**AUBURN UNIVERSITY**

**SYLLABUS**

**KINE 3620 – Biomechanical Analysis of Human Movement**

* **4 credit hours; LEC 3, LAB 1.**

**Sprint 2013**

 Lecture: MWF- 10:00 – 10:50 am. Memorial Coliseum room 1081.

Lab: W- 1:00 - 2:50 pm. Memorial Coliseum room 2033.

Instructor: Jay Patel, M.Ed.

Office: 1127 Memorial Coliseum

Email: pateljh@tigermail.auburn.edu

Phone: 334-844-1468

Office Hours:Monday – Friday 8-9am and by appointment

**Texts or Major Resources:**

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).

Power point presentations and handouts will be provided through Canvas.

**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.

**Student Learning Outcomes:**

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 Content Outline:**

Four to five exams will be given during this course. Quizzes may also be given during the class throughout the semester. In addition to exams and quizzes, laboratory assignments will be graded. If a computer problem occurs with the Canvas system you must notify the instructor immediately.

**Tentative Class Schedule:** (Subject to change)

 **Topic Reading Week**

Introduction to Biomechanics Chapter 1 Week 1-2 (1/9 – 1/18)

The Musculoskeletal System 1 Chapter 2 Week 3 (1/21 – 1/25)

The Musculoskeletal System 2 Chapter 3 Week 4-5 (1/28 – 2/8)

Nervous System Chapter 4 Week 6-7 (2/11 – 2/22)

Math Review, Vectors, Msmts. Chapter 10 Week 8-9 (2/25 – 3/8)

Types of Motion Chapter 11 Week 10-11(3/18 – 3/29)

Linear Motion Chapter 12 Week 12-13 (4/4 – 4/12)

Torque, Levers, and Rotation Chapter 13 Week 14-15 (4/15 – 4/26)

**Important Dates (Fall 2012):**

Jan. 9: Classes Begin (Wed)

**Jan. 16-30:** Dropping a course during these days will result in a $100 Drop Fee per course dropped. **(Wed-Wed)**

Jan. 21: Martin Luther King, Jr. Day (Mon)

Jan. 30: 15th Class Day (Wed)

- Last day to drop from course with no grade assignment.
- Last day for potential tuition refund for dropped classes.

Feb. 28: Mid-Semester (36th Class Day) (Thurs)

- Last day to withdraw from course with no grade penalty. "W" assigned.

Mar. 11-15: Spring Break (Mon – Fri)

Apr. 26: Classes End

Apr. 27-28: Study/Reading Days (Sat-Sun)

Final Exam Period: Tuesday, April 30 2013: 8:00 – 10:30 am.

AU policy regarding final exams: Final exams should be administered during the hours specified in the semester examination schedule. Due to the specialized nature of many small upper-level undergraduate courses and graduate courses, deviation from this supplement is sometimes warranted. Such deviations are to be approved by the Office of the Provost. Rescheduled examinations must not interfere with the scheduled academic activities of the students involved. The professor teaching a 6000-level course or higher shall determine whether a formal final examination is appropriate.

**Grading Scale:**

The grading scale for this course is as follows:

**A = 90 – 100% Labs:** 20%

**B = 80 – 89% Participation/ Quizzes:** 5%

**C = 70 – 79% Exams:**  75%

**D = 60 – 69% Total:** 100%

**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.”

**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.

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 outlined in the **Student Policy eHandbook**. 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 assignmenta percentage of the overall grade 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.

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

Academic Honesty Policy: All portions of the Auburn University student academic honesty code found in the **Student Policy eHandbook** will apply to university courses. The URL is www.auburn.edu/student policies. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need special accommodations in class, as provided by the Americans with Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodations Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (V/TT).