



TEXAS A&M UNIVERSITY-COMMERCE
DEPARTMENT OF HEALTH AND HUMAN PERFORMANCE
HHPK 335 Kinesiology and Biomechanics – Laboratory
Summer I, 2016

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Class time: Monday & Wednesday, 1:00-2:50
Office hours: By email appointment only
Required Text:

Required Materials: Text Book, pen or pencil, paper to take notes. You will be informed beforehand if some type of workout clothing is needed.

Tentative Lab Schedule:

This lab will be used to supplement what you are learning in the lecture portion. We will apply that material in a practical sense and discuss the topics that are the hardest to understand. Equipment will be used when we are able to and when it is applicable to the lesson.

There will be a final exam. Assignments, quizzes, and bonus points will be given at my discretion. Any assignments given will be due by your next lab. No late work unless a very good reason is given.

Session	Topics and Page Numbers	Assignments Due
1	Lab 1: Intro to Biomechanics <u>Objectives:</u> To identify motion terminology, body segments, skeletal names and properties.	
2	Lab 2: Biomechanics and Force <u>Objectives:</u> To measure scalar and vector quantities; to measure force in ROM points	
3	Lab 3: Sports Skill Analysis <u>Objectives:</u> To choose Topics and Groups, Google Spreadsheet Production; to produce a typical movement chart for each joint	
4	Lab 4: Joint Types and ROM <u>Objectives:</u> To identify joint types, planes and axes, degrees of freedom, and ROM for all major joints	

5	Lab 5: Convex / Concave Rule Objectives: To identify characteristics of the convex/concave law; to demonstrate convex/concave law	
6	Lab 6: EMG Lab Objectives: To identify differences in force production in concentric vs. eccentric contractions of antagonist muscle groups	
7	Lab 7: EMG of Shoulder Girdle and Joint Objectives: To measure muscular activity of the shoulder and elbow joints in multiple ROM actions; to measure differences in concentric and eccentric contractions	
8	Lab 8: EMG of Neck and Trunk Objectives: To measure muscular activity of the neck and trunk in multiple ROM actions; to measure differences in concentric and eccentric contractions	
9	Lab 9 & 10: Force Production in Hip Joint Objectives: To measure maximal force production at the hip joint in multiple ROM positions	
10	Lab 11: Gait Analysis Objectives: To analyze gait components	

Course Grading:

Attendance will constitute the majority of your grade. Attendance includes; showing up on time, staying through the whole lab, having your book, having any assignments, and voluntarily participating.

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

Attendance Policy:

You need to attend all labs. All lab write-ups are to be conducted in class and due at the end of class. If the lab write-up is not turned in, you have till the next class session to turn in your work. After that time lab write-ups will not be accepted. If for any reason you are going to be late or are unable to attend lab, please notify me ahead of time or you will be counted absent. Failure to notify me in advance will result in an absence that can't be made up and a grade of zero.

Student Conduct:

This course will cover biomechanics. Students should feel comfortable discussing their individual views and experiences concerning each subject. Students should also respect each other's differences and respect each other as each issue is discussed. **If the instructor deems that individual students are not being respectful toward each other or the instructor, then these students will be asked to leave (and eventually drop the course if the negative conduct continues).** Please refer to pages 42 – 45 of the TAMU-C Student Guidebook's Codes of Conduct for details.

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library, Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

Plagiarism/academic dishonesty---Plagiarism is copying another's work as your own without proper acknowledgment. Be aware that the intent to deceive the reader does not have to be present for plagiarism to occur. Also ignorance of the definition of plagiarism is also not an excuse and will result in the same consequences as for someone who is educated. Plagiarism is also not restricted to copying the writings of others, nor to stealing from established authors; it includes the ideas of your fellow students. If you plagiarize in this class (including cheating on tests) you will receive an automatic "F". If you are in any doubt as to whether your work constitutes plagiarism or academic dishonesty, please discuss this with me confidentially.