

San José State University
Departments of Nutrition, Food Science, & Packaging and Kinesiology
NuFS/KIN 163, Physical Fitness & Nutrition
Spring 2012

Department	KIN	NUFS
Instructor	Dr. Stan Butler	Toni Bloom, MS, RD
Office	204 YUH	CCB 200–main NuFSP office
Telephone	408-924-3044	408/799-3138
E-mail	sbutler@kin.sjsu.edu	toni@tonibloom.com
Web Page	http://www.sjsu.edu/kinesiology/greensheet/	http://www.sjsu.edu/people/antoinette.bloom/
Office hours	MW 8:30-9:30 & TR 8:30-10:30 or by appointment	W after class and by appt.
Turnitin.com	TBA	Class ID – 4239059 Password – Spring2012
Class days/time	W 5:00-7:45 p Section 5 (Bloom) and Section 6 (Butler)	
Classroom	Clark 229 (Butler) and Clark 238 (Bloom)	
Prerequisites	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.	
GE - SJSU Studies	Area R – Earth & Environment	

Faculty Web Pages or D2L sites

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

Toni Bloom – <http://www.sjsu.edu/people/antoinette.bloom/>

Stan Butler: <http://www.sjsu.edu/kinesiology/greensheet/>

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. Courses in Areas R, S, and V of SJSU Studies must be taken from three different departments or distinct academic units.

Course Goals and Student Learning Objectives (SLOs)

The Area R (Earth and Environment) General Education learning objectives: Upon successful completion of this course, students should be able to:

1. Demonstrate an understanding of the methods and limits of scientific investigation. The “Critical Analysis of Research Literature” assignment is keyed to this Area R SLO. This assignment requires students to comprehend the objectives/purposes of the study as well as the methods used to examine/study the problem. In addition, it requires students critically evaluate the strengths and weaknesses of the paper (including the research design, methods, and discussion) and to be able to see how the paper fits into the larger scope of literature on a particular topic.
2. Distinguish science from pseudo-science. Writing assignments keyed to this Area R SLO: Interpretation of marketing media based on current scientific evidence.
3. Apply a scientific approach to answer questions about the earth and environment. Assignment keyed to this Area R SLO: Oral presentation of primary research demonstrating the ability to answer questions about current research findings as they apply to fitness and nutrition.

Course Content Learning Outcomes

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

1. 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.
2. Identify social, cultural, ethnic, and environmental factors that influence food habits and exercise/activity patterns.
3. Examine the biochemical and physiological effects of exercise and various nutritional practices.
4. Describe the different exercise guidelines and nutritional requirements related to gender and diverse populations.
5. Apply and improve upon the basic skills of reading, writing, mathematics, speaking, critical thinking, and scientific research learned in Core GE courses.
6. Describe scientific methodology in the fields of nutritional science and exercise science.
7. Critically evaluate the credibility of current nutrition and exercise information using scientific research.
8. 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.
9. Assess the advantages/disadvantages of recent advances in new food formulations and new exercise and fitness testing equipment for the general population.
10. 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.
11. Identify the scientific principles involved in studying path physiology in human populations.
12. 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. (2010). *Nutrition for health, fitness, and sport* (10th ed.). Boston: McGraw-Hill. ISBN:0-07-337555-1. This text will be known as “W” in the proposed schedule. Ebook is available at a substantial savings through McGraw-Hill.

Fahey, T. D., Insel, P. M., & Roth, W. T. (2009). *Fit & well* (9th ed.). Boston: McGraw-Hill. ISBN: 978-0-07-3523798. This text will be known as “FIR” in the proposed schedule.

Library Liaisons

If you need help using library resources, Emily K. Shan is the Nutrition, Food Science, & Packaging reference librarian. Contact her directly at Emily.Chan@sjsu.edu or (408) 808-2044. Peggy Cabrera is the Kinesiology reference librarian; 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 materials 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.

SJSU Writing Center

The Writing Center in Clark Hall 126 offers tutoring services to San Jose State students in all courses. Writing Specialists assist in all areas of the writing process, including grammar, organization, paragraph development, coherence, syntax, and documentation styles. For more information, visit the Writing Center website at <http://www.sjsu.edu/writingcenter> or call 924-2308.

Student Technology Resources

Computer labs for student use are available in the new Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Computers are also available in the Martin Luther King Library.

Learning Assistance Resource Center

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to inspire them to become independent learners. The Center's tutors are trained and nationally certified by the College Reading and Learning Association (CRLA). They provide content-based tutoring in many lower division courses (some upper division) as well as writing and study skills assistance. Small group, individual, and drop-in tutoring are available. Please visit the LARC website for more information (<http://www.sjsu.edu/larc/>).

