

# **INSTRUCTIONAL PACKAGE**

DHG 141 Periodontology

Effective Term AY 2020/2021

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# **Part I: Course Information**

Effective Term: 202020

COURSE PREFIX: DHG 141 COURSE TITLE: Periodontology

CONTACT HOURS: 2 CREDIT HOURS: 2

#### **RATIONALE FOR THE COURSE:**

This course provides the student with the foundation of periodontology using current evidence-based research. Students will learn to assess patient for presence or absence of periodontal disease using various assessment tools. Upon completion of this course students will utilize critical thinking skills that focuses on optimal patient care.

#### **COURSE DESCRIPTION:**

This course presents a study of the principles, etiologies, classifications and treatments of periodontal disease with emphasis on the role of the dental hygienist.

## PREREQUISITES/CO-REQUISITES:

DHG 151 Dental Hygiene Principles

DHG 243 Tooth Morphology and Histology

AHS 113 Head & Neck Anatomy

#### **CO-REQUISITES:**

DHG 165 Clinical Dental Hygiene I

DHG 121 Dental Radiology

DHG 143 Nutrition

\*Online/Hybrid courses require students to complete the DLi Online Student Orientation prior to completing an online course. The DLi Online Student Orientation can be found in WaveNet, under the My Student tab.

#### **REQUIRED MATERIALS:**

Please visit the <u>BOOKSTORE</u> online site for most current textbook information. Use the direct link below to find textbooks.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

#### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials. WaveNet and D2L email access.

#### STUDENT IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

#### **CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

# Refer to the HGTC Dental Sciences Program Manual for additional policies on classroom etiquette.

**NETIQUETTE**: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit <a href="Online">Online</a> <a href="Netiquette">Netiquette</a>.

# **Part II: Student Learning Outcomes**

Upon completion of DHG 141, the student will have a better understanding of the following:

- 1. Understand the structures and microscopic anatomy of the periodontium.
- 2. Identify the clinical and histological characteristics of the periodontium.
- 3. Compare clinical characteristics of health vs. diseased periodontium.
- 4. List and describe the American Academy of Periodontology classification system for periodontal disease.
- 5. Understand the role of oral biofilms as they relate to periodontal infection.
- 6. Describe the pathogenesis of periodontal disease.
- 7. Differentiate among localized, generalized and marginal characteristics of periodontal inflammation.
- 8. Understand the etiology of periodontal disease.
- 9. Demonstrate periodontal assessment using radiographic interpretation and treatment planning.
- 10. Discuss the various surgical and nonsurgical treatments of periodontal disease.
- 11. Understand the correlation between tobacco use and periodontal disease.
- 12. Used evidence-based decision making when developing the best practices for periodontal care.
- 13. Learn techniques to educate patients about their periodontal disease and motivate them to improve long-term outcomes.
- 14. Understand the correlation between systemic diseases and periodontal disease.

#### **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

#### Module 1

**Materials Covered:** Gehrig & Willmann, Ch. 3 Overview of Diseases of the Periodontium, Ch. 4 Classification of Periodontal Diseases and Conditions, and Ch. 5 Clinical Features of the Gingiva

**Assessments:** Quizzes, Test, Case Presentations, Final Exam

## **Objectives:**

- 1. Define the terms disease progression, periodontal disease, periodontitis, transseptal fibers, suprabony & infrabony pocket, vertical and horizontal bone loss.
- 2. Name the two major categories of periodontal disease.
- 3. Define and contrast the terms gingival disease, periodontal disease, and periodontitis.
- 4. List, describe, and differentiate the various periodontal diseases according to the current classification system established by the American Academy of Periodontology.
- 5. Compare and contrast clinical features of healthy and inflamed gingival tissue.
- 6. Explain acute and chronic inflammation and bulbous, blunted and cratered papilla.

#### Module 2

<u>Materials Covered:</u> Gehrig & Willmann, Ch. 6 Diseases of the Gingiva, Ch. 7 Chronic Periodontitis, Ch. 8 Aggressive Periodontitis, and Ch. 9 Other Periodontal Conditions

Assessments: Quizzes, Test, Case Presentations, Final Exam

# **Objectives:**

- 1. Compare and contrast dental plaque-induced gingival diseases and non-plaque-induced gingival lesions
- 2. Understand the systemic factor that cause gingival disease and the medications that cause gingival enlargement.
- 3. Define the terms clinical attachment loss, descriptors recurrent chronic periodontist, and refractory chronic periodontitis.
- 4. Recognize the warning signs of chronic and aggressive periodontal disease and the radiographic features.
- 5. Understand the difference between localized or generalized aggressive periodontitis.
- 6. Name and explain systemic or genetic factors that may contribute to the initiation and progression of periodontitis.
- 7. Describe clinical signs of periodontitis that may be associated with HIV infection.
- 8. Describe the tissue destruction and clinical findings associated with necrotizing ulcerative gingivitis and necrotizing ulcerative periodontitis.
- 9. Compare and contrast the tissue destruction in chronic periodontitis with the seen in necrotizing ulcerative periodontitis.
- 10. Name several local factors that contribute to the progression of periodontitis.
- 11. Define secondary occlusal trauma and explain how it can lead to rapid bone loss.

