

**San José State University**  
**CHHS/Department of Kinesiology**  
**KIN 187-01 & 02. Clinical Exercise Physiology**  
**FALL 2025**

**Course and Contact Information**

**Instructor:** Areum Jensen, Ph.D.

**Office Location:** SPX 175

**Email:** [areum.jensen@sjsu.edu](mailto:areum.jensen@sjsu.edu)  
*DO NOT USE CANVAS MESSAGING. PLEASE USE THIS EMAIL.*

*Expect a response from me within 48 hours during the week (Monday-Friday, 9am-5pm). Please use proper title, grammar, punctuation, formatting, and respectful language in your email.*

**Office Hours:** Tuesday and Thursday 12pm-1pm, or by appointment

**Class Days/Time:** Section 1. T and Th/10:30am-11:45am  
Section 2. T and Th/1:30pm-2:45pm

**Classroom:** SPX 163

**Prerequisites:** KIN 70 & KIN 155 with grades of C- or better. (Note: GE Math, Introductory Chemistry, and Human Physiology are prerequisites for KIN 155)

**Course Description**

Physiological principles applied to the prevention, management, and treatment of chronic health conditions. Focus on the pathophysiology, acute response to exercise, chronic training effects, and development of appropriate conditioning and training programs for chronic conditions.

**Course Credit**

KIN 187 is a 3-credit course. For each unit of credit, a minimum of 45 hours over the length of the course for instruction or preparation/studying, or course related activities will be expected. The expectation of work for a 3-credit course is 150 minutes of direct faculty instruction and **6 hours of out of class student work each week.**

**Department of Kinesiology DEI statement**

The Department of Kinesiology is committed to developing and implementing equitable curricula and teaching practices that reflect the diversity of our student body and departmental core values. The faculty strives to foster an inclusive learning environment where all students feel valued, supported, welcomed, and empowered to succeed in ALL classes. All students, inclusive of all, but not limited to ethnicities, socioeconomic and cultural backgrounds, gender identities and expressions, castes, religions, ages, sexual orientations, abilities, bodies, political affiliations, statuses, and nationalities, are encouraged to share their rich array of perspectives and experiences. KIN department faculty, staff, and students all have something of value to contribute. Everyone is expected to respect differences and demonstrate diligence in understanding how others' perspectives, behaviors, and views may be different from theirs.

**Program Learning Outcomes (PLOs):**

Upon completion of a Bachelor of Science degree program in the Department of Kinesiology students will be able to:

1. Explain, identify, and/or demonstrate the theoretical and/or scientific principles that can be used to address issues or problems in the sub-disciplines in kinesiology.
2. Effectively communicate in writing (clear, concise, and coherent) on topics in kinesiology.
3. Effectively communicate through an oral presentation (clear, concise, and coherent) on topics in kinesiology.
4. Utilize their experiences across a variety of health related and skill-based activities to inform their scholarship and practice in the sub-disciplines in kinesiology.
5. Identify and analyze social justice and equity issues related to kinesiology for diverse populations.

**Student Learning Outcomes (SLOs):**

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

1. Evaluate the capacities and limitations for physical activity in clinical populations, taking into consideration disease processes and methods to assess functional capacity.
2. Identify commonly used medications for specific clinical conditions and their effects on exercise capacity.
3. Apply concepts of exercise physiology (e.g., acute and chronic physiological responses of the neuromuscular, bioenergetic, and cardiorespiratory systems) to the development of comprehensive conditioning programs for individuals with chronic conditions.
4. Develop and modify programs to coincide with the limitations and capacities of individuals with chronic conditions.
5. Sensitively identify and explain other individual differences that should be taken into consideration when designing exercise programs for diverse populations.
6. Identify and explain the effects of muscle fatigue, overtraining, environmental factors, nutrition, and ergogenic aids on exercise programming for individuals with chronic conditions.