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 (11)	3, 4, 6, 8, 9, 11
Exam 2	50 (11)	3, 4, 6, 8, 9, 11
Exam 3	50 (11)	3, 4, 6, 8, 9, 11
Exam 4	50 (11)	3, 4, 6, 8, 9, 11
Critical Analysis of Scientific Literature #1	50 (11)	1, 5, 6, 7, 8, 9
Critical Analysis of Scientific Literature #2	50 (11)	1, 5, 6, 7, 8, 9
Critical Evaluation of Consumer Product #1	50 (11)	2, 5, 6, 7, 8, 10, 11, 12
Critical Evaluation of Consumer Product #2	50 (11)	2, 5, 6, 7, 8, 10, 11, 12
Oral Presentation	50 (11)	2, 5, 6, 7, 8, 9, 10, 11
Total Points	450 (100)	

- 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 arranging a make-up date **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 work day (M-F), or partial calendar day, that assignments are late. Assignments 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 before turning in a hard copy at the start of class on the due date. You will receive a 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.

- **4 Papers:** 45%. 3000 words

2 Critical Evaluations of Consumer Products @ 2-3 pages each	4-6 pages 1000-1500 words
2 Research Analyses of Scientific Literature @ 2-3 pages each	4-6 pages 1000-1500 words
Total	8-12 pages

- **4 Exam:** 45%
- There are two exams that evaluate knowledge of concepts relating to fitness and two exams that evaluate nutrition knowledge. The final exam is not cumulative.

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		

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. 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.

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 the instructor as soon as possible. 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 peer-reviewed journals and on-line resources should be used for your written assignments and oral presentation.

Journals (partial list)

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

On-Line Resources (partial list)

American College of Sports Medicine	www.acsm.org
American Dietetic Association	www.eatright.org
American Medical Association	www.ama-assn.org
Australian Institute of Sport	www.ais.org.au/sssm/index.asp
Centers for Disease Control	www.cdc.gov
Food and Drug Administration	www.fda.gov
Government Healthfinder	www.healthfinder.gov
International Food Information Council	www.ific.org
Medline: www.sjlibrary.org website for access to database	www.ncbi.nlm.nih.gov/pubmed/
MyPlate.gov	www.myplate.gov
National Institutes of Health	www.nih.gov
New England Journal of Medicine	www.nejm.org
Physician and Sportsmedicine	www.physsportsmed.com
Sports Science Exchange	www.gssiweb.com
Sport Science Organization	www.sportsci.org
U.S. Food and Drug Administration	www.fda.gov
World Health Organization	www.who.int/en

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

DATE	TOPIC	READING ASSIGNMENTS	DUE
W 1/25	Course Overview	Greensheet	
	Introduction to the Six Nutrients Introduction to the Scientific Method	IFIC Article on web site W: pp. 25-28	
	Supplements Ergogenic Aids and Sports Performance Nutrition Quackery	W: pp. 19-25, 66-68, 240-245, 382-383, 425-426, 533-539, 544-554, ADA handout on web site	
W 2/1	Dietary Reference Intakes My Plate (new Pyramid) Dietary Guidelines for Americans	W: pp. 38-53, 60-65, inside front cover and back cover of textbook	
W 2/8	Food Labels Vegetarianism Carbohydrates	W: pp. 60-65 W: pp. 53-59 W: Chap. 4	Analysis of Scientific Lit #1 – Article on faculty page
W 2/15	Fats Protein	W: Chap. 5 W: Chap. 6	Consumer Product Analysis 1- Ad provided in class
W 2/22	EXAM 1 (only up to the Fats chapter, does not include Protein)		EXAM 1 – Bring a T&E 200
W 2/29	Oral Presentation – Groups 1-4		Analysis of Scientific Literature #2 for those presenting
W 3/7	Weight Management & Disordered Eating	W: pp. 428-432, 441-469	
W 3/14	EXAM 2 (covers Ch's 6, 10 and 11)		EXAM 2 – Bring T&E 200

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

W 1/25	Physical Fitness, Health & Wellness Fitness Components, Fitness Principles, Energy metabolism, Science v. pseudo- Science, Cardio respiratory endurance	FIR: Chaps. 1 & 2 FIR: Chap. 3	Review Lit# 1
W 2/1	Energy Systems Flexibility Fitness program design	FIR: Chap. 3 FIR: Chap. 5 FIR: Chap. 7	Group assignment and review of oral presentation requirements
W 2/8	Stress and stress management Cardiovascular health, fitness and aging	FIR: Chap. 10 FIR: Chap. 11	Turnitin Lit 1 due
W 2/15	Cancer Exam 1 (T&E 0200)	FIR: Chap. 12	Review Consumer Product Analysis #1
W 2/22	Oral Presentation group 1 & 2 Thermoregulation water and environmental stress		Turnitin Analysis of Scientific Literature #2 for those presenting
W 2/29	Oral Presentation group 3 & 4 Muscular strength and endurance	FIR: Chap. 4	Turnitin Analysis of Scientific Literature #2 for those presenting
W 3/7	Body Composition	FIR: Chap. 6	Consumer Product Analysis #1 due
W 3/14	Exam 2 (T&E 0200)		

