

SYLLABUS

COURSE: DHBS 3202 Clinical Seminar I
SEMESTER: Spring
CREDIT HOURS: 3.0

REVISED: 2006
REPRINTED: 2006

COURSE DIRECTOR: Darla McKitrick, R.D.H., M.S.

GOAL

This course is designed to provide the student with information to aid them in their clinical skills and patient education. The students will also have the opportunity to apply techniques presented in lectures to increase their clinical proficiency.

This course is a continuation of information that will enhance performance of procedures in a clinical setting. Emphasis will include patient management, evaluation and recall, diet counseling, and introduction to various specialties in dentistry. The periodontology portion of this course is an introduction to the study of periodontal nomenclature and clinical characteristics of periodontal tissues in health and disease.

OBJECTIVES

Given classroom lecture, handouts, slide presentations, case simulations, and clinical activities, the student will complete the following objectives with 75% accuracy.

I. DENTAL RECORDS

1. Explain the purposes of a complete dental record and its component parts.
2. Define PHOTEN and state the items that must be noted in each category in the Progress Notes.
3. List the items that must be noted in the chart before a patient is considered "Case Complete".
4. Note the items that must be completed in the chart before a patient can be discontinued.

II. CASE CLASSIFICATION

1. Recognize how the difficulty of a clinic case is classified.
2. Describe the four case types of periodontal disease classifications.
3. Recognize how to classify the amount and type of plaque and stain.
4. Describe the four classifications of patients in relation to the amount and difficulty of calculus present.

III. INTRODUCTION TO PERIODONTOLOGY

A. Structure and function of the normal periodontium

1. State the objective of all treatment relative to the gingival condition.
2. State the five specific objectives for the dental hygienist in dealing with the gingiva.
3. Identify clinical crown, clinical root, anatomic crown, and anatomic root.
4. List, locate, and define the function of the three types of oral mucosa.
5. Identify and define the four components of the periodontium.
6. Name, recognize, and/or describe the structural components and function of the gingiva including:
 - a. free gingiva (marginal gingiva)
 - b. junctional epithelium
 - c. interdental gingiva (interdental papilla)
 - d. attached gingiva
 - e. mucogingival junction
 - f. alveolar mucosa
 - g. frena
 - h. crevicular (sulcular) epithelium

- i. epithelial attachment
- j. crevicular fluid

7. Label a diagrammatic drawing to include each part of the above listed gingival structures.

B. Recognition of gingival and periodontal diseases

1. Differentiate gingival diseases from periodontal diseases.
2. Describe "clinically normal" or "clinically healthy" gingival tissue.
3. Describe the characteristics of normal gingival tissue in an adult.
4. State changes that may take place in gingival tissues during the transition from health to disease.
5. Explain the role of plaque in the development of disease.
6. Identify the changes that occur with an inflammatory response.
7. List three terms used to express the degree of severity.
8. Define the five terms used to describe the distribution of a tissue change.
9. State the significance of early recognition of gingival and periodontal diseases.

IV. GINGIVAL/PERIODONTAL EXAMINATION: CLINICAL CHARACTERISTICS OF HEALTHY GINGIVA AND CHANGES ASSOCIATED WITH DISEASE

1. State the purpose for taking or reviewing a patient's medical history.
2. Identify the importance of a dental history.
3. State the factors to be considered in a step-by-step examination.
4. Compare and contrast healthy gingival characteristics and signs of disease considering:
 - a. Color
 - b. Size
 - c. Position
 - d. Shape (include festoons, cratering, clefting)
 - e. Consistency
 - f. Texture
 - g. Position of Junctional Epithelium
 - h. Mucogingival Junctions
 - i. Bleeding
 - j. Exudate
5. Describe the characteristics of normal gingival tissue found in young children.
6. State the prevalence of disease changes that occur in children and teens.
7. Describe the gingival status following periodontal surgery.
8. Discriminate between correct and incorrect periodontal probing techniques.