**Course Content**

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

1. Disease processes and management
2. Effects of chronic diseases or special conditions on the acute response to exercise
3. Effects of chronic diseases or special conditions on adaptations to exercise training
4. Interaction of exercise with selected medications
5. Recommendations for exercise testing and exercise programming
6. Factors that may impact exercise programming (e.g., muscle fatigue, environmental factors, nutritional status)
7. Diverse populations will include the following: Children and adolescents, Pregnancy and postpartum, Older individuals.
8. Chronic diseases/conditions and disabilities include the following: Obesity, Hypertension, Dyslipidemia, Cardiovascular disease (e.g., coronary artery disease, myocardial infarction, stroke and heart failure), Pulmonary diseases, Diabetes, Cancer, Neurological disorders (e.g., Cerebral Palsy, Autism Spectrum Disorders, and Spinal Cord Injuries), and skeletal and joint disease (e.g., osteoporosis, arthritis, low back pain, etc.).

## Required Texts/Readings

1. ACSM's guidelines for exercise testing and prescription. (12<sup>th</sup> edition, 2025). Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins.  
*You can purchase your books at the SJSU bookstore on campus, or you can order them via the internet through <https://lippincottdirect.lww.com/MedicalEducation-SanJoseStateUniversitySanJose-Spring2025> using 30% OFF DISCOUNT/FREE SHIPPING CODE **WZT70QFT***
2. ACSM's Clinical Exercise Physiology. (2<sup>nd</sup> edition, 2023). Walter R. Thompson and Cemal Ozemek, Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins.
3. Canvas: Students can access course-related materials including syllabus, lecture notes, announcement, assignments, and research articles, etc. From the SJSU home page you can easily find the Canvas entry page. Announcements will be posted on Canvas and should be checked on a regular basis.

## Library Liaison

The KIN library liaison is Adriana Poo (Adriana.poo@sjsu.edu), (408) 808-2019.

## My Role

I am here to **facilitate** your education in Kinesiology. I have prepared lectures, reading assignments, activities, and projects to guide your efforts in internalizing concepts, vocabulary, and skills used in the practice of clinical exercise physiology. On a higher level, I will share strategies that can help *anybody* accomplish any challenging goal.

My other responsibility is to **gauge** your understanding of clinical exercise physiology with assessments (quizzes, exams, reports, and presentations), and to **assign** a final grade that reflects your level of mastery.

## How to Succeed

DO NOT OBSESS OVER GRADES. Focus on **learning clinical exercise physiology**. Work hard to understand the human body functions. Become fascinated with how our body works, responses, and adapts to exercise. If you can cultivate a sincere interest in clinical exercise physiology, then good grades will follow.

## Student Commitment

To be successful in this class, make sure to do the following:

- Read the entire syllabus.
- Consistently check email, notifications, and announcements.
- Review the course calendar for due dates and submit assignments on time.
- Dedicate yourself to clarifying confusion.
- Communicate with your instructor if you have any problems or concerns.
- Communicate with your classmates if you are late or missed classes.

I expect you to treat everyone in the class with respect, both me (Dr. Jensen) and other students. This means:

- Focusing on the class (not on text messages, emails, other assignments, etc.).
- Be on time for class.
- Coming to class prepared with notebooks, pens, etc.
- Turning off cell phones.
- Not talking or sleeping during class.

## Classroom Deportment

Student responsibility occurs when students take an **active role** in their learning by recognizing they are **accountable** for their academic success. Student responsibility is demonstrated when students make choices and

take actions which lead them toward their educational goals. **Responsible students take ownership of their actions by exhibiting the following behaviors.**

- Demonstrate academic integrity and honesty
- Attend and participate in classes and activities prepared and on time
- Complete the assigned work in a timely manner with attention to quality of work
- Avoid making excuses for their behavior
- Communicate in a careful and respectful manner with professors and peers
- Respect diverse ideas and opinions
- Identify, develop, and implement a plan to achieve their educational goals

