

**MCMASTER UNIVERSITY**  
**Department of Kinesiology**

**Kinesiology 3Y03: Human Nutrition and Metabolism**

**Term:** Term 2

Winter 2018

**Instructor:** Janet Pritchard, PhD

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**Office Hours:** To be announced

**Lectures:** Tuesday, Wednesday and Friday, 12:30-1:20pm in BSB 120

**DESCRIPTION**

This course will provide an in-depth analysis of human nutrition and metabolism, with an emphasis on the impact of diet on human physical performance in both healthy and chronic disease states.

**COURSE CONTENT OBJECTIVES:** After completing this course, students will be able to:

- 1) Recall basic concepts in nutrition, including Dietary Reference Intakes (DRIs), macronutrients, micronutrients, and differentiate between sources of nutrition information
- 2) Describe current controversies in sports nutrition, including the use of ergogenic aids, hydration strategies and fad diets for athletes
- 3) Compare and contrast the roles of carbohydrates, fat and protein in sport performance
- 4) Explain the role of nutrition-based strategies for injury management
- 5) Describe the role of nutrition in the maintenance of gastrointestinal health and related disease
- 6) Describe the role of nutrition in the prevention and management of dementia and type 2 diabetes
- 7) Explain how nutrition-based strategies and supplements can be used for the maintenance and preservation of bone, joint and muscle health in older adults
- 8) Describe the role of nutrition in the management of mental health disorders and Alzheimer's Disease
- 9) Compare and contrast a news piece on a sports nutrition-related topic with peer-reviewed scientific evidence

**REQUIRED TEXT(S)/READINGS**

There is no required textbook for this course, however it is recommended that students retain an introductory nutrition textbook for referencing. For example: Whitney, E. N., Rolfes, S. R., Hammond, G., & Piche, L. A. (2016) *Understanding Nutrition* (2<sup>nd</sup> Ed.). Toronto, Canada: Nelson Education Ltd.

Additional readings will be assigned throughout the course. Students are expected to complete the readings and any associated questions prior to class.

## **TOPICS TO BE COVERED**

- **Nutrition to optimize performance**
  - Carbohydrates
  - Fat
  - Protein
  - Hydration
  - Ergogenic aids
  - Injuries
- **Nutrition to prevent and manage disease or optimize health through the lifespan**
  - Gut health
  - Pregnancy
  - Mental health
  - Alzheimer's disease
  - Musculoskeletal health
  - Type 2 diabetes

## **EVALUATION**

Midterm exam (multiple choice, 40 min) (Date: Feb 14, UH 213)	25%
Assignment 1	10%
Assignment 2	25%
iClicker questions- during class throughout semester	5%
Cumulative Final Exam- scheduled by Registrar	35%

### **Details about Assessments:**

**1. Midterm exam-** This will occur during class time on a date announced by your Professor. If you miss the midterm for a legitimate reason and receive approval from the Associate Dean's office (BSB room 129), you will have an opportunity to re-write the midterm on Thursday March 29<sup>th</sup> at 8:30am in IWC 201. This will be your only opportunity to re-write the midterm exam.

**2. Assignment-** please see detailed guidelines posted on Avenue.

**3. iClicker questions-** iClicker questions will be delivered during class each week. It is your own responsibility to come to class prepared with your iClicker. Marks will not be adjusted for faulty or forgotten iClickers. Please **register** your iClicker by **Friday January 19<sup>th</sup>, 2017**. It is the student's responsibility to bring their iClicker to each class and ensure that their iClickers are working. Class absence notification in the format of MSAF or otherwise will not impact the iClicker evaluation, as there is a provision in the marking scheme for missed questions. Your iClicker grades will be calculated based on participation during class. Your grade will be calculated as follows:

90-100% of questions answered = 5%
80-89% of questions answered = 4%
65-79% of questions answered = 3%
50-64% of questions answered = 2%
35-49% of questions answered = 1%
<35% of questions answered = 0%

**4. Final exam:** The final exam will be scheduled during the final exam period. The final exam will cover all course content, with emphasis on content that has not yet been tested in the course. Questions may be multiple choice and short answer.

### **VARSITY ATHLETES AND STUDENT THERAPISTS**

No students are permitted to complete assessments prior to the rest of the class, and tests will not be given to coaches to administer to students when traveling.

- a) If you are a varsity athlete and you have a conflict with the course midterm, you must complete the student athlete academic conflict form and visit the Associate Dean's office to be advised on the next steps. The make-up midterm exam will occur during the alternate date indicated. Please inform your Professor immediately if you have a conflict.
- b) If you are a student therapist and you have a conflict with the course midterm, you are encouraged to find an alternate student therapist to fill your spot for the athletic event. You are not permitted to submit an MSAF for missed evaluations worth  $\geq 25\%$  of the final grade.

### **POLICY REGARDING DEFERRED TESTS AND EXAMS**

Students who miss the midterm for legitimate reasons, such as illness, may re-write the midterm exam during the alternate date indicated. In all instances, appropriate documentation must be submitted to the Office of the Associate Dean, Faculty of Science (BSB room 129).

Students who miss a Registrar-scheduled final exam can apply to the Associate Dean's office for permission to write in the deferred final exam schedule. In all cases, appropriate documentation must be submitted to the Office of the Associate Dean, Faculty of Science, for consideration of deferred examination permission. Under no circumstances will the instructor re-schedule a final exam for individual students.

### **ACADEMIC INTEGRITY**

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences (e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript reading "Grade of F assigned for academic dishonesty", and/or suspension or expulsion from the university). It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at: <http://www.mcmaster.ca/univsec/policy/AcademicIntegrity.pdf>

The following illustrates only three forms of academic dishonesty: Plagiarism (e.g. the submission of work that is not one's own or for which other credit has been obtained), improper collaboration in group work, copying or using unauthorized aids in tests and examinations.

### **TURNITIN.COM**

In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a

student who does not submit work to Turnitin.com. (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to [www.mcmaster.ca/academicintegrity](http://www.mcmaster.ca/academicintegrity)

### **ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES**

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone (905) 525-9140 ext. 28652 or email [sas@mcmaster.ca](mailto:sas@mcmaster.ca). For further information, consult McMaster University's Policy of Academic Accommodation of Students with Disabilities.

### **ON-LINE LEARNING RESOURCES**

In this course, we will be using Avenue. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

### **USE OF COURSE MATERIAL**

Course materials provided by the instructor are for use by students registered in this class only. Under no circumstances are these materials to be shared, posted or sold to a third party without permission from the instructor. This includes, but not limited to, online posting of instructor provided lecture/lab notes, online lectures, recordings of lectures, or any lab materials on a website other than the Avenue site designed for this course.

### **MODIFICATIONS TO COURSE**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

### **MISSED STUDENT ABSENCE FORM (MSAF)**

If you are absent from the university for a minor medical reason, lasting fewer than 3 days, you may report your absence, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. Report your absence to Dr. Pritchard within 2 working days by email/telephone/in person to learn what relief may be granted for the work you have missed.

### **FEEDBACK**

It really helps us improve our services when we hear from our students, faculty and staff about what we can do better. A feedback process brings to our attention situations in which we may not have adequately considered accessibility and allows us to better plan for accessibility in the future.