9. Describe the technique for probing a pocket.
10. List five factors which affect probe readings.
11. Describe the procedure for measuring clinical attachment level (CAL).
12. Describe the method of examining a furcation.
13. Describe a method of determining the adequacy of attached gingiva.
14. State the significance of attached gingiva in relation to periodontal prognosis.
15. Identify the significance of muscle and frenulum attachments in periodontal prognosis.
16. List three causes of tooth mobility.
17. Identify and/or describe the most reliable technique for detecting mobility.
18. Describe the three degrees of mobility.
19. Define fremitus.
20. Identify the normal supporting structures of the periodontium on a radiograph.
21. Recognize the value of radiographic findings in diagnosing periodontal disease.
22. Recognize and describe signs of periodontal disease that can and cannot be determined radiographically.
23. Evaluate radiographs for periodontal disease. Include:
 - a. bone level
 - b. shape of remaining bone
 - c. crestal lamina dura
 - d. furcation involvement
 - e. periodontal ligament space
24. Recognize early signs of periodontal involvement on a radiograph.
25. Recognize and describe radiographic findings which may be contributing factors to periodontal disease.

V. DISEASE DEVELOPMENT AND CONTRIBUTING FACTORS

1. Define gingivitis.
2. Define periodontitis.
3. Describe the stages of development of gingivitis and the clinical appearance of each.
4. Define the eight categories for classifying periodontal diseases and conditions as prepared by the American Academy of Periodontology.
5. Identify the criteria for case classification of patients treated in the Dental Hygiene Clinic.

6. Define and describe
 - a. gingival pocket
 - b. periodontal pocket
7. Differentiate between a suprabony and an intra (infra) bony pocket.
8. Describe the anatomy of a pocket.
9. Differentiate between a gingival crevice (sulcus) and a pocket.
10. Contrast the characteristics of a gingival pocket and a periodontal pocket.
11. Identify the steps in the development of a gingival pocket.
12. Identify the steps in the development of a periodontal pocket.
13. Describe the contents of a pocket.
14. State the significance of irregularities in periodontal pockets.
15. State the function of cementum.
16. Identify and state the significance of three relationships of cementum and enamel at the cemento-enamel junction.
17. Recognize furcation involvement clinically.
18. Identify three general classes of furcation involvement.
19. State the primary etiologic factor in the development of gingival and periodontal diseases.
20. Differentiate between etiologic, predisposing, and contributing factors of disease development.
21. State the significance of etiological factors in relation to periodontal diseases.
22. Define local and systemic factors.
23. Recognize and list ten significant local etiological factors in periodontal disease.
24. Define iatrogenic factors in periodontal diseases.
25. Identify risk factors for periodontal disease.
26. Recognize the role of smoking and tobacco products in the occurrence of periodontal disease.
27. Differentiate between aerobic and anaerobic bacteria.
28. Describe the components of plaque which initiate and/or contribute to periodontal disease.
29. Identify the significant microorganisms in periodontal health and disease.

VI. OTHER PERIODONTAL CONDITIONS

1. Identify characteristics of patients with necrotizing ulcerative gingivitis.
2. Describe clinical signs of necrotizing ulcerative gingivitis. Include:
 - a. initial signs and symptoms
 - b. clinical findings
 - c. systemic involvement
3. Identify predisposing factors. Include:
 - a. local
 - b. stress
 - c. systemic
4. Identify the etiology of Necrotizing Periodontal Diseases and microflora involved.
5. Explain the development and progression of the disease progress.
6. Identify the typical characteristic of the gingiva following necrotizing periodontitis.
7. Plan a treatment regimen for a typical necrotizing periodontitis patient.
8. Contrast periodontal abscess and periapical abscess.
9. Discuss the development of a periapical abscess.
10. Identify factors contributing to the etiology of a periodontal abscess.
11. Describe the clinical appearance of a periapical abscess.
12. Identify the gingival conditions and changes that occur during pregnancy.
13. Identify conditions that may require appointment adaptation for the pregnant patient.
14. Identify gingival changes that may occur during puberty and adolescence.
15. Describe periodontal conditions that may affect the population under 20 years of age.

