



**Physiology of Exercise**  
KINE 3305; Fall 2023  
Tuesdays and Thursdays 11:00am–12:15pm  
GPC 105

## SYLLABUS

### Faculty Information

Julianna M. Dean, PhD, MS, CSCS

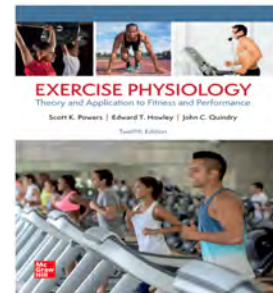
- **Email is the best way to get in contact with me:** [julianna.dean@sulross.edu](mailto:julianna.dean@sulross.edu)
  - **Please make sure you put KINE 3305 somewhere in the subject line of the email.**
  - **Please address me as “Dr. Dean”, NOT Ms. Dean**
  - **Please use your SRSU email address. I cannot answer emails from non-SRSU accounts.**
- **Office Phone:** 432-837-8556
- **Office Hours:**
  - **Tuesday:** 9-11am, 2-3pm
  - **Wednesday:** 9am-12pm, 2-3pm
  - **Thursday:** 9-11, 2-3pm
  - *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. [julianna.dean@sulross.edu](mailto:julianna.dean@sulross.edu).

### 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:

- A. The acute physiological changes that occur during exercise

- B. Appropriate means of maintaining the body in optimum physiological status for exercise
- C. The physiological adaptations that occur following exercise training
- D. Health benefits of a consistent exercise program and the health risks associated with inactivity
- E. The students will be able to discuss how the various systems of the human body interrelate in response to exercise
- F. 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, 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 a multitude of 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 roll in their chosen profession.

### Grading Policies

Outcome Measure	Description	Points	% of Total Grade
Course Contract	Initial and sign the course contract and upload to Blackboard	Completion (0 points)	--
SmartBook Chapter Readings	Using McGraw Hill Connect, complete SmartBook Chapter readings	25 chapters x 10 points each = 250 points	25
Tests	4 tests through Connect; all are proctored using PROCTORIO	4 tests x 100 points each = 200 total points	40
Pop Quizzes	10 pop quizzes throughout the semester at start of class	10 x 10 points each = 100 points	10
Labs	4 Labs	4 assignments x 50 points each = 400 points	20
Attendance	25 days (excludes testing days)	25 days x 2 points each = 50 points	5
<b>Total Points</b>		<b>1000</b>	<b>100</b>

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

### Course Contract

To start the class, all students must read, initial, sign and date the course contract. The contract clearly explains my expectations of you as a student in this class, and it covers my course policies. Please upload this within the first week of class as listed on the course schedule. You cannot continue in the class if you do not upload this.

### SmartBook Chapter Readings

SmartBook is an interactive reading program provided through McGraw Hill Connect. These modules will guide you through each individual chapter and ask you questions to assess your knowledge along the way. These SmartBook readings will cover information that will be on each of the tests. Each SmartBook reading (multiple chapters) may take you around an hour, so please plan accordingly!

### Tests

There are four 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. All tests will be proctored through McGraw Hill's proctoring service, PROCTORIO.

### **Pop Quizzes**

Throughout the semester, there will be 10 pop quizzes worth 10 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 a question from either the Chapter Objectives or Study Questions from the textbook.

### **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. Students will perform pre-lab (5-10 points) before starting the lab.

Labs will 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.

### **Attendance**

Studies show that students have better grades when they attend class! So, get points for coming to class each day: 25 total class days (excludes testing days) x 2 points per class = 50 available attendance points. If you are late, you only get 1 point.

If tardy, you must talk to the professor after class in order to get the 1 point. Don't assume the professor will automatically change your grade after the class. If you come to class late and don't talk to the professor after class, points may not be awarded for being late and will stay a 0. If a class is missed without a verified, documented reason, the student will not receive the participation points for that class.

## **MY 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.

**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. **Therefore, any extensions must be requested at least 24 hours in advance of the due date.**

**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/>

**This is not a self-paced course. Deadlines are hard deadlines.**

Please be vigilant of the course schedule and deadlines. You are responsible for your participation and work. If you expect to miss any deadline, you must contact me at least 24 hours in advance to work out a plan for your success. If you contact me after a deadline, there is nothing I can do; you will receive a 0.

**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. Please address me as Dr. Dean. 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/>

## **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 Schwartz Grisham, LPC, SRSU's Accessibility Services Director at 432-837-8203 or email [mschwartz@sulross.edu](mailto:mschwartz@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/](http://library.sulross.edu/). Off-campus access requires logging in with your LobolD and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email ([srsulibrary@sulross.edu](mailto: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/](http://library.sulross.edu/find-and-borrow/texshare/) or ask a librarian by emailing [srsulibrary@sulross.edu](mailto: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.

