

Prepared by the Department of Science

Date of Departmental Approval: October 2, 2017

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Effective: Fall 2018

1. Title: BIO103 Consumer Nutrition**2. Course Description**

This course presents information on nutrients and their use by the body. Topics include digestion, nutrient intake and usage, consequences of nutrient deficiencies or excesses, energy exchanges and production, analysis of individual diets, food-borne illnesses and nutritional misinformation. This course does not have a lab component.

3. Student Learning Outcomes (Instructional Objectives, Intellectual skills)

Upon completion of the course, the student is able to:

- Assess the physiological, social, psychological, and cultural factors which influence food choices throughout the life of an individual.
- Discuss the function of nutrients and their effect on growth, development, and health.
- Evaluate nutrient densities in foods.
- Evaluate current nutritional issues from a scientific perspective to distinguish fact from fallacy, including how to identify a reliable source of information.
- Identify how body mass, total body fat and body mass indices are calculated and evaluate the results based on a set of standards.
- Calculate and evaluate approximate energy expenditures in terms of body weight and food consumption.
- Critically analyze current food intake and develop a personal diet plan based on recommendations from scientific, health-related organizations.
- Identify essential food safety principles for preventing food borne illness.

4. Credits: 3 credits**5. Satisfies General Education Requirement:** Natural or Physical Science**6. Prerequisite(s):** ENL025 (Reading & Writing Essentials) and MAT010 (Fundamental Arithmetic Skills) or satisfactory basis skills assessment score**7. Semester(s) Offered:** Fall, Spring, Summer**8. Suggested Guidelines for Evaluation:** exams, quizzes, and comprehensive diet analysis**9. General Topical Outline of the Course:****I. Define Nutrition**

- Identifying good food choices
- Discuss essential nutrients and the foods that they are found in
- Discuss the average American diet and how it relates to healthy eating habits

II. Tools for Healthy Eating

- Define dietary reference intakes and guidelines
 - Identify tools to use for analysis of diets
 - Learn how to properly read food labels

III. Digestion

- Organs and hormones involved
- Where and how each nutrient is absorbed

IV. What We Eat

- For the following major food types (carbohydrates, lipids, proteins, vitamins, minerals and water, [alcohol])
 - Identify foods rich in these substances
 - Study the digestion and absorption
 - Discuss consequences, if any, of over or under consumption

V. Weight management and energy balance

- Calculate BMI, relate this to total fat and lean body mass

- Identify factors effecting body weight
- Identify a healthy eating plan based on individual activities and BMI

VI. Causes and prevention of food-borne illnesses

- Discuss bacterial and viral food contaminants as well as food preservation methods