* 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 2nd half of the semester is NUTRITION

DATE	TOPIC	READING ASSIGNMENTS	DUE
W 3/21	Introduction to the Six Nutrients Introduction to the Scientific Method	IFIC Article on web site W: pp. 25-28	
	Supplements Ergogenic Aids and Sports Performance Nutrition Quackery	W: pp. 19-25, 66-68, 240-245, 382-383, 425-426, 533-539, 544-554, ADA handout on web site	
3/28	SPRING BREAK		NO CLASS
W 4/4	Dietary Reference Intakes My Plate (new Pyramid) Dietary Guidelines for Americans	W: pp. 38-53, 60-65, inside front cover and back cover of textbook	
W 4/11	Food Labels Vegetarianism Carbohydrates	W: pp. 60-65 W: pp. 53-59 W: Chap. 4	Consumer Product Analysis 2-Ad provided in class
W 4/18	Fats Protein	W: Chap. 5 W: Chap. 6	
W 4/25	EXAM 3		EXAM 3 – Bring a T&E 200
W 5/2	Oral Presentation – Groups 5-8		Analysis of Scientific Literature #2 for presenters
W 5/9	Weight Management & Disordered Eating	W: pp. 428-432, 441-469	
M 5/23	FINAL EXAM – WEDNESDAY 5:15pm		FINAL EXAM - Bring a T&E 200

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

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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 2nd half of the semester is FITNESS

W 3/21	Physical Fitness, Health & Wellness Fitness Components, Fitness Principles, Energy metabolism, Science v. pseudo- Science, Cardio respiratory endurance	FIR: Chaps. 1 & 2 FIR: Chap. 3	
W 3/28	NO CLASS SPRING RECESS		
W 4/4	Energy Systems Flexibility Fitness program design	FIR: Chap. 3 FIR: Chap. 5 FIR: Chap. 7	Group assignment and review of oral presentation requirements
W 4/11	Stress and stress management Cardiovascular health, fitness and aging	FIR: Chap. 10 FIR: Chap. 11	
W 4/18	Cancer Exam 3 (T&E 0200)	FIR: Chap. 12	Review Consumer Product Analysis #2
W 4/25	Oral Presentation group 5 & 6 Thermoregulation water and environmental stress		Turnitin Analysis of Scientific Literature #2 for those presenting
W 5/2	Oral Presentation group 7 & 8 Muscular strength and endurance	FIR: Chap. 4	Turnitin Analysis of Scientific Literature #2 for those presenting
W 5/9	Body Composition	FIR: Chap. 6	Consumer Product Analysis #2 due
W 5/23	FINAL EXAM - 5:15pm		Bring a T&E 200

* 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*

Name _____

GRADING SHEET FOR *RESEARCH ANALYSIS OF SCIENTIFIC LITERATURE*
ATTACH THIS SHEET TO THE FRONT OF YOUR PAPER

Content and Clarity of Analysis (ability to critically analyze scientific literature)

Poor	Fair	Average	Good	Very Good
0-17	18-20	21-23	24-27	28-30

Quality of Writing (syntax, grammar, spelling)

Poor	Fair	Average	Good	Very Good
0-7	8-9	10-11	12-13	14-15

Appearance/format/followed directions

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

Comments _____

Deductions:

-5 if late (for each calendar day or partial day late)

Deductions _____

Total possible points = 50

Your Total _____

PLAGIARISM CONTRACT

I acknowledge that I have not committed plagiarism in the process of writing this paper. I acknowledge that this paper is solely the product of my own work. I understand that plagiarism will result in a ZERO for the paper and other possible academic sanctions.

PRINT Name _____

Signature _____ Date _____

Name _____

GRADING SHEET FOR *RESEARCH ANALYSIS OF SCIENTIFIC LITERATURE*
ATTACH THIS SHEET TO THE FRONT OF YOUR PAPER

Content and Clarity of Analysis (ability to critically analyze scientific literature)

Poor	Fair	Average	Good	Very Good
0-17	18-20	21-23	24-27	28-30

Quality of Writing (syntax, grammar, spelling)

Poor	Fair	Average	Good	Very Good
0-7	8-9	10-11	12-13	14-15

Appearance/format/followed directions

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

Comments _____

Deductions:

-5 if late (for each calendar day or partial day late)

Deductions _____

Total possible points = 50

Your Total _____

PLAGIARISM CONTRACT

I acknowledge that I have not committed plagiarism in the process of writing this paper. I acknowledge that this paper is solely the product of my own work. I understand that plagiarism will result in a ZERO for the paper and other possible academic sanctions.

