

## San José State University

### Department of Nutrition, Food Science, & Packaging

### Department of Kinesiology

NuFS/KIN 163, Physical Fitness & Nutrition

Fall 2009, Sections 5 & 6

<b>Department</b>	<b>KIN</b>	<b>NuFS</b>
<b>Instructors</b>	Stan Butler Ed. D.	Toni Bloom, MS, RD
<b>Office</b>	YUH 204	CCB 200
<b>Telephone</b>	(408) 924-3044	(408) 799-3138
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<b>Office hours</b>	MW 10:30-12:20 / TR 4:30-5:30	Wed, after class or by appt.
<b>Class days/time</b>	Wed, 5 – 7:45pm	
<b>Classroom</b>	Section 5 Clark 229 Section 6 Clark 218	
<b>Turnitin.com codes</b>	Name: F09163S8 ID: 2819569 Password: F09163SEC8	<b>Code:</b> <b>Password:</b>
<b>Prerequisites</b>	Passing score on the Writing Skills Test (WST) Upper division standing (60 units) Completion of Core General Education For students beginning continuous enrollment Fall 2005 or later, completion of, or co-registration in, a 100W course is required. Courses used to satisfy Areas R, S, and V must be taken from three separate SJSU departments, or other distinct academic units.	
<b>GE - SJSU Studies</b>	Area R – Earth & Environment	

#### Faculty Web Pages

Copies of the course syllabus and major assignment sheets may be found on the respective faculty web sites.

Dr. Butler's web site is: <http://www.sjsu.edu/kinesiology/GreenSheet/index.htm>

Ms. Bloom's web site is: [http://www.sjsu.edu/faculty\\_and\\_staff/faculty\\_detail.jsp?id=2260](http://www.sjsu.edu/faculty_and_staff/faculty_detail.jsp?id=2260)

#### Course Description and Goals

Use of scientific principles, scientific investigation, and current technological advances to assess the relationship between diet, physical fitness, and disease. Examine scientific literature to evaluate the effects of nutritional intervention on exercise performance. (3 units)

Note: Nutrition majors may not use this course for credit in the major.

#### GE Area R (Earth & Environment) Goal

Students will cultivate knowledge of the scientific study of the physical universe or its life forms. Students will understand and appreciate the interrelationship of science and human beings to each other.

#### GE Student Learning Outcomes (SLOs)

Upon successful completion of this course, students will be able to:

- (1) demonstrate an understanding of the methods and limits of scientific investigation.

- (2) distinguish science from pseudo-science.
- (3) apply a scientific approach to answer questions about the earth and environment.

### Course-Specific Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- (4) explain how the principles of fitness and nutrition (such as body composition, energy intake and expenditure, acute and chronic physical changes related to exercise and nutrition) complement each other.
- (5) identify social, cultural, ethnic, and environmental factors that influence food habits and exercise/activity patterns.
- (6) examine the biochemical and physiological effects of exercise and various nutritional practices.
- (7) discuss the physiological relationships of food to health throughout the life span, as well as specific fitness and nutrition considerations during various stages of the life cycle, such as childhood, adolescence, and older age.
- (8) describe the different exercise guidelines and nutritional requirements related to gender and diverse populations.
- (9) apply and improve upon the basic skills of reading, writing, mathematics, speaking, critical thinking, and scientific research learned in Core GE courses.
- (10) describe scientific methodology in the fields of nutritional science and exercise science.
- (11) critically evaluate the credibility of current nutrition and exercise information using scientific research.
- (12) critique popular advertisements for a food, food supplement, piece of exercise equipment, or exercise program, differentiating between evidence derived from scientific research (based on the student's review of literature) and non-scientific evidence.
- (13) assess the advantages/disadvantages of recent advances in new food formulations and new exercise and fitness testing equipment for the general population.
- (14) deliver oral presentations and written summaries which explain and expand upon course content, using information from appropriate library research and primary sources of scientific investigation.
- (15) identify the scientific principles involved in studying pathophysiology in human populations.
- (16) critically evaluate primary research articles and identify the limitations of scientific investigation in human studies involving nutrition and various modes and levels of physical activity.

