

**The University of Texas at Tyler**  
**Department of Health and Kinesiology**  
**Course Information**  
**Summer 2023**

**Course Title:** Biomechanics and Anatomical Kinesiology

**Course Number:** KINE 3334.060

**Credits:** 3.00

**Prerequisites:** Credit in anatomy and physiology courses (BIOL2301 and BIOL 2101) or CI

**Co-requisite:** Biomechanics and Anatomical Kinesiology Laboratory (KINE 3135)

**Days/Hours of Class:**

**Online** Canvas (<http://www.uttyler.edu/canvas/>)

**Dates:** 5/30/2023 – 7/1/2023

**Instructor Information**

**Name and Title:** X. Neil Dong, Ph.D., Professor

**Office location:** HPC2166 (within Biomechanics Lab, HPC2165)

**Phone number:** 903-565-5615

**Email address:** [xdong@uttyler.edu](mailto:xdong@uttyler.edu)

**Office hours:** by appointment

**Textbook:**

Hall S. (2015) Basic Biomechanics (7<sup>th</sup> Edition). McGraw Hill Publishing. ISBN-10: 0073522767 | ISBN-13 978-0073522760.

**Catalog description:**

Analysis of human movement, applying principles from Newtonian mechanics and study of structure and function of major joints and muscle groups.

**Student Learning Objectives:** After the full completion of this course the student will be:

1. Able to identify and discuss the major terminology and concepts related to human movement analysis.
2. Able to decide what biomechanical questions should be asked and studied related to activities of daily living, sports, basic movements and work related tasks.
3. Able to develop research to answer the biomechanical questions asked related to activities of daily living, sports, basic movements and work related tasks.
4. Able to distinguish kinematic from kinetic research related to the mechanics of human motion.
5. Able to list and explain the differences between qualitative and quantitative analysis.
6. Able to develop and implement kinematic, kinetic, and electromyography (EMG) research.

## Methods of Instruction

To meet student learning objective, student learning experiences include but not limited to: a) online lectures, b) classroom demonstrations and discussion (face-to-face), c) problem solving situations and laboratory experiences, d) observations and analysis of movement performances, e) reading designated textbooks and supplementary materials upon assignment.

## Assessment and Measurement:

The students will be evaluated on the basis of performance on periodic three examinations, weekly face-to-face quizzes and online quizzes and class participation. A percentage of total points possible determine the course grade.

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

### Course Structure:

300 points	Three Non-Cumulative Exams (Exam I, Exam II, and Final Exam)
100 points	Online Quizzes
Total Possible Points: 400 points	

### Online Quizzes:

The online quizzes will be taken after online lectures are completed. You are encouraged to use online quizzes to assess your own learning progress.

## Course Outline

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Week 1	5/29/2023	Memorial Day holiday, no classes held
	5/30/2023	Getting Started and Pretest
	5/31/2023	Module 1: What is Biomechanics? Online Quiz#1 is due
	6/1/2023	Module 2: Kinematic Concepts for Analyzing Human Motion Online Quiz#2 is due
	6/2/2023	Module 3: Kinetic Concepts for Analyzing Human Motion Online Quiz#3 is due
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Week 2	6/5/2023	Module 4: Biomechanics of Bones, Joints and Muscles Online Quiz#4 is due
	6/6/2023	Exam I
	6/7/2023	Module 5: Linear Kinematics of Human Movement
	6/8/2023	Module 5: Linear Kinematics of Human Movement
	6/9/2023	Online Quiz#5 is due

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Week 3	6/12/2023	Module 6: Angular Kinematics of Human Movement
	6/13/2023	Module 6: Angular Kinematics of Human Movement
	6/14/2023	Online Quiz#6 is due
	6/15/2023	Module 7: Linear Kinetics of Human Movement
	6/16/2023	Module 7: Linear Kinetics of Human Movement

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Week 4	6/19/2023	Online Quiz#7 is due
	6/20/2023	Exam II
	6/21/2023	Module 8: Equilibrium and Human Movement
	6/22/2023	Online Quiz#8 is due
	6/23/2023	Module 9: Angular Kinetics of Human Movement

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Week 5	6/26/2023	Module 9: Angular Kinetics of Human Movement
	6/27/2023	Online Quiz#9 is due
	6/28/2023	Module 10: Human Movement in a Fluid Medium
	6/29/2023	Online Quiz#10 is due
	6/30/2023	Final Exam

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**Online Etiquette:**

*Tone Down Your Language:* If you feel particularly strongly about a point, it may be best to write it first as a draft and then to review it, before posting our statement. If someone states something you find offensive, mention it directly to the instructor. Remember the person may be new to online learning. What you find offensive may be an unintended and can be corrected by the instructor.

*Test for Clarity:* Messages may often appear perfectly clear to you as the writer but turn out to be confusing by another reader. One way to test for clarity is to read your message aloud to see if it flows smoothly. Be concise when possible when contributing to a discussion. If you have several points you want to make, it may be a good idea to post them individually in more focused messages rather than a single, all-encompassing message.

**Communication Policy:**

If you email me, expect a response within one business day at UT Tyler (M-F).

**Learner Support:**

The University of Texas at Tyler provides institutional support services essential to learner success.

[Student Resources for Hybrid and Online Courses](#) is available for technical support.

