

Science of Physical Fitness and Nutrition

NUFS 163

Fall 2025 Section 01 In Person 3 Unit(s) 08/20/2025 to 12/08/2025 Modified 08/19/2025

Contact Information

Nutrition Instructor: Izzie Brown, MS, RDN, CSCS

Email: izzie.brown@sjsu.edu

Office: Central Classroom Building 202

Website: www.sjsu.edu/people/izzie.brown/

Office Hours

Tu & Th: 1:30-2:00 pm CCB 202 & Zoom

W 1:00-2:00 pm CCB 202 & Zoom

and by appointment

Fitness Instructor: Dr. Karen Moreno

Email: karen.moreno@sjsu.edu

Office: SPX RM 156

Office Hours

Mondays and Wednesdays 12:15 PM to 1:15 PM or by appointment

SPX RM 156

Course Information

In-Person

Tuesdays and Thursdays, 10:30 AM - 11:45 AM

Central Classroom Building 102

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.

Satisfies UD Area: 2/5. Earth, Environment, and Sustainability (Formerly Area R).

Prerequisite(s): Completion of Core General Education and upper division standing are prerequisites to all UD GE courses. Completion of, or co-registration in, 100W is strongly recommended.

Grading: Letter Graded.

Cross-listed with KIN 163 Nutrition, Food Science and Packaging is responsible for scheduling.

* Classroom Protocols

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 the material presented, instructions provided and announcement made on Canvas in this course.

Communication

Instructor to class: Canvas Announcements (text/audio/video), Canvas Inbox, mySJSU email (sparingly), and detailed descriptions/instructions in the Canvas Modules and Assignments.

Instructor to individual students: Canvas feedback via Speedgrader marked/annotated on submissions, feedback left in the comment box of the assignment (text/audio/video), Canvas feedback left on the assignment's rubric, Canvas Inbox, regular email, office hours.

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, handouts or worksheets, or homework solutions without instructor consent.”

Diversity Statement

Respect for Diversity: it is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is our intent to present materials and activities that are respectful of diversity (e.g., gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture). Your suggestions are encouraged and appreciated.

Accessibility Statement

It is our goal to create a learning experience that is as accessible as possible. If you anticipate any issues related to the format, materials, or requirements of this course, please meet with the instructors outside of class so potential options can be explored. Students with disabilities may also wish to work with the [SJSU’s Accessible Education Center](#) to discuss a range of options to remove barriers in this course, including official accommodations. If you have already been approved for accommodations through the Office of Accessible Education, please meet with your instructors to develop an implement a plan together.

Artificial Intelligence Use Policy

Generative artificial intelligence tools - software that creates new text, images, computer code, audio, video, and other content - have become widely available. Well-known examples include ChatGPT for text and DALL•E for images. This policy governs all such tools, including those released during our semester together. Students **may not** use artificial intelligence (AI) to generate their essays or assignments. All assignments and projects must be the original work of the student, not another person or AI. If an AI tool has been used to check grammar, this must be at the conclusion of the paper. Example "I acknowledge the use of Grammarly to help me review my writing at the final stage of this assignment."

As specified elsewhere in the syllabus, this course requires electronic submission of essays and our Canvas is set up to provide an originality assessment via Turnitin. Turnitin will also attempt to detect AI-generated text. Both of these reports will be reviewed by your instructors before reading/grading papers. If your paper is flagged with a high percentage in either area, your instructors will contact you requesting a document and writing process review meeting. Based on that meeting, the next steps could be a warning, a rewrite/resubmission or a referral to the University’s Office of Academic Integrity.

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 Learning Outcomes (CLOs)

UD Area 2/5: Earth, Environment, and Sustainability (Upper Division Area 2/5)

UD Area 2/5 courses apply the scientific method and quantitative reasoning to engage in ethical, civic-minded inquiry around sustaining the earth, its environments and its inhabitants.

Goals

In UD Area 2/5 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.

