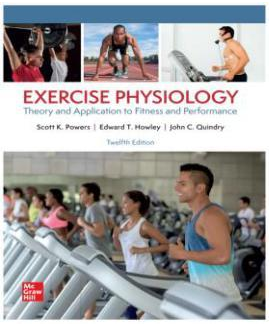
Physiology of Exercise
KINE 3305; Spring 2025
Tuesdays and Thursdays 11:00am–12:15pm
GPC 108

SYLLABUS

Faculty Information
Doug Renshaw PhD

- **Email is the best way to get in contact with me:** doug.renshaw@sulross.edu
  - **Please make sure you put KINE 3305 somewhere in the subject line of the email.**
  - **Please use your SRSU email address. I cannot answer emails from non-SRSU accounts.**
  - Please be professional in your communications, especially when communicating by email For a review on how to write a professional email, please see https://www.grammarly.com/blog/professional-email-in-english/.
- **Office Phone:** 432-837-8661
- **Office Hours:**
  - **Tuesday:** 10-11am, 12-3pm
  - **Wednesday:**
  - **Thursday:** 10-11am, 12-3pm
  - *or by appointment*



Required Textbook
Inclusive Access: Exercise Physiology: Theory and Application to Fitness and Performance
Edition: 12 (has treadmills on the front)
Author: Scott Powers

This class requires Connect textbook access. You do not need to purchase the book or Connect. This class is part of Inclusive Access, a course material affordability program. Inclusive Access is designed by institutions and guided by the Department of Education to deliver digital learning resources to students, at a significantly reduced cost, on or before the first day of class. All students should have been sent a password the day before the first day of class via email. Please let me know if you did not receive this or need access.

Course Description
Physiological responses of the human body during various levels/intensities of physical activity and exercise.

Purpose of the Course

The purpose of this course is to provide an in-depth study of the principles of exercise physiology.

Student Learning Outcomes
The learning activities, assignments, and exams in this course are constructed to assess each student's mastery of the following learning outcomes. By the end of the course, the student will be able to:

A. Identify the acute and chronic physiological changes that occur during exercise.
B. Recognize means of maintaining the body in optimum physiological status for exercise.
C. Describe the physiological adaptations that occur following exercise training.
D. Explain the benefits of a consistent exercise program and the health risks associated with inactivity.
E. Discuss how the various systems of the human body interrelate in response to exercise.
F. Interpret the control steps and mechanisms of metabolism.

Standard Alignment:
Standard II:

The physical education teacher understands principles and benefits of a healthy, physically active lifestyle and motivates students to participate in activities that promote this lifestyle.

The teacher understands major body systems, principles of physical fitness development and training and the benefits of a healthy, active lifestyle.

The teacher understands principles and activities for developing and maintaining cardiovascular endurance.

The teacher understands principles and activities for developing and maintaining flexibility, posture, muscular strength, and endurance.

The teacher understands health and wellness concepts, including those related to nutrition, weight control and stress management, and analyses ways in which personal behaviors influence health and wellness.

Program Learning Outcomes

1. The Kinesiology and Sport Science students will understand the principles of motor learning; understand the practice for developing motor skills; apply knowledge to biomechanical principles; apply knowledge of individual and team's sports and understand the principles of dance, personal performance activities, recreational activities and outdoor pursuits (Movement Skills and Knowledge Domain).
2. The Kinesiology and Sport Science students will understand major body systems, principles of physical fitness and benefits of a healthy lifestyle; understand the principles and activities for developing cardiovascular endurance; understand principles and activities for developing and maintaining flexibility, muscular strength and endurance; and understand health and wellness concepts (Health-Related Physical Fitness Domain).
3. The Kinesiology and Sport Science students will know how to use effective instruction and assessment to prepare physically educated individuals; understand factors relevant to

learning and performance in physical education and use knowledge to promote students' development; understand the structure and purposes of physical education programs; and understand legal issues and responsibilities of physical education teachers (The Physical Education Program Domain).

