

**San José State University**  
**CHaHS/Departments of Nutrition, Food Science, & Packaging and Kinesiology**  
**NuFS/KIN 163, Physical Fitness & Nutrition**  
**Fall '18, Sections 9 & 10**

<b>Department</b>	<b>KIN</b>	<b>NUFS</b>
<b>Instructor</b>	Farzaneh Ghasvand, Ph.D.	Toni Bloom
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<b>Office hours</b>	Tuesday and Thursday 10:30-11:30 am	Mon & Wed 10:15-10:30 IS215 Mon & Wed 11:45-12:00 IS215 Mon & Wed 1:15-1:30 IS215 Mon & Wed 2:45-3:00 IS215
<b>Turnitin.com</b>	All fitness papers are to be uploaded to Canvas	All nutrition papers are to be uploaded to Canvas AND hard copy in class
<b>Class days/time</b>	Section 9 & 10: MW, 12:00 pm– 1:15 pm	
<b>Classroom</b>	Section 9: Industrial Studies 215 Section 10: Clark Building 302	
<b>Prerequisites</b>	“Passage of the Writing Skills Test (WST) or ENGL/LLD 100A with a C or better (C- not accepted), and completion of Core General Education are prerequisite to all SJSU Studies courses. Completion of, or co-registration in, 100W is strongly recommended. A minimum aggregate GPA of 2.0 in GE Areas R, S, & V shall be required of all students.”  Not for nutrition majors or minors	
<b>GE - SJSU Studies</b>	Area R – Earth & Environment	

**Faculty Web Page and MYSJSU Messaging**

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found the [Canvas Learning Management System course login website](http://sjsu.instructure.com) at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through [MySJSU](http://my.sjsu.edu) at <http://my.sjsu.edu> (or other communication system as indicated by the instructor) to learn of any updates.

**Course Description**

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)

## **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.

## **General Education Learning Outcomes (GELOs)**

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

- GELO 1: Demonstrate an understanding of the methods and limits of scientific investigation. The “Analysis of Scientific Literature” assignment is keyed to this Area R GELO. 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, students will critically evaluate the strengths and weaknesses of the scientific research (including the research design, methods, and discussion), and see how the research fits into the larger scope of literature on a particular topic.
- GELO 2: Distinguish science from pseudo-science. The assignment keyed to this Area R GELO is the nutrition and fitness “Consumer Product” paper. Students will critically evaluate the credibility of nutrition and exercise information presented in an advertisement 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.
- GELO 3: Apply a scientific approach to answer questions about the earth and environment. The assignment keyed to this Area R GELO is the “Oral Presentation,” which requires students to use primary research to answer questions related to fitness and nutrition.

## **Course Learning Outcomes (CLOs)**

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

- CLO 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.
- CLO 2: Identify social, cultural, ethnic, and environmental factors that influence food habits and exercise/activity patterns.
- CLO 3: Examine the biochemical and physiological effects of exercise and various nutritional practices.
- CLO 4: Describe the different exercise guidelines and nutritional requirements related to gender and diverse populations.
- CLO 5: Assess the advantages/disadvantages of recent advances in new food formulations, and new exercise and fitness equipment for the general population.
- CLO 6: Identify the scientific principles involved in studying pathophysiology in human populations.

## **Required Texts**

Williams, M. H., Anderson D. E., & Rawson, E. S. (2017). *Nutrition for health, fitness, and sport* (11<sup>th</sup> ed.). Boston: McGraw-Hill. ISBN:9781259953996. 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. (2017). *Fit & well* (12<sup>th</sup> ed.). Boston: McGraw-Hill. ISBN: 9781260025675. This text will be known as “FIR” in the proposed schedule.

## Library Liaison

Emily Chan is the NuFS reference librarian, [emily.chan@sjsu.edu](mailto:emily.chan@sjsu.edu). Phone number: (408) 808-2044. Adriana Poo is the KIN reference librarian, [adriana.poo@sjsu.edu](mailto:adriana.poo@sjsu.edu). Phone number: (408) 808-2019.