GE UD Area 2/5 Learning Outcomes

Upon successful completion of an UD Area 2/5 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.

Content

1. Courses shall focus on issues or present perspectives from different academic disciplines and include an integrative assignment appropriate to the course content.
2. Courses shall require students to apply basic skills (reading, writing, speaking, critical thinking, research, and mathematics/quantitative reasoning) gained in Core General Education courses.
3. Assignments must utilize library research and oral and written communication skills.
4. Courses shall promote reflective processes and critical analysis of the civic relevance and ethical dimensions of course topics.
5. Materials must include primary sources appropriate to the disciplinary approaches used in the course (Examples include, but are not limited to, original creative works, scholarly journal articles, interviews, oral histories, historical documents).

Writing requirement

The minimum writing requirement is 3,000 words in a language and style appropriate to the discipline. Written assignments should provide students with practice and feedback throughout the semester. Evaluative comments must be substantive, addressing the quality and form of writing. A single final term paper would not satisfy the writing requirement.

Course Materials

Required Texts

There are two textbooks for this course that you will be accessing in eBook format.

Fitness textbook:

Fahey, T. D., Insel, P. M., & Roth, W. T. (2023). *Fit & well: Core Concepts* (15th ed.). Boston: McGraw-Hill. ISBN: 9781307904918.

This text will be known as “FIR” in the proposed schedule.

Nutrition textbook:

Rawson, E. S. Branch, J.D, and Stephenson, T.J. (2024). *Nutrition for health, fitness, and sport* (13th ed.). Boston: McGraw-Hill. ISBN: 9781307904901.

This text will be known as “RBS” in the proposed schedule.

First Day. To enhance your learning experience and provide affordable access to the right course materials, this course is part of an inclusive access model called First Day™. You may easily access the materials at a discounted price and benefit from single sign-on access with no codes required in Canvas. Please note, You should **not be** prompted to purchase the materials via canvas or the publisher. This will result in double billing (and at a higher cost).

You will see the first day billing on your student account via the Bursar’s Office shortly after the semester begins. However, any questions regarding the materials should be directed to your professor or Spartan Bookstore 408-924-1812.

It is not recommended that you Opt-Out, as these materials are required to complete the course. However, you may choose to Opt-Out on the first day of class and no later than the last day to drop. You will see the course materials charge on your Bursar's student account unless you have opted out prior to the deadline.

For more information and FAQs go to: <https://customercare.bncollege.com/hc/en-us>
(<https://customercare.bncollege.com/hc/en-us>)

Student Tutorial Videos

Accessing Your eTextbook: <https://vimeo.com/304674236> (<https://vimeo.com/304674236>)

Opting Out of First Day for your eTextbook: <https://vimeo.com/304674616> (<https://vimeo.com/304674616>)

Opting Out of First Day for your courseware: <https://vimeo.com/304674959>
(<https://vimeo.com/304674959>)

Other Features on the Course Materials page: <https://vimeo.com/304675344>
(<https://vimeo.com/304675344>)

Questions? Contact the University's Course Materials Manager:

Emma Mead, M.A. EDCO
Spartan Bookstore, 211 S 9th St., San Jose, CA 95192
408-924-1839

Library Liaison

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

Suzie Bahmanyar is the interim Nutrition, Food Science and Packaging liaison librarian. Please reach out to Suzie for library-related questions: suzie.bahmanyar@sjsu.edu

Course Requirements and Assignments

Major Course Assignments

Detailed guidelines for the Major Course Assignment, Analysis of Scientific Literature #1 (Practice) & #2, Consumer Product, and Oral Presentation assignments, can be found in each assignment within their respective Module. However, all the assignment guidelines can be viewed in one document, called the Assignment Packet, which is linked to a respective Module.

