Course Prefix and Number: Biol1322

Course Title: Nutrition and Diet Therapy

Prepared by: L. Heintz

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Approved by:

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Catalog Description:

Introduction to nutrients and their role in proper growth and development and the maintenance of health. Designed to expose the student to fundamental principles of human nutrition. Included in the study of nutrition during the life cycle and diet therapy as it relates to the disease process.

Lecture Hours: 3     Lab Hours: 0     Semester Credit Hours: 3

Prerequisites:

None.

Introduction and Purpose

This course introduces nutrients, the fundamental principles of human nutrition, and the roles of nutrients in growth, development, health, and disease.

Instructional Materials:


Supplies: Pencils, pens, paper, calculator, scantron form 882-E.

Objectives/Student Learning Outcomes:

At the completion of this course, the student should be able to:

A. Describe nutrients in terms of their chemical and physical properties and their effects on human health and disease.
B. Describe nutritional needs during the stages of human growth and development and discuss practical ways of meeting nutritional needs in each stage.
C. Describe the roles of weight management and physical activity in reducing disease development and improving individual and population health.
D. Identify major health issues and the diet therapy for each issue.
E. Demonstrate critical thinking and problem solving skills in meeting course objectives.

The students’ success in completing these objectives will be measured using a set of examinations and assignments described, in detail under the section of this syllabus headed “Method of Evaluation.”
Annual Assessment Plan will be implemented each year to review course.

Methods of Instruction:

This course will be taught using the traditional lecture and/or internet instruction.
Audio-visual materials and computer based technology will be used when appropriate.

Methods of Evaluation:

80% of the course grade will come from lecture (including major exams and any assignments/quizzes)
20% of the course grade will come from a comprehensive final exam.

Letter grades for the course will be based on the following percentages:

- 90-100% A
- 80-89% B
- 70-79% C
- 60-69% D
- Below 60% F

Course Outline:

I. An Overview of Nutrition
II. Planning a Healthy Diet
III. The Carbohydrates: Sugars, Starches, and Fibers
IV. The Lipids: Triglycerides, Phospholipids, and Sterols
V. Protein: Amino Acids
VI. Metabolism: Transformations and Interactions
VII. Energy Balance and Body Composition
VIII. Weight Management: Overweight, Obesity, Underweight
IX. The Water-Soluble Vitamins: B Vitamins and Vitamin C
X. The Fat-Soluble Vitamins: A, D, E, and K
XI. Water and the Major Minerals
XII. The Trace Minerals
XIII. Fitness: Physical Activity, Nutrients, and Body Adaptations
XIV. Life Cycle Nutrition: Pregnancy and Lactation
XV. Life Cycle Nutrition: Infancy, Childhood, and Adolescence
XVI. Life Cycle Nutrition: Adulthood and the Later Years
XVII. Diet and Health

Class Policies:
Regular attendance at all class meetings is expected. Disruptions in class will not be tolerated. Lab safety regulations will be enforced.
Bibliography: