

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

**NUTRITION SYLLABUS
Winter 2024**

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 2024 (January 4 - January 24)**4. INSTRUCTOR:** Dr. Sandhya Narayanan, Faculty, Department of Public Health, UH 369

Office Hrs: online by appt; narayanans@wpunj.edu; 201-993-7640. (Please contact by email; Use text for urgent questions.)

5. REQUIRED TEXT and HOMEWORK PLATFORM:

Title	Nutrition Basics: An Active Approach v3.0; Published 2023
Authors	Maureen Zimmerman, Mary Elizabeth Snow, and Jennifer K. Frediani
ISBN (Digital)	978-1-4533-4061-5

Nutrition Basics Version 3.0 is an eBook which includes embedded videos and other learning attributes. It is not necessary to purchase a paper copy of the textbook; the eBook option is sufficient.

Please use the link below to purchase the textbook.

<https://students.flatworldknowledge.com/course/2606193>

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 Quizzes (homeworks)** and one Written Assignment (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 Quiz Assignments** are listed for each chapter. *Quizzes* are to be completed **online** on Bb Ultra
- c. Assignment quizzes will be graded automatically **online** on Bb Ultra
- d. Due dates are listed for the *Quizzes* of each chapter. The due dates are to assist students to pace completion of all assignments by January 24th.
- e. **Written Assignment (posted on Bb):** Students are to use the format provided on Bb to complete the 1 Written Assignment and submit through Bb by January 24. The Written Assignment is about knowledge gained and strategies implemented based on completing this course.

10. GRADING***All assignments must be completed by 1/24***

Quizzes - 15 chapters (30 points each)
One written assignment

450 pts
50 pts

Total pts 500 pts

The grading scale is as follows:

A 93-100%	B+ 87-89%	C+ 77-79%	D+ 67-69%	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 2024 (January 4 - January 24)

Note: Weekend dates are not included. You can use them to work ahead and give yourself a couple of days to finish the final written assignment by the due date.

DUE DATE	Topic (tentative)	Chapter #
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DUE DATE:

1/4	Course Begins - Chapter 1: Nutrition and You - Quiz 1	Ch1
1/5	Chapter 2: Achieving a Healthy Diet - Quiz 2	Ch2
1/8	Chapter 3: Nutrition and the Human Body - Quiz 3	Ch3
1/9	Chapter 4: Carbohydrates - Quiz 4	Ch4
1/10	Chapter 5: Lipids - Quiz 5	Ch5
1/11	Chapter 6: Proteins - Quiz 6	Ch6
1/12	Chapter 7: Nutrients for Fluid/Electrolyte Balance - Quiz 7	Ch7
1/15	Chapter 8: Nutrients Important as Antioxidants - Quiz 8	Ch8
1/16	Chapter 9: Nutrients Important for Bone Health - Quiz 9	Ch9
1/17	Chapter 10: Nutrients for = Metabolism/Blood Function - Quiz 10	Ch10
1/18	Chapter 11: Energy Balance and Body Weight - Quiz 11	Ch11
1/19	Chapter 12 & 13: Nutrition in the Life Cycle - Quiz 12&13	Chs12& 13
1/23	Chapter 14 & 15: Nutrition and Society;Achieving Optimal Health - Quiz 14&15	Chs14&15
1/24	<u>Written Assignment (Dietary Analysis) Due (on Bb)</u>	

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