

Course Competencies Template - Form 112

GENERAL INFORMATION		
Name: Nidia S Romer	Phone #: 305 237-0807	
Course Prefix/Number: HUN1201	Course Title: Essentials of Human Nutrition	
Number of Credits: 3		
Degree Type	□ B.A. □ B.S. □ B.A.S □ A.A. □ A.S. □ A.A.S. □ C.C.C. □ A.T.C. □ C.T.C.(V.C.C.)	
Date Submitted/Revised:	Effective Year/Term: 2009-2	
☐ New Course Competency ☐ Revised Course Competency X Revised Course Description (according to SLO)		
Course to be designated as a General Education course (part of the 36 hours of A.A. Gen. Ed. coursework): X Yes No		
The above course links to the following Learning Outcomes:		
☐ Communication ☑ Numbers / Data ☑ Critical thinking ☐ Information Literacy ☐ Cultural / Global Perspective	 Social Responsibility □ Ethical Issues ☑ Computer / Technology Usage □ Aesthetic / Creative Activities □ Environmental Responsibility 	
Course Description (limit to 50 words or less, <u>must</u> correspond with course description on Form 102): The Essentials of Human Nutrition is a general education course designed to acquaint students with the specific role of carbohydrates, fats, proteins, vitamins, minerals, and water in daily life. Students will learn how the human body systems manage the breakdown, assimilation, and excretion of nutrients and their metabolic wastes. Students will also learn the relationships between food and optimal health including physical fitness and the relationships between nutritional imbalances and diseases. (3 hr. lecture)		
Prerequisite(s): None	Co requisite(s): None	

Course Competencies: (for further instruction/guidelines go to: http://www.mdc.edu/asa/curriculum.asp)

Competency 1: The student will show knowledge of nutrient classes by:

- 1. Listing the nutrient classes needed by the human body.
- 2. Describing the characteristics of each nutrient class needed by the human body.
- 3. Relating the nutrient classes to the foods they consume.

Competency 2: Students will show knowledge of the Dietary Reference Intakes or DRIs by:

- 1. Defining DRIs.
- 2. Identifying their role in diet planning.
- 3. Demonstrating how Dietary Reference Intake values are derived and evaluating their own diets.

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Competency 3: The student will show knowledge of the food pyramid by:

- 1. Explaining the food pyramid.
- 2. Describing its role in meal and diet planning.
- 3. Applying dietary guidelines to reading nutrition labels.

Competency 4: Students will comprehend the concept of nutrient density by:

- 1. Defining nutrient density.
- 2. Differentiating between high nutrient density and empty calorie food.
- 3. Applying the concept of nutrient density to their eating pattern.

Competency 5: The student will show comprehension of the digestive system by:

- 1. Identifying the organs and accessory organs and their functions.
- 2. Describing the enzymes and hormones and their functions.
- 3. Describing the processes by which carbohydrates, proteins, and lipids are digested and absorbed.

Competency 6: The student will display comprehension of carbohydrates in nutrition by:

- 1. Discussing their synthesis, structures, classification, function, and metabolism.
- 2. Identifying the dietary sources of carbohydrates including glucose, fructose, sucrose, maltose, lactose, starch, and fiber.
- 3. Identifying the cause and symptoms of and explaining the dietary treatments for each of the following disorders: hypoglycemia, diabetes mellitus, and lactose intolerance.
- 4. Differentiating between facts and fallacies concerning sugars.
- 5. Explaining how the fiber content of the diet relates to the health of the large intestine.
- 6. Listing the current dietary recommendations for carbohydrates, and describing practical ways of implementing them.

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Competency 7: The student will display a comprehension of lipids in nutrition by:

- 1. Discussing their synthesis, structures, classification, function, and metabolism.
- Identifying the dietary sources of lipids including fatty acids (saturated, trans, monounsaturated, polyunsaturated, essential), triglycerides, phospholipids, and sterols (cholesterol).
- 3. Differentiating among chylomicrons, VLDL, LDL, and HDL, and explaining their role in lipid transport.
- 4. Demonstrating knowledge of the relationship of lipids and chronic diseases such as obesity, cardiovascular disease, and cancer.
- 5. Listing the current dietary recommendations for lipids, and describing practical ways of implementing them.

Competency 8: The student will show comprehension of proteins in nutrition by:

- 1. Discussing their synthesis, structures, classification, function, and metabolism.
- 2. Listing the dietary sources of proteins including essential and non-essential amino acids.
- 3. Listing the current dietary recommendations for proteins, and describing practical ways of implementing them.
- 4. Demonstrating knowledge of the relationship between the deficiency or excess of protein to human health.
- 5. Describing the process of protein synthesis.

Competency 9: The student will show a comprehension of the water-soluble vitamins by:

- 1. Comparing the water soluble and fat-soluble vitamins in regard to absorption, transportation, excretion, and toxicity.
- 2. Explaining the various causes of vitamin deficiencies in the body.
- 3. Identifying the characteristics that relate to the stability of each vitamin in the processing, storage, and preparation of food.
- 4. Describing the function, requirements, and sources for each water-soluble vitamin.
- 5. Identifying the deficiency disease, if any, and describing the symptoms for each water-soluble vitamin.
- 6. Identifying the potential toxicity, if any, and discussing the causes and symptoms for each water-soluble vitamin.

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Competency 10: The student will show a comprehension of the fat-soluble vitamins by:

- 1. Describing the function, requirements, and sources for each fat-soluble vitamin.
- 2. Naming the deficiency disease, if any, and describing the symptoms for each fat-soluble vitamin.
- 3. Identifying the potential toxicity, if any, and discussing the causes and symptoms for each fat-soluble vitamin.

Competency 11: The student will show comprehension of the energy expenditure pathways by:

- 1. Describing the relationship among Basal Metabolic Rate (BMR), physical activity, thermogenesis, and the thermic effect of food.
- 2. Summarizing the benefits of aerobic and anaerobic exercise.

Competency 12: The student will show a comprehension of water and the major and trace minerals by:

- 1. Listing the sources of each.
- 2. Describing the functions of each.
- 3. Demonstrating knowledge of their deficiencies and toxicities.

Competency 13: The student will be able to display comprehension of food safety by:

- 1. Differentiating between the facts and myths concerning food additives.
- 2. Describing the causes, symptoms, and prevention of food-borne illnesses.
- 3. Discussing the possible health effects of environmental contaminants in food and water.

Competency 14: Students will apply the principles of nutrition by:

- Conducting a personal nutritional analysis using diet analysis software and interpreting the results.
- 2. Integrating all the components of a healthy diet into the design of their own eating pattern.
- 3. Demonstrating how to plan and design a healthy diet using technology.

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