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

Analysis of Scientific Literature #1	4 pages or 1,000 words
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Analysis of Scientific Literature #2	4 pages or 1,000 words
Nutrition or Fitness Consumer Product	4 pages or 1,000 words

Writing in general education courses is assessed for grammar, content, clarity, conciseness, and coherence. The SJSU Writing Center, located on the 2nd Floor of the Dr. Martin Luther King, Jr. Library, 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 <https://www.sjsu.edu/writingcenter/about-us/contact-us.php>

<https://www.sjsu.edu/writingcenter/about-us/contact-us.php>
(<https://www.sjsu.edu/writingcenter/about-us/contact-us.php>)

Examinations

Quiz and exam questions will be based on assigned readings, lectures, and class discussions. Quizzes and exams will be available on Canvas on the dates and times shown in the Course Schedule and in the Modules. Respondus LockDown Browser will be required for Fitness exams. The last exam of the semester will be administered during the final exam period scheduled by SJSU.

Make-up quizzes and exams will be given only **in cases of serious illness or emergencies**, and requests for make-ups will be evaluated on an individual basis. The student is responsible for notifying the instructor **and** arranging a make-up date *prior* to exams and quizzes.

✓ Grading Information

97-100% (358-370 pts) = A plus	93-96% (343-357 pts) = A	90-92% (333-342 pts) = A minus
87-89% (322-332 pts) = B plus	83-86% (306-321 pts) = B	80-82% (295-305 pts) = B minus
77-79% (284-294 pts) = C plus	73-76% (269-283 pts) = C	70-72% (258-268 pts) = C minus
67-69% (247-257 pts) = D plus	63-66% (232-246 pts) = D	60-62% (222-231 pts) = D minus
		Below 60% (0-221 pts) = F

Criteria

All assignments 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>.

Detailed guidelines for the Analysis of Scientific Literature #1 (Practice) & 2, Consumer Product, and Oral Presentation assignments can be found in each assignment within their respective Module. However, all the assignment guidelines can be viewed in one document, called the Assignment Packet, which is linked within each respective Module.

Due Dates and Late Policy

Due dates and times are clearly identified on the calendar in the Syllabus as well as each assignment on Canvas. Papers and presentations are due at Canvas by 11:59pm on the due date. Assignments turned in after the due date and time, unless otherwise specified, will be considered late. **There is a 2.5-point penalty for each calendar day, or partial calendar day, that assignments are late.** Assignments will not be accepted 1 week past the due date. **Please upload your papers from your SJSU email account or you will be asked to upload them again and it may affect your time stamp and/or grade.**

Breakdown

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

Assignment	% of Overall Grade (pts)	ALOs	CLOs
Nutrition Exam 1	13.5 (50)		1,2,3,4,6
Nutrition Exam 2	13.5 (50)		1,2,3,4,6
Fitness Exam 1	10.5 (39)		1,2,3,4,6
Fitness Exam 2	13.0 (47)		1,2,3,4,6
Fitness Chapter Activities/Quizzes	4.0 (14)		1,2,3,4,6
Analysis of Scientific Literature #1 (practice)	5.0 (20)	1.2	
Analysis of Scientific Literature #2	13.5 (50)	1.2	
Oral Presentation on Analysis of Scientific Literature #2	13.5 (50)	2.3	
Nutrition Consumer Product or Fitness Consumer Product	13.5 (50)	3.4	
Total	100 (370)		

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

NUFS/KIN 163 Section 01

Science of Physical Fitness & Nutrition

Course Schedule

Proposed Schedule, subject to change with fair notice.

