SYLLABUS
11:709:255:02 Nutrition and Health - Fall 2020
Tuesdays and Fridays, 12:35 – 1:55 PM
Online – Synchronous Lectures (Canvas)

Canvas Site: 11:709:255:02 NUTRITION AND HEALTH

Instructor: Joshua W. Miller, Ph.D.
Office: Food Science and Nutritional Sciences Building, Room 107
Cook/Douglass Campus, 65 Dudley Road
E-mail: jmiller@sebs.rutgers.edu (preferred form of communication)
Phone: (848) 932-5428
Office Hours: Tuesdays, 2:00 – 4:00 PM (Zoom), and by appointment (phone or Zoom)

TA: Melissa Woortman
TA E-mail: maw317@sebs.rutgers.edu
TA Office Hours: Fridays, 2:00 – 4:00 PM (Zoom)

Overview: This course is designed to give the student an introduction and firm foundation in the science of nutrition, and emphasizes how nutrition influences health and wellbeing. Those who take the course are from varied backgrounds. Some take the class because they are majoring in nutrition, biology, or other science or health-related discipline. Others take the course because they have an interest in nutrition (as all should!), but only have a limited science background (e.g. high school chemistry and biology). This represents a challenge in teaching the class. In order to provide a deep enough foundation for the nutrition and science majors, we do touch on aspects of chemistry, biochemistry, and physiology. However, this should not deter the non-science majors! There are no prerequisites of college level science courses for the class, and aspects of chemistry, biochemistry, and physiology will be presented at a level that both majors and non-majors can understand. It is our experience that students who attend lectures and read the text on a consistent basis, more often than not, receive a "good" grade. By the end of the course, it is our goal that students will not only understand basic nutritional concepts and issues, but will begin to be able to understand the scientific basis for those concepts.

Required Textbook: Several Options – Read Carefully!

McGuire M and Beerman KA. Nutritional Sciences: From Fundamentals to Food, Upgraded 3rd Edition. ISBN: 9781337565332

or

EBK MindTap Nutrition, 1 term (6 months), instant access for McGuire M and Beerman KA, Nutritional Sciences: From Fundamentals to Food. ISBN: 9781337396028 (on-line version)

Here is a comparison of prices for the various textbook options (available through the Rutgers Bookstore website - https://rutgers.bncollege.com/shop/rutgers/home):

- New Textbook from Rutgers Bookstore - $200.00 (purchase), $136.00 (rent)
- Used Textbook from Rutgers Bookstore - $150.00 (purchase), $94.00 (rent)

- Used Textbook from previous students and the internet: Various prices
- Digital Textbook - $43.99 (rent)
- EBK MindTap - $113.00 (purchase)

Lectures: Lectures (except for day 1) will be recorded as powerpoint files with voice over. These will be made available to you on the course Canvas site in advance of the class day when the material of that lecture will be reviewed. It is highly recommended that you view/listen to the recorded lectures in advance of the class, as well as read the assigned chapters from the textbook. Regular class times will consist of live polling questions designed to review key topics of each lecture, with reinforcement of the correct answers through review of the applicable lecture slides. These will be conducted on Zoom through the course Canvas site. The poll questions will not be graded, but your participation will be recorded as an indication of attendance. Also, during live classes, we will cover current issues and topics that are relevant to that day's subject matter. And YES, questions about these extra topics may appear on the exams. Last, students with questions will be able to submit them during class via Zoom and they will be answered live, time permitting.

Online Quizzes: On weeks when there is not an exam, online quizzes will be assigned. These quizzes (10 total for the semester) will be made available on Friday afternoons after class (i.e. sometime after 2:00 PM). You will have until 12:45 PM on the following Tuesday to complete the quiz. They will be administered through the course Canvas site "quiz" feature. They will be multiple-choice questions and are designed to motivate you to review the lectures and read the assigned textbook chapters. The quizzes are open book and are graded as follows: 5 points for submitting on time; 0 points for submitting late or not at all. (Note that you will at first receive a score so you know how well you did, but then later the score will be changed to 5 points if submitted on time.) Many quiz questions will appear on exams. The rationale is that by seeing the same questions more than once, your retention will be better.

Exams: All exams are mandatory – no exceptions! There will be 3 mid-term exams and a final exam.

- Exam 1 will cover all materials (lectures, readings, and online quizzes) from the 1st day of class to the day of exam 1.
- Exam 2 will cover all materials since exam 1 to the day of exam 2.
- Exam 3 will cover all materials since exam 2 to the day of exam 3.
- The final exam will cover all materials since exam 3 to the last day of classes (i.e. it is NOT comprehensive).

