# Auburn University

# College of Education

# School of Kinesiology

# Course Syllabus

## Syllabus for KINE 3620-002 (Fall 2019)

### Course Information:

Course Number: KINE 3620

Course Title: Biomechanics of Human Movement

Course Hours: 3 semester hours (Lecture)

Prerequisites: none

### Faculty Information:

Instructor: Dr. Wilburn

Office Location: Kinesiology Building 103

Office Hours: TR 2:00 – 3:30; W 10-11:30

Email**:**czw0043@auburn.edu

Phone number: 334-844-1462  
  
***TA:*** *Ms. Imani Hill* ***Office Hours:*** *M (schedule by appointment)* ***Email:*** *inh0005@auburn.edu*

### Course Meetings:

TR 9:30 – 10:45 AM STACT 257  
  
Required Text:   
McLester, J., & Pierre, P. S. (2007). *Applied biomechanics: concepts and connections*. Nelson Education.  
Floyd, R. T., & Thompson, C. W. Manual of Structural Kinesiology,(2006).

### 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 students will be able 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 Overview (Tentative Schedule of Topic- exact timing may change)

Week 1. Introduction to Biomechanics and Movement

Week 2. Concepts and Paradigms for Studying Motion

Week 3 Linear Movement of a System  
Week 4. Linear and Angular Movement of a System

Week 5. Angular Movement of a System

Week 6. Angular Movement & Fundamental Anatomy (Bones and Skeleton)

Week 7. Fundamental Anatomy (Skeleton & Muscles)

Week 8. Fundamental Anatomy (Muscles)

Week 9. Functional Anatomy (The Foot-Ankle Complex)   
Week 10. Functional Anatomy (The Knee & Hip Region)

Week 11. Functional Anatomy (The Hip & Shoulder Region)  
Week 12. Functional Anatomy (The Shoulder Region)

Week 13. Functional Anatomy (The Elbow Region & Wrist-Hand Complex)

Week 14. Functional Anatomy (Wrist-Hand Complex) & Group Presentations

Week 15. Group Presentations & Review

**Final Exam: Monday April 29th 8 AM- 10:30 AM STACT 241**

### EVALUATION METHODS:

#### Course Requirements:

Quizzes, exams, a final project, and final exam will be given during this course.

#### Grading and Evaluation Procedure:

Quizzes......30%

Exams………35%

Final Project......20%

Final Exam....15%

90 - 100 --- A

80 - 89 --- B

70 - 79 --- C

60 - 69 --- D

Under 60 --- F

### Class Policy Statements:

Participation: Students are expected to participate in all class discussions. It is the student’s responsibility to contact the instructor if concepts and materials need further explanation.

Attendance/Absences: Attendance is required at each class meeting. If an exam or quiz is missed, a make-up exam will be given only for University-approved excuses as outlined in the Student Policy e-Handbook. Arrangement to take the make-up exam or quiz must be made in advance. Students who miss an exam or quiz because of illness need a doctor’s statement for verification of sickness and should clear the absence with the instructor the day they return to class. Other unavoidable absences from campus must be documented and cleared with the instructor **in advance**.

Unannounced quizzes: “Pop” quizzes may be given during the class period. “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 surprise quizzes unless a university excused absence in provided.

Email: Tigermail is the official means of communication for Auburn University. The instructor will communicate with the class through Tigermail regularly. You will be responsible to obtain this information and should check your Tigermail account frequently.

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).

Questions/Help: Students are encouraged to ask questions and seek extra help on a regular basis. Please do not wait 1 minute to 48 hours prior to a quiz or exam to seek assistance.

Honesty Code: The University Academic Honesty Code and the Student Policy e-Handbook Rules and Regulations pertaining to cheating will apply to this course.

Professionalism: As faculty, staff, and students interact in professional settings, we 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