NUTC 200: Foundations of Nutrition Science  
Tufts University | Fall 2023

This course is 100% online and asynchronous. Students are not required to attend classes, nor are they all required to be present at the same time for lectures. However they must have access to a reliable computer and internet connection to access the pre-recorded lectures and course materials. The online learning management system used for administering this course is Canvas. Students will be able to access the course website through Canvas by no later than 5pm (EDT) on Friday, Sept 1, 2023. An orientation to Canvas is provided under Dashboard (once you login via canvas.tufts.edu). An orientation to the layout of the course itself will be provided on the Canvas course site under Modules.

Welcome to NUTC 200!

We are delighted to have you join us, and very much look forward to working with you this semester. My name is Diane McKay, and I will be your instructor. Feel free to call me Diane, Dr. McKay, or Professor McKay, whichever you are most comfortable with. In this course we cover the science of nutrition and how the individual nutrients present in what we eat and drink affect our bodies over time and influence our risk for chronic diseases like heart disease, cancer, and Type 2 diabetes. I have been teaching this course either in-person or online for over 15 years now, and I still love it. I will do my best to help you come up to speed and fill in your knowledge gaps related to nutrition science and, at the same time, help you feel more confident as a “nutrition expert” after we part.

In this course we truly believe that the diversity of student experiences and perspectives is essential to the deepening of knowledge. We consider it part of our responsibility as instructors to address the learning needs of all of the students in this course. It is my intent that students from all diverse backgrounds and perspectives be well served by this course, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: race, color, ethnicity, culture, gender, age, disability, religious beliefs, political preference, sexual orientation, gender identity, socioeconomic status, citizenship, language, or national origin among other personal characteristics. Your suggestions are always encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

As a student, there may be times when personal stressors or difficulties interfere with your academic performance or well-being. There are confidential resources available at Tufts that can assist you in managing these challenges. If you feel like your performance in class is being impacted by your experiences outside of class, please don't hesitate to connect with me. In addition, through Tufts’ Counseling and Mental Health Service (CMHS) students can access mental health support 24/7, and they can provide information on additional resources. To make an appointment, call 617-627-3360. Please visit the CMHS website: http://go.tufts.edu/Counseling to learn more about their services and resources.

Course Content Warning:
This course is about learning the science behind health and well-being as it relates to nutrition and food intake. For some students the content may evoke feelings of distress. If this should occur, and it is impacting your learning experience, please contact the instructor and do what you need to take care of yourself. As noted above, Tufts Counseling and Mental Health Services are available to you 24/7.

Important Information:

Class Meetings: No set meeting times. Course is 100% online and asynchronous
Location: Online, asynchronous.
Semester Hour Units: 3 SHU credit

Prerequisites: None. No prior background or coursework in science required.

Instructor: Diane L. McKay, PhD, FACN
Email: diane.mckay@tufts.edu
Phone or text: (781) 608-7183
Zoom link: provided upon request

Teaching Assistant (TA):

TBA

Course Communications:

We appreciate hearing questions from students. Because the class does not meet in person, and there are no set times for office hours, you are welcome to email questions directly to either or both of us, or send one or both of us an email to set up a time to connect via Zoom. Feel free to use "Cafe McKay," the general class discussion forum on Canvas, to post questions about course-related issues that you think might also be of interest to your fellow classmates. Be sure to check this discussion board frequently as the answers to your questions may have already been posted there by your peers or the instructor. If you cannot find your answer on "Cafe McKay," or if you prefer privacy, you are always welcome to contact us directly via your preferred mode of communication. We encourage you not to wait until the last minute if your question is urgent as we may not be readily available to respond. We will do our best to get back to you as soon as we are able. All communications from us, including periodic course announcements, will be sent to your Tufts email address so please check it at least once daily.

Office Hours:

We are always available to connect with you via email, text (24/7), or online (Zoom) at a mutually convenient time. You can connect with us either individually, in pairs, or even small groups. Students come to our office hours for all kinds of reasons, including:

- Ask questions or for more information about course material (we LOVE to talk about nutrition!)
- Share ideas about projects and assignments
- Get advice about completing assignments
- Talk about other issues related to the class (e.g., “How can I improve participation?”)
- Talk about issues affecting your performance in class (e.g., “My family member is sick and I am stressed out, is there anything we can do about this?” Or “I am juggling work and school and am wondering about advice to make sure I complete the class.”)
- Discuss disability accommodations (make sure you do this early in the semester)
- Ask questions about the major or minor
- Just say hi!

Course Summary:

This course provides an understanding of basic nutrition science to students with a limited scientific background. Students will become familiar with: the principles of diet planning, government standards, and food labeling; the biological functions and food sources of each macro- and micronutrient; energy balance, weight management, and physical activity; the role of nutrition in chronic disease development; nutrition throughout the life cycle; food safety issues; and current nutrition-related controversies.
Course Learning Objectives:

By the end of the course, students will be able to:

1. Describe the components of a healthy diet, and critically evaluate the quality of their own diet.
2. Identify the major functions and food sources of each macronutrient (carbohydrate, protein, lipids) and micronutrient (vitamins and minerals).
3. Explain the role of diet in maintaining health and preventing chronic disease.
4. Summarize the nutrients of concern during human growth and development, and throughout the aging process.
5. Assess the quality of nutrition information presented in the media.

Text, Software, and Materials:

All versions of the required text and software are available for purchase directly from the publisher at www.cengagebrain.com. Do NOT purchase their MindTap product. To curtail costs, consider renting or sharing with a classmate.

REQUIRED TEXT:

Understanding Nutrition (Wadsworth Cengage, 15th edition, 2019), by Eleanor Noss Whitney and Sharon Rady Rolfes. If available, the newer 16th edition is also acceptable. The 15th edition is available in hardcover (ISBN 9781337392693), looseleaf (ISBN 9781337556316) and e-text formats (ISBN 9781337677516). The 16th edition e-text is available on the Canvas course site to rent for $45 for 6 months. The 14th and 13th editions of this text are also acceptable, but nothing earlier than that. When ordering a print version of the text, keep in mind that it may take some time for shipping. In the event that your textbook does not arrive by the start of class, the first three chapters will be made available on the Canvas course site.

REQUIRED SOFTWARE:

Diet and Wellness Plus (web-based software program from CengageBrain) will be used for analyzing your 3-day diet record. The program is available in an online version to which you will have instant access. Here is the link to purchase the 6 month instant access option for ~$34 (ISBN 9781285856216) directly through Cengage. This is the best price available. If you prefer to have access for a longer period of time, a 12-month instant access option is also available on that same page for ~$62. Earlier versions of this software are unacceptable for this course.

