NORTHERN ILLINOIS UNIVERSITY
Testing Services
and
School of Family, Consumer & Nutrition Sciences

FCNS 201 - Human Nutrition

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: Upon completion of this course, the student will be able to:

1. Describe the functions of the major nutrients in the body including their chemical properties;

2. Identify the major food sources of the nutrients and preserve them during food preparation;

3. Discuss the role of nutrition as it interacts with other environmental and genetic factors to impact the health and well-being of humans;

4. Assess and modify their diet to meet MyPlate recommendations;

5. Analyze the quality of the current American diet considering the impact of personal food choices, food processing, and food distribution;

6. Explain the application of scientific method in the solution of nutrition problems;

7. Describe the frontiers of nutrition research and the limitations on that research;

8. Discuss the role of social responsibility in the science of nutrition;

9. Evaluate popular claims and theories relating to nutrition.

PROFICIENCY EXAM: The exam consists of 341 multiple choice items. Four hours of testing time are allowed.

The minimum passing score is 272 test items answered correctly. Upon successful completion of the exam three (3) hours of credit for FCNS 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
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., McMahon K, Bernstein M. *Discovering Nutrition*
Jones & Bartlett Publishing Inc. 2012
Fourth Edition
ISBN# 1449661335

Gordon M. Wardlaw
*Contemporary Nutrition.*
ISBN# 0073402540

Sizer F, Whitney, E.
*Nutrition: Concepts and Controversies.*
Brooks Cole, 2012
Twelfth Edition
ISBN# 1133628184

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. MyPlate
   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 2020

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, cobalamine, pyridoxine, biotin, pantothenic acid
      2. Fat soluble--vitamins A, D, E, and K

Revised 3/6/2013
E. Minerals
1. Macrominerals—calcium, phosphorous, magnesium, sodium, and potassium
2. Microminerals—iron, fluoride, iodine, zinc, selenium, chromium, 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—beyond the nutrients
A. Fitness
B. Anorexia Nervosa and Bulimia
C. World Hunger

VII. 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

Revised 3/6/2013
B. How to identify fraudulent claims