

PERIODONTOLOGY (DHYG 1311)

CREDIT

3 Semester Credit Hours (Lecture/Hybrid)

MODE OF INSTRUCTION

Face to Face, Hybrid

PREREQUISITE/CO-REQUISITE:

Prerequisite: DHYG 1301, 1227, 1431, 1304, 1207, 1219, 1235, 1260, & 2301

Co-Requisite: DHYG 1339, 2261, & 2331

COURSE DESCRIPTION

Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to:

- Contrast normal and abnormal periodontium
- Analyze the etiology and pathology of periodontal diseases
- Differentiate treatment modalities used for therapy and prevention
- Interpret periodontal assessment data to develop a dental hygiene care plan

INSTRUCTOR CONTACT INFORMATION

Instructor: Michelle DeMoss
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Office Phone: 409-247-4759
Office Location: MPC 209
Office Hours: Monday, 1:00-3:30 pm

REQUIRED TEXTBOOK AND MATERIALS

- Gehrig JS, Shin DE, and Willmann DE. Foundations of Periodontics for the Dental Hygienist, 5th edition, Lippincott, Williams & Wilkins, 2019. ISBN 9781496384027

REFERENCES

- Newman, MG, Takei, H, Klokkevold, PR, and Carranza, FA, Carranza's Clinical Periodontology, 13th edition, W. B. Saunders. 2019.
- Bowen DM, Pieren JA. Darby and Walsh Dental Hygiene Theory and Practice, 5th edition, Elsevier, 2020.
- Westphal Theile CM, Weinberg MA, Segelnick SL. Clinical Cases in Dental Hygiene, 1st edition, Wiley-Blackwell, 2019.

Approved: **Initials/date**



**LAMAR INSTITUTE
OF TECHNOLOGY**

COURSE CALENDAR

DATE	TOPIC	READINGS	ASSIGNMENTS
Week 1	Course Introduction Periodontium: The Tooth-Supporting Structures Microscopic Anatomy of the Periodontium	Review Course information & syllabus Gehrig/Shin/Willmann, Ch 1, 2	Submit Course Contract Hybrid learning content on Bb
Week 2	Overview of Diseases of the Periodontium Classification of Periodontal and Peri-Implant Diseases and Conditions Clinical Attachment Levels	Gehrig/Shin/Willmann, Ch 3, 4 Gehrig/Shin/Willmann, pgs. 418-419	Hybrid learning content on Bb
Week 3	Clinical Features of the Gingiva Peri-implant Diseases	Gehrig/Shin/Willmann, Ch 5 Gehrig/Shin/Willmann, Ch 9	Hybrid learning content on Bb EXAM 1
Week 4	Periodontal Health, Gingival Diseases and Conditions Periodontitis	Gehrig/Shin/Willmann, Ch 6, 7	Hybrid learning content on Bb
Week 5	Other Conditions Affecting the Periodontium Clinical Decision-Making for Periodontal Care Clinical Periodontal Assessment TMJ/ TMD Disorders	Gehrig/Shin/Willmann, Ch 8 Gehrig/Shin/Willmann, Ch 10, 20	Hybrid learning content on Bb
Week 6	Radiographic Analysis of the Periodontium Best Practices for Periodontal Care	Gehrig/Shin/Willmann, Ch 21, 22	Hybrid learning content on Bb EXAM 2
Week 7	Etiologic Factors: Risk for Periodontal Disease Oral Biofilms	Gehrig/Shin/Willmann, Ch 12, 13	Hybrid learning content on Bb
Week 8	Basic Concepts of Immunity and Inflammation Host Immune Response to Plaque Biofilm	Gehrig/Shin/Willmann, Ch 14, 15	Hybrid learning content on Bb

