Course Instructors:
Michelle MacDonald, Ph.D.  Andrew Willems, Ph.D.
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Office Hours:
By appointment is likely the most convenient way for us to meet, or before and after class. We are also happy to meet with you by chance on a drop-in basis if we are available. Do not hesitate to contact us by telephone or email any time you need help.

Teaching Assistants:
Nicole Barra, barrang@mcmaster.ca
Yu Seon Chung, chungys@mcmaster.ca
Adrian Rybak, rybaka@mcmaster.ca
Jason Tang, tangje@mcmaster.ca
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Course Description:
The objectives of this course are to build on the basic knowledge of metabolic pathways and their regulation as learned in previous biochemistry courses, and to integrate this knowledge into the study of nutritional biochemistry and the relevance of specific nutrients to the prevention and treatment of common human diseases. The key focus will be on how genes (gene polymorphisms or mutations) and the environment (diet – essential nutrients and other functional bioactive compounds) interplay in the development of diet-related diseases. Perspectives on the subject matter will evolve from the cellular and molecular level to whole body integration of metabolism. In addition to didactic lectures, scientific inquiry in small groups will form an invaluable part of the course.

Day, Time and Room:
Monday 11:30-12:20  KTH B135
Wednesday 11:30-12:20  KTH B135
Friday 1:30-2:20  KTH B135

Recommended Text:

The following is a link to a companion site for the text book that you may find useful:
http://www.brookscole.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=0534559867&discipline_number=18

Reference Materials:
1. LearnLink
   Brief lecture notes, class assignment and practice problems will be accessible through LearnLink.
2. Other Textbooks
   Voet D and Voet JG.  Biochemistry.  John Wiley & Sons Inc., N.Y., or
3. CDs on Nutrition available for use in HSC Library (A/V section)
   - McNUTrition (developed at McMaster)
   - Nutrition in Medicine Series (Univ. Of North Carolina at Chapel Hill) - the CDs on
     Nutritional Anemias, Diet, Obesity and Cardiovascular Disease, Sports Nutrition: Physical Activity and Health, and Nutrition in Cancer will be most useful.
4. **Websites with Reliable Information on Nutrition**
   - Centers for Disease Control & Prevention - [www.cdc.gov](http://www.cdc.gov)
   - U.S. Government Food and Nutrition Information Centre - [www.nal.usda.gov/fnic](http://www.nal.usda.gov/fnic)

**Evaluation:**
1. Mid-term test (Wednesday, February 27 – 50 min in class time) = 20%
2. Assignment (due date TBA) = 30%
3. Final Exam = 50%

**Assignment:** **Critical Appraisal of Current Topic in Nutrition: Small group project**

The assignment will consist of a critical appraisal of the current scientific literature on a topic of interest related to nutrition and metabolism. Guidelines for critical appraisal of a scientific paper can be found in: Gropper, Smith and Groff, 4th edition, 2005 – Chapter 16, Experimental Design and Critical Interpretation of Research. This chapter is recommended reading prior to starting the assignment. Students will be assigned to small groups by the course professors and a chat room on LearnLink assigned to each group. Selected topics will be assigned to each group. Each group will have a preceptor assigned (one of the professors or Teaching Assistants). Further details of the assignment will be discussed in class.

**Late Penalties:**
The late penalty for project submission is 10% per day.

**Missed Work:**
The University wishes to assist students with legitimate difficulties. It also has the responsibility to ensure that degree, program and course requirements are met in a manner that is equitable to all students. Students may petition the office of the Associate Dean of the Faculty of Science for special consideration when there are compelling medical, personal or family reasons to justify an exception to University regulations. Please refer to [http://www.science.mcmaster.ca/~associatedean/services/exemptions.html](http://www.science.mcmaster.ca/~associatedean/services/exemptions.html) for further information.

Failure to obtain special consideration from the Associate Dean of Science for medical or legal conflicts will result in an automatic zero for the portion of the course missed. If you do receive an exemption from the Associate Dean, the instructor will be notified. If you were unable to meet a due date, the student will make arrangements with the instructor for submission of the work at another time or the proportion of the missed work will be reweighed toward your final exam. For example, if the test is missed, the 20% will be added to the weighting of your final exam.

**Academic Dishonesty:**

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 (notation reads: “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/senate/academic/ac_integrity.htm](http://www.mcmaster.ca/senate/academic/ac_integrity.htm).

The following illustrates only three forms of academic dishonesty:
1. Plagiarism, e.g. the submission of work that is not one’s own, any text or ideas from books, the internet or journals, or work for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.