IMPORTANT NOTES ABOUT DIET AND WELLNESS PLUS:

● Please consider cost-sharing the login access for this software with your fellow students. Each copy allows up to 10 student profiles. Feel free to post your request to share on Cafe McKay, the general class discussion forum on the Canvas course site.

● You will find detailed instructions on how to share this software on Cafe McKay, the general discussion forum, and in an Announcement posted on the Home page of the Canvas course site. If sharing, please note only one person at a time should access the software in order to prevent errors.

● You do NOT need to enter a course number or course key to use this software.

● DO NOT purchase a used version of this software unless you know when it expires.

● Students must have access to Diet and Wellness Plus in time to complete Part 1 of the Diet Record assignment, which is due at the end of Week 3.

● FOR STUDENTS TAKING THE COURSE FROM OUTSIDE OF THE U.S., please connect to a vpn prior to clicking on the link above to purchase this software. Alternatively, you can ask another student who has already purchased this product to share. Post your request to share, or find someone willing to share on Cafe McKay, via the general class discussion forum on the Canvas course site.

Access to course materials on Canvas:
The online learning management system used for administering this course is called Canvas. Login to canvas.tufts.edu using your Tufts username and password, then click on the tile labeled NUTC-0200. There you will find all course materials (other
than the required textbook and software listed above), including supplemental readings, assignment instructions and self-assessment quizzes. Unless otherwise noted, all assignments should be submitted through the NUTC-0200 course site on Canvas.

How to be Successful in this Course:

Ideally, we want students to complete all required readings (both in the textbook and on the Canvas course site) and watch the pre-recorded online lectures in their entirety. The pre-recorded lectures are closed-captioned and transcripts are available directly below each lecture. Supplemental readings, although not required, are highly recommended. Many students refer to select supplemental readings when composing their reflection journal assignments. Lecture outlines and learning objectives are provided for each chapter in order to organize the weekly materials and enhance your learning experience. You will find the lecture outlines and the learning objectives particularly helpful when preparing for the weekly quizzes. Think of the learning objectives as THE answers to the quiz questions. Students who put in the effort to write out a brief explanation of each learning objective as they go along tend to do well in this course and, in the process, create their own study guide to refer to throughout the semester.

Assignments and Grading:

Assignments for this course include required weekly readings, online lectures, self-assessment quizzes; five reflection journal entries; six online discussion forums; and a five-part diet project. The detailed instructions and grading criteria (rubrics) for each of these assignments can be found by logging on to the NUTC-0200 course site in Canvas (canvas.tufts.edu) and clicking on the tab labeled “Modules.” Because there are so many different ways for students to demonstrate and apply their knowledge in this class, there are no opportunities to earn extra credit.

Reflection journal entries
Students must complete and submit a total of five (5) reflections at specified intervals throughout the semester. The purpose of this assignment is to help students incorporate, retain, and apply the concepts and information they are presented with throughout this course. Your reflections do not need to be summaries, nor do they need to include all of the elements covered within the specified period of time. Instead, you are encouraged to pull out specific issues/topics presented throughout the semester that resonate with you on some level, and use them as the basis for your reflections. In each reflection we are looking for well-composed, substantive statements that are honest and demonstrate your engagement with the course materials. Each reflection should address the following three (3) items as distinct sections:

1. **Real Life Connections to Self** - Consider one of the following: How is the course material relevant to you as a consumer? How does this information relate to you and your life? How does it fit into your prior experiences and knowledge? How does this fit with what you already know and/or have experienced?

2. **Real Life Connections to Others** - Pick an issue or topic that was raised in the course materials, and explain how it relates to the nutritional health of a specific group, population, or community (based on their age, sex, race, ethnicity, income, education, environment, etc.). How might you apply what you have learned in this course to address this issue and/or affect change in this group?

3. **Wonderments** - What concepts/issues related to the course materials are you trying to reconcile in your own mind? What are you still wondering about?

Please refer to the [Reflection Journal Grading Rubric](#) for details on expectations and grading. Each reflection journal entry is worth 3% of your final grade.

Weekly (online) quizzes
Graded quizzes are provided to enhance your learning experience, assess your comprehension, and highlight concepts and issues of importance. Each week, students are asked to complete a quiz based on the materials presented in the assigned readings and lectures during the prior week. Quizzes are open-book, but they must be completed without any assistance from other students, acquaintances, instructors, TAs, internet bots, etc. Students will have only one (1) opportunity to take each quiz. Once you start a quiz, you must complete it within 60 minutes. Each quiz will be open for one 7-day period only (Monday morning to Sunday night), and may be completed anytime within that period. You will not be able to see your responses until after the due date. That is, students will not know whether their answers were correct or incorrect until after the week is over. Even then the correct answers will not be provided. This is intentional because it allows you to identify the relevant sections of the lectures/readings that you need to go back and review. If after reviewing the materials...
you are still unable to find the correct answer, reach out so we can give you some guidance – but not the answer. I may post general feedback on the most frequently missed questions to the general class discussion forum, Café McKay after the due date has passed. And, unlike your other assignments, each quiz closes immediately after its due date. This means that if you need to take a quiz after the due date, and you have not requested an extension prior to that, you need to reach out to me (the instructor) so I can reopen it for you. Each individual quiz is worth ~2% of your final grade.

**Technical issues** do happen, sometimes in the middle of timed quizzes. Please know that we are aware of this, and will make every effort to work with you (and tech support) to resolve the issue. Technical issues may include your computer crashing, internet access issues, or Canvas going down. If you experience technical issues during your timed quiz, the timer will continue to run in Canvas and your work will be saved. Try to go back into Canvas and back into the quiz as soon as you can. The timer will continue to count down, but Canvas will have saved your answers up to the point you lost access. Resume your quiz and hit Submit when you are done, but be sure to send an email to canvas@tufts.edu after the quiz to document what happened and when. If you continue to have difficulty, shut down your computer, restart your browser, and log back into Canvas again. If you still have difficulty, email technical support and "cc" your instructor.