Marketable Skills

The following marketable skills are met in this course:

- Collaboration – students will interact with one another through class discussions and activities.
- Critical Thinking – Exercise sound reasoning to analyze issues, make decisions, and overcome problems. The individual is able to obtain, interpret, and use knowledge, facts, and data in this process, and may demonstrate originality and inventiveness.
- Career Readiness – students will develop the skills necessary to thrive in a management role in their chosen profession.

Grading Policies

Outcome Measure	Description	Points	% of Total Grade
Attendance/quizzes	Come to class take quizzes	**200**	20
SmartBook Chapter Assignments	Using McGraw Hill Connect, complete SmartBook Chapter assignments	20 selected chapters x 25 points each = **500** points	50
Tests	2 tests through Connect	2 tests = **250** total points Midterm 100/final 150	25
Peer review presentation/project	We will have a TBD project	**100**	10
	Total Points	**1050**	**100**

*Letter Grading as per SRSU policy will be used in this course.

SmartBook Assignments

SmartBook is an interactive reading program provided through McGraw Hill Connect. These assignments ask you questions to assess your comprehension of each chapter. These SmartBook readings will cover information that will be on each of the tests. *Please make sure to read the chapter BEFORE completing the SmartBook assignments!*

Tests

There are 2 tests throughout the semester that will assess your knowledge of the corresponding SmartBook assignments. Each test contains a mix of information from the chapters assigned. They consist of multiple-choice and true/false questions.

Pop Quizzes
Throughout the semester, there will be 10 pop quizzes worth 20 points each. These will be administered at the start of class. These are to verify that you have read the information we are covering that week. The pop quiz will be over the chapter to be covered that day in class.

Labs
There are 4 main labs. All labs will be completed during class with a partner, however, if the lab is not completed during class, students will need to schedule a time with the Graduate Assistant (GA) to finish outside of class. If absent, students must perform lab under the supervision of a TA or professor in order to receive points.

Labs may use AD Instruments LT sensors and Power Lab for recording biosignals into LT software (available online; I will show you). LT sensors/Power Lab are used with a modified version of the LT Exercise Physiology Collection that contains lessons, each with a combination of tutorials, pre-lab prep, and a lab. The combination of lessons and LT Sensors/Power Lab engages students in hands-on learning. Students record their own biological signals directly into LT, making scientific theory relevant and real.

AI Policy

The University does not recommend or endorse any specific AI tools or resources. Students should be aware that many generative AI tools (e.g., ChatGPT, Google Gemini, Microsoft Copilot) store user input and may use this data to train future models. For this reason, students should never upload or share personal, confidential, or identifiable information—such as names, ID numbers, health data, or assignment submissions containing such details—into any generative AI platform. When using AI tools, students should verify whether the tool complies with student privacy standards as indicated by the University. Faculty may recommend specific tools that better align with institutional data privacy policies, but ultimate responsibility for data protection rests with users. Students are encouraged to use faculty-recommended platforms when engaging in coursework involving generative AI. The University is not liable for any adverse experience or impact when students interact with these tools.

The emergence of generative AI tools (such as ChatGPT and DALL-E) has sparked interest among many students in our discipline. The use of these tools for brainstorming ideas, exploring possible responses to questions or problems, and creative engagement with the materials may be useful for you as you craft responses to class assignments. While there is no substitute for working directly with your instructor, the potential for generative AI tools to provide automatic feedback, assistive technology and language assistance is clearly developing. Please feel free to reach out to me well in advance of the due date of assignments for which you may be using generative AI tools and I will be happy to discuss what is acceptable.
In this course, students shall give credit to AI tools whenever used, even if only to generate ideas rather than usable text or illustrations. When using AI tools on assignments, add an appendix showing (a) the entire exchange, highlighting the most relevant sections; (b) a description of precisely which AI tools were used (e.g. ChatGPT private subscription version or DALL-E free version), (c) an explanation of how the AI tools were used (e.g. to generate ideas, turns of phrase, elements of text, long stretches of text, lines of argument, pieces of evidence, maps of the conceptual territory, illustrations of key concepts, etc.); (d) an account of why AI tools were used (e.g. to save time, to surmount writer's block, to stimulate thinking, to handle mounting stress, to clarify prose, to translate text, to experiment for fun, etc.). Students shall not use AI tools during in-class examinations, or assignments unless explicitly permitted and instructed.

