COURSE INFORMATION SHEET*

COURSE NUMBER AND TITLE:
DHYG 1211      Periodontology

COURSE (CATALOG) DESCRIPTION
Study of normal and diseased periodontium to include the structural, functional, and environmental factors. Emphasis is placed on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary private practice setting.

COURSE OUTCOMES
1. Contrast normal and abnormal periodontium.
2. Analyze the etiology and pathology of periodontal diseases
3. Differentiate treatment modalities used for therapy and prevention.
4. Interpret periodontal assessment data to develop a dental hygiene care plan.
5. Assess risk factors that contribute to the pathogenesis of periodontal disease and implement strategies to counteract those risk factors.

INSTRUCTOR:     Barbara Bennett, CDA,RDH, MS     OFFICE:    I116B
CLASS HOURS:   Tuesdays and Thursdays 8:00 a.m. to 9:35 a.m.  U126
OFFICE HOURS: Tuesdays and Thursdays 10:00 – 11:00 a.m. or by appointment
OFFICE TEL: 364-4602
INSTRUCTOR EMAIL ADDRESS: blbennett@tstc.edu

DENTAL HYGIENE CORE COMPETENCIES EVALUATED IN THIS COURSE: from the American Dental Education Association 2011 Competencies for Entry into the Profession of Dental Hygiene.

C.3 Use critical thinking skills and comprehensive problem-solving to identify oral health care strategies that promote patient health and wellness.

C.4 Use evidence-based decision making to evaluate emerging technology and treatment modalities to integrate into patient dental hygiene care plans to achieve high-quality, cost-effective care.

C.5 Assume responsibility for professional actions and care based on accepted scientific theories, research, and the accepted standard of care.

C.7 Integrate accepted scientific theories and research into educational, preventive, and therapeutic oral health services.

C.11 Record accurate, consistent, and complete documentation of oral health services provided.
C.12 Initiate a collaborate approach with all patients when developing individualized care plans that are specialized, comprehensive, culturally sensitive, and acceptable to all parties involved in care planning.

HP.4 Identify individual and population risk factors, and develop strategies that promote health-related quality of life.

HP.5 Evaluate factors that can be used to promote patient adherence to disease prevention or health maintenance strategies.

PC.1 Systematically collect, analyze, and record diagnostic data on the general, oral, and psychosocial health status on a variety of patients using methods consistent with medicolegal principles.

PC.2 Recognize predisposing and etiologic risk factors that require intervention to prevent diseases.

PC.3 Recognize the relationships among systemic disease, medications, and oral health that impact overall patient care and treatment outcomes.

PC.5 Use patient assessment data, diagnostic technologies, and critical decision making skills to determine a dental hygiene diagnosis, a component of the dental diagnosis, to reach conclusions about the patient’s dental hygiene care needs.

PC.6 Utilize reflective judgment in developing a comprehensive patient dental hygiene care plan.

PC.7 Collaborate with the patient and other health professionals as indicated to formulate a comprehensive dental hygiene care plan that is patient-centered and based on the best scientific evidence and professional judgments.

PC.10 Provide specialized treatment that includes educational, preventive, and therapeutic services designed to achieve and maintain oral health. Partner with the patient in achieving oral health goals.

PC.11 Evaluate the effectiveness of the provided services, and modify care plans as needed.

PC.12 Determine the outcomes of dental hygiene interventions using indices, instruments, examination techniques, and patient self-reports as specified in patient goals.

PC.13 Compare actual outcomes to expected outcomes, reevaluating goals, diagnoses, and series when expected outcomes are not achieved.

REQUIRED TEXT AND MATERIALS

2014 Course workbook by instructor

Pen, pencils, paper, scantrons, 2 ½” notebook

**GRADING CRITERIA**
All grades are based on a perfect grade of 100
50% of the final grade is based on test scores
30% of the final grade is based on quiz scores
5% of final grade is based on mentor team assignments
5% of the final grade is based on classroom assignments and case notes
10% of the final grade is based on research paper and class presentation
*(Critical thinking project)*

**HEALTH PROFFESIONS GRADING SCALE**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>100-93</td>
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<tr>
<td>B</td>
<td>92-86</td>
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<td>C</td>
<td>85-78</td>
</tr>
<tr>
<td>F</td>
<td>77-0</td>
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</tbody>
</table>

Grades below C are unsatisfactory for advancement in the program.