VII. DENTAL HYGIENE DIAGNOSIS AND CARE PLANNING

1. State the purpose and objectives of the total treatment plan.
2. Identify and describe the five components of the Dental Hygiene Process of Care.
3. Describe the purpose of formulating a dental hygiene diagnosis.
4. Discuss how various factors influence planning for patient care, including:
 - a. Chief complaint
 - b. Risk factors
 - c. Overall health status
 - d. Healthcare knowledge
 - e. Ability to perform oral care procedures

5. Explain how goals of a dental hygiene care plan affect the treatment considerations and outcomes.
6. Discuss the purpose of:
 - a. Tissue conditioning
 - b. Pain and anxiety control
 - c. Maintenance during therapy

VIII. PATIENT COMMUNICATION

1. Distinguish between the three key attributes to effective communication: listening, observing and attending.
2. Explain the function of space, culture, context, time and language in the establishment of rapport.
3. Identify and explain the importance of core nonverbal behaviors such as facial expression, body language, and eye contact.
4. Explain and demonstrate key elements of deepening rapport: empathy, respect, warmth, concreteness, genuineness, and self-disclosure.
5. State six conditions for positive feedback.
6. Frame positive "I" statements.

IX. ANXIETY AND PAIN CONTROL

1. Recognize or describe the difference between high and low pain threshold.
2. Explain the uses and limitations of psychosomatic, topical, and local anesthesia in dental hygiene practice.
3. Explain the difference between pain perception and pain reaction.
4. Describe factors that result in variations in pain among individuals.
5. Describe the difference between low and high pain thresholds versus pain tolerance.
6. List the five categories of pain control methods and identify which are pain perception or pain reaction.
7. State an example of each of the five categories of pain control methods.
8. Explain the cognitive, emotional and symbolic factors that influence a person's interpretation of pain.
9. Define the term iatrosedation.

X. PAIN CONTROL - TOPICAL ANESTHESIA

1. Define topical anesthesia.
2. List or identify indications for topical anesthetics.

3. Recognize the absorption and action of topical anesthetics.
4. Recognize commonly used topical anesthetics and their uses.
5. Describe or recognize the technique for application of topical anesthetics.
6. Describe the technique for use of the Dentipatch.

XI. PAIN CONTROL – LOCAL ANESTHESIA

1. List the contents of the local anesthetic cartridge.
2. Identify the two major chemical groups of local anesthesia and the characteristics of each.
3. List the specific short and medium acting amide drugs and their proprietary names.
4. List the specific long acting amide drugs and their proprietary names.
5. State the reasons for using vasoconstrictors and the most common type of vasoconstrictor.
6. List the dental hygiene procedures where a local anesthetic would be indicated.
7. Describe the safety value of each of the following:
 - a. Comprehensive assessment of the patient's medical status
 - b. Use of anesthetic containing a vasoconstrictor
 - c. Aspiration before injection
 - d. Slow injection and careful technique
 - d. Remaining with patient after the injection
8. Differentiate between the different types and gauges of needles.
9. Prepare both the patient and the armamentarium for common dental injections.
10. Select the appropriate injections that will achieve the desired anesthesia, then identify the injection site.
11. Describe the items to be included in the treatment record for an anesthesia entry.
12. Identify potential adverse reactions to local anesthesia.
13. Describe the two acceptable OSHA procedures for recapping used anesthetic needles.

XII. PAIN CONTROL – CONSCIOUS SEDATION

1. Define anesthesia and analgesia.
2. Define conscious, sedation, and conscious sedation.
3. Describe the characteristics of nitrous oxide.
4. List the compressed gases and their properties.
5. Describe the uses of these features as they relate to the gas delivery system:
 - a. regulator of reducing valve

- b. flow meter
 - c. reservoir bag
 - d. nasal hood, nose piece and mask
 - e. scavenger system
 - f. safety features
6. Describe the indications and contraindications of patient selection.
 7. Describe the clinical procedures for administration of nitrous oxide-oxygen sedation.
 8. Discuss the potential hazards of occupational exposure.
 9. List the advantages and disadvantages of conscious sedation anesthesia.

