



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

**DHYG 328 Nutrition**  
**Winter 2019**

**COURSE OUTLINE**

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The Approved Course Description is available on the web @ <http://camosun.ca/learn/school/health-human-services/student-info/archives/index.html?p=DHYG+%28Dental+Hygiene%29>.

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**1. Instructor Information**

<b>(a) Instructor</b>	Jane Gair
<b>(b) Office hours</b>	WEDNESDAYS 11:30 am – 12:30 pm
<b>(c) Location</b>	Fisher 352
<b>(d) Phone</b>	3909 <b>Alternative</b>
<b>(e) E-mail</b>	<a href="mailto:gairj@camosun.bc.ca">gairj@camosun.bc.ca</a>
<b>(f) Website</b>	D2L will be used for lecture PowerPoint postings, assignments and outlines/schedules

**2. Course Content and Schedule**

a. Calendar Description

In this course students learn basic nutritional concepts including micro and macronutrients, nutritional standards and guidelines and apply these to client care in the clinical setting. The role and importance of nutrition, its relationship to oral and dental health, and client counseling are also examined.

- b. i) Pre-requisites: BIOL 260, DHYG 221, DHYG 321, DHYG 370, DHYG 371  
ii) Pre/Co-requisites: DHYG 380, DHYG 381

c. Course Particulars

- i) Credits: 2.0  
ii) Components: Class Hours: 2 hours per week / Out of class hours 2 hour per week.  
iii) Is the course available by distance education? No  
iv) Is prior learning available for this course? No

A weekly schedule of topics and exam times will be provided in the first week of class. Students are expected to be prepared for class by reading text chapters and completing related reading materials when required. Note: The desire to learn (D2L) online site will be used to post course information in addition to other content. This will be discussed in class.

### 3. Required Materials

#### (a) Required Text:

Stegeman, C.A., Ratliff-Davis, J. (2018). *The dental hygienist's guide to nutritional care*. 5<sup>th</sup> Ed. St.Louis, Missouri: Saunders Elsevier

(b) **Other Materials:** – handouts or reference material posted on DHYG 328 D2L site.

### 4. Intended Learning Outcomes

<b>Learning Outcomes for DHYG 328 Nutrition</b>	<b>Program (Global) Outcomes</b>
<p>Upon completion of this course the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Discuss the role of nutrition and its relation to oral and dental health (C).</li> <li>2. Describe the effect of nutrient intake including minerals, vitamins and water, and the utilization of micro and macro nutrients on the body (B,C).</li> <li>3. Describe the effect of systemic disease upon nutrient utilization and/or nutrient uptake (B).</li> <li>4. Utilize information about nutritional standards and guidelines including Canada's Food Guide (CFG) in nutritional analysis and client counselling (B,C,F,G).</li> <li>5. Provide appropriate dietary analysis and nutrition counselling that supports clients to make dietary and nutritional choices that promote oral, dental and overall health (A,B,C,D,H).</li> </ol>	<ol style="list-style-type: none"> <li>A. <i>Practice professionally as a dental hygienist in a variety of practice settings.</i></li> <li>B. <i>Demonstrate critical thinking and use evidence based decision-making to provide optimal dental hygiene services to individuals, families and community.</i></li> <li>C. <i>Advocate for the improvement of oral health and access to oral health services for individuals, families and community.</i></li> <li>D. <i>Coordinate and contribute to the effective management of the practice environment to ensure quality care and services.</i></li> <li>E. <i>Demonstrate competency as a clinician using the dental hygiene process of care.</i></li> <li>F. <i>Educate individuals, families and community about oral health including its relationship to general health.</i></li> <li>G. <i>Communicate and collaborate effectively with individuals, family, community and interdisciplinary teams.</i></li> <li>H. <i>Apply health promotion principles to improve the health of individuals, families and community.</i></li> </ol>

### 5. Critical Elements

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

#### 1. Discuss the role of nutrition and its relation to oral and dental health

- Define nutrition related terms.
- Identify local, national, and online nutrition resources for obtaining reliable nutrition information.
- Differentiate between food fads and misinformation as presented in various sources of literature.
- Explain the role of diet relative to form and frequency as well as cariogenic, anticariogenic and cariogenic food choices in association with host, saliva and plaque biofilm in the caries process.

