General Education Course Proposal

Proposed Course: NUTR (Prefix) 53 (No.) Nutrition & Health: Realities & Controversies (Title) **Units** 3

Department: Enology, Food Science and Nutrition **School:** Agricultural Sciences & Technology

GE Category (Indicate one category only):

Foundation: A1___; A2___; A3___; B4___
Breadth: B1___; B2___; C1___; C2___; D___; E X
Integration: B___; C___; D___; International/Multicultural___

Existing Course X **; Revised Course**___**; New Course**___
Course Included in Current GE Program X

New courses require the Undergraduate Course Proposal form in addition to this form.
Revised courses require the Undergraduate Course Change Request in addition to this form.

Proposed catalog description: Limit course description to 40 words using succinct phrases. Include prerequisites, limitations, lecture/lab hours. Indicate former course number, e.g., (Former Biol 105)

53. Nutrition and Health: Realities and Controversies (3)
Optimal nutrition to reduce the risk of cancer, heart disease, allergies, obesity, and other diseases. Social, psychological, and cultural dictates that affect food selection and health. Personal strategies to develop a nutrition plan for better health.

Enrollment limit per section: 50
Expected number of sections per semester – Year 1 6-8 **; Year 3** 6-8

Attachments:

1. A statement presenting the ways in which this course meets the Specifications provided in the appropriate section of the General Education Policy as well as in the Policies for Inclusion and Evaluation of General Education Courses.
2. A statement of elements common to all sections of this course, identifying content, objectives, required student activities, grading policy, representative texts, and an approximate schedule for the course. Required student activities include such things as papers, research projects, homework, laboratory and/or studio performance, recitations, participation, attendance, and exams.
3. A typical syllabus for a particular offering of the course.
4. Any special cost factors associated with this course.

Approval for Inclusion in General Education

M. Joanne Conrad	3-25-98		3.31.98
Department Chair	Date	School Curriculum Committee	Date
	4-3-98		12/15/98
School Dean	Date	General Education Subcommittee	Date
Brandt Tresponse	12/23/98		
Associate Provost	Date		

1/14/98

California State University, Fresno
School of Agricultural Sciences & Technology
Department of Enology, Food Science & Nutrition
Fall, 1998
N. Joanne Caid, R.D., Professor
Office: FFS 119, 278-5438
Office Hours: M, T, W, TH, F 9:10 am - 10:00 am

NUTR 53 - Nutrition and Health: Realities and Controversies (3 units) Course Outline

CATALOG DESCRIPTION:

Optimal nutrition to reduce the risk of cancer, heart disease, allergies, hyperactivity and other diseases. Social, psychological and cultural dictates which affect food selection and health. Personal strategies to develop a nutrition plan for better health.

GENERAL EDUCATION:

This course meets General Education requirements for Breath Division 4.

REQUIRED MATERIALS:

Hamilton, Whitney and Sizer, Nutrition Concepts and Controversies, 7th Edition, 1997.

NUTR 53 Packet of Materials, Fall, 1998

GOALS AND OBJECTIVES:

1. Assess the social, physiological, psychological and cultural factors which influence food choices throughout the life cycle.

2. Determine the function of nutrients and their effect on growth, development and health from conception to death.

3. Evaluate current nutrition issues from a scientific perspective to distinguish fact from fallacy.

4. Determine his/her percentage of lean body mass and fat through underwater weighing and evaluate this in terms of standards.

5. Calculate his/her energy expenditure and evaluate expenditure in terms of body weight and food consumption.

6. Develop and critically analyze his/her diet plan with recommendations from scientific health-related organizations.

7. Identify essential food safety principles for preventing foodborne illness throughout the life cycle.

GRADE DERIVATION:

1.	Exam I	SCANTRON FORM 883ES	15 percent
2.	Exam II	SCANTRON FORM 883ES	20 percent
3.	Final Exam	SCANTRON FORM 883ES	25 percent
4.	Written Assignment I		10 percent
5.	Written Assignment II		20 percent
6.	Class Attendance & Participation		10 percent

To obtain an A, B, C, or D in the class, 90%, 80%, 70% and 60%, respectively is required.

GENERAL INFORMATION:

1. Students must be prompt for exams. Students will not be allowed to take the exam once the first student has completed the exam and left the room. Arrangements to make up exams for exams one and two must be made within **one week** of assigned date. Make up exams will be essay. The Final Exam must be taken at scheduled time or arrangements must be made with the instructor prior to exam. NO EXCEPTIONS!

2. The written assignment will be due on scheduled dates. See assignment sheets in packet of materials for details.

3. The written assignment will be presented in a profession format— typed or word processed and free from grammatical and spelling errors.

4. Cheating and Plagiarism. University policy defines "cheating" as "the practice of fraudulent and deceptive acts for the purpose of improving a grade or obtaining course credit. Typically, such acts occur in relation to examinations. It is the intent of this definition that the term 'cheating' not be limited to examination situations only but that it include any and all actions by a student which are intended to gain an unearned academic advantage by fraudulent and deceptive means." University policy defines "plagiarism" as "a specific form of cheating which consists of the misuse of the published and/or unpublished works of another by representing the material so used as one's own work." Cheating or plagiarism will no be tolerated in this course. Depending upon the seriousness of the action, the student may be penalized by an "F" on the assignment to an "F" in the course and the filing of a Cheating/Plagiarism Report to be placed in the student's permanent academic record.