**Graded (online) discussions**
In order to help deepen your understanding of select topics, students will be asked to participate in six (6) graded discussion forums approximately every other week. In each discussion forum, students will be expected to 1) read the assigned background materials prior to participating, 2) compose and submit an initial posting to the respective forum no later than Thursday or Friday of the week it opens, and 3) compose and submit reply postings to your classmates’ initial postings by 11:59pm ET on Sunday, i.e., the end of that week. The expectation is that your postings will be thoughtful and substantive, address the specific questions posed by the instructor, incorporate facts from the text/lectures, and are directly relevant to the assigned topic. You are expected to participate actively in each discussion forum, and submit your postings on time, especially your initial postings, so your classmates will have something to reply to by the end of the week. Grading will be based on the quality of your postings, your ability to demonstrate your understanding of the assigned materials, and whether each posting is submitted on time. Please refer to the Discussion Forum Rubric for details on these expectations, and how they relate to your grade. Unless an extension is requested prior to each posting due date, students are only allowed to submit their postings during the week in which that discussion forum is active. Each discussion forum is worth 5% of your final grade.

**Diet record project**
Because this is a science-based course you will be asked to conduct an experiment. In this experiment you will record your observations, analyze the data you collect, and discuss your results (in writing).*Specifically, students will be asked to a) observe and record their own dietary habits for 3 days, b) enter the data they have collected into the required software program, Diet and Wellness Plus, generate a 3-day average report, and c) provide a written assessment of their diet based on the information generated in these reports that addresses specific questions posed by the instructor. This assignment will be divided into 5 parts, due at specified intervals corresponding with the materials presented throughout the course. Part 1 is due at the end of Week 3 and will require students to record their own dietary intake for 3 days, and generate a 3-day average intake report using Diet and Wellness Plus. Feel free to start recording your daily food/beverage intake for Part 1 as soon as possible. Parts 2-5 will require students to submit their answers to specific questions related to their Part 1 report. Each individual part is worth 5% of your final grade. Please refer to the general Grading Rubric for this assignment, and to the specific grading criteria provided in the instructions for each part.

*Accommodations can be made for students who would prefer to track and/or analyze someone else’s diet rather than their own. Please contact the instructor or a TA for details.

**Weight of Each Assignment Towards Course Grade**

Points will be awarded for each assignment, and an overall course score will be calculated from the weights given below:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>Reflection Journal Entries (5)</td>
<td>15%</td>
</tr>
</tbody>
</table>
Grading Range:

There are many different ways for students to demonstrate their knowledge and ability to apply the materials in this course, and you have the opportunity to accumulate a specific number of points towards your final score with each assignment. Please be aware that when I assign your final grade, I do not round up your final score, nor do I grade on a curve. Your final score will be based on the actual number of points earned throughout the semester, and your final grade will be assigned according to ranges specified in the chart below. For example, if at the end of the semester your final score is 89.99, your course grade will be a B+, and not an A-. To prevent any unwelcome surprises at the end of the course, I advise students to check their total score in the Canvas gradebook frequently throughout the semester.

A passing grade in the course is B- or better. Course grades will be based on the final scores below:

<table>
<thead>
<tr>
<th>Final Grade</th>
<th>Final Score</th>
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</thead>
<tbody>
<tr>
<td>A+</td>
<td>98.50 - 100</td>
</tr>
<tr>
<td>A</td>
<td>92.50 – 98.49</td>
</tr>
<tr>
<td>A-</td>
<td>90.00 – 92.49</td>
</tr>
<tr>
<td>B+</td>
<td>87.50 – 89.99</td>
</tr>
<tr>
<td>B</td>
<td>82.50 – 87.49</td>
</tr>
<tr>
<td>B-</td>
<td>80.00 – 82.49</td>
</tr>
</tbody>
</table>

Instructions for Submission of Assignments and Exams:

Please submit each assignment no later than 11:59PM ET (Boston time) on the due date indicated in the Course Overview section (starts on the next page). The due date for each assignment can also be found on the course site in Canvas. If you find yourself needing additional time on any assignment, feel free to request an extension at least one minute prior to the deadline (see Late Policy below). Students are expected to complete all assignments on their own, i.e., without assistance from other students, faculty, etc., unless otherwise noted. All outside documents used in the preparation of students’ work must be properly referenced. References to the textbook are not required. If a student chooses to use AI to assist with any assignment they must also provide a complete transcript (or compiled series of screenshots) of the entire interaction.

Late Policy:
Assignments should be submitted on time, but I understand that extenuating circumstances can arise that make this difficult. If you cannot meet a deadline, please ask for an extension in advance. If you need an extension for any reason, please notify me by email (preferred), text message, or phone at least one minute prior to the deadline. No explanation is needed, but we do ask that you let us know how much additional time you might need so we can adjust your assignment deadline settings in Canvas accordingly. Regardless of the circumstances I want to make sure you have the time and space you need to devote to each assignment. There is no limit to the number of extensions a student can request, and we are always willing to accommodate students who may need additional time to complete their assignments - as long as they reach out at least one minute prior to the deadline. If you experience an emergency and are unable to notify me prior to the deadline, please reach out as soon as you are able so we can discuss a plan. Assignments received after their deadlines without an extension will have scores reduced by 5 percentage points (half a letter grade) for each day they are late, or until I hear from you.

<table>
<thead>
<tr>
<th>Weekly Self-Assessment Quizzes (14)</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graded Class Discussions (6)</td>
<td>30%</td>
</tr>
<tr>
<td>Diet Record Project (5 parts)</td>
<td>25%</td>
</tr>
</tbody>
</table>
Academic Conduct:

You are responsible for upholding the highest standards of academic integrity, as specified in the Friedman School’s Policies and Procedures Handbook located at this web page: [https://nutrition.tufts.edu/about/policies-and-procedures](https://nutrition.tufts.edu/about/policies-and-procedures), as well as Tufts University’s policies ([https://students.tufts.edu/community-standards/support-resources/academic-integrity-resources](https://students.tufts.edu/community-standards/support-resources/academic-integrity-resources)). This includes understanding and avoiding plagiarism, which is defined as the unacknowledged use of someone else’s published or unpublished work. It is the responsibility of each student to understand and comply with academic integrity standards, as violations will be sanctioned by penalties ranging from failure on an assignment and the course to dismissal from the school.

Tufts University has adopted the elective use of the Turnitin.com anti-plagiarism program. As part of this course, I will use Turnitin to help determine the originality of your work. Turnitin is an automated system which instructors can use to quickly and easily compare each student’s assignment with billions of websites, as well as an enormous database of student papers that grows with each submission. Please note Turnitin has AI (e.g., ChatGPT) writing detection capabilities to help uphold academic integrity while ensuring that students are treated fairly. When written assignments are submitted to Turnitin, the service will retain a copy of the submitted work in the Turnitin database for the sole purpose of detecting plagiarism in future submitted works. Students retain copyright on their original course work. For more information, see [Turnitin.com](https://www.turnitin.com).

