



COLORADO STATE UNIVERSITY
— GLOBAL —

HPR108: DIETARY NUTRITION

Credit Hours:1

Contact Hours: This is a 1-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 4 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

Faculty Information: Faculty contact information and office hours can be found on the faculty profile page.

COURSE DESCRIPTION AND OUTCOMES

Course Description:

In this course, students will study the basic nutritional principles in clinical practice in healthcare. Students will study the factors that influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states. Students will prepare a dietary analysis as part of this course.

Course Overview:

In this course, you will examine the role of human nutrition in maintaining and promoting optimum health and preventing and treating disease. You will explore concepts in human nutrition such as macronutrients, micronutrients, nutrient requirements, the functions of nutrients in the human body, and the Recommended Daily Allowances (RDAs). You will learn about the organs involved in digestion, the process of digestion, absorption, and metabolism, consumption of a healthy diet that follows the U.S. Department of Agriculture's Dietary Guidelines, and how diet modification can be used to prevent and treat disease states. The focus of the course includes the study of basic nutritional principles in clinical practice in healthcare. You will be introduced to factors that influence the nutritional status of individuals and methods of nutritional assessment and support. You will then use what you have learned to perform a dietary analysis where you will complete a three-day food intake log, use an online program to calculate your personalized needs for calories, protein, fat, and carbohydrate, and calculate, compare, and explain the calories, protein, fat, and carbohydrate you consumed versus your estimated needs. In addition, you will explain how you can make improvements to your diet to be on target with your individualized needs to promote optimum health with nutrition.

Course Learning Outcomes:

1. Understand the functions and requirements of nutrients.
2. Describe a person's nutritional needs for water, calories, carbohydrates, proteins, and fats.

3. Examine the process of digestion, absorption, and metabolism.
4. Analyze the role of nutrition and a healthy diet in health, wellness, and prevention and treatment of disease.

PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

COURSE MATERIALS

Required:

Kainoa Fialkowski Revilla, M., Titchenal, A., Calabrese, A., Gibby, C., & Meinke, W. (2018). *Human nutrition*. Minneapolis: Independent. Retrieved from <http://pressbooks.oer.hawaii.edu/humannutrition/> (CC BY-NC-SA 4.0)

NOTE: *All non-textbook required readings and materials necessary to complete assignments, discussions, and/or supplemental or required exercises are provided within the course itself. Please read through each course module carefully.*

COURSE SCHEDULE

Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and Peer Responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- **Opening Exercises:** Take the opening exercise before reading each week's content to see which areas you will need to focus on. You may take these exercises as many times as you need. The opening exercises will not affect your final grade.
- **Mastery Exercises:** Students may access and retake mastery exercises through the last day of class until they achieve the scores they desire.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.

WEEKLY READING AND ASSIGNMENT DETAILS

Module 1

Readings

- Chapters 1, 9, 10, & 11 in *Human Nutrition*
- Harvard Health Publishing. (2016). *The best foods for vitamins and minerals—How to ensure you get the right vitamins and minerals in the right amounts*. Retrieved from <https://www.health.harvard.edu/staying-healthy/the-best-foods-for-vitamins-and-minerals>
- National Research Council (US) Subcommittee. (1989). 2, Definition and applications. In *Recommended dietary allowances* (10th ed.). Washington, DC: National Academies Press (US). Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK234926/>
- U.S. Food & Drug Administration. (2018, January 3). *How to understand and use the nutrition facts label*. Retrieved from <https://www.fda.gov/food/nutrition-education-resources-materials/how-understand-and-use-nutrition-facts-label>
- U.S. Food & Drug Administration. (n.d.). What's on the nutrition facts label. Retrieved from https://www.accessdata.fda.gov/scripts/InteractiveNutritionFactsLabel/factsheets/Whats_On_The_Nutrition_Facts_Label.pdf

Opening Exercise (0 points)

Discussion (50 points)

Mastery Exercise (20 points)

Critical Thinking (85 points)