PRINT Name _____

Signature _____ Date _____

RESEARCH ANALYSIS OF SCIENTIFIC LITERATURE

Be sure to consider the suggestions in the class handout “How to Understand and Interpret Food and Health-Related Scientific Studies” for analyzing the articles. In addition, answer the following questions, but *do not* limit your analysis to these questions only:

Introduction/Objectives:

Did the authors give a succinct statement of the problem, explaining why the research was conducted? Briefly describe the problem and/or rationale for the study. What were the objectives and research questions? Were they clearly stated?

Methods:

Describe the type of research design used for the study. Were criteria for well-controlled research utilized? If it was an experimental design, was the “gold standard” utilized? Were the research methods and/or study design carefully described? (Did the authors provide enough information for the study to be replicated?) Were the methods and study design appropriate for meeting the objectives of the study? Were instruments/indicators appropriate for the populations being studied? Were there any apparent methodological flaws? Would there be any confounding variables to consider? Explain.

Results:

How were the results reported? Could the tables/graphs, if used, “stand alone”? Were the findings presented in such a way that you would be able to answer the research question posed? Were the findings reported without bias? Explain why or why not. Can the results be generalized to other populations? How does this work fit within the body of research?

Discussion/Conclusion:

Was the discussion pertinent to the objectives of the study? Was a critical evaluation made of the study, including methods and interpretation of data? Were strengths and limitations noted? What are the some of the strengths and limitations? Was the significance of the study discussed and what, if any, significance does it have? What applications do the findings have to the “real world”? In what direction should future research in this area focus?

Directions

Using these guidelines, write a 2-page research analysis on each of the following:

The first article will be selected by your instructor. This article critique will be corrected in detail for grammar and critical thinking. This feedback should serve to help you make improvements in writing and critical evaluation abilities prior to being graded on the subsequent paper, which will be the article you will use for your presentation.

See due dates for the two different analyses on course syllabus.

Each student must do his/her own work; plagiarism will not be tolerated and will result in a failing grade if it occurs. The assignments will not be accepted unless accompanied by the plagiarism form and submitted to turnitin.com prior to turning in the hard copy to your instructor

Grading Criteria

30 points for analysis, content and clarity
15 points for writing (grammar, spelling, syntax)
5 points for format/adherence to guidelines

Form and Style Guidelines

Your paper should:

- be written in narrative, paragraph format.
- be written in the 3rd person, and use “past tense” when describing the research.
- be typed, double spaced, and 2 pages in length.
- be in a font size that is New York Times 12 point or similar size (easy to read).
- be left justified and have 1 inch margins.
- be submitted in a plain file folder (do not use any other type of folder).
- be submitted to turnitin.com

NuFSP/KIN 163 - RUBRIC FOR CRITICAL ANALYSIS OF SCIENTIFIC LITERATURE

“A” papers (receiving 90% or more of the total points) have the following characteristics:

- carefully follow the content guidelines given by the instructor; all questions of the critique are answered
- carefully follow the guidelines for format, which includes not exceeding by more than one-half page the maximum double-spaced pages allowed
- are written in standard English, at an upper division college level, with complete sentences and appropriate paragraphs
- are free of redundancies, and have, at most, only a couple of errors in spelling and grammar
- develop each section of the critique in a clear and logical fashion; contain smooth transitions from one sentence or idea to another (flow well)
- include insightful interpretation that goes beyond the obvious or what the authors disclosed
- cover all of the major aspects of the assignment without going off track or padding
- are turned in on the due date and prior to the start of lecture

“B” papers (receiving 80-89% of the total points) differ from an “A” report in *one or more* of the following ways:

- show less care in following the guidelines
- have a few lapses in good writing
- have less than full clarity in expression of ideas and interpretations
- show some tendency to go off track, pad the paper, or have redundancies
- are turned in one day or partial day late (after the start of lecture)

“C” papers (receiving 70-79% of the total points) differ from an “A” paper in usually *more than one* of the following ways:

- show minimal care in following guidelines
- have more than a few lapses in good writing
- use some ambiguous descriptions in the analysis or interpretation
- go off track, pad the paper, or have redundancy in more than one instance
- are turned in two days after the due date

Less than “C” papers (receiving less than 70% of the total points) differ from an “A” paper in usually *more than one* of the following ways:

- show no care in following the guidelines
- have numerous lapses in good writing
- most of the interpretations and comments are described in an unclear manner
- frequently wander off track, pad the paper, or have redundancies
- are turned in more than two days after the due date

GROUP ORAL PRESENTATION

Name _____

In a plain file folder, please turn in this grade sheet along with your Analysis of Scientific Literature #2 (and the grade sheet) plus a copy of the scientific article.