**TASK LISTING FOR COURSE**
1. Collect and record patient information.
2. Assess patient’s general condition.
5. Calculate and record dental indices.
8. Administer therapeutic agents.
11. Evaluate the patient’s oral health status.
15. Evaluate the patient’s progress and response to self-care therapy.
19. Identify and describe any abnormal finding intra-orally or extra-orally.
22. Integrate knowledge of anatomy and physiology into comprehensive dental hygiene care.
35. Perform clinical assessment of periodontium.
68. Analyze existing dental research

**INSTRUCTIONAL UNITS WITH SPECIFIC LEARNING OBJECTIVES**
**Unit A – Introduction to Periodontology, Anatomy and Physiology of the Periodontium**
1. Define relevant terms.
2. Discuss the structures found in the oral cavity.
3. Explain the mechanism of attachment of epithelium to connective tissue.
5. Distinguish between exocrine and endocrine glands.
6. Compare epithelial tissue to connective tissue.
7. Describe the layers of stratified squamous epithelium and the significance of each cellular layer.
8. Compare and contrast the types of gingiva, the lamina propria and the submucosa.
9. Identify the anatomical landmarks of the tongue.
10. Explain the location and purpose for keratinization in the oral cavity.
11. List the four components of the periodontium and the functions of each.

Unit B--Clinical Assessment and Documentation
1. Define relevant terms.
2. Compare clinical characteristics of health and unhealthy oral tissues.
3. Explain the significance of accurate data collection in the diagnosis and treatment of the periodontal patient.
4. Discuss the factors that affect the accuracy of probe readings.
5. Outline radiographic changes as periodontal disease progresses.
6. Describe the process of determining clinical attachment level.
7. List the classifications of furcations and the mobility classifications.
8. Demonstrate probing technique and recording.
9. Demonstrate measurement of clinical attachment level.
12. Educate a patient about their periodontal condition.

Unit C--Etiology and Classification of Periodontal Disease
1. Discuss how Koch’s Postulates apply to periodontal disease.
2. Compare and contrast the nonspecific and specific plaque hypothesis.
3. Describe the process of bacterial colonization and plaque maturation.
4. Discuss the factors affecting subgingival plaque.
5. Differentiate between direct and indirect effects of plaque bacteria on the periodontium.
6. Compare and contrast the histological and clinical stages of gingivitis.
7. List the types of gingivitis.
8. Discuss the characteristics of the AAP classes of periodontal diseases.
9. Describe the risk factors associated with necrotizing periodontal diseases.
10. Discuss how systemic and local factors can impact periodontal health.
11. Explain the concept of critical mass in development of periodontal disease.

Unit D--Pathogenesis of Periodontal Disease
1. Define relevant terms.
2. Discuss the rationale for periodontal therapy.
3. Describe localized and generalized chronic periodontitis in terms of clinical signs and symptoms, onset, primary etiologic factor, primary pathogens, disease activity, treatment and prognosis.
4. Describe localized and generalized aggressive periodontitis in terms of clinical signs and symptoms, onset, primary etiologic factor, primary pathogens, disease activity, treatment and prognosis.
5. Discuss factors that lead to the classification of a periodontal disease as “refractory.”
6. Compare the histopathogenesis of gingivitis and periodontitis.
7. List the characteristics of a periodontal pocket, including clinical features, bacteriologic contents, and treatment.
8. Discuss epithelial changes occurring in a periodontal pocket.
9. Compare infrabony and suprabony pockets.
10. Discuss furcation involvement, including teeth affected, symptoms, treatments, and prognosis.
11. Describe bony changes associated with periodontal disease, occlusal trauma, and tension.
12. Identify the following on a radiograph: infrabony and suprabony pocket, furcation involvement, bone loss associated with periodontal disease.
13. Outline the current theories of periodontal diseases.

Unit E--Inflammation and the Immune Response
1. Define relevant terms.
2. Compare and contrast the five classifications of immunoglobins.
3. List the components of blood, and the function of each.
4. Compare and contrast the origin, maturation, and function of T-cells and B-cells.
5. Summarize the four types of hypersensitivity reactions.
6. Discuss the process of gingival inflammation and the role the inflammatory system plays in host defense.
7. Compare and contrast the role of endotoxins and exotoxins in periodontal disease.
8. Discuss the role of host response in causing periodontal destruction.
9. Diagram the inflammatory pathway in periodontal disease.
10. Describe the relationship between inflammation and cardiovascular disease, kidney disease, and respiratory diseases.

