

Science of Physical Fitness and Nutrition

Section 02

NUFS 163

Fall 2024 3 Unit(s) 08/21/2024 to 12/09/2024 Modified 08/16/2024

Contact Information

Co-Instructor: Karen Moreno PhDc, M.A.

Email: karen.moreno@sjsu.edu

Office: SPX 170

Office Hours

Monday and Wednesday 10:30 AM - 11:30 AM or by appointment
SPX 170

Co-Instructor: Izzie Brown, MS, RDN, CSCS

Email: izzie.brown@sjsu.edu

Office: Central Classroom Building (CCB) 202

Phone: 408.924.3373

Website: <https://sjsu.edu/people/izzie.brown/> (<https://sjsu.edu/people/izzie.brown/>)

Office Hours

W: 1:00 PM - 2:00 PM, TuTh: 1:30 PM - 2:30 PM or by appointment
CCB 202

Course Description and Requisites

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.

GE Area(s): R. Earth, Environment & Sustainability

Prerequisite(s): Passage of the Writing Skills Test (WST) or ENGL/LLD 100A with a C or better (C- not accepted), completion of Core General Education and upper division standing are prerequisites to all SJSU studies courses. Completion of, or co-registration in, 100W is strongly recommended.

Note(s): All of SJSU Studies courses require completion of the WST and upper division standing.

Letter Graded

* Classroom Protocols

Students are expected to attend all class meetings, arrive on time and stay until the class ends. Students are expected to treat other students and faculty with respect. Do not distract or disrupt class with electronics or other noises. Be attentive to comments made by fellow students and the faculty. Students are to have read and thought about the assigned reading before coming to class. Be prepared to ask questions about material not understood and to comment on and discuss material found to be provocative. Consider taking notes of questions or thoughts while reading and bring them to class for discussion.

University policy F69-24, "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

By remaining enrolled in the class, you agree to abide by these course and University policies.

Active Participation

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 reviewing material on Canvas before contacting the instructor about the missed content. Students are responsible for reading and understanding all the instructions and directions provided on Canvas in this online course.

Policy Recommendation Consent for Recording of Class and Public Sharing of Instructor Material

"Common courtesy and professional behavior dictate that **you notify someone when you are recording him/her**. You **must obtain the instructor's permission** to make audio or video recordings in this class. Such permission allows the recordings to be used **for your private, study purposes only**. **The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.**"

“Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

Program Information

Welcome to this General Education course.

SJSU's General Education Program establishes a strong foundation of versatile skills, fosters curiosity about the world, promotes ethical judgment, and prepares students to engage and contribute responsibly and cooperatively in a multicultural, information-rich society. General education classes integrate areas of study and encourage progressively more complex and creative analysis, expression, and problem solving.

The General Education Program has three goals:

Goal 1: To develop students' core competencies for academic, personal, creative, and professional pursuits.

Goal 2: To enact the university's commitment to diversity, inclusion, and justice by ensuring that students have the knowledge and skills to serve and contribute to the well-being of local and global communities and the environment.

Goal 3: To offer students integrated, multidisciplinary, and innovative study in which they pose challenging questions, address complex issues, and develop cooperative and creative responses.

More information about the General Education Program Learning Outcomes (PLOs) can be found on the [GE website \(https://sjsu.edu/general-education/ge-requirements/overview/learning-outcomes.php\)](https://sjsu.edu/general-education/ge-requirements/overview/learning-outcomes.php).

Course Goals

In Area R courses, students apply knowledge of scientific theories and concepts as well as quantitative reasoning to explore the relationship between humans and the natural environment. Students achieve an understanding of the role that science plays in addressing complex issues, as well as the potential limits of scientific endeavors and the value systems and ethics associated with scientific inquiry.

Course Learning Outcomes (CLOs)

GE Area R: Earth, Environment, and Sustainability

SJSU Studies courses -- Areas R, S, and V -- help students integrate knowledge between and among disciplines. Area R: Earth, Environment, and Sustainability courses apply the scientific method and quantitative reasoning to engage in ethical, civic-minded inquiry around sustaining the earth, its environments and its inhabitants.

GE Area R Learning Outcomes

Upon successful completion of an Area R course, students should be able to:

1. apply scientific principles and the scientific method to answer questions about earth, the environment, and sustainability while recognizing the limits of both the method and principles;
2. apply mathematical or quantitative reasoning concepts to the analysis and generation of solutions to issues of earth, the environment, and sustainability;
3. communicate a scientific finding, assertion, or theory to a general audience with the integrity and rigor of the underlying science; and
4. explain ethical, social, and civic dimensions of scientific inquiry.

Writing Practice: Students will write a minimum of 3000 words in a language and style appropriate to the discipline.

Course Materials

This course requires two textbooks; one for the Fitness half of the course and one for the Nutrition half.

Library Liaison

Adriana Poo is the Health Science, Kinesiology, and Recreation, Liaison Librarian. (408)-808-2019.
adriana.poo@sjsu.edu

Geetali Basu is the NUFS/PKG reference librarian; geetali.basu@sjsu.edu. Phone number (408) 808-2651.

Course Requirements and Assignments

“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 practica. Other course structures will have equivalent workload expectations as described in the syllabus.”

Note that “All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.” See [University Policy F13-1](http://www.sjsu.edu/senate/docs/F13-1.pdf) at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

Major Course Assignments

Consistent with guidelines for SJSU Studies courses, students will write a minimum of 3,000 words

2 Consumer Product paper @ 3-4 pages each	6-8 pages, 1,500-2,000 words
2 Analyses of Scientific Literature @ 3-4 pages each	6-8 pages, 1,500-2,000 words
Total	12-16 pages (3,000-4,000 words)

Examinations

All examinations for this class will be in-person and may consist of multiple choice, true and false, matching, all of the above, and short answer questions. Students will need a laptop or ipad and LockDown Browser to take the exams.

