



School of Arts & Science  
CHEMISTRY AND GEOSCIENCE DEPARTMENT  
CHEM 214  
Nutrition for Fitness  
Winter 2010 (January – April)

## COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/chem.html>

⚡ Please note: the College electronically stores this outline for five (5) years only.  
It is **strongly recommended** you keep a copy of this outline with your academic records.  
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

### 1. Instructor Information

(a)	Instructor:	Brett Poulis, Ph.D.	
(b)	Office Hours:	Tuesdays: 1:30 to 3:30 pm (or by appointment)	
(c)	Location:	Liz Ashton Campus Centre, CC119B	
(d)	Phone:	(250) 370-4493	Alternative Phone:
(e)	Email:	<a href="mailto:poulisb@camosun.bc.ca">poulisb@camosun.bc.ca</a>	
(f)	Website:	<a href="http://online.camosun.ca">http://online.camosun.ca</a>	

### 2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

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) Texts:

McArdle, William, Frank Katch and Victor Katch. *Sports and Exercise Nutrition*. 3<sup>rd</sup> Ed. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins, 2009.

(b) Other

Chemistry 214: Nutrition for Fitness Lab Manual and Course Guide. Camosun College.

#### 4. Course Content and Schedule

(This section can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

Wk	Day	Date	Lecture Topic	Ch.	Lab Activity
1	Mon	11-Jan-10	Carbohydrates	1	No Lab
1	Wed	13-Jan-10	Lipids	1	No Lab
1	Thurs	14-Jan-10	Proteins	1	No Lab
2	Mon	18-Jan-10	Vitamins	2	No Lab
2	Wed	20-Jan-10	Minerals	2	No Lab
2	Thurs	21-Jan-10	Minerals/Water	2	No Lab
3	Mon	25-Jan-10	Digestion and Absorption	3	Carbs & Nutrition
3	Wed	27-Jan-10	Digestion and Absorption	3	Carbs & Nutrition
3	Thurs	28-Jan-10	Nutrient Role in Bioenergetics	4	Carbs & Nutrition
4	Mon	1-Feb-10	Nutrient Role in Bioenergetics	4	No Lab
4	Wed	3-Feb-10	Nutrient Role in Bioenergetics	4	No Lab
4	Thurs	4-Feb-10	Macronutrient Metabolism	5	No Lab
5	Mon	8-Feb-10	Energy Measurement	6	Lipids & Nutrition
5	Wed	10-Feb-10	Energy Measurement	6	Lipids & Nutrition
5	Thurs	11-Feb-10	Nutritional Recommendations	7	Lipids & Nutrition
6	Mon	15-Feb-10	Nutritional Recommendations	7	No Lab
6	Wed	17-Feb-10	<b>Mid-Term #1</b>		No Lab
6	Thurs	18-Feb-10	No Class - Reading Break		No Lab
7	Mon	22-Feb-10	Nutritional Considerations	8	Proteins & Nutrition
7	Wed	24-Feb-10	Nutritional Considerations	8	Proteins & Nutrition
7	Thurs	25-Feb-10	Making Wise Choices	9	Proteins & Nutrition
8	Mon	1-Mar-10	Making Wise Choices	9	No Lab
8	Wed	3-Mar-10	Exercise Thermoregulation	10	No Lab
8	Thurs	4-Mar-10	Exercise Thermoregulation	10	No Lab
9	Mon	8-Mar-10	Exercise Thermoregulation	10	Hydration
9	Wed	10-Mar-10	Pharmacologic/Chemical Ergogenics	11	Hydration
9	Thurs	11-Mar-10	Pharmacologic/Chemical Ergogenics	11	Hydration
10	Mon	15-Mar-10	Pharmacologic/Chemical Ergogenics	11	No Lab
10	Wed	17-Mar-10	Nutritional Ergogenic Aids	12	No Lab
10	Thurs	18-Mar-10	<b>Mid-Term #2</b>		No Lab
11	Mon	22-Mar-10	Nutritional Ergogenic Aids	12	Nutrition/Bone Health
11	Wed	24-Mar-10	Nutritional Ergogenic Aids	12	Nutrition/Bone Health
11	Thurs	25-Mar-10	Body Composition Assessment	13	Nutrition/Bone Health
12	Mon	29-Mar-10	Body Composition Assessment	13	<b>Final Lab Exam</b>
12	Wed	31-Mar-10	Body Composition Assessment	13	<b>Final Lab Exam</b>
12	Thurs	1-Apr-10	Energy Balance, Exercise, Weight	14	<b>Final Lab Exam</b>
13	Mon	5-Apr-10	No Class - Easter Monday		
13	Wed	7-Apr-10	Energy Balance, Exercise, Weight	14	
13	Thurs	8-Apr-10	Energy Balance, Exercise, Weight	14	

