

SYLLABUS

COURSES: DHCT 3303 / DHBS 4303 Community Dental Health
DHCT 3403 / DHBS 4403 Community Dental Health Practice
SEMESTERS: Fall 2009/Spring 2010
CREDIT HOURS: 3.0 Fall
2.0 Spring

REVISED: 2008
REPRINTED: 2009

COURSE DIRECTOR: Donna Warren Morris, R.D.H., M.Ed.

GOAL

The goal of this course is to acquaint the student with the concepts, methods, materials, and technology to promote dental health and prevent dental disease through organized, community-based programs. Having experienced the satisfaction of personal involvement, the student will continue to assume this professional role as a community health promoter.

Students will be introduced to their role as community health promoters in resolving critical issues in the current delivery system. The tools of epidemiology and biostatistics, the critical analysis of scientific literature, and the methods and materials necessary to teach dental health to community groups will be presented. Learning opportunities will be provided through a variety of didactic, laboratory, and extra-mural experiences. The students will have an opportunity to acquire skills in communication and motivational techniques, principles of learning/teaching, and media preparation and presentation.

OBJECTIVES

General

The following objectives are overall course objectives and define what the students will be able to do at the completion of both semesters.

1. Discuss the network of elements that constitute the health care delivery system, with emphasis on the consumer, services provided, providers of services, setting, financing, and quality assurance.
2. Contact an appropriate service agency; conduct a needs assessment to identify the major dental educational needs; determine priorities; develop goals, objectives and activities; identify resources and constraints; consider alternative strategies; implement the educational program; and evaluate the teaching experience.
3. Apply statistical and epidemiological principles and methodology to critically evaluate scientific literature.
4. Compare and contrast the health promotion aspects of organizing, implementing, and maintaining a communal water fluoridation initiative; school water fluoridation program; smoking/smokeless tobacco cessation program; community-wide pit and fissure sealant program; denture identification program; oral cancer screening program.
5. Define and describe educational concepts and principles of health instruction, and apply the same to groups of individuals.
6. Demonstrate the ability to plan, organize, prepare, present, and evaluate a unit and a lesson on dental health, effectively utilizing a variety of teaching aids.
7. Select and effectively utilize appropriate instructional media materials to enhance the learning experiences of groups.

Unit Objectives

Upon completion of class activities and assignments for the units listed, the student will be able to:

- I. INTRODUCTION TO COMMUNITY DENTAL HEALTH
 1. Apply the principles of ethics of the American Dental Hygienists' Association to public health practice.
 2. Contrast, compare, and give examples of private dental practice and public dental practice List the criteria to prioritize health problems.
 3. Define dental public health.
 4. Discuss potential employment opportunities for community dental hygienists.
 5. Discuss the role of the community dental hygienist.

6. List and discuss the core functions of government agencies in public health and essential services.
7. Discuss the role of the consumer in the delivery system.
8. Discuss national and international organizations and their role in oral health.
9. Discuss Healthy People 2010 and the Surgeon General's Report and their impact on oral health.
10. Outline the WHO model of community dental health.
11. Define and give examples of the 3 levels of preventive activities.
12. List and give examples of the ADHA roles of a dental hygienist.

II. TRENDS IN DENTAL PUBLIC HEALTH

1. Define and discuss the impact of the need, demand and utilization forces on health care delivery.
2. List, discuss and give examples of barriers to utilization of health care.
3. Discuss the impact of insurance on access to health care.
4. Discuss the impact of legislation on access to care.

III. ORAL HEALTH INFRASTRUCTURE

1. Describe significant changes in the style of dental practice which have occurred in the past 10 years.
2. Identify the various types of dental personnel by such characteristics as roles and functions.
3. Discuss factors which determine the distribution of dentists.
4. Define the four (4) types of supervision for dental auxiliaries.
5. Explain trends in distribution of dentists.
6. Explain how changes in demographics and the economy can have an impact on determining the role of the dental auxiliary.
7. Discuss ADHA's new level of practitioner called the ADHP.

IV. DENTAL HEALTH SERVICES

1. List nine (9) services of the health delivery system. Services are those activities performed by providers to benefit the consumer's health status. Services are separated into categories according to function.
2. Discuss preventive services according to the party who is responsible for their administration.

V. FINANCING OF HEALTH CARE

1. List; contrast and compare; and cite advantages and disadvantages of the current modes for delivery of dental care in the **private** sector and mechanisms for payment of such care.
2. List; contrast and compare; and cite advantages and disadvantages of the current modes for delivery of dental care in the **public** sector and mechanisms for payment of such care.

VI. HEALTH PROMOTION

1. Define health promotion and oral health promotion.
2. List some indicators for oral health.
3. Define intervention and discuss components of effective programs.
4. List supporters of fluoridation and some global programs.
5. Define evidence based practice.

