

University of Texas at El Paso
Department of Kinesiology
KIN 5361 – Biomechanical Basis of Sport
Fall 2022

General Information

Instructor: Jeff Eggleston, PhD
Office: LKD 102C
Email: jdeggleston@utep.edu
Office Hours: By appointment only
Course Textbook: None required
Class time: Wednesdays 1:00-3:50pm
Classroom: Language Arts Building, room 205 & Larry K Durham, room 102

Course Description

This course will focus on the mechanical analysis of the internal and external forces acting on the human body and the effects of these forces. Emphasis will be placed on the development and obtainment of content knowledge to analyze movements both qualitatively and quantitatively. In combination to the grounding theories in biomechanics, this course will also include instrumentation techniques used to obtain, reduce, analyze, and present biomechanical data. As such, students will be exposed to theoretical content as well as functional knowledge with respect to biomechanics and biomechanics research methods.

Additional Resources

There is no required textbook for this course, students can be successful with the PowerPoint slides posted online and through literature found through the library. If students are interested in further resources, three textbooks are listed below which can be used to augment the PowerPoint Lectures. Throughout the semester additional readings, resources, and ancillary materials will be posted on Blackboard.

- Biomechanics: A case-based approach, 2nd Edition, Flanagan, S.P.
- Research Techniques in Biomechanics, 2nd Edition, Robertson, D.G.E., Caldwell, G.E., Hamill, J., Kamen, G., Whittlesey, S.N.
- Biomechanical Basis of Human Movement, 4th Edition, Hamill, J., Knutzen, K.M., Derrick, T.R.

Learning Objectives

By the end of this course students should be able to:

1. Describe human motion through the application and laws of mechanics;
2. Demonstrate computational and conceptual knowledge of biomechanical variables;
3. Analyze human movement patterns through appropriate data collection and analysis methods;
4. Effectively communicate research findings through written and graphical representation;
5. Demonstrate an understanding of the real-world applications from biomechanics research findings.

Course Evaluation

Semester Project	50%
Homework Assignments	30%
Participation	20%

Semester Project: Your semester project will be comprised of a literature review and presentation of the literature on a specific topic. The purpose of this project is to allow students to demonstrate their abilities to: find peer-reviewed literature surrounding a biomechanically-related topic, critically evaluate findings within peer-reviewed literature, and form general conclusions founded within the literature. Furthermore, the presentation component of this project will allow students to demonstrate their content knowledge and presentation skills in front of their peers. The written and presentation portions of the project will both be worth 100 points each, for a total of 200 points. Presentations will be conducted the last one to two weeks of the semester, depending upon the number of students enrolled in the course.

Homework: Homework will be aligned with the current topics in the course and are designed to challenge students to apply their knowledge in a multiple of ways. Many of the assignments involve the collection and processing of biomechanical data, following by a critical interpretation of the data. While there are no ‘right or wrong’ manners to interpret the data, students are encouraged to utilize the literature to form their interpretations. Due dates are explicitly documented on the course schedule and in Blackboard. Each assignment will be submitted through Blackboard to encourage proper citation mechanics and thorough use of the literature.

Participation: Although participation is the lowest percentage of the overall grade, it is the most important aspect of graduate school experiences. Since participation comes in various forms, there are no specific guidelines students need to follow so long as they routinely participant in lecture discussion, are active listeners when their peers speak, and are active participants in laboratory-based activities. The greater the participation in the course, the greater performance the student will have.

Grading Policy

A	≥ 90.0%
B	80.0%-89.9%
C	70.0%-79.9%
D	60.0%-69.9%
F	<59.9%

Grades will not be rounded

Attendance Policy

Students should attend every class, however, attendance will not be taken formally. If a student must miss a class, the student should notify the instructor in advance and retrieve any material from Blackboard.

The ‘Life Happens Clause’

The Life Happens Clause is referring to the fact that life happens to each of us throughout the course of a semester and you may not be able to attend class or submit an assignment on time. You can invoke this clause **once** during the semester by simply emailing me within one day of any due date and state that you would like to invoke the clause. The clause states that you will receive a 2-day extension with no questions asked from the instructor (i.e. you do not have to tell the instructor why, just state you would like to invoke the clause).

