

SYLLABUS

11:709:255:02 Nutrition and Health - Fall 2023
Mondays and Thursdays, 10:20 – 11:40 PM
110 Cook/Douglass Lecture Hall (CDL-110)

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

Instructor: Joshua W. Miller, Ph.D.

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Office Hours: Tuesdays, 4:00 – 5:00 PM or by appointment (in-person or via 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 usually 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.

Textbooks: Several Options – Read Carefully!

(Access through Barnes and Noble at Rutgers: <https://rutgers.bncollege.com/>)

McGuire M: Nutritional Sciences, 4th Edition, Cengage L, ISBN 13: 9780357730539

Multiple Options:

- Print (New): \$241.28; Print (Used): \$180.96
- Rental (New): \$176.15; Rental (Used): \$120.65
- Digital: \$86.61 (best value)

Dixon JL: Obesity Explosion – With Access, K/H, ISBN 13: 9781792429156.

- Print (New): \$61.65; Print (Used): \$46.24

The Obesity Explosion book and quizzes found at the end of the chapters are required. Instructions for the online access to the chapter quizzes (in powerpoint format) will be provided in class and on the course Canvas site. The due date for completing the chapter quizzes can be found in the course schedule.

Lectures: Regular class times will include lectures with powerpoint slides and in-class poll questions. The poll questions are designed to review key topics of each lecture, with reinforcement of the correct answers through review of the applicable lecture slides. The powerpoint slides (without poll questions) will be provided in advance of each class with and without voiceover (except for day 1). Powerpoint slides with the poll questions (and answers) will be made available after each class. It is highly recommended that you view/listen to the slides with voiceover in advance of the class, as well as read the assigned chapters from the textbook. The poll questions will not be graded. 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. Students are encouraged to ask questions during class.

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 Thursday afternoons after class (i.e., sometime after 11:40 AM). You will have until 10:15 AM on the following Monday 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! 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.

All exams will be held in the classroom and will be closed book, closed notes, and conducted online through the course Canvas site. You will be allowed to use a laptop, tablet, or phone for the exams, but will not be allowed to access notes, powerpoints, websites, etc... during the exam. 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. You must bring a student ID or driver's license to all exams. Your exam will NOT be accepted if your student ID or driver's license is not presented. All exams will be given in CDL-110 including the final exam. Dates for the 3 mid-term exams and the final exam are listed in the course schedule. The day/time of the final exam is Thursday, Dec. 21, 8:00-11:00 AM.

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

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)
<u>"Obesity Explosion" Chapter Quizzes</u>	<u>50 points (must complete all quizzes)</u>
Total Points	550 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%	

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]:

- Analyze the degree to which forms of human difference shape a person's experiences of and perspectives on the world.
- Analyze the relationship that science and technology have to a contemporary social issue.

2. Areas of Inquiry: Natural Sciences [NS]:

- Understand and apply basic principles and concepts in the physical or biological sciences.
- Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis.

2022 Core Knowledge for the RDN (KRDN) – Standards for the 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:

KRDN 1.1: Demonstrate how to locate, interpret, evaluate, and use professional literature to make ethical, evidence-based practice decisions (i.e., report on dietary intake assessment).

KRDN 1.2: Select and use appropriate current information technologies to locate and apply evidence-based guidelines and protocols (i.e., online USDA food intake data spreadsheets; graph and evaluate data for individual commodities).

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

KRDN 2.1: Demonstrate effective and professional oral and written communication and documentation (i.e., dietary intake assessment report; physical activity report; USDA commodity tracking report)

KRDN 3.5: Describe concepts of nutritional genomics and how they relate to medical nutrition therapy, health and disease. (i.e., lecture on nutritional genomics assessed via mid-term exam and online quiz).

KRDN 4.7: 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).

Absence Policy: Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

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.

Adherence to these principles is necessary in order to ensure that:

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

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

Accommodations for Students with Disabilities: <https://ods.rutgers.edu/>

Student Wellness Services: <http://health.rutgers.edu/>