### Required Texts

Williams, M. H. (2007). *Nutrition for health, fitness, and sport* (8th ed.). Boston: McGraw-Hill.

ISBN:978-0-07-294371-9. This text will be known as "W" in the proposed schedule.

Fahey, T. D., Insel, P. M., & Roth, W. T. (2009). *Fit & well* (8<sup>th</sup> ed.). Boston: McGraw-Hill. ISBN: 978-0-07-352372-9. This text will be known as "FIR" in the proposed schedule.

### Library Liaisons

If you need help using library resources, Tina Peterson is the Nutrition, Food Science, & Packaging reference librarian. Contact her directly at [tina.peterson@sjsu.edu](mailto:tina.peterson@sjsu.edu) or (408) 808-2099. Peggy Cabrera is the Kinesiology reference librarian; [peggy.cabrera@sjsu.edu](mailto:peggy.cabrera@sjsu.edu); (408) 808-2034.

### Course Format

This course will include lecture, class discussion, and student presentations. Student participation is both a vital part of the learning process and an important way to enrich the classroom experience. Students are expected to have read the assigned material before class and to be prepared to actively participate, discussing course content, raising issues, providing information from their own experiences, and asking questions during the class. If students miss class, they are responsible for obtaining lecture

notes and handouts from another student before seeing the instructor about the missed content. At the midpoint of the semester, students will remain in their assigned classroom, and instructors will change sections.

### Dropping and Adding

You are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Refer to the current semester's [catalog policies](http://info.sjsu.edu/static/catalog/policies.html) section at <http://info.sjsu.edu/static/catalog/policies.html> for add/drop deadlines, policies, procedures, and specific registration information. The [late drop policy](http://www.sjsu.edu/aars/policies/latedrops/policy) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy>.

### Assignments and Grading Policy

Assignment	Points	SLOs
Exam 1	50	4, 5, 6, 7, 8, 15
Exam 2	50	4, 5, 6, 7, 8, 15
Exam 3	50	4, 5, 6, 7, 8, 15
Exam 4	50	4, 5, 6, 7, 8, 15
Research Analysis of Scientific Literature #1	50	1, 9, 10, 16
Research Analysis of Scientific Literature #2	50	1, 9, 10, 16
Critical Evaluation of Consumer Product #1	50	2, 9, 11, 12, 13
Critical Evaluation of Consumer Product #2	50	2, 9, 11, 12, 13
Oral Presentation	50	3, 9, 11, 14
<b>Total Points</b>	450	

- Examination questions will be based on assigned readings, lectures, class discussions and presentations. Bring a T&E 200 answer sheet, #2 pencil, and calculator to all exams. Examinations will be given only on the dates scheduled. Make-up exams will be given only in cases of serious illness or emergencies, and requests for make-up exams will be evaluated on an individual basis. The student is responsible for notifying the instructor and making arrangements prior to the exam. Unless otherwise arranged, the exam must be completed prior to the next class meeting.
- Written assignments are due at the beginning of the class session on the due date. Assignments handed in after class has begun, unless otherwise specified, will be considered late. There is a 5 point penalty for each calendar day (not class day), or partial calendar day, that assignments are late. They will not be accepted 1 week past the due date.
- All assignments written outside of class must be typed, double spaced, and submitted to [turnitin.com](http://turnitin.com) before turning in a hard copy at the start of class on the due date. You will receive a [turnitin.com](http://turnitin.com) code and password for each half of the course.
- The [SJSU Writing Center](http://www.sjsu.edu/writingcenter/about) (<http://www.sjsu.edu/writingcenter/about>) is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. The staff can assist students at all levels to become better writers.
- Writing in general education courses is assessed for grammar, content, clarity, conciseness, and coherence.
- Guidelines for the Research Analyses of Scientific Literature, Critical Evaluations of Consumer Products, and Oral Presentation will be discussed in class and available on faculty web sites.

