

COLLEGE OF HUMANITIES AND SOCIAL SCIENCE

COURSE DESCRIPTION

DEPARTMENT/DIVISION: Family and Consumer Sciences

COURSE NUMBER/TITLE: FCS 167 Basic Nutrition (non-health-related majors)

INSTRUCTOR: Zaheer Ali Kirmani, Ph.D., L.D., R.D.
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TEXT: Boyle, MA., & Long, S. Personal Nutrition, 6th. ed., Thomson/Wadsworth , Belmont CA, 2007.

COURSE OBJECTIVES:

This course is intended to introduce to the student the skills needed to analyze and promote sound nutritional practices to various segments of the community. Upon completion of this course the student should have acquired the ability to:

1. cite the major trends of nutrition in our society and their effects on various specific segments of our society.
2. effectively use the food pyramid to plan for optimal dietary effectiveness on an individual basis.
3. recognize techniques for combatting nutrition-related diseases in the American population.
4. recognize eating disorders in children and recommend effective resources for handling them.
5. recommend specific programs that could help the economically disadvantaged to acquire basic, well-balanced diets for family members.
6. use nutrition information correctly in the public school classroom.

OFFICE HOURS

Office hours have been posted in the course document section of black board. Additional meeting times by appointment.

STUDENTS WITH DISABILITIES POLICY:

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the

Counseling Center, Lee Drain Annex, or by calling (936) 294-1720. NOTE: No accommodation can be made until the student registers with the Counseling Center.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

COURSE FORMAT:

This course will include a combination of lecture, reports from current news media, and reports of student projects. Course content emphasizes application of nutrition information to the elementary classroom and to personal use.

COURSE EVALUATION:

4 Examinations	500 pts.	80% of Grade
1 Written Assignment	100 pts.	20% of Grade

Final assignment is due on Monday, 14th of July, 2008 in the classroom and late submission which starts immediately following the class time shall be down graded one grade per day.

Grading scale:	90 - 100% = A	70 - 79% = C
	80 - 89% = B	60 - 69% = D
	0 - 59% = F	

COURSE OUTLINE:

UNIT I

1. The Art of Understanding Nutrition

Nutrition and General Health

a. Nutrition Myths and Practices

b. The Food Pyramid

The Nutrients in foods:

a. Carbohydrates

b. Fats and Oils

c. Proteins and Amino Acids

- d. Vitamins
- e. Minerals

2. The Pursuit of an Ideal Diet

- The ABCs of Eating Healthy
- Nutrient Recommendations
 - The Dietary Reference Intakes (DRI)
 - The DRI for Nutrients
 - The DRI for Energy
 - Other Recommendations
- The Challenge of Dietary Guidelines
- MyPyramid as Diet Planning Tool
- Gaining Calorie Control
- More Tools for Dietary Planning

Unit II

1. The Carbohydrates: Sugar, Starch, and Fiber

- The Body's Needs for Carbohydrates
- Carbohydrate Basics
- The simple Carbohydrates: Mono- and Di- Saccharides
- The Complex Carbohydrates: Starch and Fiber
- Carbohydrates in Foods
- The Health Effects of Carbohydrates
- Hyper and hypo glycemia
- Diabetes
- Sugar and Health

2. The Lipids: Fats and Oils

- A Primer on Fats
 - Functions of Fats in the Body
 - The Functions of Fats in the Foods
- A Closer View of Fats
 - Saturated and Unsaturated Fats
 - The Essential Fatty Acids
 - Omega-6 and Omega-3 Fatty Acids
- Characteristics of Fats in Foods
- Phospholipids and Sterols
- How Body Handles Fat
- “Good” and “Bad” Cholesterol
- Fat in the Diet
- Trans Fat
- Fat Substitutes

UNIT III

1. The Proteins and Amino Acids

What Proteins are Made of?

Essential and Nonessential Amino acids

Proteins as Source of Life's Variety

Denaturation of Proteins

The Functions of Proteins in body

How Body Handles Proteins?

Protein Quality

Recommended Protein Intake

Protein and Health

Protein and Energy Metabolism

Too Much Protein

Protein in Diet

The Vegetarian Diet

2. The Vitamins

Turning Back the Clock

The Two Classifications of Vitamins

Water-Soluble Vitamins

Thiamin

Riboflavin

Niacin

Vitamin B6

Folate

B Vitamins and Heart Disease

Vitamin B12

Pantothenic Acid Biotin

Vitamin C

Fat-Soluble Vitamins

Vitamin A

Vitamin D

Vitamin E

Vitamin K

Phytochemicals in Foods

Unit IV

1. Water

The Most Essential Nutrient

Water and Exercise

Water in the Diet

Keeping Water Safe

Bottled vs. tap water

2. The Major Minerals

Calcium
Phosphorous
Sulfur and Magnesium
Sodium, Potassium, and Chloride

3. The Trace Minerals

Iron
Zinc
Fluoride
Copper, Manganese, Chromium, Selenium, and Molybdenum
Trace Minerals of Uncertain Status

4. Alcohol and Nutrition

What is Alcohol?
Absorption and Metabolism of Alcohol
Alcohol and Its Effects on Nutrition
Health Benefits and Risks
Pros and Cons of Alcohol Consumption
Alcohol Abuse or Alcoholism

Unit V

1. Weight Management

A closer Look at Obesity
Problems Associated with Weight
What is A Healthful Weight?
Body Weight versus Body Fat
Measuring Body Fat
Distribution of Body Fat
Weighing for Health
Energy Balance
Basal Metabolism
Voluntary Activities
Total Energy Needs

SUGGESTED READINGS:

Brown, JE. *Nutrition Now*. West Publishing, Minneapolis, 1995.

Brown, JE. *The Science of Human Nutrition*. Harcourt Brace Jovanovich, Publishers, Austin, 1990.

Hamilton, EM., Whitney, EIN., & Sizer, FS. *Nutrition: Concepts and Controversies*. West Publishing, Minneapolis, 1993.

Mellin, Laurel M. *Shapedown: Just for Kids!, Level 2*. Balboa Publishing, San Anselmo, California, 1991.

Mellin, Laurel M. *Shapedown Parent's Guide: A Guide to Supporting Your Child*. Balboa Publishing, San Anselmo, California, 1991.

Wardlaw, GM, Hampl, JS, and DiSilvestro, RA: *Perspectives in Nutrition*, 6th ed. McGraw Hill, Boston, MA. 2004.

Whitney, EN, Rolfes, SR. *Understanding Nutrition*. 10th ed. Thomson/Wadsworth, Belmont, CA, 2005.

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Dietary Assignment

1. Select two random days of the week.
2. Record food consumed.
3. Go to **mypyramid.gov**
4. Enter your personal information.
5. Compare what was recommended by mypyramid and what was missing or not missing in your food records.
6. Write your comments.
7. Submit printed materials from the website along with your written comments and the food record.
8. Make a cover page
9. Staple your papers together.
10. Loose papers will not be accepted and penalty of late submission will apply.
11. Your assignment will consist of a cover page, two sheets of food records, comments pages, and the print-out from mypyramid site.