## 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.

## Course Requirements and Assignments

Assignment	Points (%)	GELO	CLOs
Exam 1	50 (12)		1,2,3,4,6
Exam 2	50 (12)		
Exam 3	50 (12)		
Exam 4 (not cumulative over fitness & nutrition)	50 (12)		
Analysis of Scientific Literature #1	20 (5)	1	
Analysis of Scientific Literature #2	50 (12)	1	
Consumer Product: Fitness	50 (12)	2	5
Consumer Product: Nutrition	50 (12)	2	5
Oral Presentation on Analysis of Scientific Literature #2	50 (12)	3	
<b>Total Points</b>	420 (100)		

- Examination questions will be based on assigned readings, lectures, class discussions, and presentations. Your instructor will indicate which answer sheet or scantron form is needed. Bring a #2 pencil and calculator to all exams. Examinations will be given 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 before the next class meeting. Exam 4 will be administered during the final exam period for this class.
- 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, or partial calendar day, that assignments are late. Assignments will not be accepted 1 week past due date.

- All assignments written outside of class must be typed and double spaced. Unless otherwise noted by the instructor, students should not use direct quotations or copied material from scientific sources. Instead, students should paraphrase source information and use appropriate APA citation format, including the source’s author(s) and year of publication. Individual instructors will provide procedures to be used for electronic submission and plagiarism screening via turnitin.com.
- Writing in general education courses is assessed for grammar, content, clarity, conciseness, and coherence. The SJSU Writing Center, located in Clark Hall, Suite 126, offers one-on-one tutoring services and workshops. To make an appointment or refer to the online resources offered through the Writing Center, visit the Writing Center website at <http://www.sjsu.edu/writingcenter>.
- Guidelines for the Analysis of Scientific Literature, Consumer Product, and Oral Presentation will be discussed in class and available on faculty or course web sites.
- Consistent with guidelines for SJSU Studies courses, students will write a minimum of 3,000 words:
  - Analysis of Scientific Literature #1                      3-4 pages or 750-1,000 words
  - Analysis of Scientific Literature #2                      3-4 pages or 750-1,000 words
  - Consumer Product: Fitness                                3-4 pages or 750-1,000 words
  - Consumer Product: Nutrition                              3-4 pages or 750-1,000 words
- [University Policy S16-9](http://www.sjsu.edu/senate/docs/S16-9.pdf), Course Syllabi (<http://www.sjsu.edu/senate/docs/S16-9.pdf>) describes the expected time commitment for SJSU classes: “Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practice. Other course structures will have equivalent workload expectations as described in the syllabus.”

### Assignment of Grades

97-100% (406-420 pts) = A plus	93-96% (390–405) pts = A	90-92% (377-389 pts) = A minus
87-89% (364-376 pts) = B plus	83-86% (348-363 pts) = B	80-82% (334-347 pts) = B minus
77-79% (322-333 pts) = C plus	73-76% (306-321 pts) = C	70-72% (293-305 pts) = C minus
67-69% (280-292 pts) = D plus	63-66% (264-279 pts) = D	60-62% (251-263 pts) = D minus
Below 60% (0-250 pts) = F		

### University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs’ [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/> Make sure to review these university policies and resources.

## 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 & Science in Sports & Exercise
International Journal of Sports Medicine	New England Journal of Medicine
Journal of Athletic Training	Nutrition Reviews
Journal of the Academy of Nutrition and Dietetics	Physician and Sportsmedicine
Journal of the American Medical Association	Research Quarterly for Exercise and Sport
Journal of Strength and Conditioning Research	Sports Medicine
Journal of Food Science	Strength and Conditioning Journal

### On-Line Resources (partial list)

American College of Sports Medicine	<a href="http://www.acsm.org">www.acsm.org</a>
Academy of Nutrition and Dietetics	<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.sjlibrary.org">www.sjlibrary.org</a> website for access to database	<a href="http://www.ncbi.nlm.nih.gov/pubmed/">www.ncbi.nlm.nih.gov/pubmed/</a>
MyPlate.gov	<a href="http://www.myplate.gov">www.myplate.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>
Gatorade 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>
World Health Organization	<a href="http://www.who.int/en">www.who.int/en</a>