### Assignment of Grades

97-100% (435-450 pts) = A+	93-96% (417-434 pts) = A	90-92% (403-416 pts) = A-
87-89% (390-402 pts) = B+	83-86% (372-389 pts) = B	80-82% (358-371 pts) = B-
77-79% (345-357 pts) = C+	73-76% (327-344 pts) = C	70-72% (314-326 pts) = C-
67-69% (300-313 pts) = D+	63-66% (282-299 pts) = D	60-62% (268-281 pts) = D-
Below 60% (0-267 pts) = F		

### Summary of Required Writing

Total writing will include a minimum of 3000 words:

In-class writing may include video and/or class lesson summaries and exam essay questions	4-6 pages
2 Critical Evaluations of Consumer Products @ 2-3 pages each	4-6 pages
2 Research Analyses of Scientific Literature @ 2-3 pages each	4-6 pages
<b>Total</b>	<b>12-18 pages</b>

### University Policies

#### Academic Integrity

The University's [Academic Integrity Policy](http://sa.sjsu.edu/judicial_affairs/faculty_and_staff/academic_integrity/index.html) is available at [http://sa.sjsu.edu/judicial\\_affairs/faculty\\_and\\_staff/academic\\_integrity/index.html](http://sa.sjsu.edu/judicial_affairs/faculty_and_staff/academic_integrity/index.html). Your own commitment to learning, as evidenced by your enrollment at San José State University and the University's integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of [Student Conduct and Ethical Development](http://www.sa.sjsu.edu/judicial_affairs/index.html) located at [http://www.sa.sjsu.edu/judicial\\_affairs/index.html](http://www.sa.sjsu.edu/judicial_affairs/index.html). Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or using another person's ideas without giving proper credit) will result in a score of 0. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors. Information about plagiarism can be obtained at the [MLK library](http://tutorials.sjlibrary.org/tutorial) web site at <http://tutorials.sjlibrary.org/tutorial>. (See the plagiarism tutorial for more information.)

#### Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the [Disability Resource Center](http://www.drc.sjsu.edu/) (DRC) at <http://www.drc.sjsu.edu/> to establish a record of their disability. The DRC is located in ADM 110 (408-924-6000 [voice] or 408-924-5990 [TDD]).

## Resources

These journals and on-line resources should be used for your written assignments and oral presentation. They are well respected, peer-reviewed journals in the areas of nutrition and fitness.

### **Journals (partial list)**

American Journal of Clinical Nutrition  
American Journal of Public Health  
American Journal of Sports Medicine  
International Journal of Sports Medicine  
International Journal of Sports Nutrition  
Journal of Applied Physiology  
Journal of Athletic Training  
Journal of the American Dietetic Association  
Journal of the American Medical Association  
Journal of the Strength and Conditioning Association  
Journal of Food Science  
Journal of Nutrition  
Journal of Health, Physical Education, Recreation, and Dance  
Lancet  
Medicine and Science in Sports and Exercise  
New England Journal of Medicine  
Nutrition Reviews  
Physician and Sports Medicine  
Research Quarterly for Exercise and Sport Science  
Sports Medicine  
Strength and Conditioning Journal