Option #1: Explaining Components of the Nutrition Facts Label

Imagine you will be educating high school students on how to read, understand, and use the nutrition facts label. Select two nutrition facts labels from the internet or from your cupboard to use as examples and write an essay that details what you would say to these students:

- Provide a concise summary of each of seven items from a nutrition facts labels: 1) serving size; 2) servings per container; 3) calories; 4) calories from fat; 5) percent daily value; 6) nutrients; and 7) ingredient list. Use resources from the CSU-Global Library, along with appropriate internet sources, to explain these seven label components (both general facts about the components and specific facts pertaining to the labels).
- Using the two nutrition facts labels you selected, provide an explanation of how each of the seven label components may influence your choice as a consumer as to whether to purchase the food items.
- Include the two nutrition facts labels as an appendix to your essay (copy and paste, screenshot, or a photograph; not part of the page count).

Your paper should be 2-3 pages and conform to CSU-Global Guide to Writing & APA. Include at least two scholarly references in addition to the course textbook. The CSU-Global Library is a good place to find these references.

Option #2: Food Choices Based on the Nutrition Facts Label

Select four nutrition facts labels from food sources found on the internet or your cupboard. Write an essay that analyzes these labels:

- Provide a concise explanation of each of the following four components from the nutrition facts labels: 1) serving size; 2) servings per container; 3) calories; 4) calories from fat. Use resources from the CSU-Global Library, along with appropriate internet sources, to explain these four label components (both general facts about the components and specific facts pertaining to the labels).
- Explain whether you consider each of these food sources to be nutritious choices based on the serving size, servings per container, calories, and calories from fat.
- Include your nutrition facts labels as an appendix in your essay (copy and paste, screenshot, or a photograph; not part of the page count).

Your paper should be 2-3 pages and conform to CSU-Global Guide to Writing & APA. Include at least two scholarly references in addition to the course textbook. The CSU-Global Library is a good place to find these references.

Module 2

Readings

- Chapters 3, 4, 5, 6, & 8 in *Human Nutrition*

Opening Exercise (0 points)

Discussion (50 points)

Mastery Exercise (20 points)

Critical Thinking (85 points)

Option #1: Nutritional Needs for an Athlete

A 15-year-old, 150-pound, 5'10", athlete wants to gain weight in the form of lean muscle mass. He trains seven days a week for two hours a day. Research "desired weight gain in athletes" to determine how to advise this athlete on how to gain weight in a healthy manner, and write an essay:

1. Calculate his calories, protein, fat, and carbohydrate macronutrient requirements using the online Macronutrient Calculator. Enter his data in the required fields for age, gender, weight, height, formula (choose normal), activity level (choose extreme), and goal (choose gain). Then click on "calculate macros." Report these results in your essay.
2. Explain if this athlete has increased or decreased water needs and why.
3. Explain how you would advise this athlete to achieve healthy weight gain.

4. Recommend three healthy foods high in carbohydrate, three healthy foods high in protein, and three foods high in healthy fat that could be consumed by this athlete to achieve healthy weight gain.

Your paper should be 2-3 pages and conform to CSU-Global Guide to Writing & APA. Include at least two scholarly references in addition to the course textbook. The CSU-Global Library is a good place to find these references.

Option #2: Nutritional Needs for Obesity

A 45-year-old, 250-pound, 5'2" female wants to lose weight. She does not exercise. Research "desired weight loss in obesity" to determine how to advise this obese female on how to lose weight in a healthy manner, and write an essay:

1. Calculate her calories, protein, fat, and carbohydrate macronutrient requirements using the online Macronutrient Calculator. Enter her data in the required fields for age, gender, weight, height, formula (choose normal), activity level (choose sedentary), and goal (choose lose). Then click on "calculate macros." Report these results in your essay.
2. Explain if this female has increased or decreased water needs and why.
3. Explain how you would advise this female to achieve healthy weight loss.
4. Recommend three healthy foods low in carbohydrate, three healthy foods high in protein, and three healthy foods low in unhealthy fat that could be consumed by this obese female to achieve healthy weight loss.

