

Course Outline KNES 437: Advanced Nutrition Winter 2013

Instructor: Dr. Raylene Reimer-De Bruyn

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Office: KNB 440

Office Hours: By appointment

Room: SB 144

Days: Tues/Thurs Time: 2:00-3:15 pm

Course Website: Blackboard

Course Description: An examination of current nutritional strategies for sport performance and diet-

related chronic diseases. Critical analysis of a wide variety of dietary supplements

will be included.

Course Objectives: The objectives of this course include an examination of the physiological basis for

the role of nutrients in promoting optimal performance and health. In addition, students will be instructed in the tools necessary to make informed and healthful nutrition choices. Popular nutritional supplements and ergogenic aids will be critically examined. The overall aim of the course is to better equip the student to apply nutrition guidelines to their individual nutrition needs and those of

specialized populations.

Required Reading Materials:

Papers from the current literature are required for this class. In order to comply with copyright laws a full citation or permanent link (where permitted) will be placed on Blackboard from which students can access and print the papers to read

before each class.

Contacting the Instructor:

Students requiring assistance are encouraged to speak with their instructor during class or office hours. Should you wish to meet with the instructor outside of office hours, please phone or email the instructor to make an appointment.

Email, while commonly used, does limit the effectiveness of communications and may not be the best way for instructors to answer student questions. Therefore, the instructor may request a telephone call or personal meeting. Your instructor will inform you as to his/her expectations about emails.

Grading Scale:

Grade	Percent	Grade Point Value	Description
A+	96-100	4.00	Outstanding
A	90-95	4.00	Excellent - superior performance, showing comprehensive understanding of subject matter.
A-	85-89	3.70	
B+	80-84	3.30	
В	75-79	3.00	Good-clearly above average performance with knowledge of subject matter generally complete.
B-	70-74	2.70	
C+	65-69	2.30	
С	60-64	2.00	Satisfactory – basic understanding of the subject matter. Grade point average below 2.00 is not sufficient for promotion.
C-	55-59	1.70	
D+	50-54	1.30	
D	45-49	1.00	Minimal pass – marginal performance; generally insufficient preparation for subsequent courses in the same subject.
F	<45	0	Fail – unsatisfactory performance or failure to meet course requirements.

Evaluation of Course Content:

Midterm Exam 1: 25% (February 7, 2013) Midterm Exam 2: 25% (March 14, 2013)

Group Presentation: 15% (March 21 – April 11, 2013) Research Paper: 35% (April 16, 2013 at 2:00 pm)

Late Policy:

Late assignments will be assessed a 10% penalty for each 24 hours that they are

late.

Final Examination:

There is no final examination in this course. A final research paper is due on April

16, 2013 at 2:00 pm.

Additional Course Information:

Please refer to Blackboard for any course announcements throughout the term.

Course Content:

Course Overview (Each major topic will be covered in approximately 1-1.5 lectures)

I. The Current Nutritional State of Canada

How diet alters disease risk and population health

How are obesity, cancer and CVD incidence changing with current national nutrition recommendations

Is there any place for refined flour and sugar in the Canadian diet

il. Genetics and Weight: Are your parents solely to blame?

Human obesity – lessons from monogenic disorders

Role of single nucleotide polymorphisms (SNPs)

Consumer concerns about hormones/preservatives in food

III. The Brain and Food Intake: Something to think about!

Are foods addictive? Lessons learned from tobacco control

Behavior modification

Food advertising as a driver of the obesogenic environment

IV. Developmental Programming of Chronic Disease

Imprinting of specific tastes and appetites

Fetal programming of disease risk

V. Nutrient Bioenergetics in Exercise and Training

Nutritional recommendations for athletes: What, Why, and When?

Functional properties of whey, whey components and essential amino acids

VI. Supplements and Ergogenic Aids

Dietary supplement efficacy, safety and regulation

Phytochemicals

CNS stimulants

VII. Nutrition and Immune Function

Nutritional strategies to minimize exercise-induced immunosuppression in athletes Role of antioxidant supplementation

VIII. Nutrition and Cancer

Vitamin D and cancer risk

Supplement versus food sources of phytochemicals

IX. Nutrigenomics and Personalized Health

Nutrigenomics and nutrigenetics

Ethics of personalized health testing

Supplementary Course Information In accordance with the University of Calgary Calendar

Academic Accommodation Awareness Information:

It is the student's responsibility to request academic accommodation. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the commencement of this course. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation.

Plagiarism/Cheating/Ot her Academic Misconduct: (see Calendar)

A <u>single</u> offence of cheating, plagiarism, or other academic misconduct is a serious act that will not be tolerated in the Faculty of Kinesiology. Penalties for such acts will be determined by the Dean and may result in a failing grade, probation, suspension, or expulsion. Any student who is uncertain if an action falls into this category should consult the instructor and/or the Calendar.

Midterm Exam Policy:

The Faculty of Kinesiology policy is that all students are expected to write midterm exams on the dates listed on the course outline. Special accommodation may be granted by the instructor in **exceptional circumstances only** which include illness, participation in athletic events (varsity, national or international), domestic affliction, and religious conviction. It is the student's responsibility to supply proper documentation and/or notification **prior** to the originally scheduled midterm to support their circumstance. Personal travel plans and arrangements are **not** valid reasons for requesting a special accommodation for a midterm exam. Failure to comply with this policy will result in a grade of zero for the midterm and possible failure in the course.

FOIP Policy:

Please note that the University is under the jurisdiction of the provincial Freedom of Information and Protection of Privacy (FOIP) Act. Please refer to the website for details: http://www.ucalgary.ca/secretariat/privacy

Internet and Electronic Communication Device Information:

Any surfing of the Internet during lectures that is not directly related to the class discussion is distracting and strictly forbidden. Additionally, the use of any electronic devices (e.g., cellular phones, Blackberrys) for e-mailing, texting, etc. is strictly prohibited. Please turn OFF your phone before the beginning of each lecture.

Instructors have the authority, at the discretion of the dean of their faculty, to require that specific course assignments, term papers and academic exercises be submitted in an electronic format. Instructors cannot require that multiple copies of an assignment be submitted.

Emergency Evacuation/Assembly Points:

For classes in the Kinesiology buildings Primary assembly point is the MacEwan Student Centre - North Courtyard and the Alternate assembly point is University Theatres Lobby

Safewalk Information:

Safewalk volunteers walk people safely to their destination on campus (including Health Sciences, Children's Hospital, McMahon Stadium, and University LRT station). This service is free and available to students, staff and campus visitors. Call 403-220-5333 (24 hours a day/7 days a week/365 days a year).

Student's Union:

The Kinesiology Representative is Calindy Ramsden - E-mail: kinesrep@su.ucalgary.ca.