If you ever have a question about the expectations concerning a particular assignment or project in this course, be sure to ask me for clarification. Faculty are required to report suspected cases of academic integrity violations to the Dean of Academic Affairs and the Assistant Dean of Student Affairs. If I suspect that you have cheated or plagiarized in this class, I must report the situation to them.

Accommodations:

We will do our best to ensure each of you has the resources you need to succeed. Tufts University is committed to providing equal access and support to all students through the provision of reasonable accommodations so that each student may access their curricula and achieve their personal and academic potential. If you have a disability that requires reasonable accommodations, please contact the Friedman School Assistant Dean of Student Affairs at 617-636-6719 to make arrangements for determination of appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

Course Overview:

You will find the Canvas course site is organized by weekly modules. Under each module you will find the learning objectives for each lecture/chapter, a list of required and supplemental readings, detailed instructions for each assignment due that week, along with the link to submit each assignment.

Disclaimer: The schedule below is subject to modification at the instructor’s discretion. (Note: “LO” refers to the course learning objectives met by each assignment).

<table>
<thead>
<tr>
<th>DATE</th>
<th>WEEK</th>
<th>TOPIC(S)</th>
<th>ASSIGNMENT DUE DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>Course Introduction</td>
<td>Pre-Course Survey - Sept 10</td>
</tr>
<tr>
<td>Sept 5-10</td>
<td>1</td>
<td>Nutrition Overview</td>
<td><a href="https://example.com">Discussion #1 postings - Sept 10</a> (LO 5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="https://example.com">Week 1 quiz - Sept 10</a> (LO 1-3)</td>
</tr>
<tr>
<td>Sept 11-17</td>
<td>2</td>
<td>Planning a Healthy Diet</td>
<td><a href="https://example.com">Discussion #2 postings - Sept 17</a> (LO 1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><a href="https://example.com">Week 2 quiz - Sept 17</a></td>
</tr>
<tr>
<td>Period</td>
<td>Week</td>
<td>Topic</td>
<td>Assignments</td>
</tr>
<tr>
<td>------------------</td>
<td>------</td>
<td>--------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Sept 18-24       | 3    | Digestion                                  | Diet project, part I - Sept 24 (LO 1,2)  
Week 3 quiz - Sept 24 (LO 1-3)  
Reflection Journal #1 - Sept 24 (LO 1-5) |
| Sept 25-Oct 1    | 4    | Carbohydrates                              | Discussion #3 postings - Oct 1 (LO 1,3,5)  
Week 4 quiz - Oct 1 (LO 1-3) |
| Oct 2-8          | 5    | Lipids                                     | Diet project, part II - Oct 8 (LO 1,2)  
Week 5 quiz - Oct 8 (LO 1-3) |
| Oct 9-15         | 6    | Proteins                                   | Diet project, part III - Oct 15 (LO 1,2)  
Week 6 quiz - Oct 15 (LO 1-3)  
Reflection Journal #2 - Oct 15 (LO 1-5) |
| Oct 16-22        | 7    | Energy Metabolism/Alcohol                  | Week 7 quiz - Oct 22 (LO 1-3) |
| Oct 23-29        | 8    | Energy Balance/Weight Management           | Discussion #4 postings - Oct 29 (LO 1,2,5)  
Week 8 quiz - Oct 29 (LO 1-3)  
Reflection Journal #3 - Oct 29 (LO 1-5) |
| Oct 30-Nov 5     | 9    | Vitamins                                   | Week 9 quiz - Nov 5 (LO 1-4) |
| Nov 6-12         | 10   | Minerals/Water                             | Diet project, part IV - Nov 12 (LO 1-4)  
Week 10 quiz - Nov 12 (LO 1-4)  
Reflection Journal #4 - Nov 12 (LO 1-5) |
| Nov 13-19        | 11   (*see note under Week 11 below)      | Nutrition for Fitness & Sports Lifecycle Nutrition, Part I Discussion #5 postings - Nov 19 (LO 1,4,5)  
Week 11 quiz (Ch 14 only) - Nov 19 (LO 1-3) |
| Nov 20-26        | 12   | Lifecycle Nutrition, Parts II and III      | Week 12 quiz (Ch 15, 16, 17) - Nov 26 (LO 1-4)  
Reflection Journal #5 - Nov 26 |
<table>
<thead>
<tr>
<th>Date</th>
<th>Week</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 27-Dec 3</td>
<td>13</td>
<td>Diet &amp; Health</td>
<td>Discussion #6 postings - Dec 3 (LO 2-4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Week 13 quiz - Dec 3 (LO 1-4)</td>
</tr>
<tr>
<td>Dec 4-10</td>
<td>14</td>
<td>Food Safety</td>
<td>Diet project, part V - Dec 10 (LO 1,3,4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Week 14 quiz - Dec 10 (LO 1,3,4)</td>
</tr>
</tbody>
</table>

Topics, Assignments, and Learning Objectives for Each Class Session:

**Week 0 - Sept 1-5**

**Course Topic(s):** Course Introduction  
**Learning Objectives:**  
Upon completion of this class, students will be able to:  
- Identify important course-related information in the syllabus  
- Describe how the course is organized in Canvas  

**Required Reading**  
- Course syllabus  
- Canvas course site, NUTC-0200  

**Assignments and Due Date:**  
- Pre-Course Survey – Sept 10

**Week 1 - Sept 5-10**

**Course Topic(s):** Nutrition Overview

**Nutrition Overview: Food Choices and Health**  
**Learning Objectives:**  
Upon completion of this week, students will be able to:  
- Describe the major reasons people make food choices.  
- Define the term “nutrient” and be able to list the six major nutrients.  
- Identify the energy-providing nutrients and the calories provided by each..  
- List the types of nutrition research study designs, and recognize their basic differences.  
- Define Dietary Reference Intakes (DRI) and the 4 parts of the DRI including: Estimated Average Requirements (EAR), Recommended Dietary Allowances (RDA), Adequate Intakes (AI), and Tolerable Upper Intake Levels (UL).  
- Define the Estimated Energy Requirement (EER).  
- Define Acceptable Macronutrient Distribution Ranges (AMDR).  
- Describe the 4 primary components of a nutrition assessment for individuals (ABCD).  
- Recognize the major national nutrition survey used to assess the nutritional status of the U.S. population.  
- Identify the major chronic diseases that are linked to diet.  
- Identify accurate sources of nutrition information.  
- List the 8 red flags that identify nutrition misinformation.  

