

The University of British Columbia  
School of Kinesiology

**Course Code and Title:** KIN 265– Nutrition, Physical Activity, and Health

**Class Location and Meeting Time:** 15.30 – 17.00 Tuesday and Thursday (UBC Life Building Room 2201)

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**Office Location:** TBD

**Office Hours:** By request, email for availability.

### **COURSE DESCRIPTION**

This course offers an introduction to the application of nutrition to physical activity and health. Students will learn about a range of topics including macro- and micronutrient classification and recommended daily intakes, their digestion, absorption, and functions in the body and their role in supporting physical activity. Students will also learn about the implications of nutrient imbalances and the impact of this on physical activity and ultimately health.

### **RATIONALE**

The foods we eat, the nutrients within certain foods and their destiny once they are eaten have remarkable effects on our overall health and well-being throughout life. In recent years, public awareness of the intimate relationship between nutrition and physical activity in improving health and lowering disease risk has greatly improved. Individuals working in the health industry in any capacity should have a basic understanding of this relationship in order to promote overall wellness.

### **AIMS AND OUTCOMES**

Students will be confident in their understanding of the fate and functions of macro and micronutrients in human health and subsequent impact on physical activity. Students will also be introduced to dietary assessment and dietary requirements for health and exercise. In addition, nutritional considerations for select populations will be covered.

### **EDUCATIONAL OUTCOMES**

- Improved awareness of the current landscape of health concerns related to nutrition
- The role nutrition interventions have in improving health including supporting physical activity
- Understand the concept of energy balance to optimize health and well being
- Understand the sources, fates and functions of macro and micro-nutrients upon ingestion and their role in supporting physical activity
- Become familiar with software used when designing nutrition plans
- Appreciate the impact of over- or under- consumption of nutrients on health within specific populations and necessary dietary modifications
- Develop skills required to work as part of a group

It is important for all humans to have fundamental knowledge in the basics of nutrition in order to live a healthy life. In addition, specific education in the area of nutrition is beneficial in a number of occupations including health promotion, nutrition or dietetics, the health and fitness industry, medicine and rehabilitation. Throughout this course, students will be tasked with converting scientific literature into useful, practical, comprehensible changes in order to develop their communication skills. Students will have enhanced awareness of the relationship between nutrition and other areas within the kinesiology field.

## **SPECIFIC LEARNING OBJECTIVES**

Upon completion of this course students will be able to:

1. Describe the basic principles of exercise and minimum recommendations for health
2. Summarize principles of energy metabolism and energy systems
3. Identify 6 classes of nutrients that are important for physical activity and health
4. Explain the functions of macro- and micronutrients and their role in supporting physical activity and health
5. List the principle functions of water and electrolytes in the human body
6. Outline the principle functions of vitamins and minerals in health and the role that they play in the supporting physical activity and exercise
7. Appreciate the challenges faced when designing nutrition plans

## **CLASS FORMAT**

The course is held on Tuesday and Thursdays (in the UBC Life Building- Room 2201) from 15.30 – 17.00. The course will include lectures, discussions and completion of identified reading. Lectures will include a combination of presentations by the instructor, videos, small group work and class discussions. It is strongly encouraged that as part of group work, groups meet outside of class to complete necessary work in a timely manner with a shared workload.

## **ATTENDANCE**

Attendance is taken in the first two classes. After this, regular attendance is encouraged. You are responsible for all material covered in class and any information given whether in attendance or not. You are also responsible for getting your own notes from class as well as information pertaining to changes in the course outline, readings, assignments, and any tests or exams.

## **EMAIL**

Questions through email are always welcome but please be aware that I might not be able to respond right away. It may take up to 24hrs to respond to your email. I do not check email on weekends. It is essential to include your name and course (i.e. KIN265) in the subject line due to the volume of emails from students.

## **OFFICE HOURS**

Some questions can be answered through email while others may be better discussed in person. My office hours are available on request.

## **TECHNOLOGY IN THE CLASSROOM**

Note taking on a laptop encourages verbatim transcription and students no longer process information in a way that is conducive to the give-and-take of a classroom discussion. Laptops also create the temptation to surf the web, check e-mail, or instant message creating a much less engaged classroom. Laptops will be allowed in the classroom, however, please make sure that you are focused on what is happening in the classroom and engaged in the discussion.

Cell phones, however, are not welcome in the classroom. Cell phones are not to be visible or used at any time, especially not during quizzes or exams. Phones should be turned off before entering the room and remain off for the duration of class. If there is an extenuating circumstance which requires the student to use the phone during class, kindly step out of the room. Students who use their phone during class time will be asked to put the phone away and may be asked to leave room.

## **CLASS NOTES**

Class notes will be made available in PDF file format through the course website. Please keep in mind that these notes provide an overview of what will be covered and do not contain information related to discussions, in-class assignments, or detailed examples, which will be covered in class.

## **POLICIES AND EXPECTATIONS**

### *Class Attendance*

Regular attendance is expected of students. Students who neglect their academic work and assignments may be excluded from final examinations. Students who are unavoidably absent because of illness or disability should report to their instructors on return to classes.

### *Academic Accommodation for Students with Disabilities*

The University's goal is to ensure fair and consistent treatment of all students, including students with a disability, in accordance with their distinct needs and in a manner consistent with academic principles. Students with a disability who wish to have an academic accommodation should contact Access and Diversity without delay.

### *Academic Integrity*

All UBC students are expected to behave as honest and responsible members of an academic community. Breach of those expectations or failure to follow the appropriate policies, principles, rules, and guidelines of the University with respect to academic honesty may result in disciplinary action. It is your responsibility to become familiar with the University of British Columbia's Academic Honesty and Plagiarism Policies, as well as the Student Declaration and the consequences of violating these policies.

