



SUL ROSS
KINESIOLOGY DEPARTMENT

KES 3305 - Exercise Physiology – Fall 2021
T/R: 11am-12:15pm in GPC108

Dr. Chris Herrera, PhD, MBA

Associate Professor - Kinesiology

Office: Graves-Pierce 101
Phone: 432/837-8375 office
Email: Christopher.herrera@sulross.edu
Office Hours: Mon-Fri: 1:30pm to 3:30pm or **By appointment** (Email to set an appointment)
Required Text: Title: Exercise Physiology: Theory and Application to Fitness and Performance **11th ed.**
Author: Powers
Publisher: McGraw-Hill Education

*This class requires **Connect** textbook access directly from the Connect website –
See Blackboard for link; Codes are available through SRSU Bookstore*

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.

Course: Student Learning Objectives

Upon successful completion of this course students will:

1. The acute physiological changes that occur during exercise
2. Appropriate means of maintaining the body in optimum physiological status for exercise
3. The physiological adaptations that occur following exercise training
4. Health benefits of a consistent exercise program and the health risks associated with inactivity
5. The students will be able to discuss how the various systems of the human body interrelate in response to exercise.
6. The students will be able to discuss the various control steps and mechanisms of metabolism (ATP production and ATP utilization).

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 and 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.

Course: Marketable Skills

The following marketable skills are achieved in this course:

Critical Thinking/Problem Solving: 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.

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 teams 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).
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GRADING POLICIES/TESTING/ASSIGNMENTS/ATTENDANCE/EXPECTATIONS

Outcome Measure	Points per item	No of items	Available Points	Percentage of Grade
Connect SmartBook Chapter Readings	8	25	200	20%
Homework Assignments	50	4	200	20%
Tests (*Final Exam is Test 4)	100	4	400	40%
Journals	50	2	100	10%
Laboratory Project	100	1	100	10%
Total/Final Grade*	--		1000	100%

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

Be sure to complete all assignments by the due date. Late assignments will have points deducted!

COURSE REQUIREMENTS

- I. Chapter Readings (e.g. SmartBook via Connect).** 25 units; “flipped classroom”
- II. Homework assignments.** Four (4) available; will be introduced in class and require lab work
- III. TESTS.** Four (4) test will be given; Test 4 is the final exam – not comprehensive.
- IV. Journals.** Two (2) available. Journals are personal spaces for students to communicate privately with instructor. Students will use journals as a self-reflective tool. They can post their opinions, ideas, and concerns about the course, or discuss course-related materials
- V. Laboratory Project.** One (1) available; will be a formal lab experiment to collect and analyze data

ALL COURSE REQUIREMENTS DEADLINE

Due to the time requirement for grading purposes, all course requirements must be submitted/completed by the ‘Course Requirements Deadline’ of **Monday in Week 16 at 11:59pm** to be counted for credit towards the final letter grade in this course. There will be no exceptions to this policy. Late deductions will apply as per above policy.

LATE WORK POLICY

All coursework must be submitted by the provided due dates in Blackboard or Connect. LearnSmart readings must be completed by the due date for credit – no late work will be accepted. Connect quizzes, tests and homework carry a 5% deduction per day late; Discussions/Responses/Assignments/Final Projects carry a 5% deduction per day late with up to 30% maximum deduction. If you have not turned in an assignment within 7 days of the due date, you must email the professor for grading consideration.

DISTANCE EDUCATION STATEMENT

Students enrolled in distance education courses have equal access to the university’s academic support services, such as Smarthinking, 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 or designated platform, which requires secure login information to verify students’ identities and to protect students’ information. The procedures for filing a student complaint are included in the student handbook. 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.