### **On-Line Resources (partial list)**

American College of Sports Medicine	<a href="http://www.acsm.org">www.acsm.org</a>
American Dietetic Association	<a href="http://www.eatright.org">www.eatright.org</a>
American Medical Association	<a href="http://www.ama-assn.org">www.ama-assn.org</a>
Australian Institute of Sport	<a href="http://www.ais.org.au/sssm/index.asp">www.ais.org.au/sssm/index.asp</a>
Centers for Disease Control	<a href="http://www.cdc.gov">www.cdc.gov</a>
Food and Drug Administration	<a href="http://www.fda.gov">www.fda.gov</a>
Government Healthfinder	<a href="http://www.healthfinder.gov">www.healthfinder.gov</a>
International Food Information Council	<a href="http://www.ific.org">www.ific.org</a>
Medline	<a href="http://www.ncbi.nlm.nih.gov/pubmed/">www.ncbi.nlm.nih.gov/pubmed/</a>
My Pyramid	<a href="http://www.mypyramid.gov">www.mypyramid.gov</a>
National Institutes of Health	<a href="http://www.nih.gov">www.nih.gov</a>
New England Journal of Medicine	<a href="http://www.nejm.org">www.nejm.org</a>
Physician and Sportsmedicine	<a href="http://www.physsportsmed.com">www.physsportsmed.com</a>
Sports Science Exchange	<a href="http://www.gssiweb.com">www.gssiweb.com</a>
Sport Science Organization	<a href="http://www.sportsci.org">www.sportsci.org</a>
U.S. Food and Drug Administration	<a href="http://www.fda.gov">www.fda.gov</a>
World Health Organization	<a href="http://www.who.int">www.who.int</a>

## Proposed Course Schedule

(Subject to change with fair notice – any changes will be announced in class)

If your 1st half of the semester is **NUTRITION**

<b>DATE</b>	<b>TOPIC</b>	<b>READING ASSIGNMENTS</b>	<b>DUE</b>
W 8/26	Course Overview & Introduction Introduction to the Six Nutrients Scientific Method	W: pp. 37-38 IFIC Article on faculty webpage W: pp. 25-28	<b>Confirmation of Oral Presentation Groups 1-4</b>
	Ergogenic Aids and Sports Performance Nutrition Quackery	W: pp. 19-25, 66- 68, ADA handout on faculty webpage	
W 9/2	Dietary Reference Intakes My Pyramid Dietary Guidelines for Americans	W: pp. 38-53, 60- 65. Inside front cover and back cover of textbook	<b>Bring a food label</b>
	Food Labels Vegetarianism Carbohydrates	W:pp. 60-65 W:pp. 53-59 W: Chap. 4	
W 9/9	Carbohydrates Fat (Lipids)	W: Chap. 4 W: Chap 5	<b>Analysis of Scientific Literature #1 – article on web page</b>
W 9/16	<b>Oral Presentations Groups 1 &amp; 2</b>		<b>Analysis of Scientific Literature #2 if presenting</b>
	<b>Oral Presentations Groups 3 &amp; 4</b>		<b>Analysis of Scientific Literature #2 if presenting</b>
W 9/23	<b>Exam 1</b>		<b>Exam 1 Bring T&amp;E 200</b>
	Protein	W: Chap. 6	
W 9/30	Body Weight and Composition	W: pp. 400-422	<b>Consumer Product Analysis #1; ad provided in class</b>
	Weight Maintenance and Loss Eating Disorders	W: pp. 441-468 W:pp. 428-432	
W 10/7	<b>Exam 2</b>		<b>T&amp;E 0200</b>
W 10/14	Introduction to Health & Wellness (IFIC REVIEW)	FIR: Ch. 1, 2	
	Fitness Components, Fitness Principles Fiber Type, Energy Metabolism		
	Scientific Research & Pseudo-Science Analyzing Scientific Research		
W 10/21	Fitness Program Design	FIR: Ch. 7	
	Flexibility	FIR: Ch. 5	
	Stress & Stress Management		

DATE	TOPIC	READING ASSIGNMENTS	DUE
W 10/28	Substance abuse	FIR: Ch. 13	Review Consumer Ad #2
	Cancer	FIR: Ch. 12	
	Exercise & Cardiovascular Health Fitness & Aging	FIR: Chap. 11	
W 11/4	Cardiorespiratory Endurance <b>Exam 3</b>	FIR: Chap. 3	<b>T&amp;E 0200</b>
W 11/11	Oral Presentations 5 & 6 Thermoregulation Water and Environmental Stress in Exercise During Heat, Cold and High Altitude		Lit. #2 for presenters
W 11/18	Oral Presentations 7 Muscle Strength and Endurance	FIR: Chap. 4	Lit #2 for presenters Consumer Ad #2
W 11/25	NO CLASS FURLOUGH DAY		
W 12/2	Oral Presentations 8 Body Composition		Lit #2 for presenters
W 12/16	<b>Final Exam</b> <b>Sec 7 &amp; 8: 1715 to 1930</b>		<b>T&amp;E 0200</b>
<b>IFIC&gt;&gt;&gt;</b>	<a href="http://www.ific.org/publications/reviews/scientificir.cfm">http://www.ific.org/publications/reviews/scientificir.cfm</a>		