**Required readings:**  
- Whitney & Rolfes, Chapter 1 - An Overview of Nutrition  
- Whitney & Rolfes, Highlight 1 - Nutrition Information & Misinformation  
- DRI Definitions (handout)  
- Critical Health Applications of the DRIs (NAM)  
- “How to Spot Health Fraud” (FDA)  
- “Is American Diets a White Bread World?” (NY Times, 2020)
“Our Idea of Healthy Eating Excludes Other Cultures and That’s a Problem” (SELF, 2018)

Assignments:
- Online Lecture - An Overview of Nutrition
- Discussion 1 postings (Nutrition Information and Misinformation)
- Week 1 quiz

Week 2 - Sept 11-17
Course Topic(s): Planning a Healthy Diet

Planning a Healthy Diet

Learning Objectives:
Upon completion of this week, students will be able to:
- List and define the six principles of diet-planning (ABCDMV).
- Explain the purpose of the Dietary Guidelines for Americans and MyPyramid/MyPlate
- Summarize each of the Dietary Guidelines for Americans.
- Describe the components of the recent/current USDA Food Guide Graphics (MyPyramid, MyPlate), and know what the different colors, varying bandwidths, and shapes represent.
- Define nutrient density and identify foods that are considered to be nutrient dense.
- Define energy density and identify foods that are considered to be energy dense.
- List the information that is required on a food label.
- Identify the information that is required on a Nutrition Facts Panel.
- Define Daily Value (DV) and how it is used on food labels.
- Recognize and give examples of nutrient claims, health claims, and structure/function claims allowed on food labels.

Required readings:
- Whitney & Rolfes, Chapter 2, Planning a Healthy Diet (skip Highlight 2 for now).
- “Guidance on How to Understand and Use the Nutrition Facts Panel on Food Labels” (FDA)
- 2020-2025 Dietary Guidelines for Americans - Executive Summary (USDA/HHS)
- Customizing the Dietary Guidelines 2020-2025 (USDA)
- Current USDA Food Guide Graphic - MyPlate.gov > Eat Healthy (USDA)
- Start Simple With MyPlate Today (USDA)
- Culturally Appropriate Food Guides (Oldways Preservation Trust)
- Should the Dietary Guidelines Fight Systemic Racism? (Civil Eats, 2020)
- Using What’s at Hand (serving size guide, Healthwise)

Assignments:
- Online Lecture - Planning a Healthy Diet
- Discussion 2 postings (USDA Food Guide Graphics)
- Week 2 quiz

Week 3 - Sept 18-24
Course Topic(s): Digestion

Digestion, Absorption, and Transport

Learning Objectives:
Upon completion of this week, students will be able to:
- List the parts of the gastrointestinal (digestive) tract in order from the mouth to the colon.
- List the organs that assist digestion, but are not part of the digestive tract. Describe the function of each.
- Compare the terms mechanical digestion and chemical digestion, and point out where these processes occur along the digestive tract.
- List the secretions that break down carbohydrates during digestion.
- List the secretions that break down fats during digestion.
List the secretions that break down proteins during digestion.

Describe the 4 ways in which nutrients can be absorbed into the cells lining the GI tract following their digestion.

Explain the role of the circulatory (blood) system vs. the lymphatic system in the transport of nutrients around the body following their absorption.

Identify the 4 major hormones that control digestion and absorption.

Describe the common digestive tract problems in humans.

Required readings:
- Whitney & Rolfes, Chapter 3: Digestion, Absorption, and Transport
- Whitney & Rolfes, Highlight 3: Common Digestive Problems
- Transport of Nutrients (handout)
- What’s the Difference Between Prebiotic and Probiotic Foods? (ToTaste, 2020)
- Probiotics Come With Bold Health Claims, but the Science is Shaky (STAT, 2016)

Assignments:
- Online lecture - Digestion & Absorption
- Diet project, part 1
- Week 3 quiz
- Reflection #1

Week 4 - Sept 25-Oct 1
Course Topic(s): Carbohydrates

**Carbohydrates**

**Learning Objectives:**
Upon completion of this week, students will be able to:
- Explain the difference between simple vs. complex carbohydrates, and identify the major food sources of each.
- Define *mono-, di-, and polysaccharides*, and give examples of each.
- Identify the 2 different types of dietary fiber, describe their effects in the body, and list the major food sources of each.
- Describe how sugars and starches are broken down in the digestive tract.
- Explain how the digestion of fiber differs from other carbohydrates.
- Define *lactose intolerance*.
- List the major functions of glucose in the body.
- Describe how the hormones insulin and glucagon maintain blood glucose at a constant level in the body.
- Explain the terms *glycemic response* and *glycemic index*.
- Identify the major sources of added sugars in the diet.
- Describe the health consequences of a diet high in added sugars.
- Discuss the health benefits of a diet rich in starch and fibers.

**Required readings:**
- Whitney & Rolfes, Chapter 4, The Carbohydrates: Sugars, Starches, and Fibers
- Whitney & Rolfes, Highlight 4: Carbs, kCalories, and Controversies
- Types of Fiber and their Benefits (WebMD, 2020)
- A Carb-Ranking Controversy (Tufts Now, 2018)
- Gluten Free-For-All (Tufts Now, 2013)

**Assignments:**
- Online lecture - Carbohydrates
- Discussion 3 postings (Prebiotics & Probiotics)
- Week 3 quiz

Week 5 - Oct 2-8
Course Topic(s): Lipids
Lipids

Learning Objectives:
Upon completion of this week, students will be able to:
- List the 3 major types of lipids found in foods and in the body.
- Describe the general structure of a triglyceride.
- Define monounsaturated, polyunsaturated, and saturated fatty acid. Identify major food sources of each.
- Define trans fatty acid, and identify common food sources.
- Identify the essential fatty acids and their role in the formation of eicosanoids.
- Identify major food sources of the omega 3 and omega 6 fatty acids.
- Describe how and where dietary lipids are digested and absorbed.
- Discuss the role of the lipoproteins (chylomicrons, LDL, and HDL) in transporting lipids throughout the body.
- List the major functions of fat in the body.
- Discuss the role of fat in the development of heart disease, cancer, and obesity.
- Explain the effects of the different fatty acids on blood cholesterol levels, i.e., HDL and LDL, and the health implications of raising and lowering these levels.
- Describe the major food sources of fat in the Mediterranean diet, and why this dietary pattern is considered heart healthy.

