

COURSE OUTLINE

NUTR-211

Nutrition

3 Semester Hours

HOWARD COMMUNITY COLLEGE

Description

This course focuses on the basic concepts of nutrition and the application of nutritional principles to wellness across the lifespan. It will provide students with a general understanding of nutrition and health, the functions and importance of fats, carbohydrates, proteins, vitamins, and minerals, and the relationship between nutrition and exercise in weight management. Students will complete a detailed computerized dietary analysis project. (3 hours weekly) Note: also listed as HEED-211.

A liberal education prepares students to lead ethical, productive, and creative lives and to understand how the pursuit of lifelong learning and critical thinking fosters good citizenship. General education courses form the core of a liberal education within the higher education curriculum and provide a coherent intellectual experience for all students by introducing the fundamental concepts and methods of inquiry in the areas of mathematics, the physical and natural sciences, the social sciences, the arts and the humanities, and composition. This course is part of the general education core experience at Howard Community College.

Overall Course Objectives

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

1. Describe their risk profile for cardiovascular disease.
2. Calculate the caloric intake necessary to attain their desired weight.
3. Explain the impact of nutrition and exercise on cancer, cardiovascular disease, hypertension, obesity, diabetes, stroke, and osteopetrosis.
4. Compare the energy values of macro and micro nutrients.
5. Explain the reasons for their recent weight gain, loss, or maintenance using the energy balance equation.
6. Identify factors that created psychological hunger and affected food selection from an analysis of their own dietary habits.
7. Explain how exercise affects energy expenditure.
8. Select an exercise activity best suited for their own health and weight management needs.
9. Compare methods of determining appropriate weight and percent body fat and select the method best suited to their individual needs.
10. Compare the characteristics of anorexia nervosa and bulimia and explain why those affected need assistance.
11. Use and explain how to interpret the RDA tables.
12. Describe the Surgeon General's dietary recommendations.
13. Select a method for diet planning (i.e., food pyramids, exchange systems, etc.)
14. Explain the dietary need for fats, carbohydrates, fiber, proteins, water, fat soluble and water soluble vitamins, and minerals.
15. Select food sources high or low in fats, carbohydrates, fiber, proteins, vitamins, and minerals based on their own dietary needs.
16. Recommend ways to alter fat, cholesterol, sodium, and caffeine intakes.
17. Interpret cardiovascular disease risk from a cholesterol profile containing total cholesterol, HDL, and LDL values.

18. Describe health problems associated with an inadequate or excess intake of fats, carbohydrates, proteins, vitamins, and minerals.
19. Describe behavioral strategies and specific eating habits that will facilitate weight management and permanent eating habit changes.
20. Analyze the pros and cons of vitamin and mineral supplementation, weight loss programs and the content of nutritional resources.
21. Describe the role of digestive organs in fat, carbohydrate, and protein digestion.
22. Identify their own good and bad dietary habits from a detailed 2 day computerized food and activity recall and provide a written rationale and plan of action for changing bad habits.

Major Topics

- I. Importance of nutrition in relation to health
- II. Risk factors for cardiovascular disease
- III. Energy balance
- IV. Psychological and physiological hunger and food selection triggers
- V. Voluntary activity and basal metabolic rate
- VI. Anorexia nervosa and bulimia
- VII. Techniques for determining appropriate weight and percent body fat
- VIII. Interpretation and use of RA tables
- IX. Recommendations of Surgeon Generals Report
- X. Dietary planning - Exchange Groups and Food Pyramid
- XI. Macronutrients - fats, carbohydrates, and proteins
- XII. Micronutrients - vitamins, minerals and water
- XIII. Vitamin supplementation
- XIV. Digestion of macronutrients
- XV. Characteristics of valid nutrition sources
- XVI. Behavioral strategies and specific dietary changes to create weight gain, loss and maintenance
- XVII. Exercise - types and fuels used

Course Requirements

Grading/Exams:

Grading procedures will be determined by the individual faculty member but will include the following:

1. At least 2 written exams
2. Analysis of a 2 day computerized food and activity recall

Participation:

Students must have time outside of class to complete the 2 day food and activity recall in the computer lab.

Other Course Information

This course is an Interdisciplinary and Emerging Issues core course and is an arts and science elective. It is required for students majoring in Health Fitness and Wellness Promotion. Also listed as HEED 211.