



CAMOSUN COLLEGE
School of Health and Human Services (HHS)
Department: Dental Programs – Dental Hygiene

DHYG 222 Introduction to Periodontology
Winter 2020

COURSE OUTLINE

The course description is available on the web:
<http://camosun.ca/learn/calendar/current/web/dhyg.html#dhyg222>

☐ Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

- (a) **Instructor** Elizabeth Morch
(b) **Office hours** posted
(c) **Location** 004
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(f) **Website** D2L

2. Course Description & Intended Learning Outcomes

This course explores the fundamental concepts related to periodontal diseases, focusing on the etiology, risk factors, pathophysiology, clinical characteristics and therapy for plaque-induced gingival diseases and chronic periodontitis.

Upon successful completion of this course a student will be able to:

- a) determine the classification, etiology and risk factors for periodontal diseases.
- b) discuss the characteristics and relevance of microorganisms and host response in relation to periodontal diseases.
- c) describe the pathophysiology, histology, clinical characteristics, and treatment of plaque-induced gingival diseases and chronic periodontitis.

3. Required Materials

- (a) Nield-Gehrig & Williams, Foundations of Periodontics for the Dental Hygienist, 5th Ed, 2019.
- (b) Optional: Carranza's Clinical Periodontology, 13th ed., Newman M.G., Takei H.H., Klokkevold, P.R., Carranza, F.A., W.B. Saunders Co., 2019.

4. Course Content and Schedule

5. Learning Outcomes with Performance Indicators

Determine the classification, etiology and risk factors for periodontal diseases.

1. Determine the classification for periodontal diseases.

- A. Discuss the function of the American Academy of Periodontology
- B. Describe the American Academy of Periodontology classification system
- C. Discuss the American Academy of Periodontology definition of periodontal health
- D. Discuss the parameters used for Grading and Staging of Periodontal disease
- E. Identify the relevance and limitations of assessment data used to determine classification

2. Discuss the etiology and risk factors for periodontal diseases.

- A. Define the parameters of etiological factors of periodontal diseases and describe the importance of etiology in the dental hygiene process of care
- B. Explain the different terms used to categorize etiological factors in periodontal diseases
- C. Discuss past and current theories on the etiology of periodontal diseases.

3. Discuss the risk factors associated with the progression of periodontal disease

- A. Describe risk factors and the use of risk assessment in Grading periodontitis
- B. Identify risk factors with positive association with periodontal disease
- C. Define risk factors, risk indicators and risk determinants
- D. Discuss current model of pathogenicity

The characteristics and relevance of microorganisms and host response in relation to periodontal diseases

1. Discuss the relevance of plaque biofilm as a etiologic factor for periodontal disease

- A. Apply knowledge of microbiology, oral flora, bacterial virulence factors, bacterial succession in and characteristics of dental biofilm from BIOL 160
- B. Apply understanding of the characteristics of plaque as a biofilm and its role as a risk factor in the etiology of periodontal diseases
- C. Recall the transition in oral ecology from health to gingivitis to periodontitis the general characteristics of the type of microorganism associated with each
- D. Compare the characteristics of supragingival plaque biofilm to that of subgingival.
- E. Identify and describe the characteristics of microorganisms currently associated with periodontitis including: *Porphyromonas gingivalis*, *Aggregatibacter actinomycetemcomitans*, *Tannerella forsythia*, *Prevotella intermedia*, *Capnocytophaga*, *Fusobacterium nucleatum*, *Spirochetes*, (*Treponemas*), *Selenomonas*, *Campylobacter recta*, and *Eikenella corrodens*
- F. Identify the bacteria considered primary and secondary pathogens in the etiology of periodontitis

2. Discuss the role of inflammation and host response in the etiology of periodontal disease

- A. Apply knowledge of the general role of inflammation in the etiology of periodontal diseases
- B. Describe the local predisposing factors associated with periodontal diseases and their role as etiological factors.
- C. Apply understanding of functions of the different components of the immune system to periodontal diseases.
- D. Describe the overall role of host response in periodontal diseases.
- E. Describe significant inflammatory mediators involved in the host response to periodontal pathogens