All exams will be open book, and will be conducted online through the course Canvas site. However, the exams will be timed and you will have to study to complete the exams within the time allotted. You are to take the exams alone and without assistance from other persons. We will use ProctorTrack during the exams. There will be NO make-up exams without an official doctor's note (on office or hospital letterhead) or a note from the Dean's office of your school. Dates for the 3 mid-term exams and the final exam are listed in the course schedule.

Dietary and Physical Activity Assignments: Instructions and due dates for the dietary and physical activity assignments will be provided in class and on the course Canvas site.

Grading: Grades will be calculated on a point system.

Exam 1	100 points
Exam 2	100 points
Exam 3	100 points
Final Exam (not comprehensive)	100 points
Dietary Assignment	30 points
Physical Activity Assignment	20 points
Online Quizzes	50 points (10 quizzes total, 5 points each)
Total Points	500 points

Final Grade Allocation: There will be NO negotiating of grades. All final grade percentages will be rounded up to the higher whole number (e.g. "90.1%" will be rounded up to "91%", but "90.0%" will remain "90%"). Final grade ranges are as follows:

A = 91-100%	C = 71-75%
B+ = 86-90%	D = 61-70%
B = 81-85%	F <61%
C+ = 76-80%	

Academic Integrity: The principles of academic integrity require that a student:

- make sure that all work submitted in a course, academic research, or other activity is the student's own and created without the aid of impermissible technologies, materials, or collaborations.
- properly acknowledge and cite all use of the ideas, results, images, or words of others.
- properly acknowledge all contributors to a given piece of work.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with the student's interpretation or conclusions.
- treat all other students ethically, respecting their integrity and right to pursue their educational goals without interference. This principle requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the ethical standards and professional code of conduct in the field for which the student is preparing.

Please read the full Rutgers University Academic Integrity Policy, effective June 2, 2020, at http://academicintegrity.rutgers.edu/.

Student Learning Outcomes for Nutrition and Health (11:709:255): After completing this course, the student will:

1. Be familiar with research methods in nutritional sciences
2. Have a working knowledge of dietary guidelines, methods of dietary assessment, and nutritional food labels
3. Be familiar with the digestive system and the roles of other important organs in the regulation of nutrient utilization
4. Have foundational and discerning knowledge of protein, carbohydrate and fat metabolism
5. Utilize food composition tables and nutrition software to calculate the nutrient intake and adequacy of their diet
6. Have foundational knowledge of how the body utilizes macronutrients to produce useable energy
7. Recognize the complexities of weight gain and loss and the magnitude of the obesity problem in the US and the world
8. Be familiar with the sources and functions of vitamins and minerals
9. Know which and under what circumstances dietary supplements are recommended
10. Understand the nutritional needs of individuals during different stages of life
11. Have a foundational knowledge of the role of nutrition in the development and treatment of chronic diseases
12. Be able to actively and effectively participate in the debate on food choices in society
13. Be familiar with current issues and research topics in health and nutritional sciences

School of Arts and Sciences Learning Goals:

1. 21st Century Challenges [21C]:
   a) Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on the world.
   c) Analyze the relationship that science and technology have to a contemporary social issue.
2. Areas of Inquiry: Natural Sciences [NS]:
   e) Understand and apply basic principles and concepts in the physical or biological sciences.
   f) Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.

2017 Core Knowledge for the RDN (KRDN) – Standards for Didactic Programs in Dietetics: Rutgers University Department of Nutritional Sciences undergraduate Didactic Program in Dietetics is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND). The following ACEND Core Knowledge aptitudes are included within the curriculum of this course:

1. KRDN 1.2: Use current information technologies to locate and apply evidence-based guidelines and protocols (i.e., online USDA food intake data spreadsheets).

2. KRDN 1.3: Apply critical thinking skills (i.e., report on assessment of dietary intake using USDA Supertracker website; evaluate values for nutrients in diet and determine if meeting requirements).

3. KRDN 2.1: Demonstrate effective and professional oral and written communication and documentation (i.e., dietary intake assessment report)

4. KRDN 3.5: Describe basic concepts of nutritional genomics (i.e., lecture on nutritional genomics assessed via mid-term exam and online quiz).

5. KRDN 4.6: Analyze data for assessment and evaluate data to be used in decision-making for continuous quality improvement (i.e., report of dietary intake assessment; evaluate values for nutrients in diet and determine if meeting requirements).