\* Reading assignments should be completed before the class period in which they will be discussed.

W = Williams, *Nutrition for health, fitness, and sport*

FIR = Fahey, Insel, & Roth, *Fit and well*

Proposed Course Schedule (Subject to change with fair notice – any changes will be announced in class)

If your 1st half of the semester is **FITNESS**

DATE	TOPIC	READING ASSIGNMENTS	DUE
W 8/26	Introduction to Health & Wellness <a href="http://www.ific.org/publications/reviews/scientificir.cfm">http://www.ific.org/publications/reviews/scientificir.cfm</a>	FIR: Ch. 1, 2	
	Fitness Components, Fitness Principles Fiber Type, Energy Metabolism		Review Scientific Analysis #1
	Scientific Research & Pseudo-Science Analyzing Scientific Research		
W 9/2	Fitness Program Design	FIR: Ch. 7	
	Flexibility	FIR: Ch. 5	
	Stress & Stress Management		
W 9/9	Substance abuse <b>EXAM # 1</b>	FIR: Ch. 13	Scientific Analysis #1 <b>T&amp;E 0200</b> Review Ad #1
W 9/16	Oral Presentations 1 & 2 Cardiovascular Health Fitness & Aging Cardiorespiratory Endurance Cancer	FIR: Chap. 11 FIR: Chap. 3 FIR: Ch. 12	Lit. #2 for presenters
W 9/23	Thermoregulation Water and Environmental Stress in Exercise During Heat, Cold and High Altitude		
W 9/30	Oral Presentations 3 Muscle Strength and Endurance	FIR: Chap. 4	Lit #2 for presenters Consumer Ad #1

<b>DATE</b>	<b>TOPIC</b>	<b>READING ASSIGNMENTS</b>	<b>DUE</b>
W 10/7	Oral Presentations 4 Body Composition	FIR: Chap. 6 & 9	Lit #2 for presenters
W 10/14	<b>Exam 2</b>		<b>T&amp;E 0200</b>
W 10/21	Introduction to the Six Nutrients Scientific Method	W: pp. 37-38 IFIC Article on faculty webpage W: pp. 25-28	<b>Confirmation of Oral Presentation Groups 5-8</b>
	Ergogenic Aids and Sports Performance Nutrition Quackery  Dietary Reference Inakes	W: pp. 19-25, 66-68, ADA handout on faculty webpage Inside front and back cover of textbook	
W 10/28	Food Labels Vegetarianism	W:pp. 60-65 W:pp. 53-59	
	Carbohydrates Fat (Lipids)	W: Chap. 4 W: Chap 5	
W 11/4	<b>Oral Presentations Groups 5 &amp; 6</b>		<b>Analysis of Scientific Literature #2 if presenting</b>
	<b>Oral Presentations Groups 7 &amp; 8</b>		<b>Analysis of Scientific Literature #2 if presenting</b>
W 11/11	<b>No Class</b>		<b>No Class</b>
W 11/18	Protein	W: Chap. 6	
	Body Weight and Composition	W: pp. 400-422	<b>Consumer Product Analysis #2; ad provided in class</b>
W 11/25	<b>No Class</b>		<b>No Class</b>
W 12/2	Weight Maintenance and Loss Eating Disorders	W: pp. 441-468 W:pp. 428-432	
W 12/9 5:15pm	<b>Final Exam</b>		<b>Final Exam</b>

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