

KINE 3395 KINESIOLOGY: APPLIED BIOMECHANICS

Spring 2013

MWF 10:00am – 10:50am

School of Nursing & Allied Health

Department Of Kinesiology

COURSE DESCRIPTION

Muscles of the human body and their functions in relation to movement will be studied. Simple examples and analyses of human motion will be studied in an effort to acquaint the student with the reasons for teaching specific sport movements..

COURSE SEQUENCE IN CURRICULUM AND PREREQUISITE INFORMATION

Prerequisite: KINE 3393 and BIOL 2404

INSTRUCTOR INFORMATION

Charles Gremillion, MS, SCCC, USAW

Nursing 124

Office: 281-649-3173

Email: cgregillion@hbu.edu

Office Hours: See schedule below or by appointment

	Monday	Tuesday	Wednesday	Thursday	Friday
800	Office Hours	Office Hours	Office Hours	Office Hours	
830	Office Hours	Office Hours	Office Hours	Office Hours	
900	Office Hours				
930	Office Hours	Kine 2334	Office Hours	Kine 2334	Office Hours
1000	Kine 3395	Kine 2334	Kine 3395	Kine 2334	Kine 3395
1030	Kine 3395	Kine 2334	Kine 3395	Kine 2334	Kine 3395
1100	Kine 4323		Kine 4323		Kine 4323
1130	Kine 4323		Kine 4323		Kine 4323
1200	Kine 2202	Office Hours	Kine 2202	Office Hours	
1230	Kine 2202	Office Hours	Kine 2202	Office Hours	
1300		Office Hours		Office Hours	
1330		Office Hours		Office Hours	
1400		Kine 4370		Kine 4370	
1430		Kine 4370		Kine 4370	
1500		Kine 4370		Kine 4370	
1530					

The content of this outline and the attached schedule are subject to change at the discretion of the professor.

LEARNING RESOURCES

Required Textbook:

Biomechanics of Sport and Exercise (2nd ed) by Peter M. McGinnis

A scientific or graphing calculator is strongly recommended but not required.

RELATION TO THE PURPOSE STATEMENT OF THE UNIVERSITY

University mission and purpose statement from the Houston Baptist University Catalog, 2008-2010 (p. 16-17): “The mission of Houston Baptist University is to provide a learning experience that instills in students a passion for academic, spiritual, and professional excellence as a result of our central confession, ‘Jesus Christ is Lord’”.

“...Committed to providing a responsible and intellectually stimulating environment that:

- fosters spiritual maturity, strength of character, and moral virtue as the foundation for successful living
- develops professional behaviors and personal characteristics for life-long learning and service to God and to the community
- meets the changing needs of the community and society
- remains faithful to the ‘**Nature of the Institution**’ statement”

“...Promotes learning, scholarship, creative endeavor, and service”.

This course contributes to the Smith College core and to the university purpose by providing an educational program which “is committed to academic excellence in an intellectually free and objective environment” and which provides “physical resources and a campus environment which acknowledge the uniqueness of the individual...and encourages the development of the whole person.”

RELATION TO COLLEGE GOALS AND PURPOSES

The Department of Kinesiology emphasizes the goals of the School of Nursing & Allied Health with the inclusion of multiple learning approaches; a challenging criterion; and the use of reliable, fair methods of evaluation.

RELATION TO DEPARTMENTAL GOALS AND PURPOSES

The Department of Kinesiology is committed to fashioning and cultivating a genuine practitioner in the science of human movement; preparing candidates to assume professional roles in education, in fields aligned with rehabilitation and prevention, and within the environments of sport and exercise. The candidate displays expert knowledge; proficient competencies, and professional disposition suited for success in the profession.

COURSE OBJECTIVES

Overview/Purpose of the Course

The purpose of this course is to provide introduction and education in the analysis and calculation of basic statics, kinetics and kinematics within an environment of sport and physical activity.

Upon completion of this course, students should be able to:

Discern biomechanics as a multidisciplinary science involving the application of mechanical principles in the study and function of the human organism. Understand that basic knowledge of biomechanics is essential for competent professional analysis of human movement, including physical education teachers, physical therapists, physicians, coaches, personal trainers, and exercise instructors.

Technology, writing, or oral objectives:

The student will be required to demonstrate accomplished writing skills; display the use of technology in writing and research activities; and demonstrate appropriate oral and communication skills.