Unit F--Local and Environmental Factors
1. Define relevant terms.
2. Explain the primary effect of calculus on periodontal tissues, and its etiologic and clinical significance.
3. Compare and contrast supragingival and subgingival calculus.
4. Discuss the factors that affect calculus formation.
5. Describe the significance of the following local and environmental factors on the periodontal tissues: materia alba, food impaction, missing teeth, malocclusion, mouth breathing, tongue thrusting, tobacco, toothbrush trauma, chemical irritation, and oral appliances and prosthetics.

Unit G--Effects of Systemic Diseases/Conditions on Periodontal Tissues
1. Discuss the general functions of nutrients and their affect on the oral health.
2. Explain how hormonal imbalance can affect the periodontium in the following conditions: hyperparathyroidism, diabetes types I and II, puberty, menstruation, pregnancy and oral contraceptives, menopause, and stress.
3. Describe the relationship of diabetes mellitus and periodontal disease.
4. Discuss the periodontal risk factors for the diabetic patient.
5. Explain how the physiologic changes in diabetes predispose the patient to periodontal disease.
7. Discuss the effects of blood dyscrasias on the periodontium.
8. Describe the relationship between inflammation and cardiovascular disease.
9. Describe the dental hygiene considerations for the conditions above.
Unit H--Periodontal Debridement, Non-surgical Therapy, and Maintenance
1. Define relevant terms.
2. Discuss the rationale, objective, and expected results of performing periodontal debridement and non-surgical periodontal therapy.
3. Describe the clinical indications and limitations of root planing.
4. List the factors which contribute to the difficulty of removing local irritants.
5. Compare and contrast traditional and current concepts of root smoothness.
6. Discuss the historical and current perspectives regarding the role of irritants in periodontal disease.
7. Compare and contrast ultrasonic, sonic, and hand instrumentation in periodontal debridement.
8. Working with a second year student mentor, develop a risk assessment and treatment plan for an assigned case. (SCANS 2D)
9. Describe the rationale for phase treatment planning for the periodontal patient.
10. Discuss the rationale for periodontal maintenance.
11. Describe the clinical signs of recurrence of disease.
12. Discuss host factors that influence the progression of periodontal disease.
13. Identify compliance issues that interfere with periodontal health.

Unit I--Chemotherapeutic Agents
1. Define relevant terms.
2. Discuss the purpose of using chemotherapeutic agents.
3. Compare and contrast delivery systems, giving limitations, indications, and contraindications for each.

Unit J--HIV and Oral Manifestations
1. Compare AIDS and HIV.
2. Discuss the epidemiology of HIV world-wide and in the U.S.
3. Discuss the virology of HIV.
4. List the risk factors for HIV.
5. Describe the HIV Classification according to the Centers for Disease Control.
6. Discuss the oral manifestations associated with HIV.
7. Identify the common oral manifestations of HIV.
9. Identify common HIV medications.

Unit K - Periodontal Surgery
1. Define relevant terms.
2. Discuss each of the following types of periodontal surgery: gingival curettage, gingivectomy, periodontal flap surgery, guided tissue regeneration, mucogingival correction, and resective osseous surgery.
3. Outline indications, outcomes, and contraindications for each of the surgeries listed above.

Unit L--Introduction to Implants
1. Define relevant terms.
2. Discuss the role of the dental hygienist in implant dentistry.
3. Compare and contrast endosseous and subperiosteal implants.
4. Discuss patient selection for implants
5. Review implant homecare and professional care procedures and the importance of the implant maintenance visit.

Unit M -- Periodontal Emergencies
1. Define relevant terms.
2. Describe the clinical characteristics, etiology, and treatment for each of the following periodontal emergencies: necrotizing periodontal diseases, pericoronitis, acute herpetic gingivostomatitis, periodontal abscess, gingival abscess, endodontic abscess, and periodontal and gingival cysts.
3. Discuss the factors to consider in determining the diagnosis and prognosis in the periodontal emergencies listed above.
4. Identify each of the above periodontal emergencies by sight or description.
5. Write a research paper and present a class presentation on a periodontal condition or emergency.

