

ADVANCED NUTRITION NFS 484F/1484F

2016-2017

Instructor : Carol Greenwood
FitzGerald Building, room 424; Tel.: 978-4261
Available for Office Hours: Thursdays from 1pm – 4pm

Lectures : 0900 - 1100 hr, Thursdays, MSB rm. 2172
Tutorials : 1100 - 1200 hr, Thursdays, MSB rm. 2172

Course Objectives :

This is an advanced course in nutrition which deals with the analysis of the effect of food and its constituents on living organisms, with particular emphasis on man. The objectives of the course are threefold:

1. To integrate nutrition with biochemistry and physiology. The emphasis of the course will be on metabolism examining its regulation from a cellular to whole body perspective.
2. To develop a basis for appreciation of current research and its application. This will be accomplished through a combination of lecture material and assigned readings to students.
3. To develop an ability to interpret research data. The focus of the tutorial sessions will be to develop interpretational skills in students.

Prerequisites: BCH210H1, CSB349H1/PSL350H1/BCH311H1, NFS284H1, PSL302Y1/(PSL300H1, PSL301H1), (STA220H1, STA221H1/JBS229H1)

Expectations: As this is not intended to be an introductory course, students will be expected to have a sound knowledge of biochemistry, physiology and introductory statistics.

NFS 484F students will be required to write two term tests and three short answer assignments. NFS 1484F students are required by the School of Graduate Studies to complete a piece of work in addition to that required by NFS 484F students. This will take the form of a second assignment in which they are designing and implementing a research study based exercise consistent with course expectations.

Evaluation :

	<u>484</u>	<u>1484</u>
First Term test (Thurs. Oct. 6, 2016) *	40%	35 %
Second Term test (Thurs. Nov. 17, 2016)*	40	35
Three short answer assignments @ 10, 5 and 5 marks per assignment* (Sept 22, Nov 24, Dec 1)	20	20
Grad Assignment – scheduled early in semester	--	10

* For students with religious observances on assignment due dates or scheduled exams, please speak with me in advance to arrange an alternate date.

Term tests will be given as 'time limited' take home examinations. Tests will be posted to BlackBoard and made available to students at 9:10 am on the day of the examination. Students will be required to upload the completed examination to BlackBoard by noon of the day of the examination.

For the short answer assignments, questions will be uploaded to BlackBoard by 2pm on the Thursday indicated above and must be uploaded to BlackBoard by 9am of the following day.

Normally, students will be required to submit their term tests and assignments to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In so doing, students will allow their term tests / assignments to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

Students missing the regularly scheduled tests or assignments, and with satisfactory reasoning, will have to write a supplemental exam. Failure to write a supplemental test will result in a mark of zero for that component. It is the student's responsibility to contact the course instructor to schedule a make-up examination.

References : *No specific text is assigned for this course. However, the following textbooks can serve general reference purposes.

Gropper SS, Smith JL, Advanced Nutrition and Human Metabolism, 6th Ed. 2013.

Harvey RA Ferrier DR . Lippincotts Illustrated Reviews: Biochemistry, North American Edition. 6th Edition 2014, JB Lippincott, Philadelphia.

Course Notes and Handouts : Lecture notes, tutorial material and previous midterm examinations can be obtained through Blackboard. Copies of past final exams, in PDF format, are available through the UofT library and can be accessed electronically. Please download course notes and tutorial material from Blackboard. This site will continue to be updated throughout the semester.

Lecture Schedule

Date	Content
Sept. 15	Introduction; overview of approach; Digestion and absorption of protein and CHOs
22	Effect of diet type on rates of absorption and metabolism
29	Colon - function, fermentation, absorption of short chain fatty acids
Oct. 6	First term test
13	Glucose transporters
20	Fat absorption & lipoprotein atherogenicity
27	Role of exercise
Nov. 3	Fructose
10	Metabolic adaptation to fasting and starvation
17	Second term test
24	Energy expenditure and substrate utilization
Dec. 1	Diet composition and body weight regulation

Tutorial Schedule

Date	Content
Sept. 15	Introduction
22	Effect of diet on intestinal enzyme activity
29	Previous midterm
Oct. 6	Cancelled for midterm test
13	Effect of dietary fibre on colon cancer susceptibility
20	Overview of midterm test
27	Grad Assignment – Group 1
Nov. 3	Grad Assignment – Group 2
10	Grad Assignment – Group 3
17	Cancelled for midterm test
24	Grad Assignment – Group 4
Dec. 1	Grad Assignment – Group 5