Week 9	Systemic Risk Factors that Amplify Susceptibility to Periodontal Disease Nutrition, Inflammation, and Periodontal Disease	Gehrig/Shin/Willmann, Ch 16, 18	Hybrid learning content on Bb
Week 10	Local Factors Contributing to Periodontal Disease Tobacco, Smoking, and Periodontal Disease	Gehrig/Shin/Willmann, Ch 17, 19	Hybrid learning content on Bb EXAM 3
Week 11	Nonsurgical Periodontal Therapy	Gehrig/Shin/Willmann, Ch 24	Hybrid learning content on Bb
Week 12	Patient's Role in Nonsurgical Periodontal Therapy Chemical Agents in Periodontal Care Host Modulation Therapy	Gehrig/Shin/Willmann, Ch 25 Gehrig/Shin/Willmann, Ch 27, 28	Hybrid learning content on Bb
Week 13	Periodontal Surgical Concepts for the Dental Hygienist	Gehrig/Shin/Willmann, Ch 29	Hybrid learning content on Bb
Week 14	Acute Periodontal Conditions Maintenance for the Periodontal Patient	Gehrig/Shin/Willmann, Ch 30, 33	Hybrid learning content on Bb
Week 15	Impact of Periodontitis on Systemic Health Future Directions for Management of Periodontal Patients	Gehrig/Shin/Willmann, Ch 34, 36	Hybrid learning content on Bb EXAM 4

ATTENDANCE POLICY

Absenteeism

In order to ensure the students in the dental hygiene program achieve the necessary didactic and clinical competencies outlined in the curriculum, it is necessary that the student complete all assigned lecture classes, clinical and laboratory hours. It is the responsibility of the student to attend class, clinic or lab. The instructor expects each student to be present at each session. It is expected that students will appear to take their exams at the regularly scheduled examination time. Make-up examinations will be given **only** if the absence is due to illness (confirmed by a physicians' excuse), a death in the immediate family, or at the discretion of the instructor.

If students are unable to attend lecture class, clinic or lab, it is **mandatory that you call the appropriate instructor prior to the scheduled class, clinic or lab time. An absence will be considered unexcused if the student fails to notify the course faculty prior to the start of class, clinic, or lab. Attendance through Blackboard Collaborate is considered an absence. The course instructor must be notified at least one hour prior to the beginning of class/lab if the student plans to attend through Blackboard Collaborate.** The student is responsible for all material missed at the time of absence. Extenuating circumstances will be taken into account to determine if the absence is excused. Extenuating circumstances might include but are not limited to funeral of immediate family member, maternity, hospitalization, etc. If the student has surgery, a debilitating injury, or an extended illness, a doctor's release will be required before returning to clinic.

a. **Fall/Spring Semesters:**

Dental hygiene students will be allowed **two excused absences** in any lecture, clinic or lab. Absences must be accompanied by a written excuse on the next class day. In the event that a student misses class, clinic or lab beyond the allowed absences, the following policy will be enforced:

2 absences = notification in Starfish

Beginning with the third absence, **2 points** will be deducted from the final course grade for each absence thereafter.

Two (2) points will be deducted from the final course grade for each unexcused absence.

Tardiness

Tardiness is disruptive to the instructor and the students in the classroom. A student is considered tardy if not present at the start of class, clinic or lab. It is expected that students will arrive on time for class, clinic or lab, and remain until dismissed by the instructor. If tardiness becomes an issue, the following policy will be enforced:

Tardy 1 time = notification in Starfish

Tardy 2 times = is considered an unexcused absence. (See the definition of an unexcused absence)

If a student is more than 15 minutes late to any class period, it will be considered an unexcused absence.

Students should plan on attending classes, labs and clinic sessions as assigned throughout the semester. Family outings, vacations and personal business should be scheduled when school is not in session and will not be considered excuses for missing assignments, examinations, classes, labs or clinic time.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE REQUIREMENTS

Examinations (4)

Hybrid Learning Content (weekly assignments and quizzes in Blackboard)

Periodontal Care Plans (2)

Periodontal Article Review

Periodontal Office Observation and Report

Periodontal Risk Factors Class Presentation

E-Portfolio Assignment (Periodontal Care Plan in Weebly)

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Examinations (4)	60%
Hybrid Learning Content	10%
Periodontal Care Plans (2)	15%
Periodontal Article Review	5%
Periodontal Office Observation and Report	5%
Periodontal Risk Factors Class Presentation	<u>5%</u>
	100%

GRADING SCALE

A = 92 - 100

B = 83 - 91

C = 75 - 82

D = 60 - 74

F = 59 and below

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

Examination and Quiz Policy

Examinations will be based on objectives, lecture notes, handouts, assigned readings, audiovisual material and class discussions. Major examinations will consist of multiple choice, true/false, matching, short answer, and case study questions. No questions will be allowed during exams.

