



**CAMOSUN COLLEGE**  
**School of Health & Human Services**  
**Dental Programs**

**DHYG 223 Periodontology-2**  
**Fall 2012**

**COURSE OUTLINE**

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The Approved Course Description is available on the web @  
<http://www.camosun.bc.ca/calendar/current/web/dhyg.html#DHYG223>

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Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records.

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**1. Instructor Information**

(a) Instructor	Dr. B. Bassett
(b) Office hours	by appointment
(c) Location	D111
(d) Phone	370-3176 <b>Alternative:</b> _____
(e) E-mail	<a href="mailto:bassettw@camosun.bc.ca">bassettw@camosun.bc.ca</a>
(f) Website	D2L <a href="https://.camosun.ca/">https://.camosun.ca/</a>

**2. Course Content and Schedule**

This course applies and builds on the learning from DHYG 125. Topics discussed in this course include: microbiological and immunological aspects of periodontal disease, risk factors, diagnostic indicators, healing after therapy, prognosis and referral, occlusal influences, gingival diseases, common periodontal conditions, and an introduction to chemotherapeutics

Prerequisite: "B-" in DHYG 125.  
Co-requisites: DHYG 230, DHYG 260.

Course Particulars

- i) Credits: number of credits (2.0)
- ii) Components: Class Hours: 2 hours per week x 14 weeks / Seminar hours 0 / Practicum hours 0 / Lab hours 0 / Out of class hours 2 hours per week.
- iii) Is the course available by distance education? No
- iv) Is prior learning available for this course? No

A weekly schedule of classes will be distributed separately. Students are expected to be prepared for class by reading text chapters and other assigned material.

### 3. Required Materials

(a) Texts Required :

- Caranza's Clinical Periodontology, 11th Ed., Newman M.G., Takei H.H., Klokkevold, P. R. , Carranza, F. A., W.B. Saunders Co., 2012.
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- DHYG 223 Periodontology- Lecture Guide (2012 version is combined with Dhyg 210 lecture guide) from Camosun College Bookstore

### 4. Intended Learning Outcomes

Learning Outcomes for Dhyg 210	Program (Global) Outcomes
<p>Upon completion of Pharmacology 1, the successful student will:</p> <ol style="list-style-type: none"> <li>1. Apply basic concepts and principles studied in DHYG 125 Periodontology- 1.</li> <li>2. Describe the characteristics and relevance of microorganisms associated with periodontal diseases.</li> <li>3. Describe characteristics and relevance of host response in periodontal diseases.</li> <li>4. Describe the relevance and limitations of current periodontal assessment techniques.</li> <li>5. Describe the risk factors for periodontal disease and their relevance in providing dental hygiene care.</li> <li>6. Describe the processes and results of healing after periodontal therapy.</li> <li>7. Describe occlusal influences on the periodontal tissues</li> <li>8. Describe the characteristics and therapeutic considerations for gingival diseases/conditions and common periodontal conditions.</li> <li>9. Describe the actions and role of chemotherapeutics commonly used in treating periodontal diseases.</li> <li>10. Discuss prognosis and referral for periodontal diseases.</li> </ol>	<ol style="list-style-type: none"> <li>A. <i>Function as a professional dental hygienist.</i></li> <li>B. <i>Communicate and collaborate effectively with individuals, family, community and interdisciplinary teams.</i></li> <li>C. <i>Demonstrate critical thinking and use evidence based decision-making to provide optimal dental hygiene services to individuals, families and community.</i></li> <li>D. <i>Advocate improving oral health and access to oral health services for individuals, families and community.</i></li> <li>E. <i>Coordinate and contribute to the effective management of the practice environment to ensure quality care and services.</i></li> <li>F. <i>Function as a competent clinician using the dental hygiene process of care.</i></li> <li>G. <i>Educate individuals, families and community about oral health including its relationship to general health.</i></li> <li>H. <i>Apply health promotion principles to improve the health of individuals, families and community.</i></li> </ol>

## 5. Course Elements

### Unit 1: Microbiology Self-study Review & Virulence Factors

- Apply basic concepts and principles studied in DHYG 125 Periodontology- 1.
- Describe the characteristics and relevance of microorganisms associated with periodontal diseases.

#### Elements

- Recall the structure and function of the cell wall, the cytoplasmic membrane and cell capsule of bacteria (BIOL 160).
- Describe characteristics that contribute to microbial virulence.

### Unit 2: Periodontal Pathogens

- Apply basic concepts and principles studied in DHYG 125 Periodontology- 1.
- Describe the characteristics and relevance of microorganisms associated with periodontal diseases.

#### Elements

- Recall knowledge of microbiology and the influence of bacteria in the development of periodontal disease
- Recall the role of virulence factors in pathogenesis
- Recall and expand on the characteristics of plaque as a biofilm
- Recall the transition in oral ecology from gingivitis to periodontitis
- Differentiate between the general characteristics of oral microorganisms associated with periodontal health and those associated with periodontal diseases
- Identify the microorganisms associated with plaque-induced gingivitis
- Identify and describe the characteristics of microorganisms associated with periodontitis including: Porphyromonas gingivalis, Actinobacillus actinomycetemcomitans, Tannerella forsythia, Prevotella intermedia, Capnocytophaga, Fusobacterium nucleatum, Spirochetes, (Treponemas), Selenomonas, Campylobacter recta, and Eikenella corrodens
- Identify the bacteria considered primary and secondary pathogens in the etiology of periodontitis
- Identify periodontal pathogens associated with periodontal diseases other than plaque-induced gingivitis and chronic periodontitis (e.g. NUG, aggressive forms of periodontitis, etc.)