Required readings:
- Whitney & Rolfes, Chapter 5: The Lipids: Triglycerides, Phospholipids, & Sterols
- Whitney & Rolfes, Chapter 5: Highlight 5: High-Fat Foods – Friend or Foe?
- Types of Fat (The Nutrition Source, HSPH)
- Omega-3 in Fish: How Eating Fish Helps Your Heart (Mayo Clinic, 2022)
- Fats (Eat Smart, AHA - heart.org)
- The Mediterranean Diet Pyramid (Oldways Preservation Trust)

Assignments:
- Online lecture - Lipids
- Diet project, part II
- Week 5 quiz

Week 6 - Oct 9-15
Course Topic(s): Proteins

Lecture 6: Proteins

Learning Objectives:
Upon completion of this week, students will be able to:
- Describe how the chemical makeup of proteins differs from that of carbohydrates and fats.
- Explain why some, but not all amino acids, are essential, and state the consequences should an essential amino acid be lacking from the diet.
- Describe how and where proteins are digested.
- Describe the fate of amino acids once they are digested and absorbed.
- Define deamination and transamination.
- List the major functions of protein in the body.
- Define protein quality and give examples of foods containing high-quality proteins vs. low quality proteins.
- Describe how the plant-based foods in a vegetarian diet can be combined to make complementary (complete) proteins.
- Summarize the health advantages and nutritional risks of a vegan diet.
- Identify the 2 major forms of protein malnutrition.
- Discuss reasons why consuming too much protein is not recommended.

Required readings:
- Whitney & Rolfes, Chapter 6: Proteins: Amino Acids (skip Highlight 6)
Energy Metabolism & Alcohol

Learning Objectives:
Upon completion of this week, students will be able to:
- Define **anabolic** and **catabolic reactions**, and give an example of each
- Define ATP, and describe its 3 major functions in the body.
- Besides ATP, list the other 2 compounds produced in cells after food is completely metabolized.
- Identify the 3 major metabolic pathways through which the macronutrients are converted into energy.
- Identify where energy metabolism occurs in the cell.
- Examine the general differences in the breakdown of carbohydrates, fats, and proteins to usable energy components (ATP).
- Define **ketosis** and describe the conditions in which it occurs.
- Describe the consequences of consuming an excessive amount of any macronutrient (in excess of the body's energy/calorie needs)
- Explain, in general terms, what happens to the metabolic pathways during feasting, fasting, and prolonged fasting (starvation).
- Define **moderate alcohol consumption** for both men and women
- Define **one drink** when referring to an alcoholic beverage
- Discuss several factors that affect the body's ability to metabolize alcohol
- List the potential health benefits associated with moderate consumption
- List the detrimental effects of alcohol when consumed in excess
- Define **MEOS, cirrhosis, Wernicke-Korsakoff Syndrome**

Required readings:
- Whitney & Rolfes, Chapter 7, Metabolism: Transformations and Interactions
- Whitney & Rolfes, Highlight 7, Alcohol in the Body
- Overview of Energy Metabolism (handout)
- Alcohol Use and Your Health (CDC Fact Sheet, 2022)
- Alcohol's Effects on the Body (NIAAA, 2021)

Assignments:
- Online lectures - Energy Metabolism **AND** Alcohol
- Week 7 quiz

Energy Balance & Weight Management

Learning Objectives:
Upon completion of this week, students will be able to:
Define **energy balance**, and discuss how changes in energy balance affect body weight.

Describe the major components of "energy in" vs. "energy out."

State the relative contributions of the 3 major components of energy expenditure (basal metabolism, physical activity, thermic effect of food), and identify the most variable of these components.

List several factors that can affect BMR.

List the variables required to calculate your estimated energy (calorie) requirements or EER.

Define **body composition**, and list the 3 major components that make up a person's body weight.

Define **BMI**, and describe the equation used to determine BMI.

Summarize how BMI is used to define **underweight, healthy weight, overweight, and obesity**.

Explain the health risks of too little and too much body fat, with an emphasis on **central obesity** and its associated health risks.

List the common methods used to assess body fat (body composition).

Describe the prevalence of overweight and obesity among American adults.

Describe how fat cells develop, and the role of LPL in fat storage.

Discuss how genetics, environment, and the regulation of hunger and satiety contribute to the development of overweight and obesity.

List the health risks associated with fad diets, weight loss products, prescription drugs and surgical interventions in treating obesity.

Discuss the role of diet, physical activity, and behavior change as keys to managing body weight.

Summarize the characteristics of a sound eating plan for weight management.

**Required readings:**
- Whitney & Rolfes, Chapter 8, Energy Balance & Body Composition; (Skip Highlight 8)
- Whitney & Rolfes, Chapter 9, Weight Management: Overweight, Obesity, and Underweight
- Whitney & Rolfes, Highlight 9 – The Latest and Greatest Weight-Loss Diet - Again
- "What BMI Doesn't Tell You About Your Health" (VOX)
- Widespread Misconceptions About Obesity (Chaput, et al., 2014)
- Scientific Evidence of Diets for Weight Loss (Freire, 2020)
- U.S. Obesity Trends (CDC, 2022)
- Racism and Obesity Are Inextricably Linked (Boston.com, 2021)
- Promoting Ethnic Parity in Health (Wells, Am J Clin Nutr 2020)
- Dietary Supplements for Weight Loss (NIH ODS Fact Sheet for Consumers)

**Assignments:**
- Online lectures - Energy Balance **AND** Weight Management
- Discussion 4 postings (Weighing in on Popular Diets)
- Week 8 quiz
- Reflection #3

**Week 9 - Oct 30-Nov 5**

**Course Topic(s):** Fat- and Water-Soluble Vitamins

**Vitamins**

**Learning Objectives:**
Upon completion of this week, students will be able to:
- Summarize the general differences between macronutrients (carbohydrates, lipids, proteins) and micronutrients (vitamins and minerals)
- List the fat-soluble and water-soluble vitamins, and describe how solubility affects the absorption, transport, storage, and excretion of each type.
- List the B vitamins, and identify the major functions of each vitamin in the body. (For each of these objectives, exclude **panthothenic acid and biotin**)
- List the major food sources of each of the B vitamins.
- Identify the **major deficiency disease** associated with each B vitamin
- List the major uses of vitamin C in the body
- Identify the signs and symptoms of vitamin C deficiency and toxicity
- List the major food sources of vitamin C

- Identify the roles of vitamin A in the body, and describe the effects of vitamin A deficiency and toxicity.
- List the major food sources of vitamin A (preformed) and beta-carotene.
- Describe the uses of vitamin D in the body, and the effects of deficiency and toxicity of this vitamin.
- Identify the major food and non-food sources of vitamin D.
- Identify the role of vitamin E in the body and the effects of vitamin E deficiency and toxicity.
- List the major food sources of vitamin E.
- Identify the major role of vitamin K in the body, and the effects of vitamin K deficiency and toxicity.
- List food and non-food sources of vitamin K.
- Define the term antioxidant, and name the vitamins that act as antioxidants in the body.

