



# SUL ROSS

KINESIOLOGY DEPARTMENT

**KINE 3343 Summer II 2025**

**Biomechanics**

## Mary Powers M.S. Instructor - Kinesiology

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**Office Hours:** **By appointment (email to set an appointment)**

**Contacting Mr. Renshaw:** I do not have office hours this Summer but I will respond to email as soon as possible. If you send an email, I will respond within 24 business hours (unless you are notified otherwise ahead of time). I may not respond to emails over the weekend or once I have left for the day. Plan accordingly

**Recommended Text:** McGraw Hill Inclusive Access Basic Biomechanics 9<sup>th</sup> ed. smartbook

**Required Materials:** You will need a calculator for this course, but a graphing calculator is not necessary. This class requires Connect textbook access –

You do not need to purchase the book or Connect; this class is a part of Inclusive Access. Inclusive Access is a course material affordability program, 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. See blackboard for the link or go to McGraw Hill Assignments & Tests tab in blackboard and click on the first assignment.

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## COURSE DESCRIPTION

Biomechanics is the application of Newtonian physics to the human body and to motion in general.

## **EXPECTATION OF STUDENTS**

Students are responsible for keeping up with the reading and are expected to read the assigned chapters and/or other posted readings prior to class in order to contribute to online discussion. Handouts distributed through Blackboard should be kept in a notebook in order to be referred to as necessary.

## **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** – students will be asked to critically decipher a multitude of real-world scenarios

## **STUDENT LEARNING OUTCOMES and COURSE OBJECTIVES**

The learning activities, assignments, and exams in this course are constructed to assess each student's mastery of the following learning outcomes:

### **☐ Understanding Fundamental Concepts:**

- Grasp the basic principles and definitions of biomechanics, including kinematics, kinetics, and dynamics.
- Differentiate between static and dynamic systems in biomechanics.

### **☐ Analyzing Human Movement:**

- Learn to describe and analyze human movement using biomechanical principles.
- Understand the mechanical properties of muscles, tendons, and bones.

### **☐ Applying Mathematical and Physical Principles:**

- Utilize mathematical equations and physical laws to solve biomechanical problems.
- Apply principles of Newtonian mechanics to biological systems.

### **☐ Conducting Biomechanical Measurements:**

- Develop skills to measure and analyze forces, motion, and other biomechanical parameters.
- Gain proficiency in using biomechanical tools and equipment, such as motion capture systems and force plates.

### **☐ Understanding Joint Mechanics:**

- Study the biomechanics of major human joints, including the knee, hip, shoulder, and spine.
- Understand the roles of ligaments, cartilage, and other joint structures in movement and stability.

### **☐ Exploring Tissue Mechanics:**

- Investigate the mechanical behavior of biological tissues, including bone, muscle, and connective tissue.
- Understand stress-strain relationships and viscoelastic properties of tissues.

- **Examining Biomechanical Pathologies:** • Identify common musculoskeletal disorders

and injuries from a biomechanical perspective.

- Understand the biomechanical factors contributing to these conditions and their implications for treatment

### **Course Format**

The format for this course will include on-line components only.

### **Attendance**

There is no attendance policy for this class. However – the student is responsible for all due dates as posted in blackboard and communicated via announcements. The instructor reserves the right to adjust due dates with reasonable accommodation

### **GRADING POLICIES/TESTING/ASSIGNMENTS/ATTENDANCE/EXPECTATIONS**

<b>Grade calculation</b>	<b>% of Grade</b>	<b>Grading Scale</b>
	<b>100 (10%)</b>	<b>900 or more      A</b>
<b>Connect SmartBook Assignments (15)</b>	<b>15 @ 50 = 750 points (75%)</b>	<b>800-899      B</b>
<b>midterm</b>	<b>1 @ 100 = 100 points (10%)</b>	<b>700-799      C</b>
<b>Final exam</b>	<b>1@150 =150 points (15%)</b>	<b>600-699      D</b>
		<b>Less than 599      F</b>
		<b>Total Points = 1000</b>