Begin Nutrition Section

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

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

Week	Date	Topics	Reading	Assignments & Deadlines
1	Th, 08/21	Course Overview & Introduction Scientific Method		
2	Tu, 08/26	Scientific Method	IFIC article & BMI and Waist Circumference study both in Modules. RBS: pp. 28-31	Watch video lecture in Modules before class

2	Th, 08/28	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	
3	Tu, 09/02	Supplements		
3	Th, 09/04	Healthful Nutrition	RBS: pp. 1-4, 13- 17, 36-60	Analysis of Scientific Literature #1 – article in Modules Watch Portion Size Guide video lecture in Modules before class. Bring Portion Size Guide handout to class. Handout in Modules.
4	Tu, 09/09	Healthful Nutrition		Bring a food label to class
4	Th, 09/11	Carbohydrates	RBS: pp. 111-125, 145-154	
5	Tu, 09/16	Carbohydrate Nutrition Exam 1		Exam taken outside of class time
5	Th, 09/18	Fats	RBS: pp. 161-175, 186-199	

6	Tu, 09/23	Fats Protein	RBS: pp. 53-57, 208-226	Watch Protein Lecture Video in Modules before class
6	Th, 09/25	Protein		
7	Tu, 09/30	Oral Presentation #1 & #2		Nutrition Consumer Product: ad provided in Announcements. Only for those in Groups 5, 6, 7 & 8 Analysis of Scientific Literature #2 for those presenting
7	Th, 10/02	Oral Presentation #3 & #4		Analysis of Scientific Literature #2 for those presenting
8	Tu, 10/07	Weight & Disordered Eating	RBS: pp. 373-378, 392-397, 399- 406, 413-419, 432-441	
8	Th, 10/09	Weight & Disordered Eating Nutrition Exam 2		Exam taken outside of class time

Begin Fitness Section

DATE	TOPIC	READING ASSIGNMENTS	DUE DATES
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Fitness 10/14	Course Introduction and Introduction to (M1) Exercise Science Research	IFIC Article	
10/21	(M1) Exercise Science Research Continued Discuss Consumer Product paper, Fitness Analysis #2 and Oral Presentation.	Video: Science vs Pseudoscience	Check Your Knowledge Quiz: Exercise Science Literature
10/21	(M2) Science behind Physical Activity Recommendation and the Principles of Physical Fitness.	FIR: Ch 1 & 2	Check Your Knowledge Quiz: PA recommendations and Principles of Physical Fitness
10/23	(M3) How Hard are you Working? Energy and Metabolism.	FIR: Ch 3 (pp. 66-68) Energy Production and Exercise and the Three Energy Systems	
10/28	(M3) Energy and Metabolism Wrap up.		Check Your Knowledge Quiz: Energy and Metabolism
10/30	(M4) Developing and Measuring Cardiorespiratory Fitness (CRF)	FIR: Ch 3.	Check Your Knowledge Quiz: Cardiorespiratory Fitness
11/04	(M4) Building your CRF program Quick Review for Exam 1	FIR: Ch 3	
11/06	Fitness Exam 1 Modules 1, 2, 3 & 4	Respondus Lockdown Browser and Password Protected	This is an in-person exam. Bring your Laptop or tablet
11/11	Veteran's Day: Campus Closed	FIR: Ch 4	Fitness Consumer Product Paper Due
11/13	(M5) Developing and measuring Muscular Fitness	FIR: Ch 4	Check Your Knowledge Quiz: Muscular Fitness

11/18	(M5) Building Your Muscular Fitness Program	FIR: Ch 4	
11/20	Fitness Oral Presentations	Be Prepared to ask the presenters questions	Presentation Slides & Analysis of Scientific Lit. #2 Due
11/25	Fitness Oral Presentations	Be Prepared to ask the presenters questions	Presentation Slides & Analysis of Scientific Lit. #2 Due
11/27	Thanksgiving Break		
12/02	(M6) Body Composition, Physical Fitness and the Limitations of BMI	FIR: Ch. 6	Check Your Knowledge Quiz: Body Composition
12/04	(M7) Flexibility. The forgotten Fitness Component Quick Exam 2 Review	FIR: Ch 5	Check Your Knowledge Quiz: Flexibility and Low Back Health
Th, 12/11	10:45 AM-12:45 PM Fitness Exam 2 Modules 5, 6 & 7	Respondus Lockdown Browser and Password Protected	This is an in-person exam. Bring your Laptop or tablet