Overall, AI tools should be used wisely and reflectively with an aim to deepen understanding of subject matter.

It is a violation of university policy to misrepresent work that you submit or exchange with your instructor by characterizing it as your own, such as submitting responses to assignments that do not acknowledge the use of generative AI tools. Please feel free to reach out to me with any questions you may have about the use of generative AI tools before submitting any content that has been substantially informed by these tools.

In this course, we may use generative AI tools (such as ChatGPT) to examine the ways in which these kinds of tools may inform our exploration of the topics of the class. You will be informed as to when and how these tools will be used, along with guidance for attribution if/as needed. Any use of generative AI tools outside of these parameters constitutes plagiarism and will be treated as such.

Understanding how and when to use generative AI tools (such as ChatGPT, DALL-E) is quickly emerging as an important skill for future professions. To that end, you are welcome to use generative AI tools in this class as long as it aligns with the learning outcomes or goals associated with assignments. You are fully responsible for the information you submit based on a generative AI query (such that it does not violate academic honesty standards, intellectual property laws, or standards of non-public research you are conducting through coursework). Your use of generative AI tools must be properly documented and cited for any work submitted in this course.

To ensure all students have an equal opportunity to succeed and to preserve the integrity of the course, students are not permitted to submit text that is generated by artificial intelligence (AI) systems such as ChatGPT, Bing Chat, Claude, Google Bard, or any other automated assistance for any classwork or assessments. This includes using AI to generate answers to assignments, exams, or projects, or using AI to complete any other course-related tasks. Using AI in this way undermines your ability to develop critical thinking, writing, or research skills that are essential for this course and your academic success. Students may use AI as part of their research and preparation for assignments, or as a text editor, but text that is submitted must be written by the student. For example, students may use AI to generate ideas, questions, or summaries that they then revise, expand, or cite properly. Students should also be aware of the potential benefits and limitations of using AI as a tool for learning and research. AI systems can provide helpful information or suggestions, but they are not always reliable or accurate. Students should critically evaluate the sources, methods, and outputs of AI systems. Violations of this policy will be treated as academic misconduct. If you have any questions about this policy or if you are unsure whether a particular use of AI is acceptable, please do not hesitate to ask for clarification.

MY COURSE POLICIES

DR. RENSHAW'S COURSE POLICIES

Communication is key.

I expect you to attend class (by physically attending and by logging in to Blackboard), engage, and complete your work by the deadlines assigned. However, I understand that extenuating circumstances can occur. Therefore, I expect you to inform me as soon as possible if you are having complications completing your work in a timely manner. **With communication, we can work out a plan for your success**. If you do not meet my expectations, and you do not communicate with me, there is nothing I can do to help you succeed. It is YOUR RESPONSIBILITY to communicate with me.

IF YOU EMAIL ME: In the subject line put your name and the course you are emailing me about. Be professional, and respectful. No abbreviations.

READ MY ANNOUNCEMENTS: I may need to cancel class first thing in the morning and I may just send out an announcement with a single word that will be on a pop quiz that day

Studies show that students have better grades when they attend class! So, please attend class. If you miss more than 3 classes without a documentation provided to the professor, your final grade in the class will be reduced by an entire letter grade. For example, if you have an A in the class but miss 4 classes without telling the professor, your final grade will be reduced to a B. Please make sure to communicate often and early with your professor, especially concerning absences.

I do not accept late work: If you do not turn in an assignment on time, you will receive a zero for that assignment. I understand extenuating circumstances can occur, but I don't care. You have 8 weeks to complete the assigned work, if you cannot make time to do your connect assignments or take the tests – you probably should not be enrolled in school at this time. This is absolutely, positively, 100% NON-NEGOTIABLE.

TESTS: All tests will be online via BB. I use a general lockdown browser. It is your responsibility to make sure your technical issues are resolved and you can complete the exam on your device or using the computer lab. I open the exam 1 week before the due date. If you start the timed exam 2 hours before the due date and time and have problems, I WILL NOT REOPEN THE EXAM. Please don't wait until the last minute to attempt the test.

