



SUL ROSS
KINESIOLOGY DEPARTMENT

KES 3305 - Exercise Physiology – Spring 2022
T/R: 11am-12:15pm in GPC108

Dr. Chris Herrera, PhD, MBA

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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 –
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; this is a “flipped classroom”
- II. Homework assignments.** Four (4) available; introduced in class and require independent lab work
- III. TESTS.** Four (4) test will be given; Test 4 is not comprehensive; there is no final exam
- 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. Final/Laboratory Project.** One (1) available; 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.

LEARNER SUPPORT

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.

TENTATIVE COURSE CALENDAR

Week	Content	Due
1	Syllabus Review, Class Expectations, Demonstrations, Orientation to Laboratory	LearnSmart Ch00-1. 1/17
2	Ch 00 – Introduction to Exercise Physiology Ch 1 – Common Measurements in Exercise Physiology	<i>Assignment 1 – Collecting Data</i> 1/24 LearnSmart 2-3. 1/24
3	Ch 2 – Control of the Internal Environment Ch 3 – Bioenergetics	LearnSmart 4-5-6, 1/31
4	Ch 4 – Exercise Metabolism Ch 5 – Cell Signaling and Hormonal Response to Exercise Ch 6 – Exercise and the Immune System	<i>JOURNAL #1</i> , 2/7 <i>Test #1: Ch 1-6.</i> 2/7
5	Lab Demos – Homework	<i>Assignment 2 – Steady State</i> 2/14 LearnSmart: Ch 7-9, 2/14
6	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, 2/21
7	Ch 10 – Respiration during Exercise Ch 11 – Acid-Base Balance During Exercise Ch 12 – Temperature Regulation	LearnSmart: Ch 13-14, 2/28
8	Ch 13 – The Physiology of Training: Effect on V _{O2} Max <i>Ch 14 – Physiology of Resistance Training</i>	<i>Test #2: Chapters 7-14,</i> 3/7 <i>JOURNAL #2 DUE,</i> 3/7
9	Lab Demos – Homework	<i>Assignment 3 –Strength/Flexibility,</i> 3/21 <i>LearnSmart: Ch 15-16,</i> 3/21
10	<i>Ch 15 – Preventing Chronic Disease: PA & Healthy Eating</i> Ch 16 – Exercise Prescription for Health and Fitness	LearnSmart: Ch 17-18, 3/28
11	Ch 17 – Exercise for Special Populations Ch 18 – Nutrition and Body Composition for Health	<i>Test #3: Chapters 15-18,</i> 4/4
12	<i>Exercise Demos</i> Research SPOTLIGHT	<i>Assignment 4 – Exercise Tests,</i> 4/11 LearnSmart: Ch 19-20-21, 4/11
13	Ch 19 – Factors affecting performance Ch 20 – Training for Performance Ch 21 – Training for Female/Children/Special Populations	LearnSmart: Ch 22-23-24, 4/18
14	Ch 22 – Nutrition Body Composition and Performance Ch 23 – Exercise & Environment Ch 24 – Ergogenic Aids	<i>Conduct Laboratory Project</i> <i>Test #4: Chapters 19-24,</i> 4/25
15	Use class time for tutoring - Lab Project	<i>Laboratory Project Due</i> 5/2
16	NO CLASS	DONE!

UNIVERSITY POLICIES

Accidents & Injuries

In the case of bodily or personal property damage, the Kinesiology Department will not be held responsible. The student must report any field experience related injury or illness to the Instructor immediately. Any expense incurred due to injury or illness will be the student's responsibility.

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 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.

SRSU Library Info

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 phone (432-837-8123).

Disability Statement

SRSU Disability Services. Sul Ross State University (SRSU) is committed to equal access in compliance with 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. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartz@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832.

Academic Integrity Statement

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: 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.

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.

Diversity Statement

I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could 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 an inclusive 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.

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.