TENTATIVE COURSE CALENDAR

Week	Class Dates	Content	Due
1	8/24; 8/26	Syllabus Review, Class Expectations, Demonstrations, Orientation to Laboratory	LearnSmart Ch00-1. 8/30
2	8/31; 9/2	Ch 00 – Introduction to Exercise Physiology Ch 1 – Common Measurements in Exercise Physiology	<i>Assignment 1 – Collecting Data</i> 9/2 LearnSmart 2-3. 9/6
3	9/7; 9/9	Ch 2 – Control of the Internal Environment Ch 3 – Bioenergetics	LearnSmart 4-5-6, 9/13 <i>Test #1: Ch 1-6.</i> 9/13
4	9/14; 9/16	Ch 4 – Exercise Metabolism Ch 5 – Cell Signaling and Hormonal Response to Exercise Ch 6 – Exercise and the Immune System	<i>JOURNAL #1</i> , 9/19 <i>(Review Test Concepts As needed)</i>
5	9/21; 9/23	Lab Demos – Homework	<i>Assignment 2 – Steady State</i> 9/23 LearnSmart: Ch 7-9, 9/27
6	9/28; 9/30	Ch 7 – The Nervous System: Structure/Control of Movement Ch 8 – Skeletal Muscle Structure and Function Ch 9 – Circulatory Response to Exercise	LearnSmart: Ch 10-11-12, 10/4
7	10/5; 10/7	Ch 10 – Respiration during Exercise Ch 11 – Acid-Base Balance During Exercise Ch 12 – Temperature Regulation	LearnSmart: Ch 13-14, 10/11 <i>Test #2: Chapters 7-14,</i> 10/11
8	10/12; 10/14	Ch 13 – The Physiology of Training: Effect on V02 Max <i>Ch 14 – Physiology of Resistance Training</i>	<i>JOURNAL #2 DUE</i> , 10/17 <i>(Review Test Concepts As needed)</i>
9	10/19; 10/21	Lab Demos – Homework	<i>Assignment 3 –Strength/Flexibility,</i> 10/22 LearnSmart: Ch 15-16, 10/25
10	10/26; 10/28	<i>Ch 15 – Preventing Chronic Disease: PA & Healthy Eating</i> Ch 16 – Exercise Prescription for Health and Fitness	LearnSmart: Ch 17-18, 11/1 <i>Test #3: Chapters 15-18,</i> 11/1
11	11/2; 11/4	Ch 17 – Exercise for Special Populations Ch 18 – Nutrition and Body Composition for Health	LearnSmart: Ch 19-20-21, 11/8 <i>Exercise Demo</i>
12	11/9; 11/11	Ch 19 – Factors affecting performance Ch 20 – Training for Performance Ch 21 – Training for Female/Children/Special Populations	LearnSmart: Ch 22-23-24, 11/15 <i>Test #4: Chapters 19-24,</i> 11/15
13	11/16; 11/18	Ch 22 – Nutrition Body Composition and Performance Ch 23 – Exercise & Environment Ch 24 – Ergogenic Aids	<i>Assignment 4 – Exercise Tests,</i> 11/12 Research SPOTLIGHT
14	11/23; 11/25	Use class time for tutoring - Lab Project	<i>Conduct Laboratory Project</i>
15	11/30; 12/1	Use class time for tutoring - Lab Project	<i>Laboratory Project Due</i> 11/30
16	12/7	NO CLASS	DONE!

Academic Honesty

Students are expected to do their own work. Cheating in any form will be subject to disciplinary action that can result in dismissal from the class with a grade of F. This includes plagiarism.

All of the following are considered plagiarism: (taken from: <http://www.plagiarism.org/>)

- turning in someone else's work as your own
- copying words or ideas from someone else without giving credit
- failing to put a quotation in quotation marks
- giving incorrect information about the source of a quotation
- changing words but copying the sentence structure of a source without giving credit
- copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not

Academic Integrity Statement

Academic integrity represents the choice to uphold ethical responsibility for one's learning within the academic community, regardless of audience or situation.

Academic Civility Statement

Students are expected to interact with professors and peers in a respectful manner that enhances the learning environment. Professors may require a student who deviates from this expectation to leave the face-to-face (or virtual) classroom learning environment for that particular class session (and potentially subsequent class sessions) for a specific amount of time. In addition, the professor might consider the university disciplinary process (for Academic Affairs/Student Life) for egregious or continued disruptive behavior.

Academic Affairs Service Statement

Sul Ross faculty, staff, and students are expected to model responsible citizenship through service activities that promote personal and academic growth while enhancing the university, local, regional, national, and global communities. These activities will foster a culture of academic/public engagement that contributes to the achievement of the university's mission and core values.

Academic Excellence Statement

Sul Ross holds high expectations for students to assume responsibility for their own individual learning. Students are also expected to achieve academic excellence by:

- Honoring the core values of Sul Ross.
- Upholding high standards of habit and behavior.
- Maintaining excellence through class attendance and punctuality.
- Preparing for active participation in all learning experiences.
- Putting forth their best individual effort.
- Continually improving as independent learners.
- Engaging in extracurricular opportunities that encourage personal and academic growth.
- Reflecting critically upon feedback and applying these lessons to meet future challenges.

LEARNER SUPPORT

SRSU GRADUATE CENTER

The Graduate Student Center, located in BAB 104, provides resources and services for all SRSU graduate students. There is a computer lab with desktop computers and a networked printer/copier/scanner; laptop computers which can be checked out; a projector and screen for rehearsing student presentations; and a conference room for group study. Both Alpine and distance education students can receive writing and other assistance by calling 432-837-8524.

BLACKBOARD

Our new 24/7 Blackboard online support desk and toll free hotline are set to debut next Monday, May 18th, the Blackboard online support desk toll free number will go live and will be made available to SRSU faculty and students to begin using immediately for any Blackboard technical support issues. SRSU 24/7 Blackboard Technical Support Online Support Desk Contact Info: Toll Free: 888.837.6055 Email: blackboardsupport@sulross.edu

MCGRAW HILL CONNECT If you have any technical issues or questions, please contact McGraw-Hill's Customer Experience Group at 1-800-331-5094.

SRSU DISABILITY SERVICES The University is committed to equal access in compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. The Disability Services Coordinator in Counseling and Student Support Services has the responsibility to ensure students with disabilities the opportunity for full participation in programs, services and activities. Students seeking disability services need to contact the Disability Services Coordinator located in the University Center Room 211. The mailing address is PO Box C-171, Sul Ross State University, Alpine, Texas 79832. The telephone is 432- 837-8178; fax is 432-837-8724.