## Module 3

<u>Materials Covered:</u> Gehrig & Willmann, Ch. 10 Guidelines for Periodontal Decision Making & Etiologic Factors, Ch. 11 Risk for Periodontitis & Oral Biofilms and Periodontal Infections, and Ch. 12 Oral Biofilms and Periodontal Infections

Assessments: Quizzes, Test, Case Presentations, Final Exam

#### **Objectives:**

- 1. List the three fundamental diagnostic questions used when assigning a periodontal diagnosis.
- 2. Explain the terms signs of disease, symptoms of disease, silent disease, clinical attachment loss.

- 3. List the phases of treatment.
- 4. Define the terms biologic equilibrium and contributing risk factors.
- 5. Discuss the importance of a periodontal risk assessment in periodontal treatment planning.
- 6. Explain the difference in the cell membrane of a gram-positive versus a gram-negative bacterium.
- 7. Define the terms, biofilm, bacterial microcolonies, fluid channels, extracellular slime layer, acquired pellicle, and coaggregation.
- 8. State the most effective ways to control dental plaque biofilms.

#### Module 4

<u>Materials Covered</u>: Gehrig & Willmann, Ch. 13 Basic concepts of Immunity and Inflammation, Ch. 14 Host Immune Response to Plaque Biofilm, Ch 15 Systemic conditions that Amplify Susceptibility to periodontal Disease and Ch. 16 Local Factors Contributing to Periodontal Disease

**<u>Assessments:</u>** Quizzes, Test, Case Presentations, Final Exam

## **Objectives:**

- 1. Define the terms immune system, pathogenicity, pathogenicity of plaque biofilm, inflammatory mediator, and biochemical mediator.
- 2. Describe the role of polymorphonuclear leukocytes, macrophages, B lymphocytes, and T lymphocytes in the immune system.
- 3. Describe the three ways the antibodies participate in the host defense.
- 4. Describe the steps in the process of phagocytosis.
- 5. Describe the role of cytokines, prostaglandins, and MMPs in periodontitis.
- 6. Discuss the implication of periodontitis as it relates to uncontrolled diabetes, leukemia, acquired immunodeficiency syndrome, hormone alterations, osteoporosis, and Down syndrome.
- 7. Describe local contributing factors that can lead to direct damage to the periodontium.

#### Module 5

<u>Materials Covered:</u> Gehrig & Willmann: Ch. 18 Tobacco, Smoking, and Periodontal Disease, Ch. 19 Clinical Periodontal Assessment, Ch. 20 Radiographic Analysis of the Periodontium, and Ch. 21 Best Practices for Periodontal Care

**Assessments:** Quizzes, Test, Case Presentations, Final Exam

# **Objectives:**

- 1. Discuss the implications of tobacco products on periodontal health.
- 2. Discuss the effects of smoking on periodontal treatment outcomes.
- 3. Compare and contrast a periodontal screening examination and a comprehensive periodontal assessment.
- 4. Explain how to calculate clinical attachment level and the width of attached gingiva.
- 5. Distinguish between vertical and horizontal alveolar bone loss.
- 6. Recognize the radiographic characteristics of normal and abnormal alveolar bone.
- 7. Identify the three components of evidence-based decision making.
- 8. Explain the difference between a peer-reviewed journal and trade magazine.

#### Module 6

<u>Materials Covered:</u> Gehrig & Willmann, Ch. 22 Nonsurgical Periodontal Therapy, Ch. 23 Patient's Role in Nonsurgical Periodontal Therapy, and Ch. 25 Chemical Agents in Periodontal Care

**Assessments:** Quizzes, Test, Case Presentations, Final Exam

# Objectives:

- 1. Explain the term and name four goals for nonsurgical periodontal therapy.
- 2. Describe the type of healing to be expected following instrumentation of root surfaces.
- 3. Explain why reevaluation is an important step during nonsurgical therapy.

- 4. Explain and demonstrate interdental care and explain the importance for a patient with periodontitis.
- 5. Describe the difference between systemic delivery and topical delivery of chemical agents.
- 6. Describe various ingredients in mouth rinses and toothpaste that can help reduce the severity of gingivitis.
- 7. Define: osteotomy, osteoplasty, osteoinductive, osteoconductive, autograft, gingivectomy, fingival curettage, allograft, xenograft, alloplast, periodontal plastic surgery, and interrupted interdental suture.
- 8. Describe healing following flap for access and open flap debridement.
- 9. List the objectives for periodontal surgery.

