiate between need, demand, access, and use of health care services.

## **UNIT II**

1. Relate the steps in the public health care delivery model to program planning.
2. Utilize the program planning process to develop and implement a program/lesson plan for a specific population within the community.
3. Differentiate between survey and analysis.
4. Discuss the advantages and disadvantages of various methods of collecting data on population needs.
5. Identify assessment methods for oral disease activity and health status.
6. Given a hypothetical public oral health problem, develop program goals and objectives based on population needs.
7. Given a hypothetical public oral health problem, identify appropriate needs assessment mechanisms for that population and prioritize needs.
8. Identify the human, educational, and fiscal resources necessary for/available for development and delivery of community oral health programs.
9. Differentiate between population, target population, and accessible population.
10. Identify the purposes of program evaluation.

## **Unit III**

1. Define epidemiology
2. Describe the epidemiology of oral diseases and conditions
3. Differentiate between incidence, prevalence, morbidity and mortality as these terms relate to disease and oral diseases/conditions.
4. Know the types and characteristics of descriptive research including survey, case study, case series, cross sectional, cohort, correlational, prospective, retrospective, and longitudinal.
5. Know the Scales of Measurement, Measures of Central Tendency, and Measures of Dispersion.
6. Describe the steps in the scientific method.
7. Develop appropriate research hypotheses when given a research problem
8. Relate the concepts of population, sample, target population and parameters to oral health problems and/or simulated case problems.
9. Identify methods use in obtaining random samples and the advantages associated with random sampling.
10. Appropriately match definitions with the following terms: calibration, inter and intra rater reliability, double blind
11. Discuss the significance of a washout period to study design.
12. Identify desirable characteristics of an index.
13. Utilize and interpret caries, gingival, periodontal, plaque, and bleeding indices for simulated cases or with clients from your clinical caseload.
14. Analyze the data acquired in various indices.... for example, DMFT, to determine the meaning of the results
15. Identify whether a given index is reversible or irreversible
16. Apply measures of central tendency and measures of dispersion/variability to case problems.

17. Interpret correlation and coefficients and indicate the strength and direction of the relationship between variables.
18. Interpret the meaning of p values
19. Distinguish between Type I and Type II errors.
20. Appropriately match definitions with the following terms: range, variance, mean, deviation, Type I-V public health exams
21. Identify the parameters of various phases of a clinical trial
22. Describe desirable characteristics of an index.

#### **UNIT IV**

1. Differentiate between need, demand, access, and use of health care services.
2. Describe methods by which major professional associations and interest groups influence health policy.
3. Discuss the barriers/restrictions in access to care for those individuals/populations most frequently served by public health programs at the national, state, and local levels.
4. Discuss the role of health insurance and dental insurance as related to access to care.
5. State the criteria for a federally designated dental shortage area.
6. Recognize localities in Virginia which are federally designated dental shortage areas.
7. Explain how a sliding scale fee system works.
8. Discuss the impact of managed care on access, quality, and delivery of oral health services.

#### **Topical Description**

1. Dental Public Health, an Overview and The Prevention Movement
2. Dental Care Delivery in the United States
3. Dental Hygiene Care Delivery in the Global Community
4. Advocacy for Dental Care
5. Dental Health Education and Promotion
6. Target Populations
7. Program Plan Development
8. Research in Dental Hygiene
9. Virginia Department of Health
10. Biostatistics
11. Epidemiology
12. Financing Oral Health Care
13. Legislative Issues
14. Inter-professional Education
15. Community Service and Program Plans for Spring