

FDNS 6400, Fall 2008

Instructor: Ruth B.S. Harris, Ph.D.
Professor, Department of Foods and Nutrition

Instructor

Name Ruth B.S. Harris
Email harrisrb@uga.edu
Office location 712A Boyd Graduate Studies Building
Office hours By appointment

Class Location and Course Description

Course title Advanced Macronutrients
Course number FDNS 6400
Course description This class will review basic aspects of macronutrient metabolism, starting with an overview of the major biochemical pathways involved. We will discuss physiological, environmental and genetic factors that influence metabolism and nutritional status. The course syllabus is a general plan for the course; deviations announced in class by the instructor may be necessary.
Location Room 208 Dawson Hall
Meeting day(s) Tuesday and Thursday
Meeting time(s) 8.00 - 9.45 a.m.
Prerequisite(s) BCMB(BIOL)(CHEM) 3100 and VPHY 3100

Course Goals

Course Goals In this course we will review basic aspects of cell function and the metabolism of dietary macronutrients. An emphasis will be placed on the integration of regulatory mechanisms that is required to maintain homeostasis in different nutritional and physiological conditions.

Textbooks

Required reading *Metabolism at a Glance*, JG Salway, Blackwell Science, 3rd Edition, 0-632-05839-0
Required reading *Biochemical and Physiological Aspects of Human Nutrition*, M.A. Stipanuk, W.B. Saunders Co., 2000, 0-7216-4452-X

Policies

Introduction Class will start punctually at 8.00 a.m. and there will be a five minute break part-way through the class. Every student is expected to participate in discussion and presentations, to ask questions about the material that is presented and to evaluate the relevance of the information to human nutrition. Late adds for this course will not be approved except on exceptional circumstances.

Academic Honesty

All academic work must meet the standards contained in "A Culture of Honesty". Each student is responsible to inform him- or herself about these standards before performing any academic work. UGA's Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others."

Use of Your Name

If you prefer to not have your name called in class or your name posted, such as for class presentations, then please inform Dr Harris by email (harrisrb@uga.edu) within five days of the first class period.

Attendance

Students are required to attend all class periods. In some cases absences can be excused. Excuses for anticipated absences must be cleared with the instructor before the absence (send an email to Dr Harris at harrisrb@uga.edu explaining the situation). Excused absences include, but are not limited to, court appearances, religious holidays, university business, verifiable illness, and certain family emergencies. Students with 3 unexcused absences will be dropped from this class.

Cell phones

All phones and beepers must be turned off when you enter class. If you have to have a phone on for family reasons and receive a call during class you must leave the room to answer it and you will not be allowed to return to the classroom that day. All phones and portable media players must be turned off during exams with no exceptions. If your phone or player is found on during an exam, it may be confiscated and you may be charged with academic dishonesty.

**Advanced Macronutrients
FDN 6400 Fall 2008
CLASS SCHEDULE**

Date	Topic
August 19th	Introduction to course, basic concepts
August 21st	Protein synthesis
August 26th	Membrane transport
August 28th	Energy production
September 2nd	Water balance
September 4th	Acid base balance <i>Daily fluid requirements and the use of energy drinks</i>
September 9th	Acid-base balance , Kidney Disease <i>Assignment given out</i>
September 11th	1st Exam
September 16th	Carbohydrate Metabolism, Glucose transporters
September 18th	Carbohydrate Metabolism <i>Glycemic index of food and risk for chronic disease</i>
September 23rd	The role of the liver in glucose metabolism <i>What is GLP-1 and what does it do?</i>
September 25th	Diabetes
September 30th	Diabetes <i>Use of thiazolidinediones for treatment of diabetes</i>
October 2nd	Alcohol metabolism
October 7th	Alcohol metabolism <i>Is there an association between alcohol consumption and eating disorders?</i>
October 9th	2nd Exam (Midterm)
October 14th	Protein metabolism <i>Assignment due</i>
October 16th	Protein metabolism <i>Why do body builders use androgens and is it a safe practice?</i>
October 21st	Fat metabolism
October 23rd	Fat metabolism <i>The health benefits of fatty fish</i>
October 28th	Fall Break
October 30th	Integration of metabolism
November 4th	Integration of metabolism
November 6th	3rd Exam
November 11th	Integration of metabolism, Energy Balance
November 13th	Energy Expenditure, Calorimetry
November 18th	Uncoupling proteins <i>Is increased activity essential for weight loss?</i>
November 20th	Diet Induced Thermogenesis <i>What is DHEA and does it deliver a health benefit?</i>
November 25th	Thanksgiving

November 27th	Thanksgiving
December 2nd	Control of food intake <i>Gastric bypass surgery and its effect on insulin responsiveness</i>
December 4th	Control of food intake <i>How important is breakfast in determining nutritional status?</i>
December 9th	No Class: Friday schedule
December 11th	4th Exam 8.00 – 11.00 a.m.