

KINE 3620 BIOMECHANICS

Instructor	Hillary Plummer M.AT, ATC, LAT
Meeting Times	MWF 10:00-10:50am
Office	KINE 122
E-mail Address	hplummer@auburn.edu
Office Hours	Wednesday: 8:00-10:00 am Tuesday/ Thursday: 9:00-11:00 am (Appointment is best)
Credit Hours	4 semester hours
Pre-requisites	KINE 3020, MH 1610
Co-requisites	None
Date Syllabus Prepared	Fall 2013

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 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%	Abstracts/Quizzes:	20%
C = 70 – 79%	Exams: [3 @ 20% 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.”

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>.

E-MAIL Outlook360 is the official means of communication for Auburn University. The instructor will communicate with the class through Outlook360. You are responsible for this information, so please check your account regularly.

CONTINGENCY PLAN

If normal classes are disrupted due to a high number of students experiencing illness or an emergency or crisis situation (such as a widespread H1N1 flu outbreak), the syllabus and other course plans and assignments may be modified to allow completion of the course. If this occurs, an addendum to your syllabus and/or course assignments will replace the original materials. Additionally, course content and assignments may be made available to you via Blackboard.

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.

CLASS POLICY STATEMENTS

Participation: Students are expected to participate in all class discussions. 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 instructor. Please carefully adhere to established assignment deadlines. In such a case the instructor will have the discretion of lowering the assignment a 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

AU Evaluation Dates: AU eValuate Fall Semester

OPEN: November 29, 2013 [8:00am]

CLOSE: December 2, 2013 [11:59pm]

TENTATIVE SCHEDULE

Subject to change:

AUGUST

Wednesday 21	Introduction & Chapter 1
Friday 23	Intro to Biomechanics Chapter 1
Monday 26	Kinetic Chain/Summation of Speed (Kibler & Putnam Articles)
Wednesday 28	Meet in Library (Main Lobby, Mell St Entrance)
Friday 30	Intro to Motion Analysis

SEPTEMBER

Monday 2	Labor Day No Class
Wednesday 4	Musculoskeletal System Chapter 2
Friday 6	Musculoskeletal System Chapter 3
Monday 9	Neuromuscular Basics Chapter 4
Wednesday 11	Upper Extremity Chapter 5 *Abstract 1 Due*
Friday 13	Upper Extremity Chapter 6
Monday 16	Upper Extremity Chapter 6
Wednesday 18	Upper Extremity Chapter 6
Friday 20	Upper Extremity Chapter 6
Monday 23	Review
Wednesday 25	Exam I
Friday 27	Lower Extremity Chapter 7
Monday 30	Lower Extremity Chapter 7

OCTOBER

Wednesday 2 Lower Extremity Chapters 7 & 8
Friday 4 Lower Extremity Chapter 8
Monday 7 Lower Extremity Chapter 8
Wednesday 9 Terminology & Math Review Chapter 10
Friday 11 Chapter 10 ***Abstract 2 Due***
Monday 14 Description of Movement Chapter 11
Wednesday 16 Chapter 11
Friday 18 Linear Motion Chapter 12
Monday 21 Chapter 12
Wednesday 23 Review
Friday 25 **Exam 2**
Monday 28 EMG
Wednesday 30 EMG

NOVEMBER

Friday 1 Rotary Motion Chapter 13
Monday 4 Rotary Motion Chapter 13
Wednesday 6 Center of Gravity Chapter 14
Friday 8 Center of Gravity Chapter 14
Monday 11 Pushing & Pulling Chapter 16 ***Abstract 3 Due***
Wednesday 13 Pushing & Pulling Chapter 16
Friday 15 Dartfish
Monday 18 Dartfish
Wednesday 20 Aquatics Chapter 19
Friday 22 Aquatics Chapter 19
November 25-29 Thanksgiving Break

DECEMBER

Monday 2 Review
Wednesday 4 Review
Friday 6 Review
Final Exam TBA