

LIFS4550 Biochemistry of Nutrition

Spring semester, 2017

Class time: Monday 10:30-11:50 & Wednesday 10:30-11:50

Venue: Room CYTG010

Instructor: Prof. Raymond S. C. WONG

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Room: 5507

Course goals

This course will provide you with the knowledge of biochemistry in the understanding and decision making for developing a healthy and nutritional diet for you.

Learning outcomes

On successful completion of this course, students are expected to be able to:

1. Describe the basic composition of the major food groups which are vital to the functioning of a human body.
2. Apply scientific concepts to justify dietary choices made to protect the onset or aggravation of diet-related ailments.
3. Assess the role of the scientific knowledge in the understanding of dietary deficiency and treatment of diet-related problems.
4. Evaluate the impact of a healthy lifestyle on both an individual and on society as a whole.

Course description

The biochemistry of major food ingredients including carbohydrates, lipids, proteins, vitamins, water and minerals will be studied. In addition, the metabolism, nutritional properties and functions of these ingredients will be emphasized.

Teaching approach

The course content is mainly delivered through interactive lectures. The first few lectures of the course are the introduction to nutrition and the background of metabolism. Then, each of the aspects of the food ingredients are given in subsequent lectures. For assessment, the students are assessed by the quizzes for each of the respective ingredients of carbohydrates, lipids and proteins during the term and the final exam will be for Alcohol, Fat-Soluble and Water-Soluble Vitamins.

Assessment scheme

<u>Method</u>	<u>Percentage</u>
A. Quiz I for Introduction & Metabolism	10
B. Quiz II for Carbohydrates	10
C. Quiz III for Lipids	10
D. Quiz IV for Proteins	10
E. Final exam for Alcohol, Fat-Soluble and Water Soluble Vitamins	60

Lecture outline

<u>Date</u>	<u>Lecture Topics</u>
Feb 1	Introduction
Feb 6, 8	Metabolism
Feb 13	Quiz 1 for Introduction & metabolism
Feb 15, 20 & 22	Carbohydrates
Feb 27	Quiz II for Carbohydrates
Mar 1, 6, 8	Lipids
Mar13	Quiz III for Lipids
Mar 15, 20, 22	Proteins
Mar 27	Quiz IV for Proteins
Mar 29	Alcohol
Apr 3, 5, 10	Fat-Soluble Vitamins
Apr 19, 24, 26 & May 8	Water-Soluble Vitamins

Reference books

1. Perspectives in nutrition, 7th or 6th Edition-Gordon M. Wardlaw
 2. Nutritional Biochemistry –T Brody
 3. Biochemistry- Christopher K. Matthews, K. E. van Holde, Kevin G. Ahern
 4. Biochemistry- Murray, Granner, Mayes, Rodwell
 5. Wikipedia, the free encyclopedia
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