

KINESIOLOGY 1F03  
**INTRODUCTION TO HUMAN NUTRITION AND HEALTH**

Fall 2017  
T, W, and F 3:30-4:20  
MDCL 1105

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### **EMAIL PROTOCOL**

- When sending me an email you ***must use*** your McMaster email address not someone@hotmail.com or mackinkid@gmail.com or another account. The reason for this is that it helps verify your identity.
- You ***must*** type the course number in the Subject heading (**Kin 1F03**), otherwise your email may be deleted due to the large number of emails that I receive and the email filters I have in place to reduce extraneous emails.
- Depending on the question(s) posed and my availability, I will try and respond to your emails within a 24 hour period). **Office Hours:** Mon 10-12, or by appointment.
- It's also a good idea to start your email with "Dear Dr. Holloway" or "Dr. Holloway" and not with "Hey there" or "Hi"... this is generic advice for dealing with all University instructors who view an email as letter-style correspondence 😊

### **UNDERGRADUATE COURSE CALENDAR DESCRIPTION**

Introduction to the study of human nutrition and examines the role of nutritional practice and physical activity in the prevention and treatment of cardiovascular disease, including obesity and diabetes.

### **COURSE OBJECTIVES**

To provide a framework for the basic understanding of nutrition and nutritional principles as they apply to humans. To understand the role that balanced, or imbalanced, nutrition can play in promotion of healthy and/or disease as well as promotion of performance in active (i.e., exercise) conditions. To begin to understand nutrition from a metabolic and cellular mechanistic perspective.

At the heart of how our bodies deal with nutrients is how our cells deal with those nutrients. Collections for cells form tissues; tissues collectively comprise sites of nutrient storage, nutrient metabolism, and/or nutrient oxidation. Hence, my own belief is that a basic understanding of

how cells work and their respective biochemistry will go a long way in allowing you to determine the mechanistic underpinning of how nutrients function and their role in health/disease.

An evaluation of nutrition from multiple perspectives including epidemiological, clinical study, and laboratory test will be examined. Students will hopefully begin to understand how different types of research and different types of nutritional claims can be evaluated.

As time permits, current relevant concepts and controversies within the nutrition/supplement area will be addressed, discussed, debated, and considered part of the course content according to student interest and within the guidelines of the course. **Importantly, these controversies will be considered testable material.**

### **COURSE REQUIREMENTS AND POLICIES**

You are expected to attend every class. The readings and lectures will both overlap and complement each other. The lectures are designed to expand and elaborate on the readings and the readings on the lectures, neither is a substitute for the other. Written information contained in lecture notes will be made available via Avenue (see also the section on On-Line Resources below). However, please be aware that the lectures might depart from the notes on Avenue and there will be additional information conveyed in the class that may not appear in the lecture notes. Although the assigned readings will serve as valuable resources for the class, contemporary material from the scientific literature will be presented in lecture. It is **YOUR responsibility** to cross-check the notes with others if you miss a class.

### **UNIVERSITY POLICY ON 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 in another course or elsewhere has been obtained).
- Improper collaboration in group work.
- Copying or using unauthorized aids in tests and examinations.

### **USE OF COURSE MATERIALS**

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 is not limited to, online posting of instructor provided lecture/lab notes, online lectures, recordings (audio or video) of lectures, or any lab materials on a website other than the Avenue site designed for the course.

## **POLICY ON RELIEF FOR MISSED TERM WORK – RELEVANT MSAF POLICIES**

In the event of an absence for medical or other reasons last fewer than 3 days, students should review and follow the Academic Regulation in the Undergraduate Calendar “Requests for Relief for Missed Academic Term Work”. Please note these regulations have changed beginning Fall 2015. Absences for a longer duration (i.e., >3 days) or for other reasons (eg. Religious, personal) must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. **When using the MSAF, report your absence to Dr. Tanya Holloway ([hollowat@mcmaster.ca](mailto:hollowat@mcmaster.ca)) immediately (within 1 working day) by email/telephone/in person to learn what form of relief may be granted for the work you have missed, and relevant details such as revised deadlines, or time and/or location of a make-up exam.**

**Please note that in order to maintain the greatest degree of fairness, these alternative times will be within two school days of the originally scheduled test or assignment. If circumstances, such as second occasion for an MSAF, do not allow for the make-up test to be written during the make-up test time then a final opportunity to write any missing tests will be held on Friday November 30<sup>th</sup> in the morning or afternoon.**

**PLEASE NOTE:** The instructor will, *in most cases*, use the same or similar format of a missed test/assignment in the case of the make-up work. However, the instructor reserves the right to administer a test of a different format for a make-up test/assignment and this decision is at her discretion.