VII. FLUORIDATION

1. Determine the appropriate type of self-applied fluoride program to implement.
2. Define water fluoridation and list optimum fluoride ranges and levels.
3. Discuss the benefits of fluoridation and why it is considered to be one of 10 top programs.
4. Discuss reasons why it is advisable for fluoride to be decided by community leaders rather than the electorate.
5. Discuss the need for and use of consent forms in the public schools.

VIII. HEALTH PROMOTION MODELS AND THEORIES

1. Describe health behavior theories.
2. Discuss components of common theories of health behavior.
3. Evaluate factors that can be used to promote health maintenance and disease prevention.

IX. EFFECTIVE COMMUNITY PROGRAMS

1. Describe crucial aspects of effective program development.
2. Identify potential community partners for addressing a local health issue.
3. Outline the program planning process or cycle.
4. Discuss the need for sufficient resources in the success of a program.
5. Discuss the role of stakeholders and community acceptance in community programs.
6. Discuss what RDHs need to know to be effective in program planning.

7. Describe different formats that can be used to present community programs.

X. QUALITY ASSURANCE

1. Define the terms quality assurance, assessment and related terms.
2. Discuss QA activities and their impact on healthcare.
3. Discuss the three components of the QA model and give examples of each.
4. Discuss the impact and limitations of five QA programs for dentistry.

XI. ALTERNATIVE MODELS OF DENTAL CARE

1. List and discuss the WHO priorities to address disparities.
2. Compare programs in other countries with those of the US.

XII. MEASURING COMMUNITY ORAL HEALTH: ASSESSING NEEDS

1. List the Stages of the community planning process and their function.
2. List and discuss the issues a RDH must take into consideration when planning a program.
3. Give examples of qualitative, quantitative, primary and secondary data.
4. List the advantages and disadvantages of four different data collection instruments.
5. Define base-line data.
6. List the components of a community profile and explain how it is used in program planning.
7. Discuss the difference between data collection and data analysis.

XIII. PLANNING COMMUNITY PROGRAMS

1. Define needs analysis, diagnosis and prioritization of problems.
2. List the components of goals and objectives in the program planning process and construct appropriate ones for class assignments.
3. Discuss the various resources and constraints that can impact community programs.
4. Discuss the use of objective in the planning process and construct appropriate ones for class assignments.
5. Define and give examples of two types of evaluation.

XIV. DEVELOPING EDUCATIONAL MATERIALS

1. Discuss options for teaching methods and evaluate each for learning principles and limitations.

2. Identify health promotion teaching strategies for different at-risk populations.
3. Discuss cultural communication and its impact on learning.
4. List several resources for teaching oral health.

XV. EPIDEMIOLOGY OF ORAL DISEASES

1. Contrast and compare the two approaches to understand the causes of disease: *etiology* and *epidemiology*.
2. Identify three characteristics of epidemiology.
3. Define and discuss related concepts.
4. List the objectives for conducting epidemiological research.
5. Classify and give examples of the three types of epidemiologic research.
6. Discuss the epidemiology of dental caries in the United States.
7. List the objective of using a dental index.

XVI. CARIES INDICES

1. Define count, ratio, rate, prevalence, and incidence.
2. List four (4) ways an index is used.
3. List the attributes of a good dental index.
4. Classify indices as *reversible* or *irreversible*.
5. Determine index selection.
6. Discuss how errors can occur in assessing disease using indices.
7. Discuss the use of four (4) different caries indices and compute a score for an individual and a group.

XVII. EPIDEMIOLOGY OF PERIODONTAL DISEASE

1. Categorize the diseases of the supporting structures of the mouth.
2. Discuss some inherent problems of epidemiological research regarding periodontal disease.
3. Explain the prevalence and severity of *gingivitis*.
4. Explain the prevalence and severity of *periodontitis*.
5. List and discuss risk factors for periodontal disease.
6. List, contrast, and compare measures for preventing and controlling periodontal disease.

7. Discuss the reasons why measuring the disease conditions in the supporting structures of the teeth is a far more difficult problem than the measurement of dental caries.
8. Name common periodontal indices; indicate the procedures to use with the indices and interpret the indices.

XVIII. EPIDEMIOLOGY OF OTHER ORAL CONDITIONS

1. Discuss the prevalence of oral cancer, cleft lip/palate, dental fluorosis and malocclusion.
2. List primary and secondary prevention for each.

XIX. RESEARCH DESIGN AND METHODOLOGY

1. Discuss the integration of research in oral health care delivery.
2. List research sources available to aid in conducting research.
3. Define research and list two types.
4. List and give examples of five (5) different types of studies.
5. List and discuss the steps in the research process.
6. Define and give examples of the three (3) types of variables.
7. Discuss how to review the scientific literature.
8. Give a definition and examples of a research hypothesis and null hypothesis.
9. Define population and target population, experimental and control groups.
10. List and give examples of five (5) common methods of sampling.
11. State the ideal sample size.
12. List common sampling errors.
13. Define continuous and discrete data.
14. Define and give examples of four (4) scales of measurement.
15. Define the Hawthorne Effect.
16. Discuss reliability and two (2) types of validity.
17. Discuss the use of a time-table and data analysis plan.
18. Define a pilot study and state how it is used.