1. Adherence to time guidelines

poor	below average	average	above average	excellent
0	.5	1	1.5	2
2. Organization of presentation/preparedness

poor	below average	average	above average	excellent
0	.5	1	1.5	2
3. Clarity and evidence of understanding the material

poor	below average	average	above average	excellent
0	.5	1	1.5	2
4. Effectiveness of oral presentation (delivered without excessive note reading)

poor	below average	average	above average	excellent
0	.5	1	1.5	2
5. Originality of material (not plagiarized from text or reference)

poor	below average	average	above average	excellent
0	.5	1	1.5	2
6. Adequate review of research articles

poor	below average	average	above average	excellent
0	.5	1	1.5	2
7. Ability to critically evaluate scientific research

poor	below average	average	above average	excellent
0	.5	1	1.5	2
8. Ability to define/demonstrate practical application of material

poor	below average	average	above average	excellent
0	.5	1	1.5	2
9. Effective use of visual aids/ability to interest audience

poor	below average	average	above average	excellent
0	.5	1	1.5	2
10. Appropriateness of nutrition/fitness article

poor	below average	average	above average	excellent
0	.5	1	1.5	2
11. Ability to compare & contrast article with other articles in group/contributing to group summary & conclusions

poor	below average	average	above average	excellent
0-1	2	3	4	5

Points – Individual _____ / 25

Points – Group Average _____ / 25

GRAND TOTAL _____ / **50**

ORAL PRESENTATION GUIDELINES

Each group will engage in a cooperative effort whereby *each* individual in the group will be allowed approximately **5 minutes** to lead a discussion on his/her article (original research) related to the **specific, assigned topic**. Each individual should try to approach the topic from a different angle and **MUST** use a different journal article. Your instructor will assist you in determining topics for your presentation, and the presentation should go beyond the scope of the textbook. Students are encouraged to focus on current topics in nutrition and exercise or controversial issues. Instructor approval is needed (1 week in advance) regarding the appropriateness of your article.

Preparation

To prepare for this presentation, each student is required to review **one original research article** (primary reference), but can also use textbooks for additional background and supportive material. The information from this article must be incorporated into the presentation, and your reference(s) must be cited during the presentation when used. Please cite by authors' last names and year of publication. Each student in the group is to present on a different study that deals with a unique angle of the group's topic. When possible, a variety of opinions/sides of the topic is encouraged.

Presentation

The presentation should include an evaluation (critique) of the research article, including the purpose of the research, methodology, results, conclusions, limitations, and applications to the "real" world. Studies should be compared and contrasted, and students are encouraged to evaluate studies that vary in their findings. Students should be creative and use any or all of the following in their presentations: demonstrations, visual aides (such as overheads, charts, handouts), and other techniques to inform and interest the class. If you need university audiovisual equipment, you must place your request at least 7 days before your presentation.

Questions will be posed to the group after the presentation by the instructor, as well as other students. Discussion of the presentation can help to assess the class knowledge of the presented material. Material in these oral presentations will then be tested in class exams.

The group should have an introduction to the topic, as well as a conclusion that summarizes the topic and provides a "bottom line" for the students in class. This should be done as a collaborative effort by all members of the group, and is in addition to each student's detailed review of his/her article.

Paper

Each student must also provide a paper (typed) to the instructor prior to the presentation. This paper serves as "Analysis of Scientific Literature #2" and should follow the same format and instructions used for the first scientific literature analysis. Turn in the appropriate grading sheet for the analysis paper. This paper will be corrected separately from the presentation and returned to you.

EVALUATION OF THE ORAL PRESENTATIONS

The instructors will evaluate the assignment based on the following criteria:

- Adherence to time guidelines
- Organization of presentation/preparedness
- Clarity and evidence of understanding the material
- Effectiveness of oral presentation (delivered without excessive reliance on notes)
- Originality of material presented (not copied verbatim from references)
- Adequate review of research articles
- Ability to critically evaluate scientific research
- Ability to define/demonstrate practical application of the material
- Effective use of visual aids/ability to interest audience
- Appropriateness of nutrition/fitness topic
- Ability to compare & contrast article with other articles in group/contributing to group summary & conclusions

This assignment is worth a total of 50 points and grades will be assigned as follows:

1. Up to 25 points for each individual contribution
2. Up to 25 points as a group grade (the group grade will be the average percentage of the sum of the individual grades)

APPENDIX A – ORAL PRESENTATION TOPICS

These topics are for the Oral Presentations. Each group will be asked to choose 1 topic.

