

I. CATALOG DESCRIPTION:

- A. Department Information:
Division: Science & Math
Department: Family and Consumer Science
Course ID: FCS 162
Course Title: Nutrition
Units: 3
Lecture: 3 Hours
Laboratory: None
Prerequisite: None
- B. Catalog and Schedule Description:
Scientific concepts of nutrition relating to the functioning of nutrients in the basic life processes. Emphasis on individual needs, food sources of nutrients, current nutritional issues and diet analysis.

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: One

III. EXPECTED OUTCOMES FOR STUDENTS:

Upon completion of the course, the student should be able to:

- A. Critically evaluate lipids, proteins, carbohydrates, vitamins and minerals;
- B. Explain digestion, absorption, metabolism and the function of nutrients;
- C. Explain healthy methods of weight control;
- D. List the recommendations for a healthy diet;
- E. Analyze and evaluate nutrition information;
- F. Identify and evaluate dietary needs over the life span;
- G. Develop critical thinking skills that we experience through the study of nutrition.

IV. COURSE CONTENT:

- A. Introduction
1. Food and Health
 - a) Cultural Diversity of Food
 - b) Nutrition as a Science
 2. Healthy Dietary Guidelines and Standards
 - a) Pyramid (Food Groups)
 - b) Exchanges
 - c) Labels
 - d) Dietary Guidelines: Current Recommendations
 3. Digestion
 - a) Anatomy of the Digestive System
 - b) The Mechanical Aspects of Digestion
 - c) The Chemical Aspects of Digestion
 - d) The Absorption and Transport of Nutrients
- B. The Nutrients
1. Proteins and Amino Acids
 - a) Characteristics, Sources, Functions, Metabolism and Recommendations
 - b) Protein Quality
 - c) Vegetarianism
 2. Carbohydrates
 - a) Characteristics, Sources, Functions, Metabolism and Recommendations
 - b) Sugars and Diabetes
 - c) Fiber
 3. Fats and Other Lipids

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- a) Functions, Metabolism and Recommendations
- b) Fats and Heart Disease
- c) Fat replacements
- 4. Mineral Elements
 - a) Characteristics
 - b) Sources
 - c) Functions
 - d) Metabolism
 - e) Recommendations
- 5. The Vitamins
 - a) Characteristics
 - b) Sources
 - c) Functions
 - d) Metabolism
 - e) Recommendations
 - f) Terminology
 - g) Deficiency Diseases
- C. Energy Metabolism
 - 1. Factors effecting basal and total energy requirements
 - 2. Weight Control
 - 3. Exercise
 - a) Fuel Usage
 - b) Recommendations
 - 4. Energy Balance
 - 5. Recommendations
 - 6. Theories of Weight Control
 - 7. Overweight and underweight, low and high calorie diets
 - 8. Eating Disorders
- D. Dietary Planning for Good Nutrition
 - 1. Adequate and appetizing meals
 - 2. Food habits and factors affecting them
 - 3. Food fads and fallacies
 - 4. Nutritional needs throughout the life cycle
 - a) Pregnancy
 - i) Energy and nutrient needs
 - ii) High Risk Pregnancies
 - iii) During Lactation
 - a) Infancy, Childhood, & Adolescence
 - b) Adulthood and the Later Years
 - i) Energy and Energy Nutrients
 - ii) Nutrition Related Concerns
 - iii) Eating Habits of the Elderly
- E. Nutrition and Public Health
 - 1. Safety and Sanitation
 - a) Food Borne Illnesses
 - b) Additives and Pesticides
 - c) Food Safety
 - 2. Nutritional Adequacy of Foods
 - a) Analyzing Nutrient Information
 - b) Evaluating Nutrient Information

V. METHODS OF INSTRUCTION:

- A. Methods of instruction could include the following components:
 - 1. Weekly lecture time with a percentage of this time devoted to student participation

- discussion
- 2. Assignments that require reading of course materials outside of regular class time
- 3. The completion of assignments that involve the use of writing skills.
- B. Methods of Instruction may include any or the entire following component as well:
 - 1. Presentations
 - 2. Use of audio-visual aids
 - 3. Demonstration experiments
 - 4. Problem solving assignments
 - 5. Computer aided instruction

VI. TYPICAL ASSIGNMENTS:

- A. Be prepared to discuss the following topics in class.
 - 1. A major shift in the American diet suggested in the Dietary Goals is that we should:
 - a) Significantly increase protein intake
 - b) Significantly reduce protein intake
 - c) Increased intake of complex carbohydrates
 - d) Decrease intake of carbohydrates
 - 2. In the basic four food guide, legumes are in the
 - a) The bread/cereal group
 - b) The fruit/vegetable group
 - c) The protein group
 - d) None of the above
- B. Write a two-page paper identifying and evaluating dietary needs of a person over his/her life span.
- C. Define the term pica. What type of mineral deficiency is associated with pica?
- D. Differentiate between the causes and symptoms of osteomalacia and osteoporosis.

VII. EVALUATION(S):

- A. Methods of evaluation will consist of components that demonstrate the student's proficiency in course objective. These include:
 - 1. Written tests, either in the form of:
 - a) Question/answer
 - b) Essay Example: What alterations might you make among your vegetable, fruit, meat, and alterations or grain choices to increase the fiber in your meals?
 - c) Evaluation of research and/or term papers
 - d) Final examination
 - 2. Other methods may include:
 - a) Test-false tests
 - b) Multiple-choice tests: Example: Water needs vary greatly depending on:
 - i) The food a person eats
 - ii) The environmental temperature and humidity
 - iii) The person's gender
 - iv) a and b
 - v) b and c
 - c) Completion tests: Example: The major minerals include: List them a -g
 - d) Special projects
 - e) On-site teacher evaluation
- B. Frequency of Evaluation:
 - 1. Weekly assignments
 - 2. Monthly unit exams
 - 3. One midterm
 - 4. One final exam

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VIII. TYPICAL TEXT(S):

Whitney, Ralfes, Understanding Nutrition, 9th Edition, West, Wodsworth, New York, 2001
Sizer, Frances and Eleanor Whitney, Nutrition Concepts and Controversies, West/Wadsworth,
New York, 2000

IX. OTHER SUPPLIES REQUIRED OF STUDENTS: None