XIII. ULTRASONIC AND SONIC INSTRUMENTS

1. Briefly describe how ultrasonic and sonic scalers remove deposits and affects tissues. Include the basic principles of ultrasonics.
2. Explain cavitation and its effects.
3. Explain the importance of lavage/irrigation.
4. Compare and contrast the various characteristics of sonic and ultrasonic scaler instruments.
5. Compare and contrast ultrasonic instruments versus hand instruments.
6. Briefly describe the use of a magnetostrictive (cavitron) tip on the tooth surface.
7. List the different types of tips and their uses.
8. Discuss the power settings for instrumentation.
9. Discuss working end energy production and active tip area.
10. Discuss contraindications for use of power driven scaling devices.
11. Discuss the basic steps involved in equipment preparation, including infection control procedures.
12. State the steps in preparing the ultrasonic unit.
13. State the differences between scaling with hand instruments and ultrasonic instruments as to grasp, fulcrum, adaptation and stroke.

XIV. HYPERSENSITIVITY AND DESENSITIZATION

1. Define hypersensitivity
2. List or identify factors that may trigger pain in hypersensitive areas.
3. Explain the Hydrodynamic Theory of pain transmission.
4. Explain natural desensitization. Include sclerosis, secondary dentin and smear layer.
5. Describe how the patient experiences pain in hypersensitive teeth.

6. Discuss the differential diagnosis process prior to treating hypersensitive teeth.
7. State the components included in hypersensitivity management.
8. Explain patient self-care measures for hypersensitivity.
9. Describe professional products used to diminish patient discomfort and how it is accomplished.

XV. INTRODUCTION TO ENDODONTICS

1. List or identify causes of a tooth becoming non-vital.
2. List or identify observations that may mean loss of tooth vitality.
3. Identify the types of responses and their meanings.
4. Describe various methods for determining pulp vitality.
5. Define endodontics.
6. Describe the endodontic procedure.
7. Describe emergency procedures for an avulsed tooth.

XVI. PATIENT EVALUATION AND MAINTENANCE

1. Describe the objectives of immediate evaluation.
2. Describe the examination procedure when immediately evaluating a patient.
3. Identify when and why warm rinses are used.
4. Identify the three different types of soothing post scaling rinses, proportions and frequency of use of each.
5. Identify eight clinical endpoints of nonsurgical instrumentation.
6. Describe the periodontal healing process and factors that affect it.
7. Describe the effects of instrumentation on microorganisms.
8. Describe the term "maintenance" as it relates to dental hygiene.
9. Identify contributing factors that affect maintenance frequency.
10. Identify six types of patients who may need frequent maintenance.
11. Identify four categories of Periodontal Maintenance Therapy.
12. Describe the maintenance appointment procedures.
13. State the criteria for referral during maintenance.
14. List several methods for administration of a maintenance plan.

15. Determine a maintenance program for a patient.

XVII. THE ORTHODONTIC PATIENT

1. Discuss the need for extraction of premolars for orthodontic treatment and the premolars that are usually extracted.
2. Compare cemented bands to bonded brackets. Include advantages and disadvantages of bonded brackets.
3. Discuss the uses of brackets, arch wires and elastomers.
4. Discuss the effects of the acid etch on the enamel.
5. Discuss dental hygiene care for the orthodontic patient.
6. Discuss the ease of debonding as related to resins.
7. State the aim when debonding.
8. Describe the technique and precautions for bracket removal.
9. State four objectives for removal of residual adhesive.
10. Describe the visual and tactile methods of identifying residual resin.
11. State the technique for removal of resin from the tooth surface.
12. State the reason for using rubber cups and points for the final finish.
13. Discuss the significance of enamel loss from bracket placement and removal.
14. Explain demineralization as it relates to orthodontic patients.

XVIII. PEDIATRIC DENTAL MANAGEMENT

1. Discuss reasons for retention of primary teeth and the use of space maintainers.
2. State the primary growth sites of the maxilla and mandible.
3. Describe management strategies for children.
4. Describe the pediatric dental patient's first dental visit with reference to age and purpose.
5. Describe plaque control instructions for the pediatric dental patient.
6. Describe the differences between healthy gingiva of a pediatric dental patient and an adult patient.
7. Identify the location of primate spaces on a primary dentition.
8. Identify the teeth used in determination of occlusion in a primary dentition.