TOPICAL OUTLINE

Date	Week #	Class #	Topic
1/7	1	1	Class introduction
1/9	1	2	Math review
1/11	1	3	Ch 1: Forces
1/14	2	4	Ch 1: Forces
1/16	2	5	Ch 2: Linear Kinematics
1/18	2	6	Ch 2: Linear Kinematics
1/21	3		MLK Holiday – No Class
1/23	3	7	Ch 3: Laws of motion
1/25	3	8	Ch 3: Laws of motion
1/28	4	9	Ch 3: Laws of motion
1/30	4	10	Ch 4: Work & Power
2/1	4	11	Ch 4: Work & Power
2/4	5	12	Exam 1 review
2/6	5	13	Exam 1
2/8	5	14	Ch 5: Torques & Angular motion
2/11	6	15	Ch 5: Torques & Angular motion
2/13	6	16	Ch 5: Torques & Angular motion
2/15	6	17	Ch 6: Angular Kinematics
2/18	7	18	Ch 6: Angular Kinematics
2/20	7	19	Ch 7: Explaining Angular Motion
2/22	7	20	Ch 7: Explaining Angular Motion
2/25	8	21	Ch 7: Explaining Angular Motion
2/27	8	22	Exam 2 review
3/1	8	23	Exam 2
3/4	9	24	Ch 9: Biological Stress & Strain
3/6	9	25	Ch 9: Biological Stress & Strain
3/8	9	26	Ch 9: Biological Stress & Strain
3/11	10		Spring Break – No Class
3/13	10		Spring Break – No Class

3/15	10		Spring Break – No Class
3/18	11	27	Ch 10: The Skeletal System
3/20	11	28	Ch 10: The Skeletal System
3/22	11	29	Ch 11: The Muscular System (review)
3/25	12	30	Ch 11: The Muscular System (review)
3/27	12	31	Exam 3 Review
3/29	12		Easter Holiday – No Class
4/1	13	32	Exam 3
4/3	13	33	Ch 13: Qualitative Analysis of Technique
4/5	13	34	Ch 13: Qualitative Analysis of Technique
4/8	14	35	Ch 13: Qualitative Analysis of Technique
4/10	14	36	Ch 14: Qualitative Analysis of Training
4/12	14	37	Ch 14: Qualitative Analysis of Training
4/15	15	38	Ch 14: Qualitative Analysis of Training
4/17	15	39	Ch 15: Analysis of Injury
4/19	15	40	Ch 15: Analysis of Injury
4/22	16	41	Ch 15: Analysis of Injury
4/24	16	42	
4/26	16		Last Day of Class
4/29	17		Reading Day
			Final Exam

The content of this outline and the attached schedule are subject to change at the discretion of the professor.

TEACHING STRATEGIES

This is a lecture-based course with student participation and interaction. Web-based resources will be investigated as well. Assignments will be utilized to review students' writing and computational skills, investigative abilities, and creativity. In and out of class assignments will be utilized to encourage student reading and study. Written exams will be used to assess student retention.

ASSESSMENT OF LEARNING

Course requirements

All work must be submitted on time; attendance at each class, activity, or event is mandatory (most approved late submission will be assessed a 5 point penalty per late day). Make-up work is at the discretion of the Professor, however all planned absences from course activities must have prior approval. Illnesses must be reported to the Professor prior to beginning of the scheduled class or activity.

Grading standards

	Points
Exams	100pts each
Attendance	100pts each
Homework	10pts each
In class assignments	10pts each
Quizzes	10pts each

Grading standards

Grading Scale

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = 0-59%

CLASS POLICIES

Attendance Policy

Regular attendance in class is important for student success, and it is university policy that students must attend class. **Absences are recorded beginning from the first class session after the student has enrolled in the course. Professors are not obligated to allow students to make up work they miss due to unexcused absences. Any student who does not attend at least 75% of the scheduled class sessions will receive a grade of "F" for the course, regardless of his performance on other assessments such as tests, quizzes, papers, or projects.** Professors may apply additional attendance policies as appropriate to individual courses. Likewise, the college or school may also apply additional attendance requirements as necessary. Please see the catalog currently in use for the university's policy on classroom absences caused in the course of student representation of the university, such as athletics, chorale, and mock trial activities.

Students will be allowed three (3) absences. Upon the fourth absence, the attendance grade will be decreased 10 points for each missed class period. Any missed assessments will be given a zero.

Students are allowed a 10minute period after the beginning of class to arrive. Any student who is more than 10mintues late to class will not be allowed into the classroom.

Academic Honesty

Please refer to the current catalog for the university's policy and procedures regarding academic honesty. Note that the university utilizes "Turn-It-In" and other programs to investigate possible plagiarism activities. All major papers for this course will be submitted to the plagiarism prevention software, **Turnitin.com** on or before a paper's due date. No paper will be graded without meeting this requirement beforehand. A separate handout will be provided to give detailed instructions on this process which must include the class identification number and class password.

In accordance with FERPA, and to best protect the students' privacy, no personal identification (e.g., name, social security number, H number) should be uploaded with the

text of student papers. However, Turnitin will ask for the student's name and e-mail address when setting up a personal account. This identifying information will be used by the professor to evaluate the student's paper and cannot be viewed by other faculty or students. To further increase confidentiality, the student may choose to use a pseudonym (false name) when setting up his or her personal Turnitin account.

If a pseudonym is used for Turnitin, the student must provide this identifier next to his/her typed name on the paper copy which is submitted to the professor. Five (5) points will be deducted if the professor is unable to easily match the paper copy to the Turnitin submission of the student's paper.

