

## STANDARDIZED COURSE OUTLINE

### SECTION I

**SUBJECT AREA AND COURSE NUMBER:** Biology 150

**COURSE TITLE:** Fundamentals of Nutrition

**COURSE CATALOG DESCRIPTION:** An introductory course on the science of nutrition: the role and sources of carbohydrates, lipids, proteins, vitamins, and minerals. Nutritional requirements, nutritional problems and the analysis of adequate diets for various populations are included.

**LECTURE HOURS PER WEEK:** 3

**CREDIT HOURS:** 3

**PREREQUISITE(S):** a) Level II score on writing placement test or successful completion of Eng 001, and b) Level II score on reading placement test or successful completion of Eng 002. Alternative prerequisite: Grade of B- or better in Eng 118.

### SECTION II

**A. SCOPE:** The objective of Bio 150 (Nutrition) is to enable students to understand 1) digestion, absorption, metabolism and function of nutrients, including proteins, carbohydrates, lipids, vitamins and minerals, 2) energy production and energy balance in various populations and age groups, 3) and develop a framework for assessing nutritional information.

**B. REQUIRED WORK:** To be determined by instructor.

**C. ATTENDANCE AND PARTICIPATION:** Regular attendance and class participation are expected. (Specific instructor policies should be listed in the class syllabus.)

**D. METHODS OF INSTRUCTION:** The methods of instruction are determined by each instructor and may include but are not limited to lecture, lecture/discussion, small group, collaborative learning, experimental/exploration, distance learning, student presentations, and use of technologies such as audio-visual materials computers, and calculators.

### E. OBJECTIVES, OUTCOMES, and ASSESSMENT

The following objectives and outcomes represent the department's core requirements for student achievement:

LEARNING OBJECTIVES	LEARNING OUTCOMES	ASSESSMENT METHODS
To demonstrate an understanding of:	Student will:	As measured by:
<b>Energy-Yielding Nutrients.</b> Carbohydrates, Proteins, and Lipids	Describe and compare the structure, function and regulation of carbohydrates, lipids and proteins.  Describe the physiology of digestion and absorption of the energy-yielding nutrients.	Reports Exams Computer Dietary Analysis Presentations
<b>Metabolism.</b> Energy Production and Energy Balance	Describe the key steps in metabolism of carbohydrates, proteins, lipids and alcohol  Analyze energy production and energy balance in various populations, including infants, adolescents, adults, elderly, athletes, and pregnant and nursing mothers .  Analyze and explain the causes and treatments of various eating disorders.	
<b>Vitamins and Minerals.</b> Fat and water soluble vitamins, major and trace minerals.	Describe the function and dietary sources of vitamins, minerals and water	
<b>Nutrition Basics.</b> Nutrient requirements, food labeling, and health claims on food.	Compare different diets and analyze the fulfillment of nutrient requirements.  Develop a framework for assessing nutritional information.	

**F. TEXT(S) AND MATERIALS:** Perspectives in Nutrition, by Gordon M. Wardlaw, WCB/McGraw-Hill Publishing.

**G. INFORMATION TECHNOLOGY:** Computers and CD-rom for dietary analysis.