Absences for a longer duration (>5 days) or for other reasons (e.g., Religious, personal) must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. In all such instances, appropriate documentation must be submitted to the **Office of the Associate Dean, Faculty of Science**. In situations where the Office of the Associate Dean deems sufficient merit in the request, alternative arrangements regarding test deferral or assignment extensions may be made by the course instructor.

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 (pre-schedule) a final exam for individual students.

## **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 certain 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 (Avenue) websites thrice weekly during the term and to note any changes.

## **GAINING UP-TO-DATE INFORMATION REGARDING THE COURSE**

- Students are expected to access the Avenue course shell at least three times per week to get lecture handouts and make themselves aware of any changes in course/lecture content, of upcoming special lectures, topics for 'Fun-filled Friday' lectures, as well as general course information.
- Midterm grades will be posted on Avenue ONLY and midterm tests will NOT be returned to the student; thus, students who wish to know their grade MUST access it through Avenue.
- Students are expected to take all necessary steps to find out about changes or updates to this course, which include, but are not limited to, class attendance, checking their **McMaster email** account, and checking the course Avenue site.

## **GRADING AND MARK BREAKDOWN**

Assignment 1	Due in class, Tuesday September 26 <sup>th</sup>	<b>10%</b>
Test 1	In class, Tuesday October 3 <sup>rd</sup> (includes material from lecture on Sept 29 <sup>th</sup> )	<b>20%</b>
Test 2	In class, Friday, November 3 <sup>rd</sup> (includes material from lecture on Oct 28 <sup>th</sup> )	<b>20%</b>
Assignment 2	Due in class, Friday November 24 <sup>th</sup>	<b>15%</b>
In class questions	Entire term (via iClicker)	<b>5%</b>
Final Exam (cumulative)	Registrar scheduled	<b>30%</b>

## **GENERAL ASSIGNMENT FORMAT**

Assignments should be handed in stapled, **NOT** in a duotang or folder of any kind. Single spaced, double-sided, 12 font is recommended. Spell check is always a great idea before handing in work to your TA's.

### Assignment 1

Food label comparison – Statistics show that the majority (perhaps as high as 85%) of Canadians do not understand how to read a food label. This assignment is designed to be practical exercise in comparing food labels to understand what 'low fat', 'reduced sodium', 'light', and 'high fibre' mean and what that means for health. Here's a useful website: <http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/index-eng.php>

### Assignment 2

Dietary analysis – Dietary analysis forms the basis of much of the clinical diagnostic tools used in clinical nutritional practice. In this assignment you will analyze a theoretical person's diet. The program used for the analysis is bundled with your textbooks and is accessible from any computer that has web access.

**LATE ASSIGNMENTS WILL BE SUBJECT TO A 20% PER DAY REDUCTION IN THE OVERALL GRADE FOR THE ASSIGNMENT.**

All graded work that is returned (your assignment) will be through course teaching assistants in scheduled slots, the times for which will be posted on Avenue. NOTE: Your midterm tests will **NOT be returned**, but your grade will be posted to Avenue.

### Term Tests

The tests will consist of 35 multiple-choice questions and will cover all lectures up to and including the content of the lecture prior to the test (see schedule above).

Tests and assignments may only be reviewed with a teaching assistant or instructor in a period that will not exceed 2wk (10 school/business days) in duration after the test or assignment marks have been posted. All requests for remarking of assignments will be at the discretion of the instructor and must be accompanied by a completed course-specific 'Request for Review' form. All remarking will be performed by the course instructor and the mark assigned at this stage is considered a final mark.

### Final exam

The final exam is registrar scheduled and will consist of a combination of multiple choice and short-answer questions. The most likely breakdown is 70% multiple choice, 30% short answer. The time/date will be scheduled by the registrar. The exam will be 2h in duration.

### **COURSE STRUCTURE**

You will usually have three lectures per week and on occasion (2-3 times per term) we will have two 'lectures' per week and then the third lecture – Fun-Filled Friday – will feature material from items appearing in the news, from newspapers, the internet on certain nutritional claims. I will prepare a special 'presentation' that will review the peer-reviewed evidence surrounding this claim. These presentations will fit within the course structure, with some latitude, and will officially become part of the course material and the material is considered course content and thus is a testable. What I would like to see happen is that we also get some lively debate, discussion going on any of the issues and perhaps have some 'fun' and learn at the same time.

### **RESOURCES**

Textbook (required): Understanding Nutrition, 2<sup>nd</sup> Canadian Edition. Whitney, Rolfes, Hammond, and Piché 2007 – available in the Bookstore. Plus, there is login information on how to perform dietary analysis using their web-based dietary analysis program (needed for Assignment). NOTE: There are older versions of this text and they are not the same as what I will use as course material. You are STRONGLY advised to use the current version of the textbook.

iClicker:

<https://campusstore.mcmaster.ca/information/faq/iclicker-faq.html>

Avenue

<http://avenue.mcmaster.ca/>

Login: Mac ID, Password: set by you or as a first default it's your student number

PubMed

<http://www.ncbi.nlm.nih.gov/entrez/>

**ON-LINE LEARNING RESOURCES**

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.

**TOPICS (subject to change – see MODIFICATIONS TO COURSE)**

It is *very beneficial* for you to have read the chapters/pages **PRIOR** to the lectures. Throughout the course, the assigned topics for discussion during each lecture may vary slightly, due to time constraints, but every effort to maintain the schedule below will be made.

WEEK	TOPICS	READINGS
Sept 5-8	<ul style="list-style-type: none"><li>• Overview of nutrition</li><li>• Nutrient adequacy</li><li>• Planning a healthy diet – Canada’s Food Guide</li></ul>	Chapters 1 & 2
Sept 11-15	<ul style="list-style-type: none"><li>• Nutrition labels</li><li>• Digestion and absorption</li></ul>	Chapters 2 & 3
Sept 18-22	<ul style="list-style-type: none"><li>• Digestion and absorption</li><li>• Carbohydrates</li></ul>	Chapters 3 & 4*
Sept 25-29	<b>Assignment 1 due Tuesday Sept 26<sup>th</sup></b> <ul style="list-style-type: none"><li>• Carbohydrates</li></ul>	Chapter 4*
Oct 5 and 6	<b>Test 1 in class Tuesday Oct 3<sup>rd</sup> - includes material from lecture on Friday Sept 29<sup>th</sup></b> <ul style="list-style-type: none"><li>• Carbohydrates</li><li>• Lipids</li></ul>	Chapters 4 & 5*
Oct 16-20	<ul style="list-style-type: none"><li>• Lipids</li></ul>	Chapter 5
Oct 23-27	<ul style="list-style-type: none"><li>• Protein and amino acids</li></ul>	Chapter 6*
Nov 2 and 3	<b>Test 2 in class Friday, November 3<sup>rd</sup> includes material from lecture on Wednesday Nov 1<sup>st</sup>.</b> <ul style="list-style-type: none"><li>• Metabolism</li></ul>	Chapter 7
Nov 6-10	<ul style="list-style-type: none"><li>• Energy balance &amp; body composition</li></ul>	Chapter 8
Nov 13-17	<ul style="list-style-type: none"><li>• Energy balance and body composition</li><li>• Weight loss and obesity</li></ul>	Chapter 9*
Nov 20-24	<b>Assignment 2 due Friday Nov 24<sup>th</sup></b> <ul style="list-style-type: none"><li>• Weight loss and obesity</li></ul>	Chapter 9*
Nov 27 – Dec 6	<ul style="list-style-type: none"><li>• Nutrients for bone health</li></ul>	Chapter 13

\* Supplemental readings may be assigned at the discretion of the instructor