CONNECT Assignments	All CONNECT assignments are due on the same date, Aug 10, 2025 at midnight at the end of the semester. These will be self-paced concepts. Please manage your time well with your CONNECT assignments as they are worth a majority of your grade. Once the due date passes for these they cannot be reopened, and an automatic grade will be assigned to the CONNECT assignments you have completed or not completed. You do not have to start and finish in the same sitting for these. You can start a chapter and return to it later if you cannot complete it all in one sitting. <b>750pts</b>
Mid Term	Sprinting Biomechanics Breakdown <b>100pts</b>
Final Exam/Project	Student-made Biomechanics movement <b>150pts</b>

**Please read all black board announcements! I communicate a lot through those and will check in regularly. Please contact me via email if you have any questions or concerns**

## **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, 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.

## **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.

## **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. The Student Handbook can be found at: <https://www.sulross.edu/catalog/undergraduate-academic-regulations-2/#1605412215143-c8b265dc-3e01> In addition, please note that plagiarism detection software will be used in this class for written assignments.

## **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.

## **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 LoboID 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 phone (432-837-8123).

## **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.

## **ADA 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. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, 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 [rebecca.wren@sulross.edu](mailto:rebecca.wren@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, SUI Ross State University, Alpine. Texas, 79832.

## **Sul Ross State University Kinesiology Department AI Use Policy for Classroom and Writing**

### **Assignments**

#### **Purpose:**

The purpose of this policy is to provide clear guidelines for the proper use of Artificial Intelligence (AI) tools within the classroom and in writing assignments for students in the Kinesiology Department. As AI technologies become increasingly prevalent in academic work, it is essential to ensure their ethical, responsible, and fair usage. This policy aims to clarify expectations and outline consequences for improper use.

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### **1. Acceptable Use of AI in the Classroom and Assignments**

AI tools (such as ChatGPT, Grammarly, and others) can be used in the following ways:

- **Supplemental Learning:** AI may be used for reviewing and improving academic writing, generating topic ideas, clarifying course concepts, and seeking additional educational resources.
- **Research Support:** AI may assist in gathering information, summarizing academic papers, and generating outlines for assignments. Students are expected to critically evaluate AI-generated content and cross-check with reputable sources.
- **Writing Assistance:** AI tools can be used to improve grammar, clarity, and coherence in written assignments. However, students are expected to write their assignments independently and refrain from relying solely on AI to generate content.

## 2. **Unacceptable Use of AI**

AI-generated content should not be used as a substitute for a student's independent work. The following uses of AI are considered unethical:

- **Plagiarism:** Submitting AI-generated content as one's own work without proper acknowledgment constitutes academic dishonesty.
- **Automated Assignment Completion:** Using AI to write essays, research papers, or complete any class assignments on behalf of the student is strictly prohibited.
- **Misleading or False Information:** Relying on AI tools that provide inaccurate, misleading, or outdated information without proper verification from academic sources is prohibited.

## 3. **Expectations for Proper Citation**

When AI tools are used to assist in generating content or gathering information, students are expected to:

- Properly cite any AI-generated material as part of their references. Failure to cite these sources may result in a violation of academic integrity policies.
- Provide clear attribution when AI is used for generating ideas, assisting in writing, or summarizing information.

## 4. **Consequences of Improper Use**

The Kinesiology Department maintains strict standards for academic integrity. Violations of the AI usage policy may result in the following consequences:

- **First Offense:** The student will receive a warning, and a meeting will be scheduled to discuss the inappropriate use of AI. The assignment will be marked with a deduction of points for improper conduct.
- **Second Offense:** The student will receive a zero on the affected assignment, and a written warning will be issued. The student will be required to meet with the department chair to discuss further academic integrity expectations.
- **Third Offense:** The student may be referred to the university's academic integrity board for further disciplinary action, which may include failing the course or being placed on academic probation.

## 5. **Acknowledgment**

By enrolling in a course within the Kinesiology Department, students acknowledge that they have read, understood, and agree to abide by the guidelines and consequences outlined in this AI Use Policy. Faculty members will provide additional clarification as needed and ensure that students are aware of their responsibilities concerning AI use.

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This policy is intended to uphold the highest standards of academic integrity, fostering a fair and respectful learning environment. Faculty are encouraged to reference this policy in course syllabi, and students are expected to adhere to it throughout their academic endeavors in the Kinesiology Department.