I have zero tolerance for cheating, academic dishonesty, and plagiarism.
For any student who cheats, is suspected of cheating, or who unintentionally or intentionally plagiarizes, I immediately contact the Dean of Student Affairs, and the student receives a zero for the work. *There are no exceptions.* Please use anti-plagiarism software before turning in any assignment to avoid any consequences. If you need a review on how to avoid plagiarism and cite sources correctly, please visit the Lobo Den: https://www.sulross.edu/student-advising/lobo-den/ **The use of AI to complete work in this class is prohibited.**

I do not calculate grades before the end of the semester.
All point totals are listed in this syllabus which will aid you in calculating your own grade. All of your grades will be on Blackboard.

Do not email me with questions until you check Blackboard announcements, your email, and you re-read this syllabus. Many questions can be answered by checking Blackboard announcements, your email, and reviewing this syllabus. If you still have questions after reviewing these three things, please email me using your Sul Ross email. I cannot answer email from non-Sul Ross accounts. Please address me as Dr. Dean in your communications. Please see the next course policy on how to write a professional email.

I value good grammar and professional communication.
In all of your work, please use good grammar. I require complete sentences in all of your assignments. If you write in phrases or without correct punctuation, you will receive point

deductions. If you need a review on good grammar and acceptable writing practices, please make an appointment with the writing center.
Please be professional in your communications, especially when communicating by email. For a review on how to write a professional email, please see https://www.grammarly.com/blog/professional-email-in-english/.

Please be respectful both to your peers and professors in all communications both during and outside of class. In this class we may discuss topics that are debatable in nature. I ask that you share your experiences and opinions as you are willing; all opinions are welcomed and encouraged. Therefore, as we embrace differing opinions, students should be prepared to experience and participate in respectful conflict. If at any time a student engages in a disrespectful manner to peers or the professor, the student will be asked to leave the class and not return.

I value mental health.
I believe mental health is just as important as physical health. Free and confidential counseling services are available to all Sul Ross students. This course may feature discussions that can be reflective in nature. If at any time you feel the need to speak with somebody, you can make an appointment: https://www.sulross.edu/counseling-and-accessibility-services/

24-Hour National Suicide Prevention Hotline: 988

Sul Ross has partnered with TimelyCare, an online mental health support platform and all SR students will have access to nine free Counseling sessions by visiting https://timelycare.com/SRSU/. SRSU also continues to offer counseling in Ferguson Hall room 112 in Alpine, and telehealth Zoom session for our Rio Grande, Uvalde, Eagle Pass, and remote students.

Note: Students, you are also eligible to receive **nine** free sessions with Timely Care. After the nine free sessions, additional sessions cost is $79 per session.

UNIVERSITY POLICIES

ADA Statement

SRSU Accessibility Services. Sul Ross State University (SRSU) is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director at 432-837-8203 or email mschwartze@sulross.edu. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

SRSU Distance Education Statement

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website.

Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires a secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

Libraries

The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu/. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or by phone (432-837-8123).

No matter where you are based, public libraries and many academic and special libraries welcome the general public into their spaces for study. SRSU TexShare Cardholders can access additional services and resources at various libraries across Texas. Learn more about the TexShare program by visiting library.sulross.edu/find-and-borrow/texshare/ or ask a librarian by emailing srsulibrary@sulross.edu.

New for Fall 2023: Mike Fernandez, SRSU Librarian, is based in Eagle Pass (Building D-129) to offer specialized library services to students, faculty, and staff. Utilize free services such as InterLibrary Loan (ILL) and ScanIt to get materials delivered to you at home or via email.

Academic Integrity

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course

assignment, examination, or quiz when collaboration is forbidden. Students should also avoid using open AI sources *unless permission is expressly given* for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

Classroom Climate of Respect

Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still, we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

Supportive Statement

I am to create a learning environment for my students that supports various perspectives and experiences. I understand that the recent pandemic, economic disparity, and health concerns, or even unexpected life events may impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create a supportive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don’t hesitate to come and talk with me. I want to be a resource for you.