## NuFS/KIN 163 – Physical Fitness & Nutrition, Fall 2018

### Proposed Course Schedule

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

If your 1<sup>st</sup> half of the semester is **NUTRITION**

DATE	TOPIC	READING ASSIGNMENTS	DUE
Wed, Aug. 22	Course Overview & Introduction Essential Nutrients		
Mon, Aug. 27	Scientific Method & Nutrition/Exercise Studies, Analyzing Scientific Research	IFIC article W: Chapter 1	<b>Select Groups for Oral Presentation</b>
Wed, Aug. 29	Dietary Reference Intakes Dietary Guidelines	W: Ch 1 & 2	<b>In-Class Analysis of Scientific Literature #1: Practice</b>
Mon, Sept. 3	<b>LABOR DAY HOLIDAY</b>		
Wed, Sept. 5	Quackery in Nutrition & Exercise Use of Ergogenic Aids in Modifying Physique and Performance	W: Chapter 2	<b>Analysis of Scientific Literature #1</b>
Mon, Sept. 10	Review of the Dietary Supplement and Education Act Carbohydrates- Metabolism and Function	W: Ch 2 & 4	
Wed, Sept. 12	Group Project		
Mon, Sept. 17	Carbohydrates- Metabolism and Function Lipids – Dietary Fat and Cholesterol, Fats and Ergogenic Aids	W: Chapters 4 & 5	<b>Consumer Product: Nutrition</b>
Wed, Sept. 19	Lipids – finish Exam Q & A	W: Ch. 5	
Mon, Sept. 24	<b>EXAM 1</b>		<b>EXAM 1 – CH. 1,2,4 &amp; 5</b>
Wed, Sept. 26	Protein – Metabolism and Biochemistry, Ergogenic aids	W: Ch 6	
Mon, Oct. 1	Protein – finish chapter Energy Balance & Weight Control	W: Ch. 6 & 10	
Wed, Oct. 3	Group Presentations – Groups 1 and 2		<b>Group Presentation and Analysis of Scientific Literature #2</b>

			<b>(only if presenting)</b>
Mon, Oct. 8	Energy Balance & Weight Control	Ch 10 & 11	
Wed, Oct. 10	Group Presentations – Groups 3 & 4		<b>Group Presentation and Analysis of Scientific Literature #2 (only if presenting)</b>
Mon, Oct. 15	<b>EXAM 2 – Chapters 6, 10 &amp; 11</b>		<b>EXAM 2 – Ch 6, 10 &amp; 11</b>
Wed, Oct. 17	Scientific Research & Pseudoscience Introduction to Wellness, Fitness & Lifestyle Management	FIR: Chap. 1	
Mon, Oct. 22	Principles of Physical Fitness	FIR: Chap. 2	
Wed, Oct. 24	Energy Systems & Metabolism	W: Chap. 3 - recommended	
Mon, Oct. 29	Cardiorespiratory Endurance	FIR: Chap. 3	
Wed, Oct. 31	Exercise & Cardiovascular Health	FIR: Chap. 11	
Mon, Nov. 5	Muscular Strength & Endurance	FIR: Chap 4	<b>Consumer Product #2: Fitness</b>
Wed, Nov. 7	<b>CAMPUS CLOSED</b>		
Mon, Nov. 12	Flexibility & Low Back Health	FIR: Chap 5	
Wed, Nov. 14	Catch up and Review for Exam 3		
Mon, Nov. 19	<b>EXAM 3</b>		
Wed, Nov. 21	<b>NO CLASS</b>		
Mon, Nov. 26	Group Presentations		<b>Research Analysis #2 (Paper due)</b>
Wed, Nov. 28	Body Composition Sedentary Behavior	FIR: Chap. 6	
Mon, Dec. 3	Group Presentations	FIR: Chap. 7	<b>Research Analysis #2 (Paper due if presenting)</b>
Wed, Dec. 5	Temperature Regulation Program Design		
Mon, Dec. 10	<b>Catch up and Review</b>		
	<b>FINAL EXAM</b>		