Unit N - Student Learning Objectives for Critical Thinking
1. The student will demonstrate the ability to identify the essential question, issue, and/or problem.
2. The student will demonstrate the ability to gather data relevant to the essential question, issue, and/or problem.
3. The student will demonstrate the ability to interpret appropriate data effectively.
4. The student will demonstrate the ability to recognize and evaluate assumptions, major alternative points of view and related theories, principles, and ideas relevant to the question, issue, and/or problem.
5. The student will demonstrate the ability to develop informed conclusions/solutions.
6. The student will demonstrate the ability to articulate implications and consequences that emerge from the conclusions/solutions.
7. The student will demonstrate the ability to communicate any or all parts of the above process in written or oral form.

COURSE SCANS COMPETENCIES

<table>
<thead>
<tr>
<th>Competency Number</th>
<th>Competency Statement</th>
<th>Instructional/Evaluation Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>2D</td>
<td>Exercises Leadership</td>
<td>Mentor team assignment</td>
</tr>
<tr>
<td>3C</td>
<td>Interprets and Communications Information</td>
<td>The student will write a research paper on periodontal conditions or emergencies and present findings to classmates.</td>
</tr>
</tbody>
</table>

NO MAKE-UP EXAMS WILL BE GIVEN. The next examination will count double. For the final examination, a 10% reduction in the score will be taken if not taken at scheduled time. If the student has an emergency, he/she must notify the instructor. No
make-up quizzes will be given, however, the lowest quiz grade will be dropped from the average. A reduction of one grade category will be taken for every day assignments are late. Students who are late for tests or quizzes have until the last person who was on time is finished to complete their work. **NO EXCEPTIONS!!!**

PARTICIPATION
In accordance with the TSTC Dental Hygiene Student Handbook, participation and punctuality are expected. Learning activities in the course are designed to enhance the understanding of concepts. Each student is expected to prepare in advance for each session and to participate in an appropriate manner. It is the student’s responsibility to monitor his/her own progress and to withdraw from the course if failing. Midterm advising will provide student feedback as to their progress. Total professionalism is expected at all times, and disruptive behavior is cause for dismissal from the session. This includes cell phones and texting!!! Students **MUST** notify the instructor if they are to be absent, and are responsible for obtaining all lecture notes, assignments, and other materials from their classmates.

**NOTE:** Mastery of the material can only be accomplished through work you do inside and outside of class and in clinic. You are responsible for reading and learning the material. You will help yourself learn by reading the appropriate material in the textbook prior to class. You need to devote **at least** two hours of study for every hour of class.

INSTRUCTOR HELP
All students are considered mature enough to seek help and assistance from faculty. Students should ask for clarification if a concept is unclear. If a problem arises that warrants instructor help, please do not hesitate to let your instructor know.

ACCOMMODATION STATEMENT
If you have a documented disability which will make it difficult for you to carry out classwork as outlined and wish to request reasonable accommodations, please notify the Support Services Office as soon as possible, but no later than the first two (2) weeks of the semester. For more information, call or visit the Support Services Office in the Auxiliary Services Building at (956) 364-4520.

ANTI-VIOLENCE POLICY
TSTC Harlingen faculty, staff, and students are asked to report all threats, perceived or real, immediately to College Police located in the Auxiliary Building. If the threat is imminent, the College Police emergency phone line at 364-4234 or 9-911 should be called. College Police will then coordinate the proper response in accordance with State and federal laws and TSTC System/College rules and regulations.

COPYRIGHT STATEMENT
The materials used in the course (textbooks, handouts, media files (podcast, MP3, Videos, RSS Feeds), and all instructional resources on the colleges Learning Management System (Moodle) are intended for use only by students registered and enrolled in this course, and are
only to be used for instructional use, activities associated with, and for the duration of the course. By "handouts," this means all materials generated for this course, which includes but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and any additional materials.

These materials may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the Teach Act. These materials may not be reproduced, displayed, modified or distributed without the express prior written permission of the copyright holder or TSTC. For further information contact your instructor.

**USING SOCIAL MEDIA IN CLASSROOM**

The use of media and communications devices such as cell phone (Using cell phone, voice recorder, and webcam), laptop, laptop webcam, PDAs, during class/lab is expressively up to the discretion of your instructor. The recording of a class, lecture, taking images of the classroom, members of the class, and any activities within the classroom environment is not authorized without express permission from your instructor. At no time will any recordings that have been NOT approved be given to another party, or uploaded to a third party website. Recordings within a classroom and labs are regarded as property of the college. Any unauthorized recordings violates copyright issues explained previously in the syllabus.