## **READINGS AND RESOURCES**

Required: Spano M., Kruskall L., Thomas D.T. *Nutrition for Sport, Exercise and Health*. Champaign, IL: Human Kinetics; 2018

Those who want to further enhance their understanding of nutrition and its role in physical activity will benefit from the following text:

Lanham-New S, Stear S, Shirreffs S, Collins A. *Sport and Exercise Nutrition*. The Nutrition Society Textbook Series: Wiley-Blackwell; 2011.

## **WEBSITES**

A number of relevant websites are posted on the course website under the module "Links and Resources".

## **EVALUATION**

### ***In class quiz (30%)***

#### *Format*

In class tests

#### *Details*

Students will complete 3 short tests, each worth 10%. Each test will take 25 minutes to complete and consist of 20 multiple choice questions. Further information on the topics and format will be provided in class, but they will emphasize the retention and application of the course material covered in the previous two weeks.

#### *Due Date*

See specific dates in course outline.

#### *Weighting*

30% towards overall mark

#### *Learning Outcomes*

Assess the student's retention and comprehension of basic material covered

### ***Assignment 2 (20%)***

#### **Group Assignment with an Individual component**

#### *Format*

Written submission

#### *Details*

Students will complete the "navigating the grocery store" assignment in groups

#### *Due Date*

Thursday October 10<sup>th</sup> (at the beginning of class)

#### *Weighting*

Assignment 15% and peer evaluation 5% towards overall mark

<i>Learning Outcomes</i>	The purpose is to navigate the grocery store to appreciate the challenges faced by those aiming to eat a nutritious diet with limited resources. Also to compare the nutrition label on 2 food items in the same category to understand the strategies consumers face in making good food choices.
<b>Assignment 2 (10%)</b>	<b>Fad Diets</b>
<i>Format</i>	Written submission
<i>Details</i>	Students will be asked to review a dietary trend, answer questions related to the trend and prepare a meal plan for an individual following this diet using a nutrition analysis software program. Students should be able to critique the benefits and detriments of this diet.
<i>Due Date</i>	Thursday November 21 (at the beginning of class)
<i>Weighting</i>	10% towards overall mark
<i>Learning Outcomes</i>	This will test the students' ability to critically review emerging dietary trends and evaluate their suitability for use with the general population.
<b>Final Exam (50%)</b>	<b>Final (cumulative)</b>
<i>Format</i>	Multiple choice, short and long answer questions
<i>Details</i>	Questions will be based on material covered throughout the entire term with more critical thought needed to answer topics
<i>Due Date</i>	TBD
<i>Weighting</i>	40% towards overall mark. <b><u>Students must receive a grade <math>\geq</math> 50% in the final exam in order to pass the overall course.</u></b>
<i>Learning Outcomes</i>	Test students understanding of material throughout the course and the ability to link these core concepts together

## GRADING

- **Class tests** will not be rescheduled for any reason. If a valid reason (i.e. emergency medical or family emergency, travel for university athletics) is given for missing the test **at least 1 day prior**, marks will automatically be added to the final exam. Otherwise, failure to complete the test will result in a mark of zero being awarded.
- **Assessment 1 and 2:** Extensions **will not** be provided for any reason. In case of a medical or serious family emergency an appropriate medical certificate must be submitted. Late submission penalties will apply and will be clearly outlined the assignment.
- **Final:** Students absent from final examinations held in the official examination period must request academic concession from their specific advising office. **IMPORTANT: Students must receive a grade  $\geq$  50% in the final exam in order to pass the overall course.**
- Students should retain a copy of all submitted assignments (in case of loss) and should also retain all their marked assignments in case they wish to apply for a Review of Assigned Standing.
- Students have the right to view their marked examinations with their instructors, providing they apply to do so within a month of receiving their final grades. This review is for pedagogic purposes. The examination remains the property of the university.

## POLICY ON TEXT-MATCHING SOFTWARE

UBC subscribes to Turnitin, an online system that compares written material with the Web and with other material submitted to its database. Faculty, staff and students can upload submissions and check for duplication of material in other sources and possible plagiarism.

## TENTATIVE COURSE SCHEDULE

The topics for each class are listed below. Throughout the course, the assigned topics for discussion during each lecture may deviate slightly, due to time constraints, but every effort to maintain the schedule below will be made.

<i>Date</i>	<i>Topic</i>	<i>Learning Objective</i>
Week 1	Course introduction – Nutrition, health and physical activity	Chapter 1
Week 2	Energy metabolism, the role of physical activity in improving health and reducing illness	Chapter 2
Week 3	Carbohydrate - digestion, absorption and metabolism; requirements and sources for physical activity and health	Chapter 3
Week 4	<b>** Sept 26<sup>th</sup> In class Quiz 1**</b> Fat - digestion, absorption and metabolism; requirements and sources for physical activity and health	Chapter 4
Week 5	Protein - digestion, absorption and metabolism; requirements and sources for physical activity and health	Chapter 5
Week 6	<b>**Oct 10<sup>th</sup> Assignment 1 Due in class**</b> Introduction to select vitamins	Chapter 6
Week 7	<b>**Oct 17<sup>th</sup> In class Quiz 2**</b> Introduction to select minerals	Chapter 7
Week 8	Water and electrolytes for physical activity and health	Chapter 8
Week 9	Changing body weight and body composition	Chapter 10 & 13
Week 10	Current topic in nutrition – TBD	
Week 11	<b>**Nov 14<sup>th</sup> In class Quiz 3**</b> Current topic in nutrition – TBD	
Week 12	<b>**Nov 21<sup>th</sup> Assignment 2 Due in class**</b> Introduction to nutrition for specific populations	
Week 13	Course review and wrap up as needed	
	<b>**Exam Period**</b>	