LIPIDS / FAT

- Dietary fat recommendations/needs for the young (< 2 yr olds)
- Research in the area of dietary fat and various cancers
- Omega-3 fatty acid (linolenic acid) and treatment of diseases
- Fat replacements used in the food industry, i.e., Olestra

PROTEIN SUPPLEMENTS

- Whey protein supplements for weight (muscle) gains
- Glutamine and the immune system and/or muscle recovery in athletes
- Creatine supplementation- effects on strength performance
- Creatine supplementation- effects on endurance performance
- Nitrogen balance studies in determining protein needs for athletes
- Branched-chain amino acids and exercise performance

DRUGS/SUPPLEMENTS FOR WEIGHT CONTROL

- Evaluating Hydroxycitrate supplement for weight loss
- Evaluating Chromium supplements for weight loss
- Evaluate Pyruvate supplements for weight loss
- Evaluate/review the “Phen-Fen” drugs
- Evaluate/review the over-the-counter drug Phenylpropanolamine
- Evaluate Ephedrine (ephedra) and weight loss

DISORDERED EATING ISSUES

- Eating disorders - case studies, adverse complications, therapies, etc.
- Childhood obesity- prevalence, causes, and treatment
- Research in the area of obesity and genetics

VITAMINS & MINERALS IN HEALTH

- Vitamin E’s role in reducing risk of heart disease or cancer
- Zinc and the common cold
- Folic acid deficiency and birth defects
- Folic acid, B6, and/or B12’s role in preventing heart disease
- Iron deficiency effects in the young (children)
- Vitamin D status and supplementation in the older population

VITAMINS & MINERALS IN EXERCISE PERFORMANCE

- Iron deficiency & anemia in female athletes
- Coenzyme Q10 and exercise performance
- Vanadium and body composition
- Antioxidant supplementation and exercise (such as vitamin E and vitamin C)
- Medium-chain triglyceride (MCTs) and exercise performance/body comp

CRITICAL EVALUATION OF CONSUMER PRODUCT INFORMATION SHEET

Purpose of the Assignment

To evaluate a printed advertisement for a food, food supplement, exercise program, or piece of exercise equipment in an effort to encourage the student to become a more critical consumer. The advertisement will be evaluated by comparing the claims made in the ad to scientific evidence and research findings.

Assignment Format

You must also download your paper to www.turnitin.com prior to turning the assignment in for grading. Course code # and password will be provided in class by your instructor.

Page 1: Critical Evaluation of Consumer Product Grading Sheet

Page 2: Plagiarism Contract

Page 3: Advertisement

Tape, glue, or staple the original advertisement to an 8.5 by 11 inch sheet of paper. Provide the source of the advertisement, giving title, page, and date of publication. Pick an advertisement that has some substance to it; the less the ad says, the harder it is to critique. *Please note: Original advertisements should not come from library sources/magazines!* If the advertisement is given to you by the instructor, a copy of the ad (rather than the original) will be used.

Pages 4-6: Evaluation

This section contains your evaluation of *both* the ad itself and the product advertised; it should be no longer than 2-3 pages. You should comment on the positive aspects (praise) and the negative aspects (criticism) of the ad. Your analysis should be in paragraph form, and critical comments should be well developed. You should make limited use of quotations; references should be paraphrased. If you use quotes, statements must be in proper form (e.g., use quotation marks and cite page for quoted material). You must cite your references, using APA format, to support your statements. In the text of your paper, author & year should be indicated. If there are more than 2 authors, you may use “et al.” in text (however, remember to include all names on Reference Page.) For direct quotes, also include page numbers. See examples below:

“According to Maughan et al. (1995), creatine supplementation has been shown to significantly increase total body mass over a 4 week period.”

“Caffeine is a diuretic and also stimulates metabolism” (Williams, 2005, p.184).

When critically **evaluating the product**, consider the following questions, if appropriate, but *do not* limit your critique to only these questions:

- Is the use of this product supported by scientific evidence? If so, are there any conflicting results among various studies? Do the participants’ age, health condition, fitness level, etc. match those for whom the ad is directed? Were there limitations and/or flaws in these studies? Describe the studies, as appropriate, to defend your statements and give evidence for or against the claims made in the ad.
- What, if any, contribution would the consumption of the product make to the nutrient intake, physique, or fitness level of the intended consumer?
- Could some less expensive product be used to obtain the same results?

- What hazards might be associated with the use of this product? Are there any conditions (e.g., medical, age-related) that would contraindicate the use of the product?

When critically **evaluating the advertisement**, comment on the text, and use of color and graphics. You need to also consider the following questions:

- Who appears to be the intended consumer?
- What techniques are used to draw the attention of the reader? Are they successful?
- Is the ad straightforward and factual? Explain
- Is any important information omitted? (You may need to find the product at the market and read the label to determine this.)
- What, if any, gimmicks are used to sell the product? If gimmicks are used, are they successful?

Page 7: References

Title- this is a separate page and should be headed “References” at the top of the page.

