



**School of Arts & Science
CHEMISTRY AND GEOSCIENCE DEPARTMENT**

**CHEM 214-X01A/B
Nutrition for Fitness
Winter 2009**

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

Ω Please note: this outline will be electronically stored for five (5) years only.
It is strongly recommended students keep this outline for your records.

1. Instructor Information

(a)	Instructor:	Karen Strange		
(b)	Office Hours:	Wednesdays 9:30-10:30; Thursdays 9:30-10:30		
(c)	Location:	Technologies Building, IU Campus		
(d)	Phone:	252-370-3513	Alternative Phone:	
(e)	Email:	StrangeK@camosun.bc.ca		
(f)	Website:			

2. Intended Learning Outcomes

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

1. Explain the fundamental roles and importance of dietary proteins, lipids (fats and oils), carbohydrates, vitamins, minerals and water, and the need for balanced intakes for optimal wellness.
2. Relate various recommended daily intakes of proteins, lipids, carbohydrates, vitamins, and minerals to appropriate dietary and, possibly, supplement sources with regard to exercise type and intensity, optimal recovery, and optimal wellness.
3. Describe the importance of appropriate hydration before, during, and after exercise, and explain the general importance of water consumption and electrolyte balance to optimal wellness.
4. Relate muscle function and energy expenditure to biochemical fuel sources required by the body during various types and durations of exercise.
5. Relate the basic functioning of the gastrointestinal tract, the liver and the kidneys to the uptake and subsequent utilization or elimination of nutrients or their metabolic products before, during and after exercise.
6. Outline the effectiveness or potential efficacy, and/or the potential concerns, of current nutritional supplements.
7. Describe important considerations when comparing various diets recommended for general wellness, or diets designed for people interested in achieving greater wellness through exercise targeting weight loss, or the general effects of aging.
8. Describe the rationale of diets designed for the management of diabetes, food intolerance, osteoporosis, poor cardiovascular health, or hypokinetic diseases as they relate to the preventive and/or rehabilitative effects of exercise.

9. Obtain refereed scientific and medical reports on-line or in print form for the purpose of accessing new information on diets and nutritional supplements related to exercise and wellness.

3. Required Materials

(a) *Sports and Exercise Nutrition*. Third Edition. 2008 by William D. McArdle, Frank I. Katch & Victor L. Katch. Published by Lippincott Williams & Wilkins, Baltimore, MD.

Supplementary information from recently-published, relevant articles concerning nutrition for fitness will be provided as part of the course.

(b) *Chem 214 - Nutrition for Fitness - Laboratory Manual & Course Study Guide*

(c) *General Materials and Supplies*

- Scientific calculator
- Lab coats
- Safety glasses

4. Course Content and Schedule

Course format

Lectures: Mondays, Wednesdays, Thursdays 8:30-9:20am, PISE room 329A

Labs: Thursdays 3:30-5:20pm Technologies centre Bldg room 230

** everyone comes to first lab period Jan. 8th then alternating weeks for groups A and B

Topic Areas and relevant chapters

- 1 Introduction to the Science of Nutrition
2. Macronutrients, Micronutrients and Water (chapters 1 -2)
3. Nutrient Digestion, Absorption and Elimination (chapters 3)
4. Nutrient Bioenergetics in Exercise and Training (chapters 4-6)
5. Nutritional Recommendations for the Physically Active Person (chapter 7)
6. Nutrition for Intense Training& Sports Competitions (chapter 8)
7. Understanding the Nutrition Marketplace (chapter 9)
8. Exercise Thermoregulation and Fluid & Electrolyte Balance (chapter 10)
9. Ergogenic Aids (chapter 11-12)
10. Weight Control and Health Conditions (chapter14)

*Study guides for each chapter of the textbook are provided in the **Laboratory Manual and Course Study Guide**. Each study guide includes an assigned reading list for the chapter, a*

listing of the relevant discipline-specific vocabulary, a list of practice questions, and identification of relevant outside resources.

To enjoy the lectures to the fullest, and to gain the most from time spent in lecture, students should prepare for lectures *by reading the relevant subject materials in the text book in advance.*

5. Basis of Student Assessment (Weighting)

Dietary Analysis	20%
Laboratory reports	20%
Midterm Exam**	25%
Final Exam***	35%

** Midterm Exam – February 26th, 2009

This exam covers relevant material from approximately the first half of the course. The delineation of material that students will be responsible for will be provided about one week before the date of the exam. This is a 110 minute exam that will be written during the laboratory period in the lab room, TC230, or preferably in a classroom TBA.

*** Final Exam – TBA (During Final Exam Period)

The final exam grade contributes a value of 30% to the final grade. The emphasis is on material not covered previously the midterm exam, and on material that integrates the information from various sections of the course.

6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

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	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

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 E-1.5 at camosun.ca 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, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
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.

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, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.