**BIOMECHANICS (KINE 3620)**

|  |  |
| --- | --- |
| **Instructor:** | **Braden H. Romer, MS, CSCS** |
| **Meeting Times:** | **Monday – Friday**  **1:00pm – 2:30pm** |
| **Meeting Place:** | **1081 Beard Eaves Memorial Coliseum** |
| **Office:** | **1127 Beard Eaves Memorial Coliseum** |
| **E-mail Address:** | **bhr0002@tigermail.auburn.edu** |
| **Office Hours:** | **Monday: 9am – 11am**  **Wednesday: 11am – 1:00pm** |
| **Credit Hours:** | **4 semester hours** |
| **Pre-requisites:** | **KINE 3020, MH 1610** |
| **Co-requisites:** | **None** |
| **Date Syllabus Prepared:** | **Summer 2011** |
|  |  |

**REQUIRED TEXTBOOK:**

Hamilton, N., Weimar, W. & Luttgens, K. (2011) Kinesiology – Scientific Basis of Human Motion. Twelfth Edition, McGraw-Hill: New York, New York. (ISBN 978-0-07-297297-9)

**COURSE DESCRIPTION:**

This course is designed to develop a fundamental understanding of the anatomical, neuromuscular, and biomechanical principles of human movement. Application of these concepts, as well as methods of motion analysis covered in this course, will enable the student to evaluate human performance in greater detail.

**COURSE INSTRUCTIONAL OBJECTIVES:**

The student will demonstrate an understanding of and the ability to:

1. Learn a systematic approach to the analysis of human motion
2. Understand the anatomical, neuromuscular, and biomechanical fundamentals of human motion
3. Apply anatomical and biomechanical analyses to the study and improvement of a broad spectrum of movement activities.

**COURSE REQUIREMENTS**

Three exams and “pop” quizzes will be given during this course. In addition to exams and quizzes, laboratory assignments will be graded. Lab activities must be kept in a lab folder. The students are required to staple the labs and return all labs placed in the folders to get full credit from lab assignments. Every unstapled lab assignment will cause 1 point deduction from total lab grade. If a computer problem occurs with the blackboard system you must notify the instructor immediately. Surprise quizzes will cover material that is already covered in class, thus it is vital to keep up with the information throughout the semester. There will be no make-up quizzes for missed surprise quizzes unless an excused absence is pre-arranged.

**GRADING SCALE:**

The grading scale for this course is as follows:

**A = 90 – 100% Labs:** 50 points total

**B = 80 – 89% Pop quizzes:** TBD (min 3)

**C = 70 – 79% 3 Exams:** 100 points each

**D = 60 – 69% Total:** min 380 points

**F = Under 59%**

Extra Credit opportunities will be provided during this semester. Every student will have an equal opportunity to earn the credit. A grade will be given based on the accumulation of the “exams, pop quizzes, lab assignments, and extra credits.”

**HONESTY CODE:**

The University Academic Honesty Code and the Tiger Cub Rules and Regulations pertaining to Cheating will apply to this class.

**CLASS POLICY STATEMENTS**

Participation: Students are expected to participate in all class discussions and participate in all laboratory exercises. It is the student’s responsibility to contact the instructor **PRIOR** to class if an illness or emergency requires the student to miss class. Any missed work due to a University approved excuses MUST be made-up within 5 days.

Laboratory Activities and Exams: Labs are due one week after the date of lab activity unless an excuses absence is pre-arranged. **No late work will be accepted. Students not turning in work by the scheduled start of class time will receive a “0” grade on the lab activity.** The students must be present during the lab activity. If not, the student will be allowed to perform the activity unless an excuses absence is pre-arranged.

Attendance/ Absences: Attendance is required at each class meeting. If an exam is missed, a make-up exam will be given only for University-approved excuses as outlines in the **Tiger Cub**. Arrangements to take the make-up exam **must be made in advance** and the exam taken within 5 days of the missed exam. Students who miss an exam because of illness should inform the instructor prior to the missed class if possible. A doctor’s statement for verification of sickness is required and should clear the absence with the instructor the day the return to class. Other unavoidable absences from campus must be documented and cleared with the instructor in advance. No late assignments or quizzes will be accepted outside of extreme circumstances noted by the professor. Please carefully adhere to established assignment deadlines. In such a case the professor will have the discretion of lowering the assignment **Five (5)** points for each day that it is late.

Questions/ Help: Students are encouraged to ask questions and seek extra help on a regular basis. **Please do not wait** until the day before an exam or laboratory is due.

Students Accommodations: Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternative time can be arranged. To set up this meeting, please contact me by e-mail. Bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have an Accommodation Memo but need accommodations, make an appointment with the Program for Students with Disabilities at 1244 Haley Center, 844-2096 (V/TT).

Classroom/ Laboratory Policies:

* All electronic devices must be turned off during classroom or laboratory periods, with the exception of laptops which may be used for note taking only. **NO phones or text messaging during class is allowed. All phones and electronic devices must be put away prior to the start of class. If these are found out – The student will be asked to leave the class.**
* Students are expected to arrive to class on time. Those arriving late will not be permitted to hand in homework. Likewise, classes will end promptly at the scheduled time.
* Students are expected to come to class having completed the reading and prepared to discuss them.
* While the laboratory sessions are more relaxed, students are expected to conduct themselves in professional and safe manner. Students are not permitted to play with laboratory equipment.
* Lab attire consists of loose fitting gym shorts, t-shirts, and sneakers for easy movement. **In order to participate in laboratory sessions, students must arrive to class in appropriate attire.** Students not properly dressed will be asked to leave and will not be allowed to make up the assignments.

Professionalism: As faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College’s conceptual framework. These professional commitments or dispositions are listed below:

* Engage in responsible and ethical professional practices
* Contribute to collaborative learning communities
* Demonstrate a commitment to diversity
* Model and nurture intellectual vitality

**TENTATIVE SCHEDULE**

Subject to change:

**Topic Reading Week**

Introduction to Biomechanics Chapter 1 Week 1

The Musculoskeletal System 1 Chapter 2 Week 2

The Musculoskeletal System 2 Chapter 3 Week 2

Nervous System Chapter 4 Week 2 – Week 3

Math Review, Vectors, Msmts. Chapter 10 Week 4

Types of Motion Chapter 11 Week 4

Linear Motion Chapter 12 Week 5

Torque, Levers, and Rotation Chapter 13 Week 5

**The above content, schedule and procedures in this course are subject to minor amendments at the discretion of the instructor.**