5. Disruptive behavior of students should be reported to the instructor and will not be tolerated.

6. Students with disabilities. If you have a disability, be sure to identify yourself to the university and the instructor so that reasonable accommodation for learning and evaluation within the course can be made. Please contact Services to Students with Disabilities, Library Room 1049, 278-2811.

7. Assistance: Please don't hesitate to stop in during office hours or make appointment to see me if you have questions about the course or if you are having difficulties. We'll talk things over and work out a solution. If you decide that you cannot complete the course satisfactorily at this time, be sure to take appropriate action. The last date to withdraw from a course for a serious and compelling reason without "W" appearing on your transcript is Monday, September 21, 1998.

COURSE CALENDAR

(Subject to change in the event of extenuating circumstances)

WEEK OF :	TOPIC	ASSIGNED READINGS FROM THE TEXT
Aug 24	Class Orientation Psychological, social and cultural aspects of foods. Why we choose the foods we do. Energy and nutrients Topic includes at least all of the following: a. Research design. b. Elements in the six classes of nutrients. c. Psychological, social and cultural meanings attached to foods. d. Nutrient goals for the nation. e. Should we be eating the "Natural" foods of ancient diets. Explanation of Assignment I.	Chapter 1 Controversy 3 Friday, Aug. 28, 1998
Aug 31	Reliable Nutrition Information Nutrient Standards and Guidelines Topic includes at least all of the following: a. Identifying valid nutrient information b. Credible sources of nutrition information c. Recommended dietary allowances (RDA) d. Dietary guidelines.	Controversy 1 Chapter 2
	Monday, September 7 - Holiday - Campus Closed	
Sept 7	Diet Planning and Food Labels Topic includes at least all if the following: a. Food guide pyramid. b. Nutrition facts food label.	
Sept 14	Carbohydrates: Sugar, Starch, Fiber and Artificial Sweeteners. Their role in health and disease. Is sugar "Bad for you?" **Assignment I Due** Topic includes at least all of the following: a. Sugars b. Starch c. Glycogen d. Fiber e. Breakdown of sugar and starch to glucose f. Body's use of glucose	Chapter 4 Controversy 4 Friday, Sept. 18, 1998

g. Lactose intolerance
h. Choosing carbohydrate foods
i. Sugar and alternate sweetners

Sept 21 — Carbohydrates continued

Sept 28 — **Exam I** — Monday, Sept. 28, 1998
Discussion of Assignment II
Lipids - Fats and Oils — Chapter 5, Controversy 5

Topic includes at least all of the following:
a. Composition of fats
b. Types and functions of fats
c. Digestions of fats
d. Significance of LDL and HDL
e. Effects of processing of fats
f. Choosing fat foods

Oct 5 — Lipids Continued

Oct 12 — Protein, Amino Acids — Chapter 6, Controversy 6

Topic includes at least all of the following:
a. Structure of protein
b. Roles of proteins in the body
c. Food proteins-quality, use and need
d. Protein deficiency and excess
e. Vegetarians versus meat eaters: whose diet is best?

Oct 19 — Vitamins — Chapter 7, Controversy 7

Topic includes at least all of the following:
a. Definition and classification
b. Fat soluble vitamins
c. Water soluble vitamins
d. Choosing vitamin rich foods
e. Vitamin supplements

Oct 26 — Minerals/water — Chapter 8, Controversy 8

Topic includes at least all of the following:
a. Body fluids and minerals
b. Major minerals
c. Trace minerals

d. Osteoporosis

Exam II Friday, October 30, 1998

Nov 2

Energy Balance and Weight Control — Chapter 9

Topic includes at least all of the following:

a. Energy in and energy out
b. Too much or too little body fat
c. Body weight versus body fatness
d. Mystery of obesity
e. Weight maintenance

Assignment II Due Friday, November 6, 1998

Nov 9

Nutrition and Physical Activity — Chapter 10

Eating Disorders — Controversy 10

Topic includes at least all of the following:

a. Using glucose to fuel activity
b. Using fat to fuel activity
c. Using protein to fuel activity and building muscle
d. Changing body composition to improve performance
e. Fluids for physical activity
f. What causes eating disorders
g. Treatment of eating disorders

Nov 16

Nutrients and Disease Prevention- AIDS, Atherosclerosis, Hypertension and Cancer — Chapter 11

Topic includes at least all of the following:

a. Nutrition and immune system –AIDS
b. Nutrition and atherosclerosis; hypertension and cancer
c. Lifestyle choices and risk of disease
d. Diet as preventative medicine

Nov 23

Nutrition in the Life Cycle — Chapter 12, 13

Pregnancy, Lactation, aging

Alcohol and Caffeine — Controversy 11,12

Topic includes at least all of the following:

a. Pregnancy and lactation
b. Infant and child
c. Adolescent
d. Adult
e. Older adult