Make-up exams are permitted only for illness and emergency (truly extraordinary circumstances). The student is responsible for notifying the instructor and making arrangements at the earliest possible time. In most cases, the exam must be completed prior to the next class meeting. All requests for make-up exams will be evaluated on an individual bases. The final exam will **NOT** be given early.

Exam 4 is the final examination, which will be scheduled according to the SJSU final exam schedule.

“Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment.”

✓ Grading Information

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

Criteria

All assignments written outside of class must be typed and double-spaced. Individual instructors will provide procedures to be used for electronic submission and Originality Reports via turnitin.com will be used.

Collaboration with AI composition software to compose assignments is not permitted in this course. The Writing Center is available and is the recommended resource for help with writing your assignments. If you use an AI grammar and spelling checker to edit your work, you must submit your rough draft along with the final version of your assignment. If you have questions, please check with the instructor.

Writing in general education courses is assessed for grammar, content, clarity, conciseness, and coherence.

Guidelines for the Analysis of Scientific Literature, Consumer Product papers, and Oral Presentation will be discussed in class and available on course web sites.

Written assignments are due as specified in the syllabus. There is a 5% penalty for each day or partial day assignments are late. Assignments will not be accepted 1 week past the due date.

Breakdown

Assignments	Points	% of Grade	CLOs
Exam 1	50	11.1	1,2,4
Exam 2	50	11.1	1,2,4
Exam 3	50	11.1	1,2,4
Exam 4 given during final exam week (not cumulative over fitness & nutrition)	50	11.2	1,2,4
Analysis of Scientific Literature #1	50	11.1	1,2,3,4
Analysis of Scientific Literature #2	50	11.1	1,2,3,4
Consumer Product: Fitness	50	11.1	1,2,3,4
Consumer Product: Nutrition	50	11.1	1,2,3,4
Group Presentation	50	11.1	1,2,3,4
Total	450	100	

University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Proposed Schedule, subject to change with fair notice.

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

RBS = Rawson, Branch, & Stephenson, Williams' Nutrition for health, fitness, and sport

FIR = Fahey, Insel, & Roth, Fit and well (e-book)

WEEK	DATE	TOPIC	READING	ASSIGNMENTS AND DEADLINES
1	Th 8/22	Introduction to the Fitness Section and Scientific Research & Pseudo-Science	Syllabus Article: IFIC	Watch Video: Science vs Pseudoscience Before Class
2	Tu 8/27	Analysis of Exercise Science Literature Continued	Analysis article TBA	
2	Th 8/29	Are you meeting the recommended levels of PA? Wellness and Goal Setting	FIR: Ch 1	
2	Tu 9/03	Principles of Physical Fitness	FIR: Ch 2	Analysis of Scientific Literature #1 Canvas 11:59 PM
2	Th 9/05	How hard are you working? Energy and Metabolism.	RBS: Ch 3	
3	Tu 9/10	Energy and Metabolism.		Energy and Metabolism Activity Canvas 11:59 PM
3	Th 9/12	Developing and measuring Cardiorespiratory Fitness (CRF)	FIR: Ch 3	
4	Tu 9/17	Building your CRF program		CRF Program Activity Canvas 11:59 PM
4	Th 9/19	Exam 1	Respondus Lockdown Browser and Password Protected	
5	Tu 9/24	Developing and measuring Muscular Fitness	FIR: Ch 4	
5	Th 9/26	Building your muscular fitness program	Muscular Fitness Program Activity	Fitness Consumer Paper Canvas 11:59 PM

6	Tu 10/1	Body Composition, Physical Fitness, and the Limitations of BMI	FIR: Ch 6	
6	Th 10/03	Oral Presentation Grps. 1 & 2		Analysis of Scientific Literature #2 for those presenting. Canvas 11:59 PM
7	Tu 10/08	Oral Presentation Grps. 3 & 4		Analysis of Scientific Literature #2 for those presenting. Canvas 11:59 PM
7	Th 10/10	Flexibility. The forgotten Fitness Component	FIR: Ch 5	
7	Tu 10/15	Exam 2	Respondus Lockdown Browser and Password Protected	
		Nutrition Section Begins		
8	Th 10/17	Scientific Method	IFIC article in Modules RBS: pp. 28-31	Watch video lecture in Modules before class
9	Tu 10/22	Scientific Method Supplements	RBS: pp. 21-27, 62-65, 130-140, 227-236, 329-330, 350, 490-491, 502-508, 515-518, 526-527, AND Position paper in Modules	
9	Th 10/24	Supplements		Watch Portion Size Guide video lecture in Modules before class
10	Tu 10/29	Healthful Nutrition	RBS: pp. 1-4, 13-17, 36-60	Bring Portion Size Guide handout to class. Handout in Modules.
10	Th 10/31	Healthful Nutrition		Bring a food label
11	Tu 11/05	Carbohydrates	RBS: pp. 111-125, 145-154	
11	Th 11/07	Exam 3		

12	Tu 11/12	Fats	RBS: pp. 161-175, 186-199	
12	Th 11/14	Fats Protein	RBS: pp. 53-57, 208-226	Watch Protein Lecture Video in Modules before class
13	Tu 11/19	Protein		
13	Th 11/21	Oral Presentation #5 & #6		Analysis of Scientific Literature #2 for those presenting
14	Tu 11/26	Oral Presentation #7 & #8		Analysis of Scientific Literature #2 for those presenting
14	Th 11/28	Thanksgiving Break		
15	Tu, 12/03	Weight & Disordered Eating		
15	Th, 12/05	Weight & Disordered Eating		
Final Exam	F 12/13	9:45 am-12:00 pm		