XIX. THE GERODONTIC PATIENT

1. Define osteoporosis and state its causes.
2. State the relationship of osteoporosis to periodontal disease.
3. Describe the changes in oral conditions of the aging patient as they pertain to the:
 - a. lips
 - b. oral mucosa
 - c. tongue
 - d. teeth
 - e. periodontium
4. Define xerostomia
5. List the considerations for dental hygiene care when planning and conducting appointments for the older patient.
6. Discuss dental plaque formation and recommendations for plaque removal in the elderly.
7. State the considerations of diet and nutrition in the elderly.

XX. DENTAL PROSTHESES

1. Define dental prosthesis.
2. Identify or list four types of both fixed and removable prostheses (partial dentures).
3. Recognize materials used in construction of complete and partial dentures, crowns, and fixed bridgework.
4. Identify or describe the component parts of a fixed bridge including:
 - a. abutment
 - b. retainer
 - c. pontic
 - d. connector
5. Identify or describe the auxiliary aids and methods which may be used to clean a fixed bridge.
6. Define removable partial denture.
7. Identify or describe the component parts of a removable denture including:
 - a. base
 - b. replacement teeth (denture teeth)
 - c. palatal/lingual bar (major connector)
 - d. retainers (clasps)
8. Identify the cleaning procedure for the removable partial denture.
9. Identify the proper procedure for care of the natural teeth and supporting gingival tissue.
10. Identify three methods for cleaning complete dentures.

11. Identify three types of chemical solution cleaners, examples of each, and their advantages/disadvantages for use.
12. Identify two types of denture cleansers classified as abrasive cleaners and disadvantages of each.
13. Describe or identify the procedure for cleaning complete dentures by immersion and brushing.
14. Describe or identify procedure for caring for gingival tissues under the complete denture.

XXI. THE ORAL AND MAXILLOFACIAL SURGERY PATIENT

1. Define the specialty of oral and maxillofacial surgery.
2. Discuss the objectives for dental hygiene care and instruction prior to oral surgery.
3. Discuss post surgical dietary instructions and the reasons for prescribing such a diet.
4. Discuss basic post surgical instructions reviewed with the patient after surgery.
5. Identify both traumatic and predisposing causes of fractured jaws.
6. Identify simple, compound, comminuted and incomplete fractures.
7. Define reduction.
8. Define fixation.
9. Discuss alveolar process fractures in relation to appearance and treatment.
10. Discuss dental hygiene care for a patient with a fixation apparatus.
11. Discuss nutritional needs, methods of feeding, liquid diet and soft diet in relation to the patient with a fixation apparatus.
12. State personal oral care procedures for the patient that has undergone an oral surgery procedure.
13. State reasons why preparation of the mouth is important for patients at risk.

XXII. INTERACTIVE CASE STUDY

1. Interact with computerized case study to assess and determine Phase I Treatment and Evaluation of the case study.
2. Answer the questions posed by Dr. Socaransky through Phase I Evaluation.
3. Interact with peers to determine case study patient needs.

RESOURCES

I. Media Resources

A. Printed Media

1. Required textbooks

Wilkins, Esther
Clinical Practice of the Dental Hygienist, 9th ed.
Lippincott Williams & Wilkins, Philadelphia, 2004

Daniel, Susan J. & Harfst, Sherry A.
Mosby's Dental Hygiene
Mosby Inc., 2004 Update

Nield-Gehrig, Jill S
Fundamentals of Periodontal Instrumentation, 5th ed.
Lippincott, Williams and Wilkins, 2004

Drug Information Handbook for Dentistry
R.L. Wynn, T.F. Meiller, H.L. Crossley,
Lexi-Comp, Inc.
10th Edition, 2005.

Dental Hygiene Faculty
University of Texas Health Science Center – Houston, Dental Branch
Dental Hygiene Student Handbook
2005-2006

2. Reference materials

Dental Hygiene Theory and Practice
Darby, M. & Walsh, M.
W.B. Saunders Co., Phil., 1994.