November 25-27, Thanksgiving Recess

Nov 30, Dec 7	Food Safety - Special consideration for infants, small children, elders, and the immuno-suppressed. "How to prevent the 25-hr flu." Food Technology and Food Activities Topic includes at least <u>all</u> of the following: a. microbes and food safety b. Environmental contamination c. Pesticides d. Food additives e. Food processing the nutrients in foods f. Are the new food technologies safe	Chapter 14 pp. 556-574, 577-585 Controversy 14 (pp. 595-597)

Last Day of Instruction - Dec 9, 1998

Week of Dec 14-17 **Final Exams**

MWF	9:10-10:00 am Section	Monday, Dec. 14, 1998 8:45 - 10:45 am
MWF	10:10 - 11:00am Section	Wednesday, Dec. 16, 1998 11:00 am – 1:00 pm

Nutrition 53 -- Nutrition and Health:
Realities and Controversies **Assignment 1**

Using the Diet Analysis Plus - 3.0 Version Program, enter your personal data and daily food intake for three days. Compute and print personal data, nutritional requirements--nutritional analysis for each of the three days and your average daily intake for the three days.

1. You should print and submit: **1.** Recommended nutrients sheet. **2.** An analysis of Food list for Day 1, Day 2, Day 3 and; **3.** An average for all 3 days nutrient intake. (60 points)

2. Type or word process a list of <u>all</u> calories and nutrients consumed. Adjacent to the calories or nutrients state the actual percent calories or nutrients consumed revealed on the computer generated sheet for your average for all 3 days Nutrient Intake. State the percentage excess or percentage deficient. (20 points)

3. Discuss psychological, social and cultural reasons why you ate the foods you did. Quote references from text and two additional references. This section of report must be typed or word processed – (500 word minimum). (15 points)

4. Include a typed or word processed reference List for References cited. (5 points)

Nutrition 53 -- Nutrition and Health:
Realities and Controversies **Assignment 2**

1. Submit Assignment 1. (2 points)

2. Using the Diet Analysis Plus – 3.0 version program utilize the **pyramid** plan to write a diet for 3 days. Submit the analysis for day 1, day 2, day 3 and the average for three days. (15 points)

3. The diet planned utilizing the pyramid plan should be ideal or close to ideal and an improvement over assignment 1. Make a typewritten or word processed chart to compare your percentage revealed in the computer generated sheet for your average of all three days for assignment 1 and 2 with the recommended percent stated in *a - g* that follow. (13 points)

   a. Calories should be 90-110%. If between 70-90 it is okay only if you are desiring to lose weight. If between 110 and 150% it is okay only if you are desiring to gain weight. If you are over 110% and do not want to gain weight, select low fat or fat free milk, margarine, yogurts, ice cream type products, meats, and desserts.

   b. Protein percent should be between 90-110%. If over 110% it is generally a concern when it correlates with total fat, saturated fat and, cholesterol percentages in excess of 110%.

   c. Carbohydrates should be at least 90%. If over 110% your fat percent should be between 50-90% and your calories should be appropriate for you as discussed in 1.

   d. Fiber should be between 90-110%. Grams of fiber should not exceed 40 grams.

   e. Fat-total should be between 50-110%. The closer to 50%, the more ideal the diet. Saturated fat and cholesterol percentages should not exceed 110%. If they do, your diet consists of too high fat types of butter or margarine spreads, meat, milk products, and/or desserts or too large of portions of these foods. Do not be concerned about other types of fats as long as your total fat percentage does not exceed 110%.

   f. Vitamins A, B1, B2, B3, B6, B12, Folacin, C and E should be a minimum of 90% and ideally higher. It is extremely rare to have excessive amounts of these nutrients from food. Caution

should occur when consuming retinol forms of Vitamin A supplements.

g. Calcium, iron, magnesium, phosphorus, potassium, sodium and zinc should be consumed at levels ranging from 90-110%.

4. Type or word process this part of your report. Discuss <u>two</u> (2) functions, <u>two</u> (2) concerns with inadequate consumption and if consumed in excess and <u>two</u> food sources for each of the following nutrients. (2000 word minimum) (50 points)

Protein

Fiber

Saturated Fat

Cholesterol

Vitamin A
Vitamin B_1
Vitamin B_2
Vitamin B_3
Vitamin B_6
Vitamin B_{12}
Folacin
Vitamin C
Vitamin E
Calcium
Iron
Sodium
Zinc

Use a minimum of three 1994-1998 references for this part of your paper. Give credit for information in appropriate section report.

5. What diet changes would you make so that your diet is more ideal? (15 points)
Why? (500 word minimum)

6. Include Reference List: (5 points)

Books:
Author, Title, Publishing Company, City, Page, Year.

Journal or Magazines:
Author, Title, Title of Journal or Magazines, Volume, Pages, Year.

Unpublished Data or Personal Communication:
Name, Title or Topic, Company, City, Year.