XX. STATISTICS

1. Define and explain statistics, parameter, and significance.
2. List and define two (2) different types of statistics: *descriptive* and *inferential*.

3. List the different types of descriptive and inferential statistics and explain how each is used.
4. Define three types of graphs and state when they are most commonly used.

XXI. EVALUATING THE DENTAL LITERATURE

1. List the most common components of a scientific article and state what information is found in each.
2. Explain the difference between a refereed and non-refereed journal.
3. Analyze and critique a scientific journal article.
4. Write a literature review for a table clinic topic.

RESOURCES

I. Media Resources

A. Printed Media

1. Required text

Darby, M.L.
Mosby's Comprehensive Review of Dental Hygiene

Monograph

2. Online (Posted in Blackboard)

Darby, M. L. & Bowen, D. M.
Research Methods for Oral Health Professionals: An Introduction

3. Supplemental texts (available in the library)

DeBiase, C.B.
Dental Hygiene in Review, Lippincott Williams & Wilkins

Geurink, K.V.
Community Oral Health Practice

Cormier, P. & Levy, J. L.
Community Oral Health

Mager, R. F.
Preparing Instructional Objectives

Miller, S. L.
Introductory Statistics for Dentistry and Medicine.

Striffler, D. F., Young, W. O., & Burt, B. A.
Dentistry, Dental Practice, and the Community.

Mason, J.
Concepts in Dental Public Health

II. Human resources

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STUDY PLAN AND REQUIREMENTS

The study of this course consists primarily of a lecture series, textbook assignments, and class activities. The supplemental textbooks provide additional resources on topics presented.

Students are required to attend scheduled lectures and read the required textbook assignments. Additional material is considered supplemental. **Weekly quizzes may be given on material presented previously and assigned readings.**

The fall semester course must be successfully completed prior to enrollment in the Spring semester course.

Attendance is mandatory. Students are expected to be present and prompt for all lectures, laboratories, and clinical assignments. See UT Handbook for attendance policies and procedures. Students are responsible for making up any missed activities to receive credit for the course. Students are encouraged to meet with the program director if circumstances occur that interfere with their ability to attend classes.

Students are expected to participate in classroom discussions and role playing situations. This will necessitate preparation in advance of the class period in order to be familiar with the clinical case studies and to provide the necessary teaching-learning elements. Students are expected to have all materials required for class participation removed from the clinic cubicles **prior** to class in order to avoid disturbing second year clinic.

Students are expected to complete examinations as scheduled. If you are going to be absent when an examination is to be given, follow the procedure for any absence by calling the secretary (713-500-4086) or the course director (713-500-4396). Make-up examinations and labs will be given only **DURING FINAL EXAM WEEK** for **excused absences** (after consultation with the course director). A written doctor's excuse is required for an absence due to illness. Make-up exams may be formatted differently from regular semester exams including essay and/or oral exams. Additional work may also be required to receive credit for the course by the decision of the course director. The responsibility lies with the student to schedule a conference with the course director to make these arrangements. **Late work will be penalized by two (2) points for each day late.**

Students are expected to complete all course requirements within the scheduled time periods. The student will not receive credit for the course if all experiences are not completed by the end of the semester. All experiences must be made-up during the scheduled time.

Students scoring below 75% on any examination will be required to conference with the course director. Additional work or make-up examination may be required.

Extra Credit: Extra credit may be used toward raising the course grade up to 5 points only if the *exam grade average* is above 74. Extra credit points cannot be used to bring up a semester average of 74 or below. Extra credit is awarded at the discretion of the course director only upon submission of all required materials.

The Honor System will be in effect for all aspects of this course. Students are expected to do their own assignments and to report any knowledge of violations. Failure to do so will result in an automatic failure of the assignment and possibly the course. The penalty for scholastic dishonesty, as described by the Board of Regents' Rules and Regulations, can be disciplinary probation, withholding of transcript or degree, barring against readmission, failing grade, denial of degree, suspension from the institution for a period of time not to exceed one calendar year, or expulsion from the institution for a specific period of time not less than one year.

Baccalaureate Students will be expected to serve as group leaders for class assignments, extramural teaching projects and other activities as assigned. Leadership qualities will be emphasized and evaluated. Additional time, possibly outside of class, will be scheduled to meet with the course director to plan for these activities. BS students will evaluate group participation of other students.