List the source of the advertisement, and alphabetically list the references used to support your evaluation. Do not alphabetize “within” each reference, changing the original order of authors. However, alphabetize your order among the various references, using the last name of the 1st author of each reference.

You may use the course textbooks. However, in addition, **you must use at least 3 other reliable (HIGH QUALITY) references to support your analysis. References need to be current (published within the last 10 years) and must be cited in the evaluation and they must be research based.** Give the full publication information of each reference used, including all author(s), title of article and journal or title of book, year of publication, volume or edition, and page number(s).

Indentation – Note that the format for the reference list uses hanging indents (1st line of each reference citation is flush left, additional lines are indented 5 spaces. The sample reference list is formatted with hanging indents.

Capitalization - Capitalize only the first word of book titles and articles and the first word after a colon. However, for name of journals, capitalize first letter of all major words.

Punctuation - Use a comma to separate:

- surnames from initials
- a journal title from volume number
- a volume number from page numbers
- when given, an issue number from page numbers
- (Ed.) from book title
- city of publication from state
- Spacing - All entries should be *double-spaced*.

Use American Psychological Association (APA) format for reference citations -- see examples below.

Journal article:

Volek, J. S., Duncan, N. D., Mazetti, S. A., Putukian, M., Gomez, A. L., & Kraemer, W. J. (2000). No effect of heavy resistance training and creatine supplementation on blood lipids. *International Journal of Sports Nutrition*, 10(2), 144-156.

Book (other than first edition):

Whitney, E., & Rolfes, S. (2005). *Understanding nutrition* (10th ed.). Belmont, CA: Thomson Wadsworth.

Article or chapter in edited book:

Eiser, S., Redpath, A., & Rogers, N. (1987). Outcomes of early parenting: Knowns and unknowns. In

A. P. Kern & L. S. Maze (Eds.), *Logical thinking in children* (pp. 58-87). New York: Springer.

Electronic Reference (see note of caution below):

Mack, G. W., & Bergeron, M. F. (May 30, 1997). *Hydration and physical activity: Scientific concepts and practical applications*. Retrieved August 30, 2004 from, <http://www.gssiweb.com/hydr.html>

You do not need to submit a hard copy of your references so long as your reference page is complete with all required information.

Quality of References: Acceptable references include any reliable, professional, nutrition, physical education, sports medicine, or scientific journal or book. Unacceptable references include popular magazines (e.g., *Runner's World*, *American Health*, *Prevention*, *Muscle and Fitness*) or popular books (*The Zone Diet*, *Fit for Life*, *50 Ways to Stay Fit on a Busy Schedule*, *Total-Life Exercise Book*). **IF YOU ARE UNSURE OF THE RELIABILITY OF A REFERENCE, CHECK WITH YOUR INSTRUCTOR!**

Refer to the syllabus for a partial list of acceptable periodicals and on-line resources.

Use of WWW pages: The World Wide Web (WWW) is an unmonitored, unrefereed source of information. Consequently, information may be accurate or inaccurate, and each page must be judged for accuracy and reliability. Authoritative web pages are written by individuals with appropriate credentials (e.g., Ph.D., R.D., M.D., etc.) and should cite references used to write the page. Pages that are sponsored or maintained by the seller of a product are most often biased toward the product and should be read with this in mind. When using internet resources, we highly recommend using only journal articles (or articles coming from professional sources). Again, if you are unsure of the reliability of the source, check with your instructor.

General Paper Form and Style Guidelines

Your paper must:

- be written in narrative, paragraph format.
- be written in the 3rd person.
- be written in the past tense when describing the research study.
- be in a font size that is New York Times 12 point or similar size (easy to read).
- be typed, double spaced.
- be left justified (but do not right justify/align, which centers the text); have 1 inch margins all around.
- have numbered pages.
- be submitted in a plain file folder with your name on the tab (do not use any other type of folder), along with a copy of your references.
- be submitted to www.turnitin.com prior to turning in your hard copy of the paper on the due date.

Name _____

CRITICAL EVALUATION OF CONSUMER PRODUCT

(Attach this to the front of your paper)

Grading Criteria

* Format/appearance/organization

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

* References (number, quality, complete reference information in APA format)

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

* Use of references in paper (appropriate citations for all references)

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

* Quality of writing (syntax, grammar, spelling)

Poor	Fair	Average	Good	Very Good
0-5	6	7	8	9-10

* Critical evaluation of advertisement (text, color, graphics)

Poor	Fair	Average	Good	Very Good
0-5	6	7	8	9-10

* Critical evaluation of product (how claims of ad relate to scientific evidence)

Poor	Fair	Average	Good	Very Good
0-7	8-9	10-11	12-13	14-15

Subtotal _____

Deductions:

-5 if late (for each calendar day late)

Deductions _____

Total possible points = 50

Your Total _____

PLAGIARISM CONTRACT

I acknowledge that I have not committed plagiarism in the process of writing this paper. I have cited the appropriate sources and given credit to the authors' works. I acknowledge that this paper is my own work. I understand that plagiarism will result in a "0" for the paper, and other possible academic sanctions, including a report to academic authorities.