### Course Requirements and Assignments

1. **Quiz (25%, PLO#1&4, SLO#1-4 & 6):** Online quizzes (10%) will be given on Canvas (OPEN BOOK). All Canvas quizzes will open on the first day of instruction and be available throughout the semester. In addition, **In-person QUIZZES** (15%, not open book) will be given during our in-person classroom when the class starts. You are responsible for checking the due dates and completing all quizzes on time. Make-up quizzes will be permitted ONLY in cases of serious illness or emergencies with proof of document.
2. **Exams (Total 60%, 15% 1<sup>st</sup> Midterm, 15% 2<sup>nd</sup> Midterm, 30% Final, PLO#1&4, SLO#1, 2, 3, 4, 6):** Exam questions will be based on assigned readings, lectures, and class discussions. Exams may include multiple choice, true-false, matching, and short answer (250 words limit) questions and problems. **Exams are NOT OPEN BOOK.** Exams will be given on the dates scheduled. **Make-up exams will be permitted ONLY in cases of serious illness or emergencies with proof of document, and requests for make-up exams will be evaluated on an individual basis.** Final exam is scheduled based on University Final Exam Schedule <https://www.sjsu.edu/classes/final-exam-schedule/fall-2025.php>. The final exam will be given neither early nor late under any circumstances.
3. **Case Study Assignment (15%, PLO#1-5, SLO#1, 4, 5):** Assessment is based on is 1) individual initial report (5%), an individual final report (10%). Please check rubrics on Canvas. More detailed information will be given in class and stated on Canvas Module.

### Use of artificial intelligence (AI)

*Turning in AI-generated work as your own creation is academic misconduct. If any written assignment is identified as using AI, it will be scored as 0 points following SJSU's Academic Integrity Policy, and Student Conduct and Ethical Development.*

### Late assignments

**All assignments are due on the scheduled date.** Late work may be graded down by points (approximately 20% of assigned points) per day. **One week after the deadline, the submitted assignment will be considered as "no submission". Assignments submitted incorrectly (e.g., link instead of docx, incorrect content, etc.) will be considered as "no submission".**

*For example,*

*If the due date is Tuesday 9am, assignment has 10 points, and you submitted on Thursday 10pm, your score for this assignment will be 4 points because 6 points are deducted due to 3 days of late submission (2pt deducted by day).*

### Grades

A plus: 97 to 100%	A: 93 to 96%	A minus: 90 to 92%	
B plus: 87 to 89%	B: 83 to 86%	B minus: 80 to 82%	
C plus: 77 to 79%	C: 73 to 76%	C minus: 70 to 72%	
D plus: 67 to 69%	D: 63 to 66%	D minus: 60 to 62%	F: less than 60%

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 at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

## 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 the Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

## Course Schedule

**(This schedule is subject to change with advance notice. *The instructor reserves the right to make changes at any time.* Students will be promptly notified if any changes occur.)**

Week	Date	Topics	Chapters	Assignments (DUE)
1	8/21 (TH)	▪ Introduction & course overview	<i>Thompson: Chaps. 1</i> <i>Guide: Chaps. 1-3</i>	
2	8/26 (T)	▪ Clinical Exercise Physiology	<i>Thompson: Chaps. 1, 3</i> <i>Guide: Chaps. 1-3,5-6</i>	
	8/28 (TH)	▪ Epidemiology and Terms		Canvas Quiz 1. Course information (due Canvas 9am) Form a study group. Bonus Assignment 1-1. Personal essay (In class) Bonus Assignment 1-2. Syllabus (Canvas 9am)
3	9/2 (T)	▪ Benefits and risks of physical activity	<i>Thompson: Chaps. 3, 4</i> <i>Guide: Chaps. 1-3,5-6</i>	In class Quiz 1 (scantron 815 E)
	9/4 (TH)	▪ Health Screening	<i>Thompson: Chaps. 3, 4</i> <i>Guide: Chaps. 2-6</i>	
4	9/9 (T)	▪ Health Screening	<i>Thompson: Chaps. 3, 4</i> <i>Guide: Chaps. 2-6</i>	In class Quiz 2
	9/11 (TH)	▪ Clinical exercise testing/programing	<i>Thompson: Chaps. 3, 9</i> <i>Guide: Chaps. 2-6</i>	
5	9/16 (T)	▪ Chronic conditions associated with physical inactivity (HTN, dyslipidemia)	<i>Thompson: Chap 3, 10</i> <i>Guide: Chap. 9</i>	In class Quiz 3
	9/18 (TH)	<b>Jeopardy competition (group)</b>		Canvas Quiz 2. PA, Health Screening due Canvas 9am
6	9/23 (T)	▪ Chronic conditions associated with physical inactivity (obesity, metabolic syndrome)	<i>Thompson: Chap 3, 10</i> <i>Guide: Chap. 9</i>	
	9/25 (TH)	▪ Metabolic disease: Diabetes	<i>Thompson: Chap 3, 10</i> <i>Guide: Chap. 9</i>	In class Quiz 4
7	9/30 (T)	▪ Metabolic disease: Diabetes	<i>Thompson: Chap 3, 10</i> <i>Guide: Chap. 9</i>	
	10/2 (TH)	▪ CV System review	<i>Thompson: Chaps. 5</i>	Canvas Quiz 3. Chronic conditions due Canvas 9am In class Quiz 5
8	10/7 (T)	<b>Midterm exam 1 (15%, 75 min)</b>		
	10/9 (TH)	▪ Cardiovascular Disease: Atrial fibrillation	<i>Thompson: Chaps. 5-7</i> <i>Guide: Chap. 8</i>	Canvas Quiz 4. Metabolic disease due Canvas 9am
9	10/14 (T)	▪ Cardiovascular Disease: CAD, MI, CHF	<i>Thompson: Chaps. 5-7</i> <i>Guide: Chap. 8</i>	