Netiquette

Since you will be interacting with your peers online, please be sure to be kind and courteous to your peers in your online communications. Additionally, here is a link for [10 Netiquette Guidelines Online Students Need to Know](#) from Rasmussen University. At the bare minimum, please follow these guidelines.

Course Content

See the class schedule for approximate dates for each covered topic.

COVID-19 Precaution Statement

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication to your professors. The Student Health Center is equipped to provide COVID-19 testing.

The Centers for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get vaccinated. If you still need the vaccine, it is widely available in El Paso and will be available at

no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

University Policies and Resources

Changes to this syllabus: The course schedule may be altered by the instructor, with sufficient notice being provided to students.

Cheating, Plagiarism, Scholastic Dishonesty, and Student Discipline: Cheating is obtaining a reward for ability by dishonest means. It is unethical and not acceptable. Plagiarism occurs whenever a student quotes, paraphrases or summarizes another person's work without providing correct citation. Plagiarism occurs whether the work quoted is a book, article, website, reader's guide like Cliffs Notes or SparkNotes, another student's paper, or any other source. An entire essay is fraudulent even if only a single sentence is plagiarized. *Do not submit work under your name that you did not do yourself, ever.* You may not submit work for this class that you did for another class. If you cheated or plagiarized, you will be subject to disciplinary action as stated in the UTEP catalog policy.

“Scholastic dishonesty (which includes the attempt of any student to present the work of another as his or her own, or any work which s(he) has not honestly performed, or attempting to pass any examination by improper means) is a serious offense and will subject the student to disciplinary action. The aiding and abetting of a student in any dishonesty is held to be an equally serious offense. All alleged acts of scholastic dishonesty should be reported to the Dean of Students for disposition. It is the Dean of Students’ responsibility to investigate each allegation, dismiss the allegation, or proceed with disciplinary action in a manner which provides the accused student his or her rights of due process.” Refer to <http://www.utep.edu/dos/acadintg.htm> for further information.

UTEP has a site license for **SafeAssign**, a plagiarism detection site that you can also use to check your own work for this or other classes to prevent getting in trouble.

When an assignment specifies that you must perform a task individually, asking for your classmates’ help is **collusion** and thus scholastic dishonesty. Any instances of scholastic dishonesty will be reported to the Dean of Students Office.

Deadline Policy and Late Assignments: It is essential that you regularly visit the class Blackboard website prepared to work. Once a deadline has passed, you can no longer turn in your work for credit. Plan carefully to ensure you meet the deadlines. If you wait until the last minute, things that can go wrong often do. Start early so you have time to deal with problems and are still able turn in your assignments on time. Do not procrastinate!

Missed Tests: All assignments will strictly follow UTEP’s attendance policy. Any missed assignment that does not meet the requirements of an excused absence will be counted as a 0. If you are going to / or miss an assignment and you believe the absence is excusable, you must contact the Professor within 24 hours of the assignments due date. Emailing later in the semester about missing grades, even if the absence was excused, will not be accepted. It is the student’s responsibility to keep track of when assignments are due and also communicating to the Professor when absences happen.

Students in Need of Assistance: UTEP seeks to provide reasonable accommodations for all qualified individuals who need accommodations or support for their learning. This university adheres to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required, affording equal educational opportunity. It is the *student's responsibility* to register with the **Center for Accommodations and Support Services** <http://sa.utep.edu/cass/> in the UTEP Union Bldg. East Wing, Room 106 *within the first two weeks of classes*, and inform the faculty member to arrange for appropriate accommodations or support.

The CASS Office can also be reached in the following ways: Web: <http://cass.utep.edu/>; Phone: (915) 747-5148 voice or TTY; Fax: (915) 747-8712; E-Mail: cass@utep.edu

Campus Safety and Emergencies Notifications: Information Technology at UTEP provides emergency notification via your mobile phone. Visit <http://www.utep.edu/it> for more information and registration. Check the UTEP website for health-related information and updates.