

# School of Arts & Science CHEMISTRY AND GEOSCIENCE DEPARTMENT CHEM 214 X02-A/B/C

Nutrition for Fitness Winter 2017

### **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:	David Stuss, M.Sc.		
(b)	Office Hours:	Mon & Thurs 9:30-10	20, Weds 3:30-4:20; Fri 3:00-4:00 or by appointme	ent
(c)	Location:	F348D		
(d)	Phone:	(250) 370-3436	Alternative Phone:	
(e)	Email:	stussd@camosun.bc.	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:

- 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.
- Relate muscle function and energy expenditure to biochemical fuel sources required by the body during various types and durations of exercise.
- 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.
- 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.
- 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)	Text ( <i>Mandatory</i> )	Nutrition for Sport and Exercise, 3 <sup>rd</sup> Ed. Dunford & Doyle. Cengage Learning, Stamford, CT (2015). (Includes Diet Analysis Plus online resource).
(b)	Scientific Calculator	Available in bookstore

# 4. Course Content and Schedule

Credits	3 credits	Number of weeks	14
Workload / week	3 h lecture 2 h lab (alt. wks) 6 h study	Pre-requisites	SPEX 210

# **Lecture Schedule**

Section	Day	Time	Location
X01-A/B	Mon	12:30 – 1:20	CBA 271
	Tuesday, Friday	11:30 – 12:20	CBA 271
X02-A/B/C	Mon, Weds, Thurs	11:30 – 12:20	TEC 175

# **Lecture Topics** (Approximately one chapter per week)

Topic Areas	Related Chapters	Topic Areas	Related Chapters
Introduction: The Science of Nutrition	1	Fats	6
Vitamins	8	Water & Electrolytes	7
Minerals	9	Dietary Planning	10
Defining & Measuring Energy	2	Weight & Body Composition	11
Energy Systems and Exercise	3	Disordered Eating & Exercise Patterns in Athletes	12
Carbohydrates	4	Diet, Exercise, Chronic Disease and Lifelong Health	13
Proteins	5	Special Topics	N/A

#### Lab Schedule

Section	Day	Time	Location	Section	Day	Time	Location
X01A/B	Wednesday (alternating weeks)*	12:30 – 2:20	TEC 230				
X02A/B	Friday (alternating weeks)*	8:30 – 10:20	TEC 230	X02C	Monday (alternating weeks)*	2:30 – 4:20	TEC 230

<sup>\*</sup>Scheduled lab dates have been adjusted to accommodate holidays & lecture schedule; see below.

Week	Starting	X02C (Monday)	X01A/B (Wednesday)	X02A/B (Friday)
1	9-Jan	Orientation / Safety	X01A: Orientation / Safety 1: Evaluating Evidence	X02A: Orientation / Safety 1: Evaluating Evidence
2	16-Jan	1: Evaluating Evidence	X01B: Orientation /Safety 1: Evaluating Evidence	X02B: Orientation /Safety 1: Evaluating Evidence
3	23-Jan	2: Evaluating Supplements	X01A 2: Evaluating Supplements	X02A 2: Evaluating Supplements
4	30-Jan	-	X01B 2: Evaluating Supplements	X02B 2: Evaluating Supplements
5	6-Feb	-	-	-
6	13-Feb	Family Day (College Closed)	Reading Break	Reading Break
7	20-Feb	Midterm Exam (Room TBA)	X01A/B Midterm Exam (Room TBA)	X02A/B Midterm Exam (Room TBA)
8	27-Feb	3: Evaluating Food Labels	X01A 3: Evaluating Food Labels	X02A 3: Evaluating Food Labels
9	6-Mar	-	X01B 3: Evaluating Food Labels	X02B 3: Evaluating Food Labels
10	13-Mar	4: Glycemic Index & Blood Glucose Levels	X01A 4: Glycemic Index & Blood Glucose Levels	X02A 4: Glycemic Index & Blood Glucose Levels
11	20-Mar	-	X01B 4: Glycemic Index & Blood Glucose Levels	X02B 4: Glycemic Index & Blood Glucose Levels
12	27-Mar	5: Case Studies / Nutrition Plans	X01A 5: Case Studies / Nutrition Plans	X02A 5: Case Studies / Nutrition Plans
13	3-Apr		X01B 5: Case Studies / Nutrition Plans	X02B 5: Case Studies / Nutrition Plans
14	10-Apr	-	-	Good Friday (College Closed)

#### 5. Basis of Student Assessment (Weighting)

Labs	10%
Nutrition Journal Assignment	20%
Critical Review Assignment / Presentation	10%
Midterm Exam	30%
Final Exam	30%

- (a) **Labs:** The laboratory mark will be based on participation and lab assignments. Laboratory materials will be provided in-class and online prior to the laboratory period.
- (b) **Journal Assignment:** Students will prepare and analyze both a 5-day dietary journal and a 5-day dietary plan using the tools and knowledge acquired during the course
- (c) **Critical Review Assignment:** Students will work in groups to prepare a critical analysis of a dietary supplement / ergogenic aid, with a written summary and a presentation.
- (d) **Exams:** There are 2 exams, a midterm and a final, worth 30% each. The final exam is not cumulative. Online study material will be provided prior to the exams.

## 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	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		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	Incomplete: 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	In progress: 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	Compulsory Withdrawal: 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 <a href="mailto:camosun.ca">camosun.ca</a>.

# 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.