

Sam Houston State University
KINE 5385-01: Biomechanics of Musculoskeletal Injury
Fall 2017
College of Health Sciences
Department of Kinesiology

Instructor A. Page Glave, Ph. D.

HKC 208

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Office Hours By appointment; may meet at SHSU main campus or The Woodlands Center

Virtual Office checked before 10am on days SHSU is open

I am on the main campus (Huntsville) regularly. If my door is open, you are welcome. If the door is closed, please knock.

Class time: Online

Class location: Blackboard

Course description: This course will examine the biomechanics of musculoskeletal injury. Specific topics to be addressed are the biomechanics of tissue and how biomechanical factors impact injuries to the lower extremity, upper extremity, and head, neck, and trunk. Prerequisites: Graduate standing; KINE 3362 or department approval. Credit 3.

IDEA objectives: In this course, the following objectives will be the main focus (as assessed by the IDEA course evaluation system):

- 1) Essential: Gaining a basic understanding of the subject (e.g. factual knowledge, methods, principles, generalizations, theories).
 - a) Course objectives: 1-7
- 2) Important:
 - a) Learning how to find and use resources for answering questions or solving problems.
 - i) Course objectives: All
 - b) Learning to analyze and critically evaluate ideas, arguments, and points of view.
 - i) Course objectives: All

Textbooks/materials

- 1) Book: Whiting & Zernicke (2008). *Biomechanics of musculoskeletal injury*. Human Kinetics. ISBN: 978-0-7360-5442-3
- 2) Webcam
- 3) Various assigned materials throughout the semester
- 4) SHSU email address: You must use your **Sam email account or go through Blackboard**. When using Blackboard, make sure that you use Email and not the internal messaging function. Emails from other email accounts will not be acknowledged.

Course format: Online

Course goal: To develop an understanding of how biomechanics impact musculoskeletal injury.

Course objectives: After completing this course, the student will be able to:

- 1) Explain injury from the biomechanical perspective;
- 2) Classify biological tissue;
- 3) Identify structure and function of biological tissue;
- 4) Apply basic biomechanical concepts to injury;
- 5) Explain tissue biomechanics and adaptation;
- 6) Explain concepts of injury and healing;
- 7) Apply biomechanical concepts to injuries of the
 - a) Lower extremity,
 - b) Upper extremity, and
 - c) Head, neck, and trunk;
- 8) Evaluate research related to the biomechanics of injury;
- 9) Design a research project related to sport and human performance;
- 10) Demonstrate competency in conducting research related to sport and human performance; and
- 11) Conduct a research project from idea through design (literature, IRB, and methods).

Course expectations:

- 1) Attendance: This is an online class. Participation will be noted by examining log-in information.
- 2) Professionalism/Participation: It is expected that students be active, enthusiastic, and collegial participants. Disruptive behavior will result in the student being asked to refrain from interacting with classmates for a specified period. A second violation and the student will be dropped from the class.
- 3) Examinations and Assignments: Exams will be administered only on the specified dates. No make-up exams will be given; however, the instructor reserves the right to give make-up exams because of unforeseen valid emergencies which can be officially documented in writing. Assignments are due by the end of the day (11:59PM) on the assigned date unless otherwise specified. Late assignments will not be accepted. Assignments must be turned in electronically unless otherwise specified.

- a) "Oops Card": Each student will be granted one "Oops Card". This can be used to submit one assignment late. You must indicate you will use the "Oops Card" prior to the assignment submission deadline. The assignment is due 48 hours after the original due date. This is the only time late assignments will be accepted. Use it wisely. The "Oops Card" may not be used for examinations (quizzes) or discussion boards.
- b) Grading Policy: I am happy to review your grade on any assignment or test. However, keep in mind that the grade following review will stand even if it is a LOWER score. Should you wish for me to review the grade on an assignment or test, you must provide via EMAIL a written explanation of why you think your score was unjustified including specific references to assignment directions, relationship to the rubric (if applicable), parts of the assignment/test you believe to be of issue, and justification/explanation based upon the textbook, other assigned materials, or materials cited in your assignment. Appeals must be submitted within one week of the posting of the grade.
- c) Make-up Policy: Late assignments are not accepted with the exception of the use of the "Oops Card" (allows a single assignment to be submitted 48 hours after the initial due date, professor must be notified prior to the initial due date, may NOT be used on discussion board, quizzes, or exams). All electronically submitted assignments are allowed a 1 hour grace period to allow for potential computer issues. Assignments submitted more than 1 hour following the due date and time will not be graded and will receive a 0. Exams/quizzes are given on the given date/time or during the given window for online quizzes and exams. Make-up exams will not be given. However, the instructor reserves the right to allow make-up exams because of unforeseen valid emergencies which can be officially documented in writing.
- 4) Exam Proctoring: Students enrolled in this course are expected to complete proctored exams. Exam proctoring services at Sam Houston State University are provided by the DELTA Center, free of charge to SHSU distance education students, via ProctorFree®. If a proctoring service beside ProctorFree, is utilized (such as ProctorU®) it will be the student's responsibility to schedule and pay for such service.
- 5) Technical Requirements for ProctorFree: Please see information at <http://distance.shsu.edu/faculty-staff/exam-proctoring.html>
- 6) Class Materials: The textbooks are a requirement of the course. Additional materials may be assigned. You are responsible for reading the materials assigned. Any and all materials assigned are "fair game" for exams. You are expected to read the material before and be prepared to discuss the material assigned in class. You are also expected to complete all readiness activities before the associated class. Failure to do so may result in removal from the classroom.
- 7) Sexual Harassment: In accordance with administrative policy, sexual harassment is reprehensible and will not be tolerated by the university. Behavior in the course must conform to the university policy.

