



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number
HPE101

Course Title
Basic Concepts of Nutrition

Credits
3

Hours:
Lecture/Lab/Other
3/0/0

Co- or Pre-requisite
MAT 033 and ENG 024 or equivalent

Implementation
Semester & Year
Spring 2022

Catalog description:

This course emphasizes the fundamental concepts of nutrition with a focus on the relationships of nutrients to health, fitness, and athletic performance. Topics include basic dietary constituents, principles of body function, considerations for disease prevention and management, dietary regulation, dietary myths, food safety and weight management.

General Education Category:

None

Course coordinator:

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Required texts & Other materials:

Nutrition NOW, Judith Brown, 7th Edition

Course Student Learning Outcomes (SLO):

Upon successful completion of the course, the student will be able to...

1. Identify and discuss nutrition problems facing today's society; (ILG 3,11, PLO 3,4)
2. Identify, distinguish, and discuss the necessities of being an informed consumer of nutrition products and services; (ILG 10, PLO 3,4)
3. Identify, list, distinguish, and discuss the essential dietary nutrients and their role for good health; (ILG 3, PLO 4,5)
4. Utilize dietary standards and guidelines to determine the nutritional adequacy of an individual's diet for weight management and health; (ILG 2,3 PLO 3,5)
5. Utilize dietary guidelines for disease prevention and management; (ILG 3, PLO 3,11)

6. Distinguish, identify, and implement/demonstrate optimal nutrition for fitness and athletic/sport performance; (ILG 3,11, PLO 4)
7. Distinguish, identify, implement/demonstrate safe food handling, preparation, cooking, and serving practices. (ILG 3, PLO 4)

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Institutional Learning Goal 3. Science. Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

Institutional Learning Goal 10. Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Exercise Science A.S. (PLO)

1. Succeed academically upon transfer to a baccalaureate program related to exercise science;
2. Secure employment in the field of exercise science;
3. Demonstrate the knowledge, skills, and ethical integrity necessary to succeed and grow as a health, wellness, fitness, and/or athletic performance professional;
4. Apply scientific and physiological principles to the promotion and enhancement of health, wellness, fitness, and athletic performance;
5. Assess and evaluate an individual's health and performance;
6. Prescribe workouts for generally healthy individuals as well as for athletic populations and those with special considerations;
7. Conduct safe and effective training sessions with generally healthy individuals.

Units of study in detail – Unit Student Learning Outcomes:

Unit #1 – Introduction to Macro- and Micro-nutrients, and Hydration (SLO 1,2,3,4,5)

1. Identify and describe the key nutrition concepts and terms;
2. Identify, define, describe, and distinguish what macro-nutrients are, what their purpose is, how they impact our body, and what role they play in our diets;
3. Identify, define, describe, and distinguish what macro-nutrients are, what their purpose is, how they impact our body, and what role they play in our diets;
4. Calculate calories for a given amount of each macro-nutrient;
5. Describe, discuss, and calculate individual metabolic needs based on gender and activity level;
6. Identify and distinguish the different vitamins, their sources, their roles, and possible toxic effects;
7. Identify and distinguish the different minerals, their sources, their roles, and possible toxic effects;
8. Identify and discuss the benefits of proper hydration for non-active as well as active lifestyles.
9. Identify, define, and discuss risks associated with improper of hydration (including but not limited to hyponatremia and heat stroke).
10. Identify, describe, and discuss the impact of sugar and artificial sweeteners on health and performance.

Unit #2 – Principles of Nutrition a Healthy Diet, Metabolism, and Weight Management (SLO 1,2,3,4,5,6,7)

1. Identify, analyze, interpret, and discuss nutrition labeling and how it can be used to maximize dietary decisions for optimal health and performance;
2. Identify, interpret, describe, distinguish, and discuss the information on packaging (including, but not limited to “enriched”, “low fat”, “organic”, etc.);
3. Identify and discuss the growing nutrition related dangers in society today and they can be addressed;
4. Utilize popular nutrition software to analyze and interpret diets and make/recommend proper behavioral modifications to optimize health and performance;
5. Identify, define, distinguish, describe, and discuss the characteristics of healthy dietary behaviors;
6. Identify, define, distinguish, describe, and discuss the characteristics of unhealthy dietary behaviors (including but not limited to weight control myths, anorexia, bulimia, pica, etc.);
7. Identify, analyze, and interpret the benefits and risks associated with popular “diets” today;
8. Hypothesize, support, research, and discuss why it is so difficult for people to lose weight; 9. Hypothesize, support, research, and discuss what can be done to help people lose weight.

Unit #3 – Introduction to Nutrition in Disease, Illness, Performance, and Food Safety (SLO 1,2,3,4,5,6,7)

1. Identify, distinguish, and discuss the impact that dietary behaviors have on diabetes risk management;
2. Identify, distinguish, and discuss the impact that dietary behaviors have on heart disease and hypertension risk management;
3. Identify, distinguish, and discuss the impact that dietary behaviors have on cancer risk management;
4. Identify, distinguish, and discuss the impact that dietary behaviors have on food allergies and intolerances (including, but not limited to dairy, nuts, gluten, etc.);
5. Identify, describe and discuss the benefits of probiotics;
6. Identify and discuss dietary behaviors that benefit physical activity;
7. Identify, describe, and discuss the benefits and risks associated with ergogenic aides/sport nutrition supplements;
8. Identify, define, distinguish, and discuss possible causes of food borne illness;
9. Identify, define, and discuss the food handling, preparations, and storage precautions/principles necessary to minimize foodborne illnesses.

Evaluation of student learning:

Achievement of the course objectives will be evaluated through the use of the following tools:

TESTS – (3) 100pts/ea (300pts - 50% of Course Grade)

ASSIGNMENTS/PROJECTS – (3) 60pts/ea (180pts - 30% of Course Grade)

CLASS PARTICIPATION/DISCUSSIONS – 40pts/ea (120pts - 20% of Course Grade)