Your paper should be 2-3 pages and conform to CSU-Global Guide to Writing & APA. Include at least two scholarly references in addition to the course textbook. The CSU-Global Library is a good place to find these references.

Module 3

Readings

- Chapter 2 in *Human Nutrition*
- Chen, Y., Michalak, M., & Agellon, L. B. (2018). Importance of nutrients and nutrient metabolism on human health. *Yale Journal of Biology and Medicine*, 91(2), 95–103. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6020734/>
- Goodman, B. E. (2010). Insights into digestion and absorption of major nutrients in humans. *Advances in Physiology Education*, 34(2). Retrieved from <https://www.physiology.org/doi/full/10.1152/advan.00094.2009>
- U.S. Department of Health & Human Services. (2017). Your digestive system & how it works. Retrieved from <https://www.niddk.nih.gov/health-information/digestive-diseases/digestive-system-how-it-works>

Opening Exercise (0 points)

Discussion (50 points)

Mastery Exercise (20 points)

Critical Thinking (200 points)

Dietary Assessment

For this project, complete a dietary analysis:

1. Create a three-day food intake journal log as detailed in the Completing Your 3-Day Food Journal resource.
2. Calculate your personalized nutritional needs for calories, protein, fat, and carbohydrate using the online Macro Calculator. Enter your personal data in the required fields for age, gender, weight, height, formula (choose normal), activity level, and goal. Then click on “calculate macros.”
3. Enter each food you recorded on your three-day food intake journal log into the CalorieKing food database. After entering a food into the database search box, click on “Search CalorieKing.” Record the calories, protein, fat, and carbohydrate for each food item listed for all three days. Total the calories, protein, fat, and carbohydrate you consumed for each day.

After completing these three steps, write an essay that analyzes your food intake., and include:

- your calculated macro needs for calories, carbohydrates, protein, and fat
- a summary of your calculations for calories, protein, fat, and carbohydrate (from your three-day food log)
- a comparison explanation for each individual day (day 1, day 2, and day 3) of the calories, protein, fat, and carbohydrate you consumed versus your estimated needs for each.
- an explanation of how you can make improvements to your dietary intake to be on target with your calculated needs to promote optimum health with nutrition
- your three-day food intake journal log as an appendix (not included in the 2-3-page essay requirement)

Your paper should be 2-3 pages and conform to CSU-Global Guide to Writing & APA. Include at least two scholarly references in addition to the course textbook. The CSU-Global Library is a good place to find these references.

Module 4

Readings

- Chapter 18 in *Human Nutrition*
- Chapter 1 in Office of Disease Prevention and Health Promotion. (2015). *Dietary guidelines for Americans 2015-2020*. Retrieved from <https://health.gov/dietaryguidelines/2015/guidelines/>
- World Health Organization. (n.d.). Diet, nutrition and the prevention of chronic diseases: Report of the Joint WHO/FAO expert consultation. *WHO Technical Report Series, No. 916 (TRS 916)*. Retrieved from <https://www.who.int/dietphysicalactivity/publications/trs916/summary/en/>

Opening Exercise (0 points)

Discussion (50 points)

Mastery Exercise (20 points)

Final Exam (350 points)

Your final for this course is a final exam. The exam will be open for you to take anytime in Module 4, but you will have only one attempt at this exam. You will be allowed 50 minutes to complete the exam, and the exam must be completed in a single sitting. The exam consists of 50 questions worth 7 points each.

COURSE POLICIES

Course Grading

20% Discussion Participation

0% Opening Exercises

8% Mastery Exercises

37% Critical Thinking Assignments

35% Final Exam

Grading Scale	
A	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
B	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
C	70.0 – 74.9
D	60.0 – 69.9
F	59.9 or below

IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our [In-Classroom Student Policies and Guidelines](#) or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /re-purposing your own work (see CSU-Global Guide to Writing and APA for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

Citing Sources with APA Style

All students are expected to follow the CSU-Global Guide to Writing and APA when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the “APA Guide & Resources” link. A link to this document should also be provided within most assignment descriptions in your course.

Disability Services Statement

CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette

Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.