

**WILLIAM PATERSON UNIVERSITY
COLLEGE OF SCIENCE AND HEALTH
DEPARTMENT OF PUBLIC HEALTH**

**NUTRITION SYLLABUS
Winter 2022**

1. PBHL2210:080 NUTRITION: 3 credits

ONLINE

Description: A foundation study of human nutrition emphasizing its relationship to optimum physical and emotional health. Includes basics of sound nutrition requirements of various food elements, diet planning, dietary patterns for specific age groups, nutritional fads, and weight control.

2. COURSE PREREQUISITES: None

3. SEMESTER: Winter 2022 (January 3 - January 21)

4. INSTRUCTOR: Dr. Michele Grodner, Professor, Department of Public Health, UH 367
Office Hrs: online by appt; grodnerm@wpunj.edu; 973 720-2525. (Please **only** contact by email; office phone is not monitored.)

5. REQUIRED TEXT and HOMEWORK PLATFORM:

Nutrition Basics Version 2.1, (Zimmerman and Snow), 2021, FlatWorld. *

Nutrition Basics Version 2.1 is a web-based program that includes an eBook and a homework platform. All of the *Homework Assignments* for the course are from the eBook and/or the homework platform. The eBook includes embedded videos and other learning attributes. Purchase of the eBook includes access to the homework platform which is edited for this specific course. [It is not necessary to purchase a paper copy of the textbook; the eBook option that includes the homework platform is sufficient.]

**Additional info will be sent before semester begins. Students need specific code to purchase access.*

6. COURSE OBJECTIVES:

The objectives of this course are to:

- A. Study the six classes of nutrients including their composition and their role(s) in the body.
- B. Examine common nutritional disorders in the United States.
- C. Introduce population weight issues and relate to personal decisions about healthy weight, obesity, realistic weight management plans and related risks of eating disorders.
- D. Present the Dietary Reference Intakes, food groups, and their usefulness in daily food selections.

7. STUDENT LEARNING OUTCOMES:

Upon completion of this course, the student will be able to:

- A. Describe factors that affect food choices and increase the nutrient density of intake.
- B. Evaluate the purposes and limitations of dietary standards and food guidelines.
- C. Discuss the processes of digestion, absorption, and metabolism.
- D. List common ailments related to digestion, absorption, and metabolism.

- E. Discuss simple and complex carbohydrates and their relationships as unrefined and refined sources of carbohydrate energy and dietary fiber.
- F. Analyze the potential relationship between carbohydrate intake and diabetes.
- G. State the functions of lipids in foods and in our physiology.
- H. Compare the consumption of different types of food lipids to the risk factors for diet-related disorders.
- I. List functions of protein in foods and in our bodies.
- J. Explain the bioavailability and functions of vitamins and minerals.
- K. Define the functions of water and issues of adequate consumption.
- L. Recognize the relationship between fitness and nutrient intake.
- M. Identify the prevention opportunities and challenges of reducing risks of diet- related disorders.

8. TOPICAL OUTLINE OF THE COURSE CONTENT:

- 1. Overview of Nutrition
 - a. Diet and health
 - b. Determinants of food choice
 - c. Science of nutrition
- 2. Standards and Guidelines
 - a. Dietary Reference Intakes
 - b. Dietary Guidelines for Americans
 - c. USDA Food Patterns
 - d. MyPlate
 - e. Food labels
 - f. Food safety
- 3. Digestion, absorption, and metabolism
 - a. Organs of digestion
 - b. Mechanical and chemical digestion
 - c. Absorption and transport of nutrients
 - d. Metabolism of nutrients
- 4. Carbohydrates
 - a. Types and structures of carbohydrates
 - b. Function of carbohydrates: Energy and fiber
 - c. Digestion, absorption, and metabolism
 - d. Diabetes and hypoglycemia
- 5. Lipids
 - a. Types of lipids
 - b. Functions of triglycerides, phospholipids, and sterols
 - c. Essential fatty acids
 - d. Fats in foods
 - e. Digestion, absorption, and metabolism
- 6. Proteins
 - a. Types and structures of proteins
 - b. Functions of proteins
 - c. Protein in foods
 - d. Digestion, absorption, and metabolism
 - e. Protein deficiency and excess
- 7. Vitamins
 - a. Types and categories of vitamins
 - b. Functions of water-soluble vitamins