**Required readings:**
- Whitney & Rolfes, Chapter 10 - The Water-Soluble Vitamins: B Vitamins and Vitamin C
- Whitney & Rolfes, Highlight 10 - Vitamin and Mineral Supplements
- Whitney & Rolfes, Chapter 11 - The Fat-Soluble Vitamins: A, D, E, and K
- Whitney & Rolfes, Highlight 11 - Antioxidant Nutrients in Disease Prevention
- Factors That Destroy Vitamins (handout)
- Food Processing and Nutrient Density
- Vitamin D Fact Sheet for Health Professionals (NIH ODS)

**Assignments:**
- Online lectures - Fat-Soluble Vitamins AND Water-Soluble Vitamins (Parts I & II)
- Week 9 quiz

**Activity (optional):**
Make a chart or flashcards to use as a study tool. Your chart/flash cards should contain the following information for each of the vitamins (except pantothenic acid and biotin):
- Major function(s) in the body, i.e., what does it do
- Reliable food sources, i.e., where can you get it
- Deficiency symptoms/conditions, i.e., what happens if you get too little
- Toxicity symptoms/conditions, i.e., what happens if you get too much

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**Week 10 - Nov 6-12**

**Course Topic(s):** Major & Trace Minerals, Water

**Minerals & Water**

**Learning Objectives:**
Upon completion of this week, students will be able to:
- List the major functions of water in the body.
- Describe water balance, and list the body’s major water sources (water in) and routes of water loss (water out)
- Describe the general difference between minerals and vitamins
- Describe the general difference between the major minerals and trace minerals
- Describe the role of calcium in the body and the factors that enhance or limit its absorption
- List the hormones needed to maintain blood calcium levels
- Identify food sources of calcium, and describe the effects of calcium deficiency.
- Identify the risk factors for the development of osteoporosis and the roles of physical activity and calcium intake.
- Identify the major roles of phosphorus in the body, and food sources in the diet
- Identify the role of magnesium in the body, and major food sources
- Define electrolyte, and list the 3 major electrolyte minerals
- Identify the role of sodium in the body, the effects of excessive intake, and major food sources.
- Identify the role of potassium in the body, the effects of inadequate intake, and major food sources.
- Describe the DASH diet, and specify who might benefit from such a diet.
- Identify the major role of chloride during digestion.
- Identify the major functions of iron in the body.
- Compare the availability of iron from plant vs. animal sources.
- Describe the role of zinc in the body, major food sources, and consequences of a zinc deficiency.
- Describe the effects of insufficient and excess iodine intake.
- Describe the use of chromium in the body and its relationship to diabetes.
- Describe the use of selenium in the body and the role of selenium in cancer protection.
- Explain the use of fluoride in the body and its role in dental caries prevention.
- List major phytochemicals that might protect the body from cancer and heart disease.

**Required readings:**
- Whitney & Rolfes, Chapter 12 - Water and the Major Minerals
- Whitney & Rolfes, Highlight 12 - Phytochemicals and Functional Foods
- Whitney & Rolfes, Chapter 13 - The Trace Minerals (skip Highlight 13)
- Racial/Ethnic & Socioeconomic Disparities in Hydration Status in U.S. Adults (Brooks, 2017)
- Salt Reference Intake Levels Updated (Medpage Today, 2019)
- Calcium Fact Sheet for Health Professionals (NIH ODS)

**Assignments:**
- Online lectures - Major Minerals, Trace Minerals, AND Water
- Diet project, part IV
- Week 10 quiz
- Reflection #4

**Activities:**
- Watch: Salt Matters - Preserving Choice, Protecting Health video (see Canvas for link)

Make a chart or flashcards to use as a study tool. Your chart/flash cards should contain the following information for each of the major minerals (except chloride), plus the trace minerals iron and zinc:
- Major function(s) in the body, i.e., what does it do
- Reliable food sources, i.e., where can you get it
- Deficiency symptoms/conditions, i.e., what happens if you get too little
- Toxicity symptoms/conditions, i.e., what happens if you get too much

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**Week 11 - Nov 13-19**

**Course Topic(s):** Nutrition for Fitness, Lifecycle Nutrition I

**Nutrition for Fitness and Sports; Lifecycle Nutrition, Part I: Pregnancy & Lactation**

**Learning Objectives:**
Upon completion of this week, students will be able to:
- List the benefits of engaging in regular physical activity.
- Explain the components of fitness and the progressive overload principle.
- Describe the use of glucose and glycogen as body fuels during exercise.
- Describe a diet to minimize glucose depletion during exercise, and define the term carbohydrate loading.
- Describe the role of body fat during prolonged exercise.
- Compare the protein needs of an athlete vs. a sedentary person.
- List the micronutrients of concern for highly active people.
- Discuss some reasons why female endurance athletes may be vulnerable to iron deficiency.
- Discuss the hydration schedule for physical activity and the need for electrolyte replacement.
- Define ergogenic aid.
• Explain why a nutritionally adequate diet is important long before a pregnancy is established.
• List the stages of prenatal growth and development.
• Define placenta, critical period, NTD, and spina bifida.
• Explain the role of folate during the early stages of fetal development.
• Describe the relationship between maternal weight gain during pregnancy and infant birthweight.
• Discuss the increased nutrient needs of the mother during pregnancy including total calories and specific micronutrients required for blood production, cell growth, and bone development.
• Discuss the need for additional calories and fluids during lactation, and list the habits that are incompatible with lactation.
• Define fetal alcohol syndrome.

