

Department:

Biology

Course Description:

This course will provide a study of food and the effect nutrition has on health, growth and development, and physical performance. The course topics include: calorie expenditures and the nutritional value of foods, including related calculations; human metabolism and metabolic pathways for carbohydrates, fat, and protein; methods for determining body composition, general fitness levels, and exercise intensity; nutritional health research data and statistics; and scientific data concerning the effects of nutrition on health, fitness, and sports activity.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Explain the concepts, definitions, units, and general nature of nutritional facts, principles, and observations.
2. Explain the scientific laws and theories which determine the interactions between nutrition and physical performance in health, fitness, and sports.
3. Use and apply equations, laws, and theories to make nutrition calculations.
4. Satisfactorily complete laboratory experiments and exercises, including analysis and reporting of laboratory data and calculations.

Course Content:

- A. General nutrition in health, fitness, and sports
- B. Healthful nutrition for fitness and sports
- C. Calories and human energy
- D. Carbohydrates
- E. Fat
- F. Protein
- G. Vitamins
- H. Minerals
- I. Water
- J. Body weight and composition for health, fitness, and sport
- K. Weight maintenance, gain, or loss through proper nutrition and exercise
- L. Food drugs, herbal supplements, alcohol, caffeine

Learning Assessments:

Written tests, final examination, in-class quizzes, homework, research papers, and laboratory reports.

Instructional Materials:

Williams, M. (2009). Nutrition for health, fitness, and sport, 9th edition. McGraw-Hill Science/Engineering/Math. ISBN: 0073375551

Laboratory experiments distributed by the course instructor.

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the “Disabilities Self-Identification Form” at this link: <https://highlandcc.edu/pages/disability-services>.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.