Advanced Nutrition Macronutrients: Readings (11:709:402)

Fall 2021

Teaching Assistant: Huyen Le (Contact email: huyen.le@rutgers.edu)

Section 01: Monday 1 – 2:20 PM in Food Science 101

Section 02: Monday 5 – 6:20 PM in Food Science 101

The first class will be on Wednesday, Sep 8, 2021

Office hours: Thursdays 3 – 4:30 PM at Foran Hall Room 173. If you would like to meet via Zoom or at a different time, please let me know via email in advance.

All students must also be registered for the lecture portion of this course, Advanced Nutrition Macronutrients (11:709:400).

In order to protect the health and well-being of all members of the University community, masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g. common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during in person any class meetings, examinations, office hours; any student not wearing a mask will be asked to leave.

Objective

The purpose of this course is to utilize a small classroom environment to discuss and review problems and study questions based on the material covered in Advanced Nutrition lectures each week. This course is intended for students who feel that their background and understanding of biochemistry limit their achievement in the main course. Students will be expected to come to each class meeting prepared to ask questions and participate in topic review.

Attendance & Participation

Attendance and participation are mandatory during class. If you have a true scheduling conflict, please email me to discuss the matter.

Course Material

Materials will be accessible on the Canvas sites (11:709:402:01&02 RDGS MACRONUTRIENTS)

Homework

Homeworks will be posted on Canvas (in Assignments tab) by every Tuesday covering the material discussed on Tuesday and following Thursday lectures. They should be submitted in *Word* document in Assignments tab **by Sunday evening (11:00 PM)**. In preparation for class discussion, you should answer all questions, and bring a copy of your answers to class. Questions that are **bolded** will be graded as part of the homework assignment. Each homework will account for 5 points. Refer to the schedule below for more details.

Quizzes

There will be several pop quizzes covering the material that we review in class at the end of class. Therefore, it is best to be prepared to ask questions during class and take part in class discussions in order to do well on quizzes. Each quiz will account for 6 points. The 5 highest scored quizzes will be kept.

Plagiarism

Plagiarism of any kind will not be tolerated. All submitted homework assignments must be in your own words and include a proper citation of your source when appropriate. Incorrect use of someone else's intellectual property will result in a score of 0, and will be reported to the instructors and an Academic Integrity Facilitator.

Grading (% of total grade)

Homework 40%
Quizzes 20%
Participation 20%
Attendance 20 %

	Points Each	Total Points	Grading:
Participation + Attendance (14 classes)		60	A: 135-150 B+: 127-134 B: 120-126 C+: 113-119 C: 105-112 D: 90-104 F: 0-89
In-class pop quizzes (5)	6	30	
Homework (12)	5	60	
Total **(Total grades will be rounded up)**		150	

Tentative schedule (subject to change

Date	Lecture(s) covered	Homework and due dates
Sep 8	Tissue specific metabolism/Carbohydrates Fiber & HMOs. The colonic microbiota	
Sep 13	Digestion/Transport/Regulation/Glycolysis 1	Homework 1 due on Sep 12
Sep 20	Glycolysis 2/Pentose Shunt/PDHC/TCA cycle Glycogen	Homework 2 due on Sep 19
Sep 27	Gluconeogenesis / Review post-exam 1	
Oct 4	Dietary protein: quantity and quality B6/Non-protein nitrogen	Homework 3 due on Oct 3
Oct 11	Protein turnover/BCAA Alanine/Glutamate/Glutamine	Homework 4 due on Oct 10
Oct 18	Nitrogen excretion 1 Nitrogen excretion 2/Problem Based Questions	Homework 5 due on Oct 17
Oct 25	Lipids – Introduction to Lipids	Homework 6 due on Oct 24
Nov 1	Lipids - Digestion and Absorption – Part I + II	Homework 7 due on Oct 31
Nov 8	Lipids – Lipoproteins Lipids – Anabolic lipid metabolism	Homework 8 due on Nov 7
Nov 15	Lipids – Catabolic lipid metabolism Lipids – Cholesterol	Homework 9 due on Nov 14
Nov 22	Lipids – CHD Part I + II	Homework 10 due on Nov 21
Nov 29	No class	
Dec 6	Alcohol/Exercise Starvation/Diabetes 1	Homework 11 due on Dec 5
Dec 13	Diabetes 2, Obesity, Metabolic Syndrome / Problem based Questions	Homework 12 due on Dec 12