# UNIVERSITY OF BRITISH COLUMBIA – SCHOOL OF KINESIOLOGY
# COURSE SYLLABUS

**Course Code and Title:** KIN232 (KIN489H) – Nutrition, Physical Activity, and Health 2020/21W Term 2
**Class Location: Online** 11.00am – 12.30pm PST Tuesday and Thursday via Zoom. A number of lectures will be delivered asynchronously. Synchronous lectures will be recorded and available after class.
**Instructor Name:** Emma McCrudden
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**Teaching Assistants:** Eloise Tribolet eloise.tribolet@ubc.ca
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**Office Location:** Virtual
**Office Hours:** Tuesday via zoom 1.30pm – 2.30pm

## 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 heath 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 consists of a live online lecture on Tuesdays and Thursdays from 11.00am – 12.30PST. The live classes will include lectures, activities and small group discussions. All classes will be recorded and where possible, students who cannot partake in the live class small group discussions will have the opportunity to post in the discussion board and have their queries answered. It is strongly encouraged that as part of group work, groups meet virtually outside of class to complete necessary work in a timely manner with a shared workload.

**ATTENDANCE**

Although attendance is not formally taken, regular attendance to synchronous lectures is strongly encouraged to stay on top of material. All classes will be recorded and will be available on Canvas. 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 should first be directed to the TA and are welcome through email . Please be aware that I do not check emails over the weekend and during the week, it may take up to 48hrs to respond to your email. It is essential to include your name and course (i.e. KIN232) in the subject line due to the volume of emails from students.

**TECHNOLOGY IN THE CLASSROOM**

Electronic devices such as computers (desktop, laptop) or tablets (ipads, etc.) will be needed for this online course. A strong internet connection is highly recommended. These devices create the temptation to surf the web, check e-mail, etc. so please make sure that you are focused on what is happening in the classroom and engaged in the discussion. You may wish to use a productivity extension platform such as StayFocusd to limit the amount of time that you can spend on certain websites.

Other distractions should be minimized during class times as well. For example, cell phones should be muted, and try to situate yourself in a quiet space if possible.

**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 the lecture.

**POLICIES AND EXPECTATIONS**

*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.

*Academic Freedom*

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0 for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: https://academic.ubc.ca/support-resources/freedom-expression.

*Copyright:*

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the Course Instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline.

**READINGS AND RESOURCES**

Students are responsible for all readings assigned in the course syllabus and during class time. Students may be directed to sections in the Spano textbook to support the material covered in class. Assigned empirical research and review articles are meant to develop student's understanding and provide examples of concepts discussed in class. Thus, they will not be directly tested in an exam format, but completion of these readings will enhance knowledge of the course material. Additional readings, information about this course, handouts, and important reminders will be made available on the course shell.

Supporting text: 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.

**EVALUATION**

| | |
|---|---|
| ***Weekly quiz (30%)*** | |
| *Format* | Online tests |
| *Details* | Students will complete 6 short tests, each worth 5%. Each test will take 15 minutes to complete and consist of 10 multiple choice questions. Further information on the topics and format will be provided on canvas |
| *Due Date* | 10pm every Sunday from Week 2 – 7. Week 1 is a practice (ungraded) quiz. |
| *Weighting* | 30% |
| *Learning Outcomes* | Assess student's retention and comprehension of basic material covered |
| ***Group Assignment (30%)*** | |
| | **Fad Diets** |
| *Format* | Written submission |
| *Details* | Students will be asked to review a dietary trend; answer questions related to the trend and prepare a meal plan for an individual a following this diet using a nutrition analysis software program. |
| *Due Date* | 1pm Tuesday March 16th |
| *Weighting* | 30% towards overall mark |
| *Learning Outcomes* | This will test the students' ability to critically review emerging dietary trends and evaluate their suitability for use with the general population. |
| ***Final Exam (30%)*** | **Final (cumulative)** |
| *Format* | Multiple choice, short answer questions |
| *Details* | Questions will be based on material covered throughout the entire term with more critical thought needed to answer topics |
| *Due Date* | TBD |
| *Weighting* | 30% towards overall mark. |
| *Learning Outcomes* | Test students understanding of material throughout the course and the ability to link these core concepts together |
| ***Participation (10%)*** | |
| *Format* | Online |
| *Details* | Due to the unique nature of online instruction this year, I will be assigning tasks related to the material taught to encourage participation and engagement. This may include engagement in discussion boards, uploading images / text of examples related to material taught and general sharing of information. |
| *Due Date* | Throughout the term |
| *Weighting* | 10% towards overall mark. |
| *Learning Outcomes* | To encourage discussion and retention of information and incorporate knowledge acquired about nutrition into everyday life |

**GRADING**

- **Weekly class tests** will be made available for 48 hours but only one attempt will be permitted. If a valid reason (i.e. emergency medical or family emergency) 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.

- **Group assignment:** Extensions **will not** be provided for any reason as the due date is clearly outlined from the beginning of term and students are expected to make sure they are organised to submit on time. 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.
- 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.

| *Date* | *Topic* | *Learning Objective* |
|---|---|---|
| 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* | 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* | Introduction to select minerals | Chapter 6 |
| Week 7* | Introduction to select vitamins | 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 | **Mar 16th 1pm PST Group assignment ** Nutrition for specific populations | |
| Week 11 | Current topic in nutrition – TBD | |
| Week 12 | Nutrition for Cognitive Health **Guest Lecture** | |
| Week 13 | Course review and wrap up as needed | |
| | **Exam Period** | |

*denotes a graded online quiz at the end of the week worth 5% of overall grade