Required readings:
• Whitney & Rolfs, Chapter 14, Fitness: Physical Activity, Nutrients, and Body Adaptations
• Whitney & Rolfs, Chapter 14, Highlight 14: Supplements as Ergogenic Aids
• Whitney & Rolfs, Chapter 15, Life Cycle Nutrition: Pregnancy and Lactation* (see Note)
• Whitney & Rolfs, Highlight 15: Fetal Alcohol Syndrome* (see Note)
• Powerful Plates, Five Fingers (The Plate Coach)
• Physical Activity Guidelines for Americans, 2nd ed - Exec Summary (DHHS)
• Move Your Way (DHHS)
• Dietary Supplements for Exercise & Athletic Performance (NIH ODS)
• Maternal, Infant, & Child Health - Overview, Nat’l Snapshot (HealthyPeople.gov, 2020)
• Advice About Eating Fish and Shellfish (EPA.gov, 2021)
• The Global Toll of Fetal Alcohol Syndrome (ScienceDaily, 2017)

Assignments:
• Online lecture - Nutrition for Fitness & Sports
• Online lecture - Lifecycle Nutrition, Part 1: Pregnancy & Lactation
• Discussion 5 postings (Phytochemicals & Functional Foods)
• Week 11 quiz (Ch 14 only)

*NOTE REGARDING YOUR WEEK 11 ASSIGNMENTS
During Week 11, please also read Chapter 15 on Pregnancy and Lactation. The Week 11 Quiz will cover Chapter 14 ONLY. Chapter 15 will be covered in the Week 12 Quiz, along with Chapters 16 and 17.

Week 12 - Nov 20-26
Course Topics: Lifecycle Nutrition II, III

Lifecycle Nutrition, Part II: Infancy, Childhood, and Adolescence; Part III: Adulthood & the Later Years

Learning Objectives:
Upon completion of this week, students will be able to:
• Discuss how an infant’s calorie needs differ from an adult’s needs.
• Describe how to assess the growth and nutritional status of infants and children.
• Discuss the 2 dietary practices that have the most significant effect on an infant’s nutritional health, i.e., the milk an infant receives, and the age at which solid foods are introduced.
• Describe the incidence of childhood obesity and role of heredity and environmental factors in the development of obesity in children.
• Describe the nutritional needs of adolescents.
• Explain how a teenager’s choice of soda over milk or soymilk may jeopardize their nutritional health.
• Discuss the role of childhood obesity in the early development of type 2 diabetes and cardiovascular disease.

• Discuss the importance of physical activity in the later years, and define sarcopenia.
• Summarize the nutrients of concern for aging adults, i.e., identify the nutrients for which there are different requirements in older adults.
• Define atrophic gastritis
• Discuss the nutrition recommendations for vision changes that occur with aging.
• Discuss the role of nutrition in the prevention and treatment of arthritic conditions.
• Describe common diseases of the aging brain and the role of nutrition in brain function.
• Outline food-related factors that can predict malnutrition in older adults, i.e., DETERMINE.
• Identify the commonly used drugs that adversely react with nutrients, and explain the potential consequences of these interactions.

Required readings:
• Whitney & Rolfes, Chapter 16, Nutrition: Infancy, Childhood, and Adolescence
• Whitney & Rolfes, Highlight 16: Childhood Obesity and the Early Development of Chronic Diseases
• Whitney and Rolfes, Chapter 17, Adulthood and the Later Years
• Whitney and Rolfes, Highlight 17, Nutrient-Drug Interactions
• Factors Influencing Children's Eating Behavior (Scaglioni, et al., 2018)
• Food Support Programs and Their Impacts on Very Young Children (HealthAffairs.org)
• Nutrition Challenges as We Age (Tufts Now, 2017)
• The State of Senior Hunger in America (Feeding America, 2020)
• Addressing Health Disparities Among Minority Populations (JAMA Neurology, 2020)

Assignments:
• Online lecture - Lifecycle II: Infancy, Childhood, and Adolescence
• Online lecture - Lifecycle III: Adulthood and Aging
• Week 12 quiz (includes Ch 15, 16, 17)
• Reflection #5

Week 13 - Nov 27-Dec 3
Course Topics: Diet & Health

Diet & Health

Learning Objectives:
Upon completion of this week, students will be able to:
• Identify the important lifestyle factors (modifiable and non-modifiable) that promote health and disease
• Describe how certain chronic diseases are in themselves risk factors for other other chronic diseases, i.e., list the interrelationships among chronic diseases
• Describe the development, risk factors, and specific nutrition recommendations for each of the major chronic diseases discussed (CVD, hypertension, diabetes, and cancer)
• Describe how nutrition impacts the immune system
• Discuss the potential impact of adhering to the Dietary Guidelines for Americans and MyPlate on chronic disease risk.

Required readings:
• Whitney & Rolfes, Chapter 18 - Disease Prevention (skip Highlight 18)
• American Institute for Cancer Research (AICR) - Recommendations for cancer prevention
• American Heart Association (AHA) - Dietary recommendations for preventing heart disease
• “Lowering Your Blood Pressure with DASH” - Dietary recommendations for preventing/reducing hypertension
• National Institute of Diabetes and Digestive and Kidney Diseases - Recommendations for preventing type 2 diabetes
• National Osteoporosis Foundation - Diet and lifestyle advice for preventing osteoporosis
• Metabolic Syndrome: “A Time for Action"

Assignments:
• Online lecture - Diet, Disease, & Health
• Discussion 6 postings (Dietary Supplement Use)
Week 13 quiz

Week 14 - Dec 4-10
Course Topic(s): Food Safety

Food Safety

Learning Objectives:
Upon completion of this week, students will be able to:
- Describe two ways in which foodborne microorganisms can cause illness in the body, and give examples of each, i.e., infection vs. intoxication
- List methods to prevent foodborne illness during food production and service.
- Define HACCP, pasteurization, and food irradiation
- Summarize the 4 components of food safety in the kitchen, i.e., Fight Bac!
- List environmental contaminants in the food supply, and natural toxicants found in foods
- Discuss potential advantages and disadvantages associated with organic foods.
- Discuss common additives in the food supply and their risks and benefits.
- Discuss the risks and benefits of genetically engineered foods.

Required readings:
- Whitney and Rolfes, Chapter 19, Consumer Concerns About Food and Water
- Whitney and Rolfes, Highlight 19: Food Biotechnology
- GMOs 101 (FDA/DHHS, 2020)
- CDC and Food Safety (CDC, 2018)

Assignments:
- Online lecture - Food Safety
- Diet project, part V
- Week 14 quiz

Disclaimer: This schedule is subject to modification at the instructor’s discretion.