Week	Date	Topics	Chapters	Assignments (DUE)
	10/16 (TH)	▪ Cardiovascular Disease: CAD, MI, CHF	<i>Thompson: Chaps. 5-7</i> <i>Guide: Chap. 8</i>	In class Quiz 6
10	10/21 (T)	▪ Cardiovascular Disease: CAD, MI, CHF	<i>Thompson: Chaps. 5-7</i> <i>Guide: Chap. 8</i>	
	10/23 (TH)	▪ Cardiovascular Disease: Stroke	<i>My Stroke of Insight: Jill Bolte Taylor, Ph.D.</i>	In class Quiz 7 Assignment 2-1. Initial case analysis report (50pt) due in class
11	10/28 (T)	▪ Pulmonary Disease: COPD ▪ Case study group meeting	<i>Thompson: Chaps 8, 9</i> <i>Guide: Chap. 8</i>	Canvas Quiz 5. CVD due 9am
	10/30 (TH)	<b>Jeopardy competition (group)</b>		In class Quiz 8
12	11/4 (T)	▪ Pulmonary Disease: CRPD ▪ Cancer	<i>Thompson: Chaps 8, 9</i> <i>Guide: Chap. 10</i>	
	11/6 (TH)	▪ Cancer	<i>Thompson: Chaps 13, 14</i> <i>Guide: Chap. 10</i>	In class Quiz 9
13	11/11 (T)	<b>VETERANS DAY</b>	<b>NO CLASS</b>	
	11/13 (TH)	<b>Midterm exam 2 (15%, 75 min)</b>		
14	11/18 (T)	▪ Neuromuscular condition: CP	<i>Guide: Chaps. 11, 12</i>	
	11/20 (TH)	▪ Children and adolescents ▪ Case project group meeting	<i>Thompson: Chaps 2</i> <i>Guide: Chap. 11</i>	In class Quiz 10
15	11/25 (T)	▪ Autism spectrum disorder	<i>Guide: Chap. 11</i>	Canvas Quiz 6. Pulmonary, cancer due 9am Canvas Quiz 7. CP due 9am
	11/27 (TH)	<b>THANKSGIVING</b>	<b>NO CLASS</b>	
16	12/2 (T)	▪ Older adults	<i>Thompson: Chap 2, 9</i> <i>Guide: Chap. 10</i>	In class Quiz 11
	12/4 (TH)	▪ Osteoporosis (Last day of instruction)	<i>Thompson: Chap 2, 9</i> <i>Guide: Chap. 10</i>	Canvas Quiz 8. Children/ASD due 9am Canvas Quiz 9. Older adults /osteoporosis due 9am
FINAL WEEK		<b>Final exam (30%, 120 min)</b> Section 01: 12/11 (Thursday) 10:45am-12:45pm Section 02: 12/16 (Tuesday) 1:00pm-3:00pm	<b>Cumulative</b>	Assignment 2-3. Final case report due in class

I confirm that I have read this syllabus and understood the course information.

Name and Signature:

Date:

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