#### Module 7

<u>Materials Covered</u>: Gehrig & Willmann, Ch. 27 Periodontal Surgical concepts for the Dental Hygienist, Ch.28, Periodontal Emergencies, and Ch. 29 Using Motivational Interviewing to Enhance Patient Behavior Change

**Assessments:** Quizzes, Test, Case Presentations, Final Exam

## **Objectives:**

- 1. Define: repair, reattachment, new attachment, regeneration, elevation of a flap,
- 2. Name and describe the three types of abscesses of the periodontium and there causes.
- 3. Outline the typical treatment steps for a gingival abscess and a periodontal abscess.
- 4. Describe the characteristics of necrotizing ulcerative gingivitis, pericoronal abscess, and herpetic gingivostomatitis.
- 5. Understand different motivational interviewing methods and how they are used to enhance patient motivation for change.
- 6. Explain the terms: baseline data, recurrence of periodontitis, compliance, compliant patient, noncompliant patient, and root carries.

#### Module 8

Materials Covered: Gehrig & Willmann, Ch. 30 Maintenance for the Periodontal Patient, Ch. 31 Periodontal Maintenance of Dental Implants, Ch.32 Periodontal-Systemic Associations, and Ch. 34 Documentation and Insurance Reporting of Periodontal Care

**Assessments:** Quizzes, Test, Case Presentations, Final Exam

## **Objectives:**

- 1. List three objectives of periodontal maintenance.
- 2. Describe the components of a typical dental implant and restoration.
- 3. Define the terms osseointegration, biomechanical forces, peri-implant mucositis, and peri-implantitis.
- 4. Learn to educate patient who has cardiovascular disease, pregnancy, and diabetes, about the oral systemic link to periodontist.
- 5. Learn to educate family members and caregivers about the association between periodontal disease and pneumonia in health-compromised seniors in hospitals and long-term care.
- 6. Define the term liability as it applies to provision of periodontal care.
- 7. Describe situation in the dental office that trigger liability for dental hygienists.
- 8. Define the terms insurance codes and insurance forms and explain their use in periodontal care.

\*Students - please refer to the Instructor's Course Information sheet for specific information on assessments and due dates.

# **Part III: Grading and Assessment**

### **EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\*:**

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

#### **EVALUATION\***

Tests (4)	80%
Final Exam	20%
	100%

<sup>\*</sup>Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.

#### **GRADING SYSTEM:**

A=90-100

B = 80 - 89

C = 77 - 79

D=70-76

F=69 and below

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the <u>academic calendar</u> for deadlines for add/drop. You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

# **Part IV: Attendance**

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the** 

Instructor Course Information Sheet. Please refer to the Dental Sciences Policy Manual for more information.

**For online and hybrid courses**, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

# **Part V: Student Resources**



The SSTC offers to all students the following **free** resources:

- 1. Academic tutors for most subject areas, Writing Center support, and college success skills.
- 2. Online **tutoring** and academic support resources.
- 3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the <u>Student Success & Tutoring Center</u> website for more information. To schedule tutoring appointments using TutorTrac, visit the Student Services tab in WaveNet. Email <u>sstc@hgtc.edu</u> or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the <u>Online Resource Center</u> to access on-demand resources.



#### **CENTRALSTUDENT INFORMATION CENTER: TECH Central**

TECH Central offers to all students the following **free** resources:

- 1. **Getting around HGTC**: General information and guidance for enrollment!
- 2. Use the Online Resource Center (ORC) including scheduled technology training, Office 365 support, password resets, and username information.
- 3. Drop-in technology support or scheduled training in the Center or in class.
- 4. In-person workshops, online tutorials and more services are available.
- 5. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the <u>Tech Central</u> website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324).

#### **STUDENT TESTING:**

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

Test administered within D2L

- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNow, our online proctoring service. To find out more about proctoring services, please visit the <u>Online Testing</u> section of the HGTC's Testing Center webpage.

The Instructor Information Sheet will have more details on test requirements for your course.

#### **DISABILITY SERVICES:**

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's <u>Accessibility and Disability Service webpage</u>. The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

#### STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

#### TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

#### INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

**Student and prospective student** inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

#### Dr. Melissa Batten, VP Student Affairs

Title IX Coordinator
Building 1100, Room 107A, Conway Campus
PO Box 261966, Conway, SC 29528-6066
843-349-5228
Melissa.Batten@hgtc.edu

**Employee and applicant** inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

#### Jacquelyne Snyder, VP Human Resources

EEO and Title IX Coordinator
Building 200, Room 212A, Conway Campus
PO Box 261966, Conway, SC 29528-6066
843-349-5212
Jacquelyne.Snyder@hgtc.edu