

## **Human Nutrition: Course Outline and Objectives**

**Goal:** To present the scientific basis of human nutrition so students can make valid decisions regarding nutrition and health.

### **Objectives:**

1. To explain the scientific basis for the dietary requirements of humans.
2. To describe dietary patterns causing nutrient imbalances and the effect of those imbalances on the function and health of humans.
3. To describe how to assess the nutritional status of humans.
4. To provide knowledge for evaluating comments and claims regarding nutrition.

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Office hours: in room 27 Morgan Hall, day and time to be announced  
Discussion sessions: To be announced

### **Textbook: For reference:**

Biochemical and Physiological Aspects of Human Nutrition by M.H. Stipanuk, 1<sup>st</sup> edition, W.B. Saunders Company, 2000

Harper's Biochemistry, Ganong, edited by Appleton & Lange

Harper's Review of Medical Physiology, Ganong, edited by Appleton & Lange

### **Tests and Grading:**

There will be 3 midterms (50 points each) and 1 final exam (150 points).

Total possible points will equal 300 points. Letter grades will be assigned approximately as follows:  
90-100% A; 80-89% B; 65-79% C; 50-64% D

The midterms will cover material in prior lectures.

Due to the integrative nature of the course, students should view each test as being 'comprehensive', meaning that it may include any prior material covered in class. This is especially true for the Final Exam.

There will be NO make-up exams, so plan your schedule carefully. We recognize that conflicts and emergencies sometimes arise, however, and encourage you to discuss this with the instructor prior to an exam you may miss.

Students with disabilities should discuss special accommodations with the instructor at least one week before the scheduled exam. Graded midterms will be returned and grading keys made available. If points have been totaled incorrectly or if any answer that is correct on the grading key is marked incorrect on the exam, specify the problem IN WRITING and turn in the exam for re-evaluation NO LATER than the class period following the return of the exam. NO GRADE CHANGE WILL BE CONSIDERED ON EXAMS WRITTEN IN ERASABLE PENCIL OR PEN.

### **NST 160 - Human Nutrition - 3 units**

<b>Date</b>		<b>Topic</b>
<u>Unit I</u>		<u>Nutritional concepts</u>
8/25	M	Introduction; balance, homeostasis, adaptation
8/27	W	Nutrient requirements and recommendations, dietary goals
8/29	F	Nutrient status assessment
<u>Unit II</u>		<u>Human energy needs</u>
9/3	W	Basal metabolism
9/5	F	Direct and indirect calorimetry
9/8	M	Energy requirements and recommendations
<u>Unit III</u>		<u>Fluid balance and obesity</u>
9/10	W	Fluid and electrolyte balance
9/12	F	Body composition
9/15	M	Overweight/obesity & health consequences
9/17	W	Diet treatment of obesity
9/19	F	Body fat distribution and metabolism
9/22	M	Insulin resistance and "metabolic syndrome"
9/24	W	<b>Midterm 1</b>
<u>Unit IV</u>		<u>Human protein needs</u>
9/26	F	Whole body nitrogen metabolism
9/29	M	Protein and essential amino acid requirements
10/1	W	Assessment of protein status
10/3	F	Protein-energy malnutrition (PEM)
10/6	M	Infection/Inflammation and Wasting
<u>Unit V</u>		<u>Dietary guidelines and assessment</u>
10/8	W	Dietary guidelines
10/10	F	Dietary assessment

<u>Unit VI</u>		<u>Blood-forming nutrients</u>
10/13	M	Nutritional anemias
10/15	W	Iron nutrition
10/17	F	Folate and B12 nutrition
10/20	M	Copper and B6
10/22	W	<b>Midterm 2</b>
<u>Unit VII</u>		<u>Bone-forming nutrients</u>
10/24	F	Bone and calcium metabolism
10/27	M	Vitamins and bone/calcium
<u>Unit VIII</u>		<u>Regulatory and antioxidant nutrients</u>
10/29	W	Zinc and iodine
10/31	F	Vitamin A
11/3	M	Vitamin C
11/5	W	Vitamin E and selenium
11/7	F	Nutrients as antioxidants
<u>Unit IX</u>		<u>Alcohol and nutrition</u>
11/10	M	Alcohol and nutrition
<u>Unit X</u>		<u>Nutrients and prevention of disease</u>
11/12	W	Dietary fat and blood lipids
11/14	F	Dietary carbohydrate and blood lipids
11/17	M	Diet and cardiovascular disease
11/19	W	Diet and cancer
11/21	F	<b>Midterm 3</b>
<u>Unit XI</u>		<u>Nutritional concerns during the lifecycle</u>
11/24	M	Pregnancy and lactation
11/26	W	Infant and child nutrition
12/1	M	Nutrition of the elderly
12/3	W	Assessment of myths and fallacies
12/5	F	Review