Finally, **PLEASE** complete the course evaluation at the end of class. This helps me keep my job here!





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GPC 105

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Please remember that **this schedule may change**. 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.

BB=Blackboard

**Red: Quizzes/tests are DUE on BB on this date by 11:59pm**


Week #	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	8/27	8/28	8/29 First class day Course Introduction, Course Contract Syllabus, Course Policies, Schedule	8/30	8/31 Chapter 0: Introduction to Exercise Physiology	9/1	9/2
2	9/3 <b>Due on BB by 11:59pm: -Course Contract -SmartBook Ch 00-2</b>	9/4	9/5 Ch 1: Common Measurements in Exercise Physiology	9/6	9/7 Ch 2: Control of the Internal Environment	9/8	9/9
3	9/10	9/11	9/12 Ch 3: Bioenergetics	9/13	9/14 Ch 4: Exercise Metabolism	9/15	9/16



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	Due on BB by 11:59pm: -SmartBook Ch 3-4						
4	9/17 Due on BB by 11:59pm: -SmartBook Ch 5	9/18	9/19 <b>LAB #1</b>	9/20	9/21 Ch 5: Cell Signaling and the Hormonal Responses to Exercise	9/22	9/23
5	9/24 Due on BB by 11:59pm: -SmartBook Ch 6-7 -Lab #1 (if not completed already)	9/25	9/26 Ch 6: Exercise and the Immune System	9/27	9/28 Ch 7: The Nervous System: Structure and Control of Movement	9/29	9/30
6	10/1 Due on BB by 11:59pm: -SmartBook Ch 8	10/2	10/3 <b>TEST #1 (Ch 0-7)</b>	10/4	10/5 Ch 8: Skeletal Muscle: Structure and Function	10/6	10/7
7	10/8 Due on BB by 11:59pm: -SmartBook Ch 9	10/9	10/10 <b>LAB #2</b>	10/11	10/12 Ch 9: Circulatory Responses to Exercise	10/13	10/14
8	10/15 Due on BB by 11:59pm: -SmartBook Ch 10- 11 -Lab #2 (if not completed already)	10/16	10/17 Ch 10: Respiration during Exercise	10/18	10/19 Ch 11: Acid-Base Balance during Exercise	10/20	10/21
9	10/22 Due on BB by 11:59pm: -SmartBook Ch 12	10/23	10/24 Ch 12: Temperature Regulation	10/25	10/26 <b>LAB #3</b>	10/27	10/28
10	10/29 Due on BB by 11:59pm: -SmartBook Ch 13- 14	10/30	10/31 Ch 13: The Physiology of Training: Effects of Aerobic and Anaerobic Training	11/1	11/2 Ch 14: The Physiology of Resistance Training	11/3	11/4
11	11/5 Due on BB by 11:59pm:	11/6	11/7 <b>TEST #2 (Ch 8-14)</b>	11/8	11/9 Ch 15: Exercise is Medicine (EIM) Part 1: Prevention of Chronic Diseases	11/10	11/11

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	-SmartBook Ch 15-16 -Lab #3 (if not completed already)				Ch 16: EIM Part 2: Therapy for Chronic Diseases and Prevention of Age-related Physiological Dysfunction		
12	11/12 Due on BB by 11:59pm: -SmartBook Ch 17-18	11/13	11/14 Ch 17: EIM Part 3: Exercise Prescriptions for Health and Fitness Ch 18: Nutrition, Body Composition, and Weight Management	11/15	11/16 <b>TEST #3 (Ch 15-18)</b>	11/17	11/18
13	11/19 Due on BB by 11:59pm: -SmartBook Ch 19-20	11/20	11/21 <b>LAB #4</b>	11/22	11/23 No class (watch recordings)  Ch 19: Factors Affecting Performance Ch 20: Training for Performance	11/24	11/25
14	11/26 Due on BB by 11:59pm: -SmartBook Ch 21-23 -Lab #4 (if not completed already)	11/27	11/28 Ch 21: Training for the Female Athlete, Children, Special Populations, and the Masters Athlete Start Ch 22: Nutrition, Body Composition, and Performance	11/29	11/30 Finish Ch 22: Nutrition, Body Composition, and Performance Ch 23: Exercise and the Environment	12/1	12/2
15	12/3 Due on BB by 11:59pm: -SmartBook Ch 24	12/4	12/5 Last class day Ch 24 Ergogenic Aids	12/6	12/7 Dead day (no classes, no exams)	12/8	12/9
	12/10	12/11	12/12 <b>Test #4: Proctored Cumulative Final Exam (Ch 0-24) (on Blackboard through PROCTORIO)</b>	12/13			

Finally, **PLEASE** complete the course evaluation at the end of class. This helps me keep my job here! 😊