Community Service will be required to be completed over the two semesters. Eight hours of community service is required and can be completed in the Fall or Spring semester. Projects must be approved prior to completion by the course director. A written summary and photograph are required following the prescribed format given in class. Service to the elderly, underserved, or special populations will be accepted. Service used for **extra credit** will not be counted toward the requirement.

Weekly/Daily Assignments are designed to assist the student in understanding and mastering the course materials. Work sheets are required and will be graded.

Course Design: The course is designed in two sections: Community Dental Health and Research. The research component of the course will be taught on Tuesday mornings throughout the semester. The community dental health section will be taught on Fridays. Research is integral to understanding scientific literature and epidemiology related to public health. To this end, the course will focus on reviewing and analyzing scientific literature.

Journal Article Analysis Assignment (AA): The student will be guided through the analysis of an approved scientific journal article related to their table clinic topic. The final analysis will be graded relative to accuracy and completeness according to guidelines given in class.

Table Clinics: The table clinic assignment will be introduced this semester with the final product due in the Spring. Students will work in groups to develop a Literature Review that will serve as material for planning the table clinic in the Spring. Each student will be responsible for reviewing their own journal articles and contributing to the final assignment.

**DHCT 3303 / DHBS 4303 COMMUNITY DENTAL HEALTH
2009 Fall Semester Lecture Schedule**

Research Lectures: Tuesday 9-9:50 am, Room 446.
Community Dental Health Lectures: Friday 9-10:50 am, Room 14.
See schedule for exam rooms.

Date	Community Dental Health Session Topic	Readings/Assignments
Tue, Aug 18	Overview of Course	Syllabus
Fri, Aug 21	Introduction to Dental Public Health Trends in Dental Public Health	Text: 820-821; 870-872 Handouts
Fri, Aug 28	Oral Health Infrastructure and Services Financing of Health Care	Text: 873-876, 865-869 Handouts
Fri, Sep 4	Financing of Health Care cont.	Text:865-869 Handouts
Fri, Sep 11	Health Promotion Fluoridation	Text:838-844 Handouts
Fri, Sep 18	Health Promotion: Models and Theories	Handouts
Fri, Sep 25	Effective Community Programs	Handouts
Fri, Oct 2	Alternative Models of Care	Handouts
Fri, Oct 9	Measuring Community Oral Health: Assessment of Needs	Handouts
Fri, Oct 16	Data Collection Instruments	Handouts
Fri, Oct 23	Epidemiology of Dental Diseases in the US: Caries	Text:821-831
Fri, Oct 30	Epidemiology of Dental Diseases in the US: Perio & Other Oral Conditions	Text:831-838; 844-846 Caries Worksheet Due
Fri, Nov 6	Community Oral Health Education Evaluation of Oral Health Programs	Handouts
Fri, Nov 13	Designing Oral Health Programs Lesson Plans	
Fri, Nov 20	Ethical and Legal Public Health Practices	Text: 876 TC Literature Reviews Due
Fri, Nov 27	<i>Thanksgiving Day Holiday</i>	
Fri, Dec 4	National Board Preparation	Handouts

Date	Research Session Topic and Exams	Readings/Assignments
Tue, Aug 25	Introduction to Research	Handouts
Tue, Sep 1	CDH EXAM # 1 Room 207	
Tue, Sep 8	Research Design and Methodology	Handouts
Tue, Sep 15	Research Approach	AA: Hypothesis, Independent and Dependent Variables, Control for Extraneous Variables
Tue, Sep 22	Research EXAM #1 Room 207	
Tue, Sep 29	Sampling Methods	AA: Research Approach Text:857-861
Tue. Oct 6	CDH EXAM #2 Room 207	
Tue, Oct 13	Validity and Reliability	AA: Population, Control and Experimental Groups, Sampling Method Text: 861-862
Tue, Oct 20 & 27	Data Analysis and Interpretation	AA: Validity and Reliability Evaluation Text: 861-862 Statistics Worksheet Due
Tue, Nov 3	CDH EXAM #3 Room 207	
Tue, Nov 10	Data Analysis and Interpretation	AA: Data Collection instruments, Scale of measurement,
Tue, Nov 17	Evaluation of Scientific Literature	AA: Statistical test, alpha level, Significance reported
Tue, Nov 24	Research EXAM #2 Room 207	
Tue, Dec 1	National Board Preparation	AA: Overall evaluation of study.
Mon, Dec 7 9-11:00 am	FINAL EXAM Room 340	

EVALUATION METHODS

3 CDH Exams	30%
2 Research Exams	20%
Final comprehensive exam	25%
Daily worksheets/activities	5%
Table Clinics	
<i>Literature Review</i>	
Self	5%
Individual	5%
Journal Article Analysis	10%
Community Service	Required (Credit to be given in spring course)

Grading Scale

A = 93 - 100

B = 84 - 92

C = 75 - 83

F = 0 - 74