

TEXAS A&M UNIVERSITY-COMMERCE
DEPARTMENT OF HEALTH AND HUMAN PERFORMANCE
HHPK 335 Kinesiology and Biomechanics
Summer I 2016 – M - TH 11:00 – 12:50 Field House 003

Professor: Michael Oldham, MS, ACSM - CPT
Office: Field House 213
Telephone: Office: 903-886-5542
Office Hours: M W 10:30am – 11:00am or by appointment
E-mail: michael.oldham@tamuc.edu (preferred method of communication)
REQUIRED TEXT: Loudon JK, Manske RC, Reiman MP. 2013. *Clinical Mechanics and Kinesiology*. Champaign, IL: Human Kinetics.

Course Description:

A study of human musculoskeletal anatomy and principles of biomechanics. Prerequisite BSc 251, or consent of instructor. This course emphasizes the effects of joint structures and muscles on movement while providing an introduction to the principles of biomechanics.

Course Objectives:

TLW:

- 1) Use precise, well-defined terminology to describe motion.
- 2) Describe linear and angular descriptors of human motion (kinematics).
- 3) Describe the relationship between linear and angular characteristics of motion.
- 4) Explore the basic causes of human movement (kinetics).
- 5) Qualitatively analyze movements in sport applications.
- 6) Explore the skeletal system, articular system, arthrokinematics, muscular system, nervous system, and others in relationship to movement.
- 7) Investigate posture and gait and their relationship to movement.

Course Requirements:

Class Participation, Group/ Homework Activities, Quizzes

The student will participate in several class, group, and homework activities (including quizzes) throughout the semester. Some will be graded, and some will not. Student attendance will be averaged into this category. All attendance and activities will be worth 250 points (or **25% of your final grade**).

Late Work / Absences

No late work will be accepted. Exceptions: documented illness, documented death in the family, documented court date. This includes missing classes quizzes / tests.

Tests:

Students will take 2 tests throughout the semester worth 150 points each. Tests will cover lectures, class activities, and the book. Makeup tests (even for excused cases) will be all essay. (300 points, **30% of final grade**)

Article Summaries

Each student will be required to write 1 summary of a kinesiology and biomechanics article. Articles should be from journals such as: *Medicine and Science in Sports & Exercise* or *Research Quarterly for Exercise and Sport*. Each article summary should be 1.5-2.0 pages typed, Times New Roman Font, with one-inch margins. Reference should be listed at the top of the summary. Each article summary is worth 50 points each. (**10% of your final grade**)

Sport Skill Analysis:

Students will create a detailed analysis of a sport skill (approved by the instructor). **(10% of your grade)**

Laboratory Experiences:

You must attend all labs. All lab write-ups are required and are due at the beginning of the next lab. Mr. Masoud Moghaddam, lab graduate assistant, will conduct labs and collect all lab write-ups from you. Laboratory write-ups will consist of **25% of your final grade.**

Course Grading:

1. Class, group, homework, quizzes	250 points	25%
2. Tests (2)	300 points	30%
3. Article Summaries (2)	100 points	10%
4. Sport Skill Analysis (1)	100 points	10%
5. Labs	250 points	25%
Total:	1000 points	100%

Grading Scale:

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

Student Conduct:

This course will cover exercise physiology and body mechanics. Students should feel comfortable discussing their individual views and experiences concerning each subject. Students should also respect each others' 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 has knowledge of it. 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.

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Tentative Itinerary (75%-does not include labs)

Day	Chapters	Topics and Page Numbers	Assignments Due
6/6	1-2	Introduction Vectors, Levers, and Moments Basic Movement Terminology	
6/7	1-2	Pulleys and Cams Kinematics and Kinetics	Quiz 1
6/8	3-4	Connective Tissue Skeletal Muscle	Quiz 2
6/9	5	Joint Structure	Quiz 3
6/13	6-7	Spine	Quiz 4
6/14	8,9,16	Spine and Posture	Quiz 5
6/15	10	Shoulder	Quiz 6
6/16	11	Elbow	Quiz 7
6/20		Mid-Term Exam	Mid-Term Exam
6/21	12	Wrist and Hand	Quiz 8
6/22	13	Hip	Quiz 9
6/23	14	Knee	Quiz 10
6/27	15	Foot and Ankle	Quiz 11
6/28	17	Gait	Quiz 12
6/29	18	Gait	Article Summary
6/30	19	Cutting and Jumping	Quiz 13
7/5-9		Final Exam – Exam Time TBA	Final Exam