II. Human Resources

Darla McKitrick, R.D.H, M.S.
Phone: 713-500-4397, Room 1.085E
Email: darla.mckitrick@uth.tmc.edu

Course Director

The student is invited to make an appointment
with the instructor at a mutually convenient time.

STUDY PLAN AND REQUIREMENTS

Student Responsibilities

A. Attendance and Punctuality

1. Required at 90% of all sessions of the course.
1. If for any reason the student is unable to attend class, contact the instructor or secretary as soon as possible before the absence.
2. Emergency problems must be reported immediately to the secretary at 713-500-4086 as soon as they become apparent.
3. The student is responsible for obtaining information, materials and/or assignments that were presented during the session.

B. Reading Assignments

1. Complete prior to class sessions scheduled for that same date.
2. Additional materials for required reading may be distributed at each class.

C. Academic Success

1. The student is encouraged to review his/her course status regularly.
2. Assignments must be submitted on the due date to receive credit.
3. If below average scores are earned in any portion of the course, the student must contact the instructor for assistance in planning for successful completion of the course.
4. If an examination is missed, a make-up exam will be scheduled during the final exam week.

D. Cheating

1. Exams in this course have not been released and it is considered cheating if you view copies of any questions from students who have previously taken this course and taken the exams.
2. It is not cheating to view or share answers to objectives stated in this syllabus. However, you are encouraged to complete the objectives on your own since reading the text and finding the objectives within the reading is good reinforcement.

DHBS 3202 CLINICAL SEMINAR I
2006 Spring Semester Lecture Schedule

Session times: Tuesday 1:00-2:20 pm, Wednesday 10:00 -11:30 am
 Tuesday, Room B81; Wednesday, Room 446, unless otherwise indicated on schedule or calendar.

Date	Subject	Assignment
Jan 2 1-2:50 pm	Group I: CIS Training Room 341	
Jan 3 1-2:50 pm	Group 2: CIS Training Room 341	
Jan 4 9-11:50 am	Review course syllabi: clinical requirements, clinic grading, & rotations Student partner Prophy information	
Jan 5 9-9:50 am	Semester Review Exam Room 132	
Jan 5 10-11:50 am	Clinic lab instrument review	Work on typodonts in lab; bring chair mounts to lab
Jan 5 1-3:50 pm	Group 3: CIS Training Room 341	
Jan 6 1-2:50 pm	Group 4: CIS Training Room 341	
Jan 10	Clinic procedures; Patient Care information	DB Clinic Manual, Section Sections 3.21-3, 3.31-2, 3.41-4, 3.51-56, 3.61, 4.11-4.12
Jan 11	Clinic procedures; Risk Management	
Jan 17	Introduction to Periodontology – Normal structure, function and assessment Room B14	Wilkins, Ch 12 DH Handbook, p. C18-20
Jan 18	Recognition of Gingival/Perio Diseases	
Jan 24	Gingival/Perio Examination Procedures	Wilkins, Ch 13; Neild-Gehrig p. 441-60
Jan 25	Perio-Disease Development and Contributing Factors	Wilkins, Ch. 14 Handout Packet - ADHA Access article
Jan 31	Perio continued	Review Wilkins, Ch. 17;
Feb 1	Other Periodontal Conditions	Wilkins, Ch. 39, 45, & 48
Feb 7	EXAMINATION I Room B81	
Feb 8	Dental Hygiene Diagnosis and Care Planning	Wilkins, pp. 6-8, 348, Ch. 21 DB Clinic Manual 3.33-4
Feb 14	Dental Hygiene Diagnosis and Care Planning	
Feb 15	Patient Communication	Daniel & Harfst, Ch 4

EVALUATION METHODS

Clinical Seminar I

1. Grades Possible - A, B, C, F

93 - 100	A
84 - 92	B
83 - 75	C
0 - 74	F

2. Grade Requirements

10% Semester Review Exam
20% Exam I
20% Exam II
20% Exam III
30% Comprehensive Final Exam

Interactive Case Study Discussions & Exercises – Pass/Fail and **due on April 28.**