

BIOMECHANICS (KINE 3620 - 003)

Instructor:	Braden H. Romer, MSc, CSCS
Meeting Times:	Lecture: Tuesday / Thursday → 11:00am – 12:15pm Lab: Monday → 3:00pm – 4:50pm
Meeting