## 5. Basis of Student Assessment (Weighting)

(This section should be directly linked to the Intended Learning Outcomes.)

Assignments	10%
Mid-Term #1	15%
Mid-Term #2	20%
Final Lab Exam	15%
Final Exam	40%

## 6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College 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](http://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 <sup>rd</sup> 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](http://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 the College web site in the Policy Section.

### Plagiarism

Plagiarizing is appropriating the work of another or parts or passages of another's writing (including the ideas or language) and passing them off as the product of one's own mind or manual skill. Plagiarism will not be tolerated. All written material must be done individually. This includes lab data and graphs. Should two very similar reports be received, the mark will either be divided between the students or both students will forfeit their mark for that report. Plagiarism, including the copying of any part of assignments or lab reports is a serious offence and is considered to be an academic misconduct.

### Cheating

A student caught cheating on an exam will forfeit all credit for that exam and perhaps for the course. Cheating is a serious offence and is considered to be an academic misconduct. Cheating includes, but is not limited to, using unauthorized materials in a quiz/exam and providing information to another person regarding exam content.

### Missed Exams

All in class lecture and lab exams and the final lecture exam must be written at the scheduled time. Only in emergency circumstances (e.g. illness with Doctor's note) may a student write an exam before or after the scheduled time. It is the student's responsibility to ensure that the instructor is notified if an exam must be missed. Such notification must occur in advance. The student will be required to provide documented evidence of the circumstance (e.g. medical certificate) in order to write a make-up exam.

### Laboratory Attendance

Attendance at the entire laboratory session is mandatory and will be noted. Failure to attend the lab will result in forfeiting all credit for that lab, including any written assignments (i.e. you may not use another student's data to write a report for credit). The only exceptions will be in the case of emergency circumstances (e.g. illness with Doctor's note), in which case the instructor must receive advance notification and documented evidence of the situation (e.g. medical certificate).

**\*HOLIDAYS OR SCHEDULED FLIGHTS ARE NOT CONSIDERED EMERGENCIES\***

### Student Responsibilities

1. Students are expected to hand in any required reports on time. Late assignments will receive a penalty of 10% per day.
2. Attendance is important to ensure success. If unable to attend a session, the student is responsible for arranging with a classmate to obtain information such as notes, handouts, and announcements.
3. Examinations must be written as scheduled. Exceptions may be made for emergencies at the discretion of the instructor (see above). The student must notify the instructor in advance of the examination.
4. Any evaluation of work for in class/lab assignments, reports, and/or participation will not be given if a student is not present for any reason.
5. Students are expected to work independently on reports unless instructed that the evaluation is based on group effort and evaluation.

6. Students must know and follow all Safety Rules and Procedures. Students must sign the Safety Contract before participating in any laboratory activity. Failure to follow the Safety Rules and Procedures will result in penalties at the discretion of the instructor.
7. Students must turn off cell phones and pagers during lectures and laboratory sessions.
8. All laboratories start punctually. Information necessary for performing the laboratory correctly and safely is given at the beginning of the lab.
9. All students must wear safety glasses during the laboratory sessions. Failure to bring safety glasses may result in being unable to work in the lab and loss of credit for the lab.