- 8) Drop/add/withdraw: It is your responsibility to make sure that you are officially enrolled in this course. If, at any point, you decide to attend this course no longer, it is your responsibility to officially drop or withdraw from enrollment. Failure to do so may result in a failing grade.
- 9) Syllabus subject to change: The syllabus, while a guide to provide expectations, does not and cannot cover every possible situation that may arise within a course. The instructor reserves the right to modify the syllabus should the need arise. The syllabus also does not address every possible behavior that may result in failing the course. It is your responsibility to act in a fashion befitting an adult and college student. Content may change in keeping with new research and literature, and events beyond the control of the instructor could occur. Students will be informed of any substantive occurrences that will produce syllabus changes.
- 10) Email Etiquette: Most communication about the course (general questions, questions about assignments, etc.) should be through the “Virtual Office” on Blackboard. Email should only be utilized for communicating about grades, etc. When communicating with me via email, you must follow the etiquette below; otherwise I reserve the right of not replying to your email.
- a) Be sure to include a meaningful subject line, including your class number (5385); this helps clarify what your message is about and may also help me prioritize reading your email. This determines where your email will be filed. If you have a question, indicate that in the subject line.
 - b) Just like a written letter, be sure to open your email with a greeting like Dear Dr. Glave:
 - c) Use standard spelling, punctuation, and capitalization. THERE'S NOTHING WORSE THAN AN EMAIL SCREAMING A MESSAGE IN ALL CAPS. Stay away from abbreviations and do not use emoticons (those little smiley faces).
 - d) Write clear, short paragraphs and be direct and to the point; I consider your email communication as business.
 - e) Be friendly and cordial, but do not try to joke around (jokes and witty remarks may be inappropriate and, more commonly, may not come off appropriately in email).
- 11) Electronic submission of assignments: Assignments must be submitted to Blackboard. Assignments must conform to the guidelines below:
- a) Submitted in the **.docx or PDF** format. Use “save as” to make sure you are saving your files in the correct format.
 - i) Files submitted in other formats may not be graded and will receive a 0 (zero) if I am unable to open them.
 - ii) You will receive 1 warning about file format. After that, a 0 will be recorded if I cannot open the file.
 - b) Check to make sure the file attachment went through. If the attachment is not there, the assignment will be considered late. If you do not see a piece of paper by your name, the file did not attach.
 - c) Do not wait until the last minute to submit your assignment. If you are unable to upload the assignment, it will be considered late. (There is a 1 hr grace period on assignments to allow for differences in computer time, slow uploads, etc.)
 - d) Some assignments may utilize plagiarism detection, such as TurnItIn or SafeAssign. This will be set up through Blackboard and may require the assignment be submitted in 2 locations.
 - e) I may also submit your assignment to TurnItIn or SafeAssign to check for plagiarism even if the assignment does not stipulate that a plagiarism check will be used.

- f) Assignments must be presented in a visually appealing manner (meaning, easy to read and follow) using APA 6th edition as a guideline unless the assignment specifies otherwise.
- g) Blogs, discussion boards, journals, etc. should be completed within Blackboard (not by submitting a file). You may choose to copy and paste from a file, but please submit within the text box so your assignment is easy for everyone to view. Failure to follow this directive will count as your file warning.