Name _____

Signature _____

Date _____

Name _____

CRITICAL EVALUATION OF CONSUMER PRODUCT

(Attach this to the front of your paper)

Grading Criteria

* Format/appearance/organization

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

* References (number, quality, complete reference information in APA format)

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

* Use of references in paper (appropriate citations for all references)

Poor	Fair	Average	Good	Very Good
0-1	2	3	4	5

* Quality of writing (syntax, grammar, spelling)

Poor	Fair	Average	Good	Very Good
0-5	6	7	8	9-10

* Critical evaluation of advertisement (text, color, graphics)

Poor	Fair	Average	Good	Very Good
0-5	6	7	8	9-10

* Critical evaluation of product (how claims of ad relate to scientific evidence)

Poor	Fair	Average	Good	Very Good
0-7	8-9	10-11	12-13	14-15

Subtotal _____

Deductions:

-5 if late (for each calendar day late)

Deductions _____

Total possible points = 50

Your Total _____

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I acknowledge that I have not committed plagiarism in the process of writing this paper. I have cited the appropriate sources and given credit to the authors' works. I acknowledge that this paper is my own work. I understand that plagiarism will result in a "0" for the paper, and other possible academic sanctions, including a report to academic authorities.

Name _____

Signature _____

Date _____

FOR CRITICAL ANALYSIS OF SCIENTIFIC LITERATURE

“A” papers (receiving 90% or more of the total points) have the following characteristics:

- carefully follows the content guidelines given by the instructor; all questions of the critique are answered
- carefully follows the guidelines for format; which includes not exceeding by more than one-half page the maximum double-spaced pages allowed
- are written in standard English, at an upper division college level, with complete sentences and appropriate paragraphs
- are free of redundancies, and have, at most, only a couple of errors in spelling and grammar
- develops each section of the critique in a clear and logical fashion; develops smooth transition from one sentence or idea to another so as to provide flow
- includes insightful interpretation that goes beyond the obvious or what the authors disclosed
- covers all of the major aspects of the assignment without going off track or padding
- are turned in on the due date and prior to the start of lecture

“B” papers (receiving 80-89% of the total points) differ from an “A” report in *one or more* of the following ways:

- show less care in following the guidelines
- have a few lapses in good writing
- have less than full clarity in expression of ideas and interpretations
- show some tendency to go off track, pad the paper or have redundancies
- are turned in one day or partial day (after the start of lecture) late

“C” papers (receiving 70-79% of the total points) differ from an “A” paper in usually *more than one* of the following ways:

- show minimal care in following guidelines
- have more than a few lapses in good writing
- use some ambiguous descriptions in the analysis or interpretation
- go off track, pad the paper or have redundancy in more than one instance
- are turned in two days after the due date

Less than “C” papers (receiving less than 70% of the total points) differ from an “A” paper in usually *more than one* of the following ways:

- show no care in following the guidelines
- have numerous lapses in good writing
- most of the interpretations and comments are described in a very unclear manner
- frequently wander off track, pad the paper, or have redundancies
- are turned in more than two days after the due date

San Jose State University

NuFSP/KIN 163- Physical Fitness and Nutrition

Departments of Human Performance and Nutrition & Food Science

SAMPLE IN-CLASS ACTIVITY

Nutrition Research on Diets for Weight Loss

Researcher “John Doe” wanted to study the effects of diet on weight loss. He placed an ad in the San Jose newspaper asking interested readers to serve as participants in a research study. Participants were eligible for the study, if they had followed a diet protocol within the last five years that resulted in successful weight loss. Participants were offered \$50 to serve as members of the study. There were 400 respondents, primarily women (30-45 years of age) who were willing to serve as participants. To participate in the study, the respondents were required to meet with the researcher in his office to complete a questionnaire that involved the following: (a) general questions about their weight loss (including amount of weight loss); and (b) identification of the kinds and amounts of foods consumed during their diet protocol. After analyzing the data, Researcher Doe found that 75% of the participants who experienced the greatest weight loss had followed Dr. Smith’s high protein diet. His conclusion was that “people need to eat high protein diets to lose *body fat*”; this conclusion was on the front page of the city’s newspaper for an entire week.

Students will provide written responses for the questions that follow; responses will be evaluated and used later for class discussions.

- What type of research did Researcher Doe conduct?
- What are your concerns about his study, including flaws in his methodology, limitations and confounding factors, and the generalizability of his results?
- Was his conclusion justified by the data gathered?
- How would you conduct the study differently?