- c. Functions of fat-soluble vitamins
 - d. Vitamins in foods
 - e. Absorption and transport
- 8. Water/Minerals
 - a. Water
- 9. Functions of water
 - a. Fluid balance
 - b. Characteristics of water quality
 - c. Minerals
- 10. Electrolytes and their functions
 - a. Major minerals and their functions
- 11. Trace minerals and their functions
 - a. Minerals in foods
 - b. Absorption and transport
- 12. Energy/Weight Management
 - a. Energy balance
 - b. Body weight versus body fat composition
 - c. Appetite and hunger
 - d. Obesity health and cultural issues
 - e. Healthy body weight characteristics
 - f. Eating disorders
- 13. Fitness/Sports Nutrition
- 14. Nutrition and Diet-related Diseases
 - a. Heart disease
 - b. Hypertension
 - c. Type 2 Diabetes Mellitus
 - d. Metabolic syndrome
 - e. Cancer
 - f. Obesity

8. TEACHING METHODS: Readings, Internet and eBook/ *online Homework Platform Assignments*, and Written Assignments (includes a simple Dietary Analysis) **posted on Blackboard (Bb)**.

9. COURSE EXPECTATIONS:

- a. **Reading Assignments:** students are responsible for those chapters in the text that correspondence to the assignment topics.
- b. **Homework Assignments** are listed for each chapter. *Homework Assignments* are to be completed through the **online** homework platform.
- c. Assignments will be graded through the **online** homework platform. (At some point in the course, grades may also show up on Bb.)
- d. Due dates are listed for the *Homework Assignments* of each chapter. The due dates are to assist students to pace completion of all assignments by January 21st.
- e. **Written Assignments (posted on Bb):** Students are to use the format provided on Bb to complete the 2 Written Assignments and submit through Bb on the specified due dates. The Written Assignments are about knowledge gained and strategies implemented based on completing this course.

10. GRADING

Written Assignments must be neatly prepared, and well organized. Points will be deducted for poor grammar and spelling errors. No extra credit assignments will be accepted or negotiated.

[All homework and written assignments must be completed by 1/21]

Homework Assignments for 11 Chapters (100 pts for each Chapter)	1100 pts
2 Written Assignments/Dietary Analysis (50 pts for each)	<u>100 pts</u>
Total pts	1200 pts

The grading scale is as follows:

A 93-100%	B+ 87-89%	C+ 77-79%	D+ 67-71%	F<60%
A- 90-92 %	B 83-86%	C 73-76%	D 60-66%	
	B- 80-82%	C- 70-72%		

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SYLLABUS DUE DATES
PBHL 2210:080 NUTRITION
Winter 2022 (January 3 - January 21)

DUE DATE	Topic (tentative)	Chapter #
DUE DATE:		
1/3	Course begins	
1/4	Chapter 1: Nutrition and You <i>HOMEWORK ASSIGNMENT</i>	Ch1
1/5	Chapter 2: Achieving a Healthy Diet <i>HOMEWORK ASSIGNMENT</i>	Ch2
1/6	<u>Writing Assignment 1 DUE (on Bb)</u>	
1/7	Chapter 3: Nutrition and the Human Body <i>HOMEWORK ASSIGNMENT</i>	Ch3
1/10	Chapter 4: Carbohydrates <i>HOMEWORK ASSIGNMENT</i>	Ch4
1/11	Chapter 5: Lipids <i>HOMEWORK ASSIGNMENT</i>	Ch5
1/12	Chapter 6: Proteins <i>HOMEWORK ASSIGNMENT</i>	Ch6
1/13	Chapter 7: Nutrients Important Fluid/Electrolyte Balance <i>HOMEWORK ASSIGNMENT</i>	Ch7
1/14	Chapter 8: Nutrients Important as Antioxidants <i>HOMEWORK ASSIGNMENT</i>	Ch8
1/17	Chapter 9: Nutrients Important for Bone Health <i>HOMEWORK ASSIGNMENT</i>	Ch9
1/18	Chapter 10: Nutrients Important Metabolism/Blood <i>HOMEWORK ASSIGNMENT</i>	Ch10
1/19	<u>Written Assignment 2 (Dietary Analysis) Due (on Bb)</u>	
1/20	Chapter 11: Energy Balance and Body Weight <i>HOMEWORK ASSIGNMENT</i>	Ch11
1/21	<i>Last Day of Course</i>	

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