Course Schedule

Week	What we cover on Tuesday	What we cover on Thursday	Activities/ Assignments ***All Due Dates on Sunday @ 11:59PM CST,*** *(Activities may be submitted early)*
Week 1 8/26 – 8/30	1/18 • First class day • Course Introduction • Syllabus • Course Policies Schedule	8/29 Ch 0: Introduction to Exercise Physiology	Due Sunday, 9/1, by 11:59pm: • Course Contract • SmartBook Ch 0 • SmartBook Ch 1
Week 2 9/2 – 9/6	9/3 Ch 0: Introduction to Exercise Physiology	9/5 Ch 1: Common Measurements in Exercise Physiology	Due Sunday, 9/8 by 11:59pm: • SmartBook Ch 2 • SmartBook Ch 3
Week 3 9/9-9/13	9/10 Lab 1: calculations	9/12 Lab 1: calculations	(none)
Week 4 9/16 – 9/20	9/17	9/19 Ch 2: Control of the Internal Environment	(none)
Week 5 9/23 – 9/27	9/24 Ch 3: Bioenergetics	2/15 Test 1 (Ch 0-3), on Blackboard (no in-person class); Due TODAY	Work on Test 1 Corrections at home Due Sunday, 2/18 by 11:59pm: • SmartBook Ch 4 • SmartBook Ch 7
Week 6 9/30 -10/4	9/31 Ch 4: Exercise Metabolism	2/22 Ch 4: Exercise Metabolism (continued)	Due Sunday, 2/25 by 11:59pm: • SmartBook Ch 8
Week 7 10/7 – 10/11	10/8 (I will briefly discuss Ch 5 and 6) Ch 7: The Nervous System: Structure and Control of Movement Test 1 Corrections due In-Person	2/29 Ch 8: Skeletal Muscle: Structure and Function	(none)
Week 8 10/14 – 10/18	10/15 (I will briefly discuss Ch 9, 10, 11, 12) Lab 2 (Review day!)	3/7 Test 2 (Midterm, Ch 0-4, 7-8), on Blackboard (no in-person class); Due TODAY	Due Sunday, 3/10 by 11:59: • Lab 2
Week 9 10/21 – 10/25	10/22	10/24	(none)

Week 10 10/28 – 11/1	10/29 Ch 13: Physiology of Training: Effects of Aerobic and Anaerobic Training	10/31 Ch 13 Continued	Due Sunday, 3/24 by 11:59: • SmartBook Ch 13 • SmartBook Ch 14
Week 11 11/4 – 11/8	11/5 Ch 14: The Physiology of Resistance Training	11/7 Ch 14 Continued Lab 3	Due Sunday, 3/31 by 11:59pm: • SmartBook Ch 15 • SmartBook Ch 17 • Lab 3
Week 12 11/11 – 11/15	11/12 Ch 15: Exercise is Medicine-Part 1: Prevention of Chronic Diseases	11/14 Ch 15 continued	Due Sunday, 4/7 by 11:59pm: • (none)
Week 13 11/18 – 11/22	11/19 Ch 17: Exercise is Medicine-Part 3: Exercise Prescriptions for Health and Fitness	11/21 Test 3 (Ch 13, 14, 15, 17), on Blackboard (no in-person class); Due TODAY	Due Sunday, 4/14 by 11:59pm: • SmartBook Ch 19 • SmartBook Ch 20
Week 14 11/25 – 11/29	Thanksgiving break		Due Sunday, 4/21 by 11:59pm: • SmartBook Ch 21 • SmartBook Ch 24
Week 15 12/2 – 12/6	12/3 Finals review	Dead day	
Week 16 12/2-12/4	Final exam TBA	Final exam TBA	----------

*Please remember that **this schedule may change.** The professor reserves the right to make changes. I will give you enough time to complete the necessary work. Any update to this schedule will be noted and posted on Blackboard. It is your responsibility to communicate with me if you cannot meet the required deadlines.

NOTE: The final exam (Test 4) is cumulative and covers Ch 0-4, 7-8, 13-15, 17, 19-21, and 24. The exam will be on Blackboard