HLED G135: NUTRITION AND HEALTH

Item	Value
Curriculum Committee Approval Date	11/17/2020
Top Code	083700 - Health Education
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)
California State University General Education Breadth (CSU GE-Breadth)	• CSU E1 Lifelong Understanding (E1)

Course Description

This course provides an integrated overview of the scientific concepts of nutrition and health relating to the functioning of nutrients in the basic life processes. Topics will cover many different aspects and views of nutrition and how it affects health throughout the life cycle with an emphasis on individual needs, food sources of nutrients, metabolism, current nutrition and health issues, and diet analysis. Transfer Credit: CSU; UC. C-ID: NUTR 110. **C-ID:** NUTR 110.

Course Level Student Learning Outcome(s)

1. Course Outcomes
2. Evaluate one's personal diet utilizing a nutritional computer database.
3. Apply valid research principles in the interpretation and application of major nutritional theories
4. Analyze factors such as lifestyle, weight control, disease, and life-cycle conditions such a pregnancy and aging and the influences on one's nutritional status

Course Objectives

- 1. Present and apply major nutritional theories and principles.
- 2. Utilize nutritional computer database to evaluate a personal diet record.
- 3. Differentiate how the body handles the major nutrients from the time we eat to the time we digest, absorb, transport and metabolize nutrients.
- 4. Apply scientific principles of nutrition to analyze nutritional information.

Lecture Content

Introduction to Nutrition Food choices Sensory influences Cognitive influences Environmental influences (including physiological, psychological and sociological aspects) Tools for Healthy Eating Dietary Reference Intake Food Guidance System MyPlate Changes in Diet Foods that nourish Physical Activity Eating Behavior Food Labels Serving sizes Health tips Dietary guidelines Dietary guidelines for Americans Use of the guidelines Digestion, Absorption and Transport Digestive System Metabolism Nutrient Transportation Digestive Disorders Community Health and Nutrition Cultural and Religious Influences Food Insecurity and Health Issues Hunger at Home and Abroad Socioeconomic Factors Nutrients Carbohydrates Classification of Carbohydrates Digestion and Absorption of Carbohydrates Functions of Carbohydrates Fiber Intake and Food Sources Lipids Classification of Lipids Digestion and Absorption of Lipids Functions of Lipids Best, Worst and Alternative Food Sources Proteins Classification of Proteins Digestion and Absorption of Protein Amino Acids Functions of Proteins Best, Worst and Alternative Food Sources Alcohol Forms of Alcohol Advertisement Drinking measurements/Standard Drink Absorption, Circulated and Metabolized Effects of Alcohol on the body Energy Metabolism Adenosine Triphosphate (ATP) Macronutrients and ATP Changes during absorptive and post-absorptive stages Energy production Vitamins Fat Soluble Vitamins Water Soluble Vitamins Minerals Elements Functions Needs Water Essential to bodily function Maintenance and Water Balance Sources Loss of body water Too much water Energy Balance and Body Composition Factors affecting energy needs Problems associated with obesity and underweight Basal metabolism Physical activity Thermogenesis Obesity and underweight Weight Management Energy Balance Total Daily Expenditure Body Composition Disordered Eating Nutrition and Fitness Importance of Physical Fitness Physical Fitness Programs Carbohydrates, Fats and Proteins used during exercise Timing and composition of meals Vitamins and Minerals Important for Fitness Hydration Life Cycle Nutrition Pregnancy Nutrition before conception Physiology of pregnancy Maternal weight gain Food choices for pregnant women Infant growth Growth and development Energy and nutrient needs Breast milk or formula Solid foods Preschool children Growth and development Energy and nutrient needs Allergies Hypersensitivities School age children Ph ysical growth and development Energy and nutrient needs Nutrient related concerns Teenage years Growth and development Energy and nutrient needs Weight and body composition Immunity Taste and smell Gastrointestinal changes Older Adults Energy and nutrient needs Vitamins and minerals Supplements Food Safety Safe food practices Foodborne Illness Preventing Foodborne Illness Food Supply Additives and Other Chemicals Production and Safety Sustainable Food System Global Nutrition and Malnutrition Malnutrition in the United States Malnutrition around the World Greatest Risk Populations Reducing Hunger

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Lecture Problem solving

Reading Assignments

Reading assignments will consist of: assigned readings from text and intructor provided content; research assignments; preparation of content to share with the class and responses to content presented; analysis of case studies and review of expert interviews; responses to guiding questions on course content; recipe analysis; dietary analysis and/or self-assessments.

Writing Assignments

Personal dietary analysis, presentation and rationale for plans to meet special dietary needs and lifestyle requirements; examination of and/or responses to content presented by others.

Out-of-class Assignments

Computer assisted dietary analysis, evaluation and application of food labeling information, responses to guided questions, research projects, application of nutritional principles to special dietary needs, and/or discussions.

Demonstration of Critical Thinking

Case Studies, Food Label Exercise, Article Reviews and Individual Diet Analysis

Required Writing, Problem Solving, Skills Demonstration

Analysis of case studies and/or nutritional labels; reviews of expert interviews; responses to guided questions; presentations and responses to content presented by others; dietary analysis of personal dietary intake.

Eligible Disciplines

Health: Masters degree in health science, health education, biology, nursing, physical education, kinesiology, exercise science, dietetics, or nutrition OR bachelors degree in any of the above AND masters degree in public health, or any biological science OR the equivalent. Masters degree required.

Textbooks Resources

1. Required Sizer and Whitney. Nutrition: Concepts Controversies, 15th ed. Cengage, 2020 2. Required Blake, J.S., Munoz, K.D., Volpe, S.. Nutrition from Science to You, 4th ed. Pearson, 2019