

Course discipline/number/title: BIOL 1211: Principles of Nutrition**A. CATALOG DESCRIPTION**

1. **Credits:** 3

2. **Hours/Week:** 3

3. **Prerequisites (Course discipline/number):** BIOL 1217 or BIOL 1220; One college Chemistry course higher than CHEM 1101.

4. **Other requirements:** None

5. **MnTC Goals (if any):** NA

B. COURSE DESCRIPTION: This course focuses on the science of foods and provides knowledge and awareness of how the structure and function of these foods contribute to the nutritional requirements and processes of the human body. Specific emphasis is placed on understanding the body's biological requirements in order to maintain structural materials and energy balance and regulate the growth and repair of tissues throughout the lifetime. This course will enable students to establish a foundation from which they can draw upon to not only make informed nutritional choices but to also understand the role of nutrition in personal, societal, and global issues.

C. DATE LAST REVISED (Month, year): January 2021

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Food Choices and Their Relationship to Human Health and Nutrition
 - a) Food variety and nutrient/energy density
 - b) Nutrient standards, food labels and recommendations
2. Nutritional Requirements of the Human Body
 - a) Major food nutrients and human physiology
 - b) Cell structure, function, and metabolism
 - c) Structure, function and nutritional disorders of the major organ systems
3. Macromolecules, Vitamins, Minerals, and Water
 - a) Chemical structure and metabolism
 - b) Food sources and guidelines
 - c) Diseases/conditions related to deficiencies and/or excesses
4. Management of Weight, Energy Balance, and Digestion
 - a) Healthy weight and weight control
 - b) Energy balance
 - c) Disorders
5. Nutritional needs through life stages
 - a. Infancy and childhood
 - b. Adolescence
 - c. Adulthood
6. Global Nutrition Concerns
 - a) Improper nutrition
 - b) Food availability, production, and safety

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Understand human nutritional needs and relationship to human biological function and health.
2. Evaluate and compare nutritional composition and nutrient density and recommended intakes.
3. Apply knowledge of biological and chemical components of food sources to understand human metabolism and conversion of food to attain energy.
4. Articulate relationships between human nutrition, energy balance, exercise, and diseases.

- E. LEARNING OUTCOMES (GENERAL):** The student will be able to: **Continued. . .**
5. Understand healthy nutritional choices for improved health, to evaluate nutrition information, and to understand role of nutrition in personal, societal, and global issues.
- F. LEARNING OUTCOMES (MNTC):** NA
- G. METHODS FOR EVALUATION OF STUDENT LEARNING:** Methods may include but are not limited to:
1. Assignments
 2. Quizzes
 3. Exams
 4. Essays and/or Reports
 5. Nutritional and Physical Activity Log and/or Journal
 - a) Diet Analysis
 - b) Goal setting and Self-reflection
- H. RCTC CORE OUTCOME(S).** This course contributes to meeting the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.
- I. SPECIAL INFORMATION (if any):** None