**AUBURN UNIVERSITY**

**SYLLABUS**

1. **Course Number:** KINE 3620

**Course Title:** Biomechanics

**Term:** Fall 2014

**Day/Time: Lecture:** Tuesday/Thursday 9:30-10:45am

**Lab:** Wednesday 12-1:40pm

 **Instructor:** Taylor Holt

 **Office Address:** 301 Wire Road, Kinesiology Building, Rm #122

 **Contact Information:** teh0010@auburn.edu

 **Office Hours:** Tuesday/Thursday 8:30-9:30am

BY APPOINTMENT ONLY

 **Secondary Contact:** Dr. Sheri Brock, brocksj@auburn.edu

1. **Credit Hours:** 4 credit hours – LECTURE 3 / LAB 1

**Prerequisites:** KINE 3020, MH 1610

1. **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)

1. **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.

1. **Course 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
4. **Course Requirements / Evaluation:**

Four exams will be given during this course. “Pop” quizzes may also be given during the class. Pop 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 pop quizzes unless an excused absence is pre-arranged.

**Grading scale**

The grading scale for this course is as follows:

**A = 90 – 100% Labs:**  20%

**B = 80 – 89% Quizzes:** 20%

**C = 70 – 79% Exams:** [4 @ 15% each] 60%

**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.”

1. **Statement of Student Accommodation:**

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). [**https://fp.auburn.edu/disability/faculty/syllabus.asp**](https://fp.auburn.edu/disability/faculty/syllabus.asp)**.**

1. **E-mail:**

Tigermail Outlook 365 is the official means of communication for Auburn University. The instructor will communicate with the class through Tigermail Outlook 365. You are responsible for this information, so please check your account regularly.

1. **Lab Activities and Exams:**

Labs are due one week after the date of lab activity unless an excused absence is pre-arranged. No late work will be accepted. Students not turning in work by the scheduled start of class time will received a “0” grade on the lab activity. The students must be present during the lab activity. If not, the student will not be allowed to perform the activity unless an excused absence is pre-arranged. Students are asked to review exams after they are returned and look up missed questions. If the answer is still unclear, please make an appointment to review the question and I’d be happy to go over any remaining questions you may have.

**10. Honesty Code:**

The University Academic Honesty Code and the **Student Policy eHandbook** [www.auburn.edu/studentpolicies] pertaining to cheating and plagiarism will apply to this class.

**11. Class policy statements:**

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 instructor. Please carefully adhere to established assignment deadlines. In such a case the instructor 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.

Classroom and 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

**Course Schedule (subject to change by instructor):**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Date** | **Topic** | **Chapter** |
| 1 | 19-Aug | Syllabus |   |
| 21-Aug | Anatomical Terms | 1 |
|  |  |  |
| 2 | 26-Aug | The Musculoskeletal System – Skeletal | 2 |
| 28-Aug | The Musculoskeletal System - Skeletal | 2 |
|  |  |  |
| 3 | 2-Sep | The Musculoskeletal System – Muscle | 3 |
| 4-Sep | The Musculoskeletal System – Muscle | 3 |
| 4 | 9-Sep | Neuromuscular Basis of Human Movement | 4 |
| 11-Sep | Neuromuscular Basis of Human Movement | 4 |
|  |  |   |
| 5 | 16-Sep | **EXAM I** |  |
| 18-Sep | Terminology & Measurements in Biomechanics | 10 |
|  |  |  |
| 6 | 23-Sep | Description of Human Movement | 11 |
| 25-Sep | Linear Motion | 12 |
|  |  |  |
| 7 | 30-Sep | Linear Motion | 12 |
| 2-Oct | **EXAM II** |   |
|  |  |  |
| 8 | 7-Oct | Rotary Motion | 13 |
| 9-Oct | Rotary Motion | 13 |
|  |  |  |
| 9 | 14-Oct | Rotary Motion | 13 |
| 16-Oct | Center of Gravity & Stability | 14 |
|  |  |   |
| 10 | 21-Oct | Center of Gravity & Stability | 14 |
| 23-Oct | **EXAM III** |  |
|  |  |   |
| 11 | 28-Oct | Locomotion | 18 |
| 30-Oct | Locomotion | 18 |
|  |  |  |
| 12 | 4-Nov | Instrumentation for Motion Analysis | 22 |
| 6-Nov | Instrumentation for Motion Analysis | 22 |
|  |  |  |
| 13 | 11-Nov | Law of Cosines |   |
| 13-Nov | Law of Cosines |   |
|  |  |   |
| 14 | 18-Nov | Law of Cosines |   |
| 20-Nov | **EXAM IV** |   |
|  |  |   |
|   | 24-28 Nov | Thanksgiving Break |   |
| 15 | 2-Dec | Breaking Down a Movement |   |
| 4-Dec | Breaking Down a Movement |   |
|  |  |   |
| 16 | 8-12 Dec | **Final Exam Week** |   |
|  |  |   |
|  |  |   |