[Student accessibility and resources](#) are available through The UT Tyler Office of Student

Accessibility and Resources (SAR). The office provides students equal access to all educational, social, and co-curricular programs through coordination of services and reasonable accommodations, consultation and advocacy.

[UT Tyler PASS Tutoring Center](#) (University Center, 3114) is a free walk-in tutoring center, with an individual appointment option, for current UT Tyler students. Currently support for 20 courses is being offered in a variety of subjects.

Student

[UT Tyler Student Services](#) provides support and opportunities that maximize a student's ability to benefit from the academic environment through accessibility, professional counseling, recovery, wellness and testing services. The support services encourage personal responsibility and healthy decision-making that contribute to lifelong learning.

### **Attendance Policy:**

Although I do not formally use attendance as part of your grade, your attendance is expected, but not recorded. Just to remember, quizzes and all exams, including the final, are to be taken at the assigned time. **There will be no exceptions!**

### **Athletic Policy:**

I am aware of the difficulty of being both an athlete and an academic, thus I will be flexible regarding weekly quizzes, and tests for excused absences. An excused absence is one I am aware of, thus allowing for proper arrangements to facilitate the make-up of missing material. Therefore, I expect to have all athletic schedules prior to the beginning of the second week of class so we can sit down and discuss what classes you will be missing. One final note: you will only be excused if your game or travel conflicts directly with the class meeting.

### **Cell phone Policy:**

There are 25pts or 6% of your grade related to class participation. If I see your cell phone during class you will lose those 25pts. I do not want to see it anytime during the class. If you are expecting an important call let me know before class and take the call outside of class. Furthermore, if you really feel the need to text message or check you facebook, etc...then just don't come to class that day! Very simple rule!

### **Laptop Policy:**

There are 25pts or 6% of your grade related to class participation. If I see you using your laptop to "surf" the web or play games during class time you will lose 25pts. If you really feel the need to email or check you facebook, etc...then just don't come to class that day! Very simple rule!

### **University Policies**

#### *Students Rights and Responsibilities*

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:

<http://www.uttyler.edu/wellness/rightsresponsibilities.php>

### *Grade Replacement/Forgiveness and Census Date Policies*

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.

- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)

- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)

- Being reinstated or re-enrolled in classes after being dropped for non-payment

- Completing the process for tuition exemptions or waivers through Financial Aid

### *State-Mandated Course Drop Policy*

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

### *Disability/Accessibility Services*

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Tyler at Texas offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application.

The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant

Director Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

*Student Absence due to Religious Observance*

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

*Student Absence for University-Sponsored Events and Activities*

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

*Social Security and FERPA Statement:*

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

*Emergency Exits and Evacuation:*

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

*Academic Dishonest Policy*

At The University of Texas at Tyler students and faculty are responsible for maintaining an environment that encourages academic integrity. Students and faculty members are required to report an observed or a suspected case of academic dishonesty immediately to the faculty member in charge of an examination, classroom or laboratory research project, or other academic exercise.

Since the value of an academic degree depends on the absolute integrity of the work done by the student for the degree, it is imperative that a student maintain a high standard of individual honor in scholastic work. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, and collusion:

"Cheating" includes:

1. Copying from the paper of another student, engaging in written, oral or any other means of communication with another student, or giving aid to or seeking aid from another student when not permitted by the instructor;
2. Using material during an examination or when completing an assignment that is not authorized by the person giving the examination or making the work assignment;

3. Taking or attempting to take an examination for another student, or allowing another student to take an examination for oneself;
4. Using, obtaining, or attempting to obtain by any means, the whole or any part of an unadministered examination or work assignment.

"Plagiarism" includes the unacknowledged incorporation of the work of another person in work that a student offers for credit.

"Collusion" includes the unauthorized collaboration with another person in preparing written work that a student offers for credit.

#### *Grade Appeal Procedure*

A student who wishes to contest a grade given by an instructor must initiate the procedure by contacting the instructor who assigned the grade. The instructor and the student should informally review the criteria for assignment of grades and the student's performance. The instructor may affirm the grade or revise the grade.

If the student is not satisfied after the informal discussion with the instructor, then the student may initiate a formal grade appeal by completing a Grade Appeal Form that may be obtained from the Office of Student Records. Normal grade appeals should be filed at the earliest date possible, but no later than six months from the final date of assignment. The instructor and the student should complete the appropriate parts of the form clearly indicating the instructor's rationale for the grade given and the student's basis for the grade appeal.

At each administrative level of the appeal process, an attempt will be made to resolve the issue. If the instructor holds one of the administrative positions used in the appeal process, then that level is omitted. If no resolution is reached at a particular level, then the appeal is forwarded with the recommendation of the administrator at that level with all documentation.

If the appeal is to be considered by the vice president for academic affairs, then a copy of the Grade Appeal Form shall be forwarded by the academic dean of the students. The Office of the President is the final step in the appeal process at The University of Texas at Tyler.

#### *Food and Drink in Classrooms*

Consumption of food and drink in university classrooms is prohibited.

#### *Indoor Smoke-Free Campus*

The University of Texas at Tyler is an indoor smoke-free campus. No smoking will be permitted in any building, office, hallway, classroom, laboratory, restroom, lounge, or any other indoor location.

**Note: This syllabus is subject to change based on the needs of the class.**