- Explain the impact of nutrition on development, maintenance and repair and supporting integrity of oral mucosa and periodontal health or disease.
- Explain fundamentals and appropriate recommendations for fluid, soft and bland diets.
- Explain food safety and foodborne illnesses.
- Discuss optimal nutrition during food preparation and processing.
- Explain recommendations and diet modifications for clients with orthodontics, xerostomia, TMD & oral surgery.

**2 Describe the effect of nutrient intake including minerals, vitamins and water, and the utilization of micro and macronutrients on the body.**

- List the six major classes of nutrients found in foods and distinguish between those that are energy producing.
- Discuss physiological roles of macronutrients (carbohydrates, lipids and proteins) in relationship with diet and overall/general health.
- Describe the requirements, and identify sources and differentiate between the classifications within each macronutrient family (carbohydrates, lipids and proteins).
- Discuss nutrition measures to prevent disease.
- Demonstrate an understanding of the classification of vitamins.
- Describe the fat -soluble (A, D, E, and K) and water-soluble (B-complex and C) vitamins including their physiological roles, sources, and general, as well as oral, effects of deficiency and excess.
- Discuss the use of vitamin supplements.
- Discuss the major and trace minerals the body requires, including functions, sources and effects of deficiency or excess on general and oral health.
- Discuss the physiological roles of water, electrolytes, sodium and potassium.
- Discuss the major minerals the body requires for health including functions, sources and effects of deficiency or excess.
- Recall the significance of, and issues related to, fluoride as presented in DHYG 391 & DHYG 280.
- Discuss metabolism and balance of the macronutrients (carbohydrates, proteins, lipids, etc.)
- Describe total energy requirements and basal metabolic rate (BMR) for individual needs.

**3. Describe the effect of systemic disease upon nutrient utilization and/or nutrient uptake.**

- Discuss nutrition measures to optimize health and to prevent disease.
- Describe the role of nutrition in the prevention and treatment of the following diseases: anemia's, cardiovascular disease, gastrointestinal problems, acquired immunodeficiency disease, metabolic problems and mental health problems.
- Discuss the following issues related to carbohydrate consumption: diabetes, behavior, obesity and heart disease, use of artificial sweeteners, and lactose intolerance

- Discuss the following issues related to consumption of dietary fat: saturated and non-saturated fats, essential fatty acids, hydrogenation and, emulsification of fats, cholesterol, LDL and HDL.
- Discuss over and under consumption of protein and health related problems.
- Discuss the issues related to osteoporosis and calcium intake.

#### **4. Utilize information about nutritional standards and guidelines including Canada's Food Guide in nutritional analysis and client counselling**

- Relate the following terms and concepts with nutritional health; characteristics of a nutritious diet, nutrient density, Dietary Reference Intakes (DRI), Recommended Dietary Allowances (RDA) and Recommended Nutrient Intakes (RNI) or current nutrition related terms.
- Discuss food labeling in Canada and in the United States and identify the relevance of claims, nutrients and quantities that may be indicated on food packaging and labels. As well as identifying macronutrients on food labels.
- Relate concepts and principles of nutrition for a variety of individuals including but not limited to the following; socioeconomic, physiologic and age-related (children through elderly) needs.
- Identify nutritional requirements for optimum health using the recommendations and guidelines for healthy eating, from Canada's Food Guide (CFG).
- Identify sources of macro and micronutrients from CFG.
- Utilize information gained on the relationship between simple carbohydrates and dental caries from DHYG 219 when providing nutritional recommendations when counseling.

#### **5. Recall information about nutritional standards and guidelines including Canada's Food Guide in nutritional analysis and client counselling.**

- Review the role of the dental hygienist in nutrition counselling as part of comprehensive dental hygiene care.
- Recall nutritional requirements for optimum health using the recommendations and guidelines for healthy eating, from Canada's Food Guide (CFG).
- Recall the process of involving a client in the completion of a food record from client selection criteria, written details of diet and patterns and non-directive nutrition counselling techniques.
- Recall personal and other food choices and make recommendations for alternative food choices and eating patterns, which promote both general and oral/dental health.
- Discuss food factors such as; culture, budget, preparation and patterns that affect nutritional choices for individuals of any age and cultural diversity.
- Counsel a client on nutritional management based on analysis of a client food record as related to the guidelines for healthy eating and the CFG and associate dietary habits to oral and general health.
- Incorporate a variety of communication strategies such as non-directive techniques (as presented in DHYG 264 & DHYG 390).

