

COURSE OUTLINE

1. **Course Number and Name: Bio101, Introduction to Nutrition**
Credits: 3 hours

2. **Course Description:** This course is an introductory course to the science of nutrition as it applies to everyday life. The approach is to teach students how to apply the logic of science to their own nutritional concerns. Topics include the six major nutrients: carbohydrates, lipids (fats), protein, vitamins, minerals, and water. The course will also examine energy balance, weight control, the digestive process, nutrition fads, supplements, fiber, and disease as they relate to nutrition and fitness. The course will include two student projects: one involving a personal dietary assessment and the other involving a current nutritional topic.

3. **Course Goals:** “Introduction to Nutrition” will provide students with basic information about human nutrition with the aim of teaching them what constitutes good nutrition and how to improve their own.

4. **Course Outcomes:** At the conclusion of the course, students will be able to
 1. Identify the six major nutrients, their functions in the human body, dietary sources, and their importance in health;
 2. Name the parts and functions of the human digestive system;
 3. Develop the skills to discern reliable nutrition information from fads and nutrition quackery;
 4. Design a personalized healthy meal plan that can be utilized daily;
 5. Recognize and improve unhealthy meal plans;
 6. Evaluate the benefits and the limitations in vegetarianism and its role in health promotion. Learn to plan a balanced vegetarian diet;
 7. Identify and evaluate the economic and business opportunities of select nutritional topics, including nutraceuticals, food safety technologies, and phytonutrients;
 8. Compare and contrast weight control plans, identifying where they may create disorders and dietary deficiencies;
 9. Create and begin a physical fitness regime; and
 10. Recognize the nutritional requirements and the reasons for these in each phase of the human life cycle.

5. **Course Concepts:**
 1. Labeling; scientific method; quackery; food pyramids; dietary influences
 2. Digestive system; carbohydrates; dietary fiber; enzyme; coenzyme; digestive system diseases; monosaccharides; disaccharides; polysaccharides;
 3. Lipids (fats); cardiovascular disease; the cancer connection; artificial lipids
 4. Proteins; protein deficiency and excess; amino acids; vegetarian diets;
 5. Vitamins; phytonutrients; phytochemicals

6. Minerals; water; nutritional supplements; nutraceuticals
7. Food safety; food borne diseases; food additives
8. Weight control; fad diets; surgery; physical activity
9. Weight management; eating disorders;
10. Nutrition throughout the life cycle; pregnancy; infancy; adolescence; adulthood; senescence

6. Required Texts:

Wardlaw, Gordon W. *Contemporary Nutrition*. 8TH edition. Columbus, Ohio: McGraw-Hill, 2010. ISBN 13: 9780077354817

8. Additional Resources [Located in “Resources” in Iziio]