- 12) Academic Honesty: Academic honesty is expected in all work. Ignorance is not an excuse. Penalties will include 0 points for the assignment or exam and loss of any extra credit opportunities. Failure of the course may also be used as a penalty at the discretion of the instructor. Additional information about what Academic Honesty is can be found at <http://www.shsu.edu/syllabus/> and 5.3 Academic Honesty in the Student Guidelines available from the Dean of Students office: <http://www.shsu.edu/dept/dean-of-students/index.html>
- a) Self Plagiarism: “Self-plagiarism represents a significant problem in academia as it serves to undermine the learning process and outcomes that are a key feature of each course that is offered as a part of a student’s curriculum. As a result, the Department of Health and Kinesiology has a strict policy in place to prevent self-plagiarism in the classroom. Self-plagiarism is defined as the submission of any type of assignment that contains content that is recycled from other assignments or a prior publication that one submits for course credit in another course.
 - i) Each instructor is provided the discretion to evaluate whether a student has engaged in self-plagiarism on a course assignment. If a student is unsure whether use of prior content would constitute self-plagiarism, they must consult with the instructor of the course within a reasonable period of time prior to the due date of the assignment. In most cases, this consultation should take place a minimum of 10 business days prior to submission. Following submission of the assignment, if the instructor deems that the student has engaged in self-plagiarism, he or she has the right to state that the student has violated Section 5.3 of The Texas State University Rules and Regulations dealing with Academic Honesty and the student is thereafter subject to any and all penalties and punishments present in the policy. This may include failure of the assignment and/or failure of the course. Additionally, the student may be referred to the Department Chair of Health and Kinesiology, the Dean of the College of Health Sciences, the Dean of Students, and/or the Provost and Vice-President for Academic Affairs for further academic review.”
- 13) Extra Credit: Normally there is not extra credit available. Any extra credit opportunities that MAY arise will be offered to the entire class. Please do not request extra credit as extra credit will not be extended on an individual basis.
- 14) Grade Appeals: Grade appeals must be submitted within 30 days of the end of the semester (after grades are posted). Additional information may be found in the current catalog.

Lab Day Policy:

A critical aspect of the Sport and Human Performance program is hands-on experience. This is why we have kept the lab day component while the majority of the program is held online. As the program has now grown too large to accommodate all students coming for a single lab day, please note the following. The ‘lab day’ and lab day assignments will still account for at least 10% of your grade if this course is part of the lab day for the semester. This specific course may not be part of the lab day for this semester.

If this is the case, there may not be lab day assignments for the course. In lieu of lab day assignments, course assignments will provide related application and/or research experiences.

If this course is part of lab day for this semester, your professor will provide specific instructions as to how the lab day portion will be completed.

During on-campus activities and exams/quizzes, students will be required to store their belongings in open areas, which may include bins and/or shelves. These dates will be available in advance on the class schedule and/or arranged with the professor. Please plan accordingly in order to properly store your valuables.

Lab Day: Monday, October 16 8:30-11:00

Tentative Course Outline:

Week	Topic
1	Start Here
2	Research Modules
3	Research Modules
4	Biological Foundations
5	Biological Foundations
6	Biological Foundations
7	Biological Foundations
8	Injuries
9	Injuries
10	Injuries
11	Injuries
12	Project
13	Project
14	Project
15	Project
16	Wrap Up/Finals Week

Evaluation

- 1) Start Here (15)
 - a) Syllabus quiz 10
 - b) Icebreaker DB 5
- 2) Research (25)
 - a) CITI 10
 - b) Topic 5
 - c) Group Organization 10
- 3) Biological Foundations (90)
 - a) Quizzes 4 x 20 = 80
 - b) Assignments
 - i) Biological Foundations Research Analysis Blog 5
 - ii) Biological Foundations DB 5
- 4) Injuries (70)
 - a) Quizzes 3 x 20 = 60
 - b) Assignments
 - i) Injuries Research Analysis Blog 5
 - ii) Injuries DB 5
- 5) Project (100)
 - a) Proposal 20
 - b) Peer Review 10
 - c) Pilot Testing Discussion 10
 - d) Methods 10
 - e) Informed Consent 20
 - f) IRB 30

Cut-off for grades: Percentage based on number rounded to whole number (when rounded to the tenths place, 368.5 becomes 369 but 368.4 becomes 368). Percentages are NOT rounded.

A: 90% (279-310 points)

B: 80% (248-278 points)

C: 70% (217-247 points)

F: < 70% (< 217 points)

University Policy and Guidelines

Additional Information: Please visit <http://www.shsu.edu/syllabus/> for Sam Houston State University syllabus information regarding:

- Academic Dishonesty
- Student Absences on Religious Holy Days Policy
- Students with Disabilities Policy
- Visitors in the Classroom