- Utilize information gained on the relationship between simple carbohydrates and dental caries from DHYG 219 when providing nutritional recommendations when counseling.

## 6. Basis of Student Assessment (weighting)

### (a) Assignment

15% - Group Presentation

### (b) Exams/Quizzes

15% - Quizzes

20% - Midterm exam # 1

20% - Midterm exam # 2

30% - Final exam

***The minimum grade for successful completion of DHYG 328 is B- or 70%.***

## 7. Grading System

Standard Grading System (GPA)

Competency Based Grading System

### A. GRADING SYSTEMS <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>

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
<b>70-72</b>	<b>B-</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

## 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>

If you require additional support services due to a disability, please contact the disability resource center. [www.camosun.ca/drc](http://www.camosun.ca/drc).

### 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/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf>

**DHYG 328– NUTRITION WEEKLY SCHEDULE**  
**Winter 2018**

**Wednesday 12:30-2:20 Young 220 (SEE first 4 weeks with 11:30 am start times)\*\***  
**(Exception - March 13 CHANGED to March 14 11:00am – 12:20 pm in Fisher 100)**

WEEK	DATE	TOPIC	READINGS
1	<b>Jan 9 *</b> <b>11:30 am</b> <b>start time</b>	<ul style="list-style-type: none"> <li>• Course Introduction</li> <li>• Role of Nutrition in Health</li> <li>• Sources of Nutrition</li> <li>• Fads and other considerations</li> <li>• Food safety</li> <li>• Canada Food Guide <a href="http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php">http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php</a></li> <li>• Nutritional Standards &amp; Guidelines</li> </ul>	Ch 1 p 1-16 and Ch 16  Ch 1 p 16-27 Ch 21 CFG website
2	<b>Jan 16 *</b> <b>11:30 am</b> <b>start time</b>	<ul style="list-style-type: none"> <li>• Food Labeling</li> <li>• Nutritional Counseling: Food Record and Analysis</li> <li>• Carbohydrates (CHO)</li> </ul>	Ch 4, Ch 2 pg47 and CFG on CHO
3	<b>Jan 23 *</b> <b>11:30 am</b>	<ul style="list-style-type: none"> <li>• Nutrition and Oral / Dental Health</li> <li>• Protein</li> </ul>	Ch 18, 20 Ch 5
4	<b>Jan 30 *</b> <b>11:30 am</b>	<ul style="list-style-type: none"> <li>• Proteins continued and start Lipids</li> </ul>	Ch 6
5	Feb 6	<ul style="list-style-type: none"> <li>• Lipids continued and start Vitamins</li> </ul>	Ch 8, 11
6	Feb 13	<ul style="list-style-type: none"> <li>• <b>Midterm # 1 (20%)</b></li> </ul> Covers Role of Nutrition / Sources / Standards / Carbohydrates / Nutrition and Oral health / Proteins / Lipids	
<b>7</b>	<b>Feb 19-22</b>	<b>READING BREAK</b>	
8	Feb 27	<ul style="list-style-type: none"> <li>• Vitamins continued</li> </ul>	Ch 9, 10, 12
9	<b>Mar 6</b>	<ul style="list-style-type: none"> <li>• Minerals</li> </ul>	Ch 9, 10, 12
10	Mar 13 <b>switched</b> <b>to Mar 14</b>	<b>TIME and DATE SWITCH 11:00am – 12:20 pm Fisher 100</b> <ul style="list-style-type: none"> <li>• Metabolism and Balance</li> </ul>	Ch 2 & 7
11	Mar 20	<ul style="list-style-type: none"> <li>• Growth and Development</li> </ul>	Ch 14 & 13
12	Mar 27	<ul style="list-style-type: none"> <li>• <b>Midterm # 2 (20%)</b></li> </ul> Covers Vitamins / Minerals / Metabolism and Balance	
13	April 3	<ul style="list-style-type: none"> <li>• <b>Effects of Systemic Disease</b></li> <li>• <b>ASSIGNMENT – Group Presentations (15%)</b> <b>Bring Textbook to Class</b> <b>5 min presentations in groups on assigned topic</b></li> </ul>	Ch 17/19
14	Apr 10	Nutrition Intake and Requirements for Older Adults	Ch 15
15	Apr 18	<b>FINAL EXAM WEEK – Comprehensive Exam</b>	

\*This schedule is tentative and subject to change.