**COMMUNICATING WITH YOUR INSTRUCTOR (MyMail Email System)**

The use of Your Mymail TSTC College student e-mail account will be the only way to receive official notices from the college. When communicating with instructors and/or employees of the college you are required to use your TSTC Mymail student e-mail address. If you choose to forward your e-mail to another account, please be advised that all communication from and within the college will use your Mymail student e-mail.

*The instructor reserves the right to make any changes to the Course Information Sheet s/he deems necessary to facilitate the delivery of the course material and student learning. You will be notified of any changes.*

**COURSE TOPIC OUTLINE SPRING 2013**
(Subject to change as needed to maximize learning opportunities)

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
<th>Text Reading Assignment (Nield)</th>
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<tbody>
<tr>
<td>Jan 14</td>
<td>History of Dentistry</td>
<td><code>Workbook Units</code></td>
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<tr>
<td></td>
<td>Intro to Periodontology</td>
<td>Chapters 1, 2, 3</td>
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<tr>
<td></td>
<td>Review of oral components</td>
<td><code>Unit A</code></td>
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<tr>
<td>Jan 16</td>
<td>Clinical Assessment and Documentation</td>
<td>Chapters 3, 13, 19, 20, 23, 34</td>
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<td></td>
<td><code>Unit B</code></td>
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<tr>
<td>Jan 21</td>
<td>Clinical Assessment and Documentation</td>
<td>Chapters 3, 13, 19, 20, 23, 34</td>
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<td>Date</td>
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<td>Chapters</td>
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<td>Jan 23</td>
<td>Clinical Assessment and Documentation</td>
<td>Chapters 3, 13, 19, 20, 23, 34</td>
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<td>Jan 28</td>
<td>Etiology, Classification, and Pathogenesis of Periodontal Disease</td>
<td>Chapters 4, 5, 6, 12</td>
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<td>Jan 30</td>
<td>Exam one</td>
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<td>Feb 4</td>
<td>Etiology, Classification, and Pathogenesis of Periodontal Disease</td>
<td>Chapters 4, 5, 6, 12</td>
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<tr>
<td>Feb 6</td>
<td>Etiology, Classification, and Pathogenesis of Periodontal Disease</td>
<td>Chapters 4, 5, 6, 12</td>
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<td>Feb 11</td>
<td>Exam Two</td>
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<tr>
<td>Feb 13</td>
<td>Inflammation and the Host Response</td>
<td>Chapters 8, 9</td>
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<td>Feb 18</td>
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<td>Chapters 8, 9</td>
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<td>Feb 20</td>
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<td>Feb 25</td>
<td>Exam Three</td>
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<td>Feb 27</td>
<td>Local Factors</td>
<td>Chapter 7</td>
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<tr>
<td>March 4</td>
<td>Systemic Factors</td>
<td>Chapters 10, 11, 21</td>
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<tr>
<td>March 6</td>
<td>Systemic Factors</td>
<td>Chapters 10, 11, 21</td>
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<td>March 7</td>
<td>Midterm</td>
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<td>March 11-13</td>
<td>Spring Break – have fun!</td>
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<tr>
<td>March 18</td>
<td>Risk Assessment</td>
<td>Chapters 12, 18, 21</td>
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<tr>
<td>March 20</td>
<td>HIV/AIDS</td>
<td>Wilkins pp 54-58</td>
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Be sure and wear your sunscreen and take care of your liver!
March 25  Exam Four

March 27  Periodontal debridement,  Chapters 24, 26, 31, Unit H
Nonsurgical periodontal therapy

April 1  Documentation and Insurance  Chapters 31, 34
Continuing care
Mentor assignment due

April 3  Chemotherapeutic agents  Chapter 27, 28, 29, Unit I
April 4: last day to drop with “W”

April 8  Chemotherapeutic agents  Chapter 27, 28, 29, Unit I

April 10  Periodontal Surgery  Chapter 30, Unit K

April 15  Dental Implants  Wilkins 464-473
Chapter 32, 35
Unit L

April 17  Presentations

April 22  Presentations

April 24  Presentations, Review  Finals TBA