Students are expected to complete examinations as scheduled. Make-up examinations will be given ONLY if the absence is due to illness (confirmed by a physicians' excuse), a death in the immediate family, or at the discretion of the Instructor. All make-up examinations must be taken within two (2) weeks from the scheduled exam date. All examinations will be kept on file by the Instructor. Students may have access to the examination by appointment during the Instructor's office hours. Exams may be reviewed up to two (2) weeks following the exam date. **You may not copy, reproduce, distribute or publish any exam questions.** This action may result to dismissal from the program. A grade of "0" will be recorded for all assignments due on the day of absences unless prior arrangements have been made with the Instructor.

Respondus Lockdown Browser and Respondus Monitor will be used for examinations therefore, a webcam is required to take the test. The student is required to show the testing environment at the beginning of the exam to assure the instructor that it is clear of any study materials.

Failure to do so will result in a 10-point exam grade deduction.

If you need online assistance while taking the test, please call Online Support Desk at 409-951-5701 or send an email to lit-bbsupport@lit.edu.

It shall be considered a breach of academic integrity (cheating) to use or possess on your body any of the following devices during any examination unless it is required for that examination and approved by the instructor: cell phone, smart watch/watch phone, electronic communication devices (including optical), and earphones connected to or used as electronic communication devices. It may also include the following: plagiarism, falsification and fabrication, abuse of academic materials, complicity in academic dishonesty, and personal misrepresentation.

Use of such devices during an examination will be considered academic dishonesty. The examination will be considered over, and the student will receive a zero for the exam.

Students with special needs and/or medical emergencies or situations should communicate with their instructor regarding individual exceptions/provisions. It is the student's responsibility to communicate such needs to the instructor.

Mandatory Tutoring

If a student receives a failing grade on any major exam, the student will be required to meet with course instructor within 2 weeks of the failed exam. One on one concept review by appointment with the course instructor will be provided and/or written academic warning when a student is failing to meet minimal requirements in the classroom setting.

Electronic Devices

Electronic devices are a part of many individual's lives today. Students must receive the instructor's permission to operate electronic devices in the classroom and lab. Texting on cell phones will not be allowed during class or clinic.

Late coursework

Assignments, Quizzes and Tests must be completed by the due date. Late submissions or completion will not be accepted and will result in a zero for that assignment/quiz/test.

Remediation

Remediation is available by appointment.

See Student Handbook for more information about remediation policies.

* Faculty has the authority to modify the above policies if unusual circumstances mandate a change. Please refer to the Dental Hygiene Student Handbook for a complete listing of program policies.

COURSE OUTLINE

Periodontium: The Tooth-Supporting Structures

- a. Tissues of the periodontium
- b. Nerve supply, blood supply, and lymphatic system

Microscopic Anatomy of the Periodontium

- a. Histology of the body tissues
- b. Histology of the gingiva
- c. Histology of root cementum and alveolar bone

Overview of Diseases of the Periodontium

- a. The Periodontium in health and disease
- b. Pathogenesis of Bone Destruction
- c. Periodontal pockets
- d. Theories of disease progression
- e. Epidemiology of the diseases of the periodontium

Classification of Periodontal and Peri-Implant Diseases and Conditions

- a. Disease classification systems
- b. The 2017 Classification of periodontal and peri-implant diseases and conditions

Clinical Features of the Gingiva

- a. Clinical features of healthy gingiva
- b. Clinical features of gingival inflammation
- c. Extent and distribution of inflammation

Periodontal Health, Gingival Diseases, and Conditions

- a. Periodontal health
- b. Dental plaque-induced gingival conditions

- c. Non-plaque-induced gingival diseases

Periodontitis

- a. Periodontitis
- b. Periodontitis Staging and Grading System

Other Conditions Affecting the Periodontium

- a. Necrotizing periodontal diseases
- b. Mucogingival deformities and conditions around teeth
- c. Tooth and prosthesis-related predisposing factors

