COURSE NUMBER & TITLE:  HLTH 2010: Fundamentals of Nutrition
CREDITS:  2 (2 Lec / 0 Lab)
PREREQUISITES:  None

CATALOG DESCRIPTION:
Fundamentals of Nutrition is the study of the basic concepts and principles of nutrition. Topics include energy, carbohydrates, fats, proteins, vitamins, minerals, water, and the diet through the life-cycle. Personal nutritional analysis and the relationship between diet and disease are also addressed.

This class is intended for nursing students, allied health majors, and the general public.

OUTLINE OF MAJOR CONTENT AREAS
1.  Introduction
   A.  What you eat and why
       1.  American diet
       2.  Influences on food choices
       3.  Improving diets
   B.  Tools for diet design
       1.  Food Guidance Systems
       2.  Dietary guidelines
       3.  Recommended Dietary Allowances (RDA)
       4.  Food labeling
       5.  Exchange system
2.  Science of nutrition
   A.  Body systems used in digestion
   B.  Body systems used in absorption
3.  Essential nutrients
   A.  Carbohydrates
       1.  Functions
       2.  Simple carbohydrates
       3.  Complex carbohydrates
       4.  Fiber
       5.  Recommended for intake
   B.  Lipids
       1.  Functions
       2.  Fatty acids and triglycerides
       3.  Phospholipids
       4.  Cholesterol
       5.  Recommendations for intake
   C.  Proteins
1. Functions
2. Amino acids
3. Recommendations for intake

D. Vitamins
1. Functions
2. Fat-soluble vitamins
3. Water-soluble vitamins
4. Vitamin-like compounds
5. Toxicities and deficiencies
6. Recommendations for intake

E. Water and Minerals
1. Functions
2. Major minerals
3. Trace minerals
4. Toxicities and deficiencies
5. Recommendations of intake

4. Balance and imbalance
A. Weight control
1. Energy intake
2. Energy use
3. Healthy weight
4. Weight-loss diets
5. Regular physical activity
6. Behavior modification
7. Medical interventions
8. Treatment of underweight

B. Athletics and fitness
1. Relationship between nutrition and fitness
2. Designing a fitness program
3. Basal Metabolic Rate (BMR)
4. Dietary guidelines
5. Body fluids
6. Sports drinks

C. Charting a course for change
1. Self-assessment
2. Behavioral change process
3. Creating a plan
4. Evaluating and reevaluating a plan

D. Eating disorders
1. Disordered eating patterns
2. Symptoms
3. Female athlete triad
4. Prevention
5. Life stages
   A. Pregnancy and breastfeeding
      1. Increased nutrient needs during pregnancy
      2. Effects of nutrition on pregnancy
      3. Breastfeeding
   B. Infancy through adolescence
      1. Infant growth and development
      2. Infant nutritional needs
      3. Childhood growth and development
      4. Childhood nutritional needs
      5. Teenage years
      6. Obesity
   C. Adulthood
      1. Nutritional needs
      2. Effects of aging on nutritional health
      3. Nutrient needs of older people

6. Beyond the nutrients
   A. Food safety
      1. Food-borne illness
      2. Food additives
      3. Naturally occurring food substances that can cause illness
   B. Undernutrition throughout the world
      1. World hunger
      2. General effects of semistarvation
      3. Socioeconomic factors
      4. United States
      5. Reducing undernutrition

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will describe the relationship between nutrition choices and health.
2. Students will analyze factors that influence an individual’s nutritional behavioral choices.
3. Students will apply accepted nutrition standards and guidelines to personal food choices.
4. Students will interpret information presented on US food labels.
5. Students will evaluate nutritional claims for credibility.
6. Students will explain how scientists believe the physiologic process delivers nutrients to the body.
7. Students will recognize the contributions scientists believe food nutrients have to health.
8. Students will apply diet modifications to address life cycle and health changes.
9. Students will demonstrate awareness of health issues related to energy balance.
10. Students will apply concepts of behavior change to enhance nutrition and personal wellness.
11. Students will evaluate the impact science and policy development have on personal, community and world nutrition.

**MNTC GOALS AND COMPETENCIES MET:**
N/A

**HCC COMPETENCIES MET:**
Communicating Clearly & Effectively
Thinking Creatively & Critically
Working Productively and Cooperatively

**STUDENT CONTRIBUTIONS:**
Students are expected to attend all lectures and working sessions, participate in all activities and discussions, listen to and follow directions, complete assignments on time, and request assistance when needed. Attendance and class participation are critical in this class.

**STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.**

**ADDITIONAL INFORMATION:** None

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