

Global Learning Semesters

Course Syllabus

Course: BIOL-425 Human Nutrition

Department: Health and Life Sciences

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
BIOL-425	Human Nutrition	3
Semester Offered	Contact Hours	Prerequisites
Please contact us	42-45	BIOL-105, BIOL -106
Department	Level of Course	Language of Instruction
Health and Life Sciences	Upper Division	English

Course Description

This course presents the unifying concepts of the science of nutrition and the basis of the relationships of the nutrients, diet and health. The course provides an integrated overview of the physiological requirements and functions of protein, energy, and the major vitamins and minerals that are determinants of health and diseases in human populations and the metabolic interrelationships among nutrients which maintain homeostasis in humans. The course intends to instill within students the basis for life-long learning about nutrition and the importance of adequate diets to the health and well-being of people. At the end of the course the student will know about nutrient metabolism in health and disease and be able to apply critical thinking skills to decision making about personal food choices, behavioral change strategies to improve diet, nutritional issues about growth and health through the life cycle and understand the rationale for the development of dietary guidelines and of nutrition policies in developed and developing countries. The format of the course will be 3h/week levels and assigned reading.

Prerequisites

BIOL-105, BIOL-106

Topic Areas

1. Energy homeostasis in humans. Nutrients and Scientific Methods of detection
2. Natural Toxicants, Food Additives and Cancer
3. Food Protein, Vegetarianism
4. Food Fat, Cholesterol Metabolism; Atherosclerosis and Heart Disease
5. Food Carbohydrates: Sugar, Starch, Fiber, Health Effects of Carbohydrates
6. Energy Balance and Obesity Weight Control
7. Vitamins: Fat-Soluble, Water-Soluble, Deficiency, Overdose
8. Minerals: Bone Metabolism: Calcium, Phosphorus; iodine
9. Anemia: Iron, Electrolytes: Sodium, Potassium, Chloride; Water
10. Maternal, fetal and infant nutrition
11. Food Safety: Food borne Illness Food - from Farm-to-Table
12. Nutrition and Exercise Related to Fitness and Sports
13. Nutrition and Exercise Related to Heart Disease and Cancer
14. Nutrients: Cause, Prevention and Cure of Disease; Food allergies and intolerance
15. Eating Disorders, Food Myths and Misunderstandings

Readings and Resources

Required Textbooks

1. Essentials of Human Nutrition by Jim Mann (Editor), Stewart Truswell (Editor), A. Stewart Truswell Publisher: Oxford University Press; 1st edition (June 15, 2002) ISBN: 0198508611
2. Biochemical and Physiological Aspects of Human Nutrition by Martha H. Stipanuk (Editor) Publisher: W B Saunders; 1st edition (January 15, 2000) ISBN: 072164452X
3. Modern Nutrition in Health and Disease by Maurice E. Shils (Editor), James A. Olson (Editor), Moshe Shike (Editor), A. Catherine Ross (Editor) Publisher: Lippincott, Williams & Wilkins; 9th edition (January 1999) ISBN: 068330769X

Recommended Reading

1. Exercise Physiology: Energy, Nutrition, and Human Performance by William D. McArdle, Frank I. Katch, Victor L. Katch Publisher: Lippincott Williams & Wilkins Publishers; 5th edition (January 15, 2001) ISBN: 0781725445
2. Nutrition and Physical Degeneration by Weston A. Price Publisher: McGraw Hill - NTC; 6th edition (January 1, 2002) ISBN: 0879838167
3. Food Politics: How the Food Industry Influences Nutrition and Health (California Studies in Food and Culture) by Marion Nestle (Author) Publisher: University of California Press; (March 4, 2002) ISBN: 0520224655
4. Advanced Nutrition Micronutrients by Carolyn D. Berdanier, Toni Kathryn Adkins, Mark L. Failla (Contributor) Publisher: CRC Press; 1st edition (November 25, 1997) ISBN: 0849326648
5. Safe Food: Bacteria, Biotechnology, and Bioterrorism (California Studies in Food and Culture) by Marion Nestle (Author) Publisher: University of California Press; (March 3, 2003) ISBN: 0520232925
6. Breastfeeding and Human Lactation by Jan Riordan Publisher: Jones & Bartlett Publishers; 3rd Bk&Cdr edition (June 1, 2004) ISBN: 0763745855
7. Nutritional Biochemistry of the Vitamins by David A. Bender Publisher: Cambridge University Press; 2 edition (September 15, 2003) ISBN: 0521803888