Peri-Implant health and diseases

- a. Anatomy of the dental implant and surrounding peri-implant tissues
- b. Peri-implant health, diseases, and conditions
- c. Recognition of peri-implant diseases
- d. Clinical monitoring of peri-implant health and diseases
- e. Clinical guidelines for maintenance of patients with dental implants

Clinical Decision-Making for Periodontal Care

- a. Guidelines for arriving at a periodontal diagnosis
- b. Guidelines for periodontal treatment sequencing
- c. The need for ongoing decision making

Temporomandibular joint disorders

- a. The temporomandibular joint
- b. TM dysfunction/pathology

Etiologic Factors: Risk for Periodontal Disease

- a. What is oral health?
- b. Risk factors for periodontal disease
- c. Balance between periodontal health and disease
- d. Periodontal risk assessment

Oral Biofilms

- a. Microbial biofilms
- b. The Structure and colonization of oral biofilms
- c. The role of bacteria in periodontal disease

Basic Concepts of Immunity and Inflammation

- a. The body's defense system
- b. Leukocyte migration, chemotaxis, and phagocytosis
- c. The inflammatory process

Host Immune Response to Plaque Biofilm

- a. The host response in periodontal disease
- b. Histologic stages in the development of periodontal disease
- c. The impact of host response on bone homeostasis

Systemic Risk Factors that Amplify Susceptibility to Periodontal Diseases

- a. Systemic conditions as risk factors for periodontitis
- b. Systemic medications with periodontal side effects

Local Factors Contributing to Periodontal Disease

- a. Introduction to local contributing factors
- b. Local factors that increase biofilm retention
- c. Dental restorations as local factors
- d. Local factors that cause direct damage

Nutrition, Inflammation, and Periodontal Disease

- a. Association between obesity and periodontal disease
- b. Micronutrients, antioxidants, and periodontal disease
- c. Macronutrients and periodontal disease

Clinical Periodontal Assessment

- a. The comprehensive periodontal assessment
- b. Periodontal screening examination
- c. Supplemental diagnostic tests

Radiographic Analysis of the Periodontium

- a. Radiographic appearance of the periodontium
- b. Use of radiographic images for periodontal evaluation

Best Practices for Periodontal Care

- a. What is best practice?
- b. Role of evidence-based decision making in best practice
- c. Finding clinically relevant information
- d. Lifelong learning skills for best practice

Nonsurgical Periodontal Therapy

- a. Overview of nonsurgical periodontal therapy (NSPT)
- b. Mechanical nonsurgical therapy
- c. Decisions following nonsurgical therapy

Patients Role in Nonsurgical Periodontal Therapy

- a. Patient self-care in nonsurgical therapy
- b. Self-care challenges for patients with periodontitis
- c. Tongue cleaning as an adjunct

Chemical Agents in Periodontal Care

- a. Introduction to chemical agents in biofilm control
- b. Use of systemic antibiotics to control biofilm
- c. Use of topically delivered chemical agents
- d. Educating patients on the use of unconventional dental products/ remedies

Host Modulation

- a. Introduction to host modulation therapy
- b. Potential host modulating therapies in periodontal patients
- e. Host modulation therapy as part of comprehensive periodontal patient management

Periodontal Surgical Concepts for the Dental Hygienist

- a. Introduction to periodontal surgery
- b. Understanding the periodontal flap
- c. Description of common types of periodontal surgery
- d. Biological enhancement of surgical outcomes
- e. Patient management following periodontal surgery

Acute Periodontal Conditions

- a. Introduction to acute periodontal conditions
- b. Abscesses of the periodontium
- c. Necrotizing periodontal diseases
- d. Primary herpetic gingivostomatitis

Maintenance for the Periodontal Patient

- a. Introduction to periodontal maintenance therapy
- b. Planning periodontal maintenance
- c. Periodontal disease recurrence
- d. Patient compliance with periodontal maintenance
- e. Root caries as a complication during periodontal maintenance

Impact of Periodontitis on Systemic Health

- a. Linking periodontitis with systemic disease
- b. Systemic conditions associated with periodontitis

Future Directions for Management of Periodontal Patients

- a. Contemporary and evolving diagnostic technology
- b. Periodontal disease/systemic disease connections
- c. Research in dental implantology
- d. Treatment modalities in periodontal care