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*

## NuFS/KIN 163 – Physical Fitness & Nutrition, Fall 2018

### Proposed Course Schedule

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

If your 1<sup>st</sup> half of the semester is **FITNESS**

DATE	TOPIC	READING ASSIGNMENTS	DUE
Wed, Aug. 22	Course Overview & Introduction Scientific Method & Nutrition/Exercise Studies, Analyzing Scientific Research	IFIC article	
Mon, Aug. 27	Introduction to Wellness, Fitness & Lifestyle Management	Article for Analysis will be posted on Canvas	<b>Select Groups for Oral Presentation</b>
Wed, Aug. 29	Analyzing Scientific Research Scientific Research & Pseudoscience	FIR: Chap. 1	<b>In-Class Research Analysis #1 Practice</b>
Mon, Sept. 3	<b>LABOR DAY</b>		
Wed, Sept. 5	Principles of Physical Fitness	FIR: Chap. 2	<b>Research Analysis #1</b>
Mon, Sept. 10	Energy Systems & Metabolism	W: Chap. 3 - recommended	
Wed, Sept. 12	Cardiorespiratory Endurance	FIR: Chap. 3	
Mon, Sept. 17	Exercise & Cardiovascular Health	FIR: Chap. 11	<b>Consumer Product #1: Fitness</b>
Wed, Sept. 19	<b>EXAM 1</b>		
Mon, Sept. 24	Muscular Strength & Endurance	FIR: Chap 4	
Wed, Sept. 26	Flexibility & Low Back Health	FIR: Chap 5	
Mon, Oct. 1	Body Composition Sedentary Behavior		
Wed, Oct. 3	Group Presentations	FIR: Chap. 6	<b>Research Analysis #2</b>
Mon, Oct. 8	Program Design Temperature Regulation	FIR: Chap. 7	



Wed, Oct. 10	Group Presentations		
Mon, Oct. 15	<b>EXAM 2</b>		
Wed, Oct. 17	Course Overview & Essential Nutrients		
Mon, Oct. 22	Scientific Method & Nutrition/Exercise Studies, Analyzing Scientific Research	IFIC article W: Chapter 1	<b>Select Groups for Oral Presentation</b>
Wed, Oct. 24	Dietary Reference Intakes Dietary Guidelines	W: Ch 1 & 2	
Mon, Oct. 29	Quackery in Nutrition & Exercise Use of Ergogenic Aids in Modifying Physique and Performance	W: Chapter 2	
Wed, Oct. 31	Review of the Dietary Supplement and Education Act Carbohydrates- Metabolism and Function	W: Ch 2 & 4	
Mon, Nov. 5	Carbohydrates- Metabolism and Function Lipids – Dietary Fat and Cholesterol, Fats and Ergogenic Aids	W: Chapters 4 & 5	<b>Consumer Product: Nutrition</b>
Wed, Nov. 7	Lipids – finish	W: Ch. 5	
Mon, Nov. 12	<b>CAMPUS CLOSED</b>		
Wed, Nov. 14	<b>EXAM 1</b>		<b>EXAM 1 – CH. 1,2,4 &amp; 5</b>
Mon, Nov. 19	Protein – Metabolism and Biochemistry, Ergogenic aids	W: Ch 6	
Wed, Nov. 21	<b>NO CLASS</b>		
Mon, Nov. 26	Protein – finish chapter Energy Balance & Weight Control	W: Ch. 6 & 10	
Wed, Nov. 28	Group Presentations – Groups 1 and 2		<b>Group Presentation and Analysis of Scientific Literature #2 (only if presenting)</b>
Mon, Dec. 3	Energy Balance & Weight Control	Ch 10 & 11	
Wed, Dec. 5	Group Presentations – Groups 3 & 4		<b>Group Presentation and Analysis of Scientific Literature #2 (only if presenting)</b>
Mon, Dec. 10	Catch Up / Review		

Thursday, Dec 13 9:45am	<b>EXAM 2 – Chapters 6, 10 &amp; 11</b> <b>Dec 13 9:45am</b>		<b>EXAM 2 – Ch 6, 10 &amp; 11</b>
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\* 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*