



CAMOSUN COLLEGE
School of Health & Human Services
Dental Programs

Dental Hygiene 120 Dental Anatomy
Fall, 2010

COURSE OUTLINE

The Approved Course

Description is available on the web @ <http://www.camosun.bc.ca/calendar/current/web/dhyg.html#DHYG120>

1. Instructor Information

| | |
|------------------|-------------------------------------------------|
| (a) Instructor | Bev Jackson |
| (b) Office hours | N/A |
| (c) Location | Dental Building - 004 |
| (d) Phone | (250) 370-3507 Alternative: 250 478-4130 |
| (e) E-mail | jacksonb@camosun.bc.ca |
| (f) Website | |

2. Intended Learning Outcomes

By the end of this course you will know and be able to:

- use dental and anatomical terms to describe dental anatomy and positions of teeth in order to provide accurate documentation
- describe features of tooth crown and root anatomy and morphology that relates to the identification and differentiation of permanent and primary teeth
- describe normal eruption sequence and general patterns of development for primary and permanent teeth as a foundation for clinical dental hygiene
- describe terms associated with dental occlusion and identify occlusal relationships using clinical descriptions
- identify variations from normal in relation to dental anatomy and morphology and occlusal relationships in order to have a good understanding of function as it applies to client care
- discuss features of tooth crown and/or root morphology that may affect the provision of dental hygiene care

CRITICAL ELEMENTS

- 1. Use dental and anatomical terms to describe dental anatomy and positions of teeth in order to provide accurate documentation.**
 - Define terms pertaining to primary and permanent dentitions.
 - Describe basic features of the four types of teeth in the permanent dentition, including their function.
 - Discuss the arrangement of teeth identifying positions of arches, quadrants, and sextants of the oral cavity.

- Describe anatomical terms used to describe tooth surfaces, horizontal and vertical divisions of teeth, line angles and point angles.
- Discuss numbering systems using the International, Universal and Palmer systems
- Describe the number and position of roots on all teeth.
- Describe curvatures of crown anatomy in the dental arches.
- Describe proximal contacts and embrasure spaces
- Describe the effect on gingival health of pronounced or inadequate curvatures of teeth and widened or narrow embrasures.

2. Discuss features of tooth crown and root anatomy and morphology that relate to the identification and differentiation of permanent and primary teeth.

- Discuss development of primary and secondary grooves or each tooth crown type (lobe formation)
- Identify and describe normal and abnormal features of each permanent tooth crown
- Discuss general characteristics of each type of tooth root (incisors, canines, premolars, and molars)
- Discuss features that differentiate permanent tooth crowns of the same type.
- Explain the anatomical differences between primary and permanent teeth
- Discuss eruption pattern of permanent teeth
- Discuss eruption pattern of deciduous teeth.
- Describe specific anatomical features of each deciduous tooth crown.
- Explain the importance of deciduous teeth.
- Discuss characteristics of each permanent tooth root describing longitudinal and cross-sectional views
- Describe common variations or abnormal features of each tooth root
- Identify differences between tooth roots of the same type
- Describe anatomical features of deciduous roots and compare with permanent counterparts.
- Identify permanent teeth in a laboratory or clinical setting

3. Discuss features of tooth crown morphology, which may affect the provision of dental hygiene care.

- Describe features of crown morphology that may affect dental hygiene care.
- Discuss the implications for preventive self-care of pronounced or abnormal crown anatomy and malpositioned teeth.
- Identify crown and root anatomy that may negatively influence the health of the periodontium and discuss preventive measures (if any)
- Discuss crown to root proportions in relation to the prognosis of periodontal disease.
- Describe the features of tooth root morphology in a healthy dentition and identify factors that may affect dental hygiene care.
- Discuss the implications for self care of normal and abnormal root anatomy (recession and mal-alignment) for effective root instrumentation.

4. Describe terms associated with dental occlusion and identify occlusal relationships using clinical descriptions.

- Define centric (static) relation, centric (static) occlusion, ideal occlusion, functional occlusion, open bite, overbite and overjet.

- Describe anatomical, dental and oro-facial characteristics of Angle's Class I, II (including Divisions 1 and 2) and III occlusion and malocclusion.
- Describe basic tooth relationships during centric (static) occlusion.
- Describe normal ranges of overbite and overjet.
- Describe common abnormalities that may be found within each classification (e.g. unilateral unbalanced occlusion).
- Describe normal occlusal relationships during guided movement of the mandible.
- Describe movement of the mandible during chewing.
- Describe tooth contact during chewing.
- Explain factors associated with the development of malocclusions.
- Describe bone and tooth position associated with crossbites.
- Describe premature contact of teeth during occlusion.
- Define primary and secondary occlusal trauma.
- Explain etiologic factors that may contribute to occlusal trauma.
- Describe occlusal stresses and the clinical effects of occlusal trauma.

5. Identify (on a skull, anatomical model, dentoforms, teeth or diagrams) anatomical features and landmarks of the teeth and related occlusal relationships.

3. Required Materials

(a) Required Text:

Bath-Balogh, M. & Fehrenbach, M. (2006). *Illustrated dental embryology, histology, and anatomy*. (2nd Ed.) St Louis: Elsevier/Saunders.

Required Manual: Dental Anatomy (DHYG 120) manual available from the bookstore.

- (b) Other equipment / materials required:** Kilgore International Inc., Dental Study Model – Permanent Teeth with Anatomical Roots. Models are purchased as part of the DH instrument kit. Additional, loose teeth may be available. *Note:* To be discussed the first week of class.

4. Course Content and Schedule

Class hours will consist of two consecutive 50-minute periods held 1 time per week. Dates for term and final exams, lecture and lab information will also be provided in the first week of class. Students are expected to be prepared for class by reading text chapters and completing related manual notes.

5. Basis of Student Assessment (Weighting)

- (a) Assignment - 10% TBA during the first week of class
- (b) Exams - 45% each
- Midterm Exam Date TBA
 - Final Exam Date TBA - during exam week
- (c) Other (i.e., Project, Attendance, Group Work) N/A

6. Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)

(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

Standard Grading System (GPA)

Competency Based Grading System

7. 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>

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. <http://www.camosun.bc.ca/policies/policies.html>

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

This course applies the standard grading system 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- | Passing Grade | 4 |
| 65-69 | C+ | Minimum level has not been achieved. | 3 |
| 60-64 | C | | 2 |
| 50-59 | D | | 1 |
| 0-49 | F | | 0 |