### Unit 3: Host Response in Periodontal Disease

#### Learning Outcomes

- Apply basic concepts and principles studied in DHYG 125 Periodontology- 1.
- Describe characteristics and relevance of host response in periodontal diseases.
- Describe the relevance and limitations of current periodontal assessment techniques.
- Describe the risk factors for periodontal disease and their relevance in providing dental hygiene care.

#### Elements

- Recall the functions of the different components of the immune system.
- Describe the overall role of host response in periodontal diseases.
- Describe significant inflammatory mediators involved in the host response to periodontal pathogens
- Describe the sequence of events in host response to periodontal pathogens (cellular, chemical and immunological aspects) and potential result in controlling infection.

**UNIT 4: Review Basic Concepts of Gingivitis and Periodontitis**

Learning Outcomes: Apply basic concepts and principles studied in DHYG 125 Periodontology- 1.

**Elements**

- Recall the AAP classification system for periodontal diseases.
- Recall and apply knowledge of etiology, pathogenesis, clinical features, radiographic appearance, treatment and prognosis of plaque-induced gingivitis.
- Recall and apply knowledge of etiology, pathogenesis, clinical features, radiographic appearance, treatment and prognosis of chronic adult periodontitis.
- Recall the influence of bacteria in the development of periodontal disease and the types of bacteria involved.
- Differentiate between plaque-induced gingivitis and chronic periodontitis
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**Unit 5: Assessment, Diagnostic Relevance & Risk Factors for Periodontal Diseases**

Learning Outcomes

- Describe the relevance and limitations of current periodontal assessment techniques.
- Describe the risk factors for periodontal disease and their relevance in providing dental hygiene care.

**Elements**

Recall methods of assessment and treatment of typical periodontal conditions.

- Recall knowledge of techniques used in assessing periodontal disease (DHYG 160, 161, 162, 260, 261, 125)
- Describe the value and limitations of current assessment techniques.
- Define risk assessment for periodontal diseases
- Describe the main risk factors for periodontal diseases and their relevance to dental hygiene care.

**Unit 6: Gingival Enlargement**

Learning Outcome: Describe the characteristics and therapeutic considerations for gingival diseases/conditions and common periodontal conditions

**Elements**

- Identify the etiology and clinical features of chronic inflammatory gingival enlargement (including enlargement due to mouth breathing), acute inflammatory enlargement, and non-specific conditioned enlargement (pyogenic granuloma).
- Describe etiology, epidemiology, clinical features, microbiological and histologic aspects, treatment and prognosis of fibrotic gingival conditions, including drug-associated hyperplasias and hereditary fibromatosis.

**Unit 7: Occlusal Influences**

Learning Outcome: Describe occlusal influences on the periodontal tissues

**Elements**

- Describe the physiological adaptations of the periodontium to different types of occlusal forces.
- Describe trauma from occlusion including the characteristics and significance of acute trauma from occlusion and chronic trauma from occlusion.
- Differentiate between primary trauma from occlusion and secondary trauma from occlusion.
- Describe the different stages of periodontal response to increased or traumatic occlusal forces in the absence of plaque induced inflammation, including reversibility of lesions from occlusal force.

- Describe the effects of insufficient occlusal forces on the periodontium and excessive forces on pulp tissues.
- Describe the effects of trauma from occlusion on the initiation and progression of gingivitis and periodontitis
- Describe the clinical and radiographic signs of trauma from occlusion.
- Describe pathological tooth migration

**Unit 8: Healing after Periodontal Therapy**

Learning Outcome 7: Describe the processes and results of healing after periodontal therapy.

## Elements

- Identify the rationale for periodontal therapy
- Describe factors that local and systemic factors delay and promote periodontal healing.
- Describe the processes and clinical results of different forms of healing of the periodontium after periodontal therapy.

**Unit 9: Prognosis & Referral**

Learning Outcome:

Discuss prognosis and referral for periodontal diseases.

## Elements

- Describe the guidelines for referral to a periodontist
- Describe the considerations in determining the prognosis of periodontal diseases

**Unit 10: Chemotherapeutics in Periodontal Therapy**

Learning Outcomes

- Describe the actions and role of chemotherapeutics commonly used in treating periodontal diseases.

## Elements

- Define terms related to oral chemotherapeutics.
- Describe the characteristics of an ideal antimicrobial for periodontal therapy.
- Describe the relevance of the ADA Seal of Acceptance in selecting antimicrobials for periodontal therapy.
- Describe delivery methods for oral antimicrobials, including advantages and disadvantages.
- Identify antimicrobial agents available for periodontal therapy and briefly describe their modes of activity.
- Outline indications for local delivery of antimicrobial in periodontal therapy.
- Describe research-based evidence that supports or negates use of specific subgingival antimicrobials in treating chronic periodontitis.
- Describe anticalculus agents and their effects.

**6. Basis of Student Assessment (Weighting)**

(a) Assignments: N/A

(b) Quizzes: N/A

(c) **Exams:** A midterm exam and a comprehensive final exam each worth 50% toward the final grade

(d) Other: N/A

## 7. Grading System

- Standard Grading System (GPA)
- Competency Based Grading System

### A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

#### 1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-	<b>PASSING GRADE for Dhyg courses</b>	4
65-69	C+	Minimum level has not been achieved.	3
60-64	C		2
50-59	D		1
0-49	F		0

#### B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

**8. Recommended Materials or Services to Assist Students to Succeed Throughout the Course**

**LEARNING SUPPORT AND SERVICES FOR STUDENTS**

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Student Services or the College web site at <http://www.camosun.bc.ca>

Also, refer to the resources for learning section of the DHYG student handbook.

**STUDENT CONDUCT POLICY**

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section. Additional information regarding the dental hygiene program is in the student handbook.

<http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>