

Fundamental nutrition (BIOL 203/2)
3-credits, Fall 2016
Lecture: Friday 11:45-14:30
Room: H-937 SGW

Instructor: Dr. Catherine Calogeropoulos
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Course Description

"The cause of nutrition and growth resides not in the organism as a whole but in the separate elementary parts—the cells." Theodor Schwann

Welcome to Fundamental Nutrition. This course is designed to teach you the basics of human nutrition. With this in mind, we begin by establishing the rationale behind Health Canada's serving suggestions, DRIs (dietary reference intakes) and the four major food groups. Next we will leap onto some basic chemistry followed by the anatomy of the human body (almost exclusively focused on the digestive system). Then we will spend the remainder of the semester on simple and complex carbohydrates, lipids, protein, fat-soluble and water-soluble vitamins, major and trace minerals and water. Of course, one of the reasons we eat is to obtain energy. We will conclude this part of the course by demystifying what is energy and how the body obtains energy from the nutrients it digests and absorbs.

The course will conclude with two contemporary issues facing modern day diets. The first is food safety and will cover foodborne pathogens, food additives and genetically-modified foods (GMOs). The second issue will be on food sustainability where we will explore how and what we eat affects the environment.

"The discovery of a new dish confers more happiness on humanity, than the discovery of a new star" Jean Anthelme Brillat-Savarin

Lecture Schedule

- 1. September 9 Introduction to course**
- Course expectations
 - Course philosophy
 - Reading Assignment 1 (DUE: Sept. 16)
- 2. September 6 NUTRIENT STANDARDS AND GUIDELINES**
- Dietary Reference Intakes (DRI)
 - Canada's food guide
 - Major food groups

- Reading Assignment 2 (DUE: Sept. 23)

3. September 23 BASIC CHEMISTRY & BODY BASICS

- Atoms, cells, tissues, organs and organ systems
- The digestive system
- The circulatory system
- Reading Assignment 3 (Due Sept. 30)

4. September 30 CARBOHYDRATES

- Simple carbohydrates
- Complex carbohydrates
- Digestion and absorption of carbohydrates
- Carbs and disease
- Food calories
- Reading Assignment 4 (DUE: Oct. 14)

5. October 7 MIDTERM (30%) (DURATION: 1 HOUR 30 MINUTES)

- If you miss the midterm, a medical note is required to have your final exam replace the value of the missed midterm. There is no make-up test.

6. October 14 LIPIDS

- Types of lipids
- Digestion and absorption of lipids
- Lipids and disease
- Reading Assignment 5 (DUE: Oct. 21)

7. October 21 PROTEINS

- Protein shape and function
- How are proteins made?
- Digestion and absorption of proteins
- How much protein do we need?
- Food allergies
- Reading Assignment 6 (DUE: Oct. 28)

8. October 28 VITAMINS

- What are vitamins?
- Fat-soluble vitamins
- Water-soluble vitamins
- Video Assignment 7/8 (DUE: Nov. 11)

9. November 4 MINERALS

- What are minerals?
- Major minerals
- Trace minerals

10. November 11 WATER & ENERGY

- Water

- What is energy?
- Energy output
- Basal metabolic rates: Genetics vs. environmental factors
- Reading Assignment 9 (DUE: Nov. 18)

11. November 18 FOOD SAFETY

- What causes foodborne illnesses
- Reducing the risk of foodborne illnesses
- Food additives and preservation
- GMOs
- Reading Assignment 10 (DUE: Nov. 25)

12. November 25 FOOD SUSTAINABILITY

- The evolution of the human diet and its effects on the planet

13. December 2 Wrap-up & Course Review

Grading

Midterm*	30%
Assignments**	10%
Final Exam***	60%

* The midterm is compulsory. Failure to write the midterm will result in a grade of zero. If you have a valid medical reason accompanied by proper medical documentation (i.e. a doctor's note that indicates you are not well enough to attend school), your final exam will replace the value of the missed midterm.

** NO EXTENSIONS for any assignment will ever be granted.

*** The final exam is also compulsory. The final exam is scheduled by the examinations office. **It is your responsibility to be present for the exam.** If you know ahead of time that you will not be able to write the exam because of a work-related or medical conflict you must contact the examinations office as soon as possible. Other than grading the final exam **I do not get involved with any matter regarding the final exam.**

Types of questions on midterm and exam: Multiple choice; fill in the blanks; match words and statements; true or false statements; labelling diagrams.

Numerical Grade to Letter Grade Conversion

Output	Grade	Marks	Grade Points	Ver	Grade	Marks	Grade Points	Sat	Grade	Marks	Grade Points	Marg	Grade	Marks	Grade Points
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s t a n d i n g	A+	90-100	4.30	y G o o d	B+	77-79.9	3.30	i s f a c t o r y	C+	67-69.9	2.30	i n a l P a s s	D+	57-59.9	1.30	
	A	85-89.9	4.00		B	73-76.9	3.00		C	63-66.9	2.00		D	53-56.9	1.00	
	A-	80-84.9	3.70		B-	70-72.9	2.70		C-	60-62.9	1.70		D-	50-52.9	0.70	
F, FNS	40	0	Poor - Failure				R	20	0	Very Poor - Failure						
(NR)		0	Grade Not Reported				GRADING SYSTEM									

Helpful Websites

Concordia Counseling and Development	http://cdev.concordia.ca/
The Concordia Library Citation and Style Guides	http://library.concordia.ca/help/howto/citations.html http://library.concordia.ca/help/howto/citations.html
Advocacy and Support Services	http://supportservices.concordia.ca/
Student Transition Centre	http://stc.concordia.ca/
New Student Program	http://newstudent.concordia.ca/
Access Centre for Students with Disabilities	http://supportservices.concordia.ca/disabilities/
Student Success Centre	http://studentsuccess.concordia.ca/
The Academic Code of Conduct Website	http://www.concordia.ca/students/academic-integrity/code.html
Financial Aid & Awards	http://web2.concordia.ca/financialaid/
Health Services	http://www-health.concordia.ca/