- F. Describe the sequence of events in host response to periodontal pathogens (cellular, chemical and immunological aspects) and potential result in controlling infection
- G. Describe the role of systemic factors in influencing periodontal diseases and identify systemic factors considered as major risk factors in periodontal diseases

3. Discuss the rationale for periodontal therapy

- A. Describe factors that local and systemic factors delay and promote periodontal healing.
- B. Describe the processes and clinical results of different forms of healing of the periodontium after periodontal therapy
- C. Describe the considerations in determining the prognosis of periodontal diseases
- D. Describe the guidelines for referral to a periodontist

Describe the pathophysiology, histology, clinical characteristics, and treatment of plaque-induced gingival diseases and chronic periodontitis.

1. Plaque induced gingivitis

- A. Describe the general characteristic of gingivitis when classified by course and duration.
- B. Describe the pathological and histological changes that occur in gingivitis.
- C. Correlate the clinical characteristics of gingivitis with the underlying histological changes and gingival assessment procedures.
- D. Describe the diagnosis, treatment and prognosis of plaque-induced gingivitis

2. Periodontitis

- A. Describe the classification, characteristics and significance of pockets associated with periodontal diseases.
- B. Describe the histopathology of the following areas of a periodontal pocket: the soft tissue (inner wall), the root surface wall, contents of periodontal pockets.
- C. Describe the pathogenesis of periodontal pocket formation on a histological level.
- D. Briefly describe, compare and contrast early concepts and current concepts of disease activity (progression), including patterns of exacerbation and remission.
- E. Correlate the clinical findings in chronic periodontitis with the histological features.
- F. Describe the histological changes and pathologic processes that occur in alveolar bone in chronic periodontitis.
- G. Describe the radiographic changes seen in chronic periodontitis.
- H. Describe chronic periodontitis clinically.
- I. Describe the treatment and prognosis of chronic periodontitis.

3. Acquired Deformities and Conditions

- A. Discuss tooth related factors that modify or predispose to plaque induced gingival disease or periodontitis
- B. Discuss mucogingival deformities and conditions around teeth as identified in the AAP classification system
- C. Discuss occlusal trauma
- D. Describe the physiological adaptations of the periodontium to different types of occlusal forces.
- E. Describe trauma from occlusion including the characteristics and significance of acute trauma from occlusion and chronic trauma from occlusion.
- F. Differentiate between primary trauma from occlusion and secondary trauma from occlusion.
- G. 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.
- H. Identify and discuss the effects of insufficient occlusal forces on the periodontium and excessive forces on pulp tissues.

- I. Describe the effects of trauma from occlusion on the initiation and progression of gingivitis and periodontitis.
- J. Describe the clinical and radiographic signs of trauma from occlusion.
- K. Discuss pathological tooth migration, describing its causes and consequences

5. Basis of Student Assessment (Weighting)

- AAP Periodontal Classification Table 20%
- Term Test 40% -
- Final exam.....**40%** -

The minimum grade for successful completion of DHYG 222 is B- or 70%.

6. Grading System

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

7. Recommended Materials to Assist Students to Succeed Throughout the Course

Texts. Course powerpoints

8. College Supports, Services and Policies

Immediate, Urgent, or Emergency Support



If you or someone you know requires immediate, urgent, or emergency support (e.g., illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts:

<http://camosun.ca/about/mental-health/emergency.html> or
<http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, centre for accessibility, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit Student Services at <http://camosun.ca/services/>

College Policies

Policies are available on the College website at <http://camosun.ca/about/policies/>

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies.

Education and academic policies include, but are not limited to, [Academic Progress](#), [Admission](#), [Course Withdrawals](#), [Student Appeals](#), Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, and Student Penalties and Fines.

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 website.

A. GRADING SYSTEMS

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf#page=2>

The following two grading systems are used at Camosun College:

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-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes.

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

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://www.camosun.bc.ca/policies/E-1.5.pdf#page=4> 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.