COURSE DESCRIPTION: The role of nutrition in human biological systems: the properties of nutrients; interaction with other environmental and genetic factors; quality of the current food supply.

COURSE OBJECTIVES:
1. To gain an appreciation of the meaning that foods have for people and how these are related to economic, psychologic, social, and cultural factors.
2. To acquire knowledge concerning the functions, digestion, absorption, and metabolism of carbohydrates, proteins, fats, vitamins, minerals, and water.
3. To learn of the nutritive requirements of individuals and how these are changed by activity, climate, stages of the life cycle, and disease.
4. To gain an appreciation for the kinds of health problems which arise as a result of poor nutrition for the individual, the community, the nation, and the world.
5. To learn food sources of the nutrients and how to preserve them in our food supply.
6. To develop the ability to interpret the principles of nutrition in the selection, preparation, and consumption of an adequate diet.
7. To learn how to evaluate publications on food and nutrition and the claims made through product advertising and how to avoid being gullible to food fads, myths, and misinformation.
8. To learn to differentiate between nutrition sense and nonsense.

PROFICIENCY EXAM: The exam consists of 337 true/false items. Two hours of testing time are allowed.

The minimum passing score is 270 test items answered correctly. Upon successful completion of the exam three (3) hours of credit for NUTR 201, Human Nutrition, will be granted.

Note: Students may not earn proficiency credit for a course for which they have received credit; nor may they receive credit for courses which substantially overlap or are prerequisite to any in which they are enrolled or for which they have received credit. Normally, a student may attempt to gain proficiency credit for a particular course only once. (Academic Regulations) Proficiency Examinations, Northern Illinois University Undergraduate Bulletin.

REGISTRATION: This exam must be scheduled in advance with Testing Services, Adams Hall 128. PH: (815) 753-1203; FAX (815) 753-3701; E-mail: testing@niu.edu

OVER
EXAMINEE MUST BRING VALID STUDENT IDENTIFICATION TO THE EXAMINATION.

RESULTS: Examination results will be available immediately following completion of the exam.

STUDY MATERIALS: The following textbooks would be helpful in studying for this test: 

Insel P., Turner RE, Ross D. 
*Discovering Nutrition* 
Jones & Bartlett Publishing Inc. 2003 
ISBN# 0-7637-0910-7

Gordon M. Wardlaw 
*Contemporary Nutrition: Issues and Insights.* 
ISBN# 0-07-231616-0

Sizer, Frances, Whitney, Eleanor. 
*Nutrition: Concepts and Controversies.* 
Brooks Cole, 2006 
10th Edition 
ISBN# 0534645062

AREAS TO BE COVERED: 

I. Influences on our eating behavior--psychosocial, economic, ethnic/cultural, geographic, political, nutritional/medical

II. Nutrition Guidelines 
   A. The Dietary Guidelines for Americans 
   B. The Food Guide Pyramid 
   C. The Recommendations for Nutrient Intake 
      1. Dietary Reference Intakes (DRIs) 
      2. Recommended Dietary Allowance (RDA) 
      3. Adequate Intake 
      4. Upper Level 
   D. The Food Label 
      1. Nutrition Facts Panel 
      2. Daily Values 
      3. Nutrient Content Claims 
      4. Health Claims 
   E. Healthy People 2010

III. Basic nutrients--for each nutrient need to know classifications, functions, digestive path, deficiency and toxicity symptoms, food sources, diseases/conditions related to each nutrient 
   A. Carbohydrates 
   B. Lipids 
   C. Proteins 
   D. Vitamins 
      1. Water soluble--ascorbic acid, thiamin, niacin, riboflavin, folic acid, cobalamin, pyridoxine, biotin, pantothenic acid 
      2. Fat soluble--vitamins A, D, E, and K
E. Minerals
   1. Macrominerals--calcium, phosphorous, magnesium, sodium, magnesium, and potassium
   2. Microminerals--iron, fluoride, iodine, zinc, selenium, names of others

F. Water

IV. Digestion and absorption--need to know where the various food stuffs are digested, enzymes/structures involved, how and where absorption occurs for the basic nutrients

V. Energy metabolism
   A. Sources/expenditure of calories; importance of each
      1. Basal metabolic rate
      2. Thermic effect of food
      3. Physical activity
   B. Krebs cycle/electron transport system--which nutrients are involved
   C. Overnutrition--overweight and obesity
   D. Undernutrition--starvation, anorexia nervosa, malnutrition (marasmus and Kwashiorkor)
   E. Sound weight loss plan

VI. Nutrition in the life cycle--need to know physiological changes which require nutritional adaptations, special problems or conditions of nutritional concern, how eating patterns are affected as people develop through life
   A. Pregnancy--fetal/maternal aspects
   B. Lactation
   C. Infancy
   D. Childhood
   E. Adolescence
   F. Young adult
   G. Middle years
   H. Elderly

VII. Nutrition and alcohol

VIII. Our food supply
   A. Food safety
   B. Functional foods
   C. Dietary supplements

IX. Food Faddism
   A. Popular fads
   B. How to identify fraudulent claims