Children in Classroom

In almost all instances, children are not allowed in the classroom nor are they allowed to be on campus unattended. Class sessions are for enrolled students only unless other arrangements are approved by the instructor in advance.

Classroom Behavior Expectations

The classroom environment is to be conducive to learning and is under the authority of the instructor. In order to assure that all students have the opportunity to gain from the time spent in class, students are expected to demonstrate civil behavior in the classroom and show appropriate respect for the instructor and other students. Inappropriate behavior toward the instructor, in or out of the classroom, may result in a directive to the offending student to leave the classroom or the course entirely.

Classroom behaviors that disturb the teaching-learning experiences include the following behaviors: activated cellular phone or other device, demands for special treatment, frequent episodes of leaving and then returning to the class, excessive tardiness, leaving class early, making offensive remarks or disrespectful comments or gestures to the instructor or other students, missing deadlines, prolonged chattering, sleeping, arriving late to class, dominating discussions, shuffling backpacks or notebooks, disruption of group work, and overt inattentiveness. It is at the discretion of the instructor as to whether laptops will be allowed for use in the classroom.

Early Alert

As an instructor, I am committed to your success, not only in this class, but in all aspects of HBU life. To ensure that every student takes full advantage of the educational and learning opportunities, HBU has implemented an *Academic Early Alert Referral System (EARS)*. If I think you would benefit from some of these special programs or services available to you, I will make the appropriate referral. You, in turn, will be expected to take advantage of the help offered to you.

Email Policy

All university and class email communication will be sent to your HBU email account. You are responsible for checking this frequently. If you choose, you may reroute your HBU email to another email address. Your emails should be in a professional format with correct spelling, capitalization, and grammar.

Grievance Procedures

The Academic Grievance Policy may be found in the catalog currently in use, in the Academic section of the HBU Forms section of the HBU Portal, and on the Registrar's page on the HBU Website.

Incomplete Grades

Only the dean of the college or school may grant incompletes and only to students who have a major documented emergency in the last few days of a semester. **Students with excessive absences, which will result in failing the course, will not be allowed to take the final exam nor be eligible to receive an incomplete.**

Late Work

A 5% deduction will be assessed for every day an assignment is late. Beyond the 3rd day, a 0 will be given for the assignment.

Important Notice for Excuse Absences: If the student is excused from class due to a University sanctioned event or approved occasion - THE STUDENT IS RESPONSIBLE FOR MAKING UP THE WORK IN A TIMELY MANNER. DO NOT FORGET TO MAKE UP WORK!

Learning Disabilities/Academic Accommodations

Houston Baptist University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. Any student who needs learning accommodations should inform the professor immediately at the beginning of the semester that he/she will be requesting accommodations.

Step 1: All Students - Sign and Date Acknowledgement

All students requesting academic accommodations are required to read carefully all sections of information on the HBU Academic Accommodations Web site. After doing so, the student should print, sign and date the  [Acknowledgement Form*](#) that you have read all the information and submit the signed form to the [Disability Services Coordinator](#).

Step 2: All Students - Check Your Documentation

Check your documentation to see if it meets the criteria listed on this website for your specific disability. No accommodations will be written until you submit all required documentation and the

documentation meets the criteria for your disability. If you have preliminary questions about the documentation criteria for your disability, please contact the [Disability Services Coordinator](#).

Step 3: Submit Documentation and Schedule an Appointment

- **First Time Applicants**

You should contact the [Disability Services Coordinator](#), to schedule an initial intake appointment. Bring your documentation and signed Acknowledgement form with you to the initial intake appointment. During the initial intake appointment you will complete the Service Request form for Academic Accommodations, sign any needed confidentiality forms, and accommodation requests/needs will be discussed. Once the documentation has been reviewed, the Coordinator will contact you to schedule another appointment to finalize accommodations and complete the accommodations request process, or to advise you of additional documentation needed.

- **Students Who Have Previously Received Accommodations at HBU**

Academic accommodations must be applied for **in person** and written **each semester**. You should contact the [Disability Services Coordinator](#) to request an appointment at the beginning of each semester to review and discuss accommodations for that semester. Students will also need to bring a current copy of their detailed class schedule to this appointment.

Step 4: All Students - Letters of Accommodation

When you are approved for accommodations, the [Disability Services Coordinator](#) will write a Letter of Accommodation to your instructors for that semester stating that you have a documented disability (specific diagnosis or disability is not specified) which requires specific accommodations listed in the letter. The letters are stamped "confidential," placed in sealed envelopes stamped "confidential," and sent to instructors of record, usually within 48 hours after the appointment. Students are then to stop by the Coordinator's office to pick up their own copy of the accommodation letters.

Missed Assessments

Assessments missed due to excused absence will be made up during office hours or by appointment. **This must be done in a timely manner and is the responsibility of the student.** Assessments missed due to unexcused absence will not be made up and will be given a 0 for the grade.

PERSON RESPONSIBLE FOR DEVELOPING SYLLABUS

Charles A. Gremillion IV, MS, SCCC, USAW

Instructor's Signature

Date