

ADVANCED NUTRITION I: Macronutrients

11:709:400

FALL 2009 Monday/Wednesday, 6th (5:35-6:55pm)

CDL 102

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NOTE: 01:694:301, 01:694:403/404 or 11:115:407/408 (or equivalent) is a prerequisite for this course

1	Sept. 2	Introduction – Carbohydrates	Watford
2.	8	Fiber/Digestion	Watford
3.	9	Glucose transport/Glycolysis	Watford
4.	14	Fructose, Galactose, Glucokinase	Watford
5.	16	Fate of pyruvate/Glycogen	Watford
6.	21	Gluconeogenesis	Watford
7.	23	EXAM I (lectures 1-7)	Watford
8.	28	Protein requirements/digestion	Watford
9.	30	B6 & fate of amino acids	Watford
10.	Oct 5	Protein turnover	Watford
11.	7	Interorgan flux of amino acids BCAA	Watford
12.	12	Alanine & Glutamine	Watford
13.	14	Nitrogen Excretion	Watford
14.	19	EXAM II (lectures 8-13)	Watford
15.	21	Introduction to Lipids; Lipid consumption	Storch
16.	26	Lipid Digestion & absorption I	Storch
Tuesday Oct 27th, 2pm Hans Fisher Lecture *			
17.	28	Digestion & absorption II; Lipoproteins I	Storch
18.	Nov 2	Lipoproteins II	Storch
19.	4	Lipid metabolism I	Storch
20.	9	Lipid metabolism II; Cholesterol metabolism	Storch
21.	11	Atherosclerosis	Storch
22.	16	Lipids & chronic disease I	Storch
23.	18	Lipids & chronic disease II; fat substitutes	Storch
24.	23	EXAM III (lectures 13-23)	Storch
THANKSGIVING BREAK			
25.	30	Integrated metabolism: Starvation	Watford
26.	Dec 2	Alcohol metabolism, Exercise	Watford
27.	7	Diabetes Mellitus	Watford
28.	9	Obesity, Metabolic Syndrome	Watford

FINAL EXAMINATION

Wednesday December 23rd, 8-11am (lectures 25-28)

The final grade will be determined based on the four examinations (% of total grade).

Examination 1	20%
Examination 2	20%
Examination 3	35%
Examination 4 (final)	25%

Textbook recommendation (not required)

Biochemical, Physiological and Molecular Biological Aspects of Human Nutrition, M.H. Stipanuk, ed., Saunders, Second Edition 2006

An additional course 709:402 Advanced Nutrition I: Readings is offered as a 1 credit option to this course. Two sections are scheduled: Monday 5th period (3:55-5:15pm) CDL 100 & Wednesday 5th period (3:55-5:15pm) Thompson 201. The readings course will review problems based on the material covered in this class each week. The additional course is intended for those students who feel that their background and understanding of biochemistry limits their achievement in this course. Problems discussed in 402 will be available for self-study for those students not taking 402.

***Tuesday October 27th**

The **Hans Fisher Lecture** will be given by **Dr. Daniel Fisher**, University of Massachusetts Medical School, who will speak about stems cells and cardiovascular medicine. Students are *strongly encouraged* to attend.

The lecture will begin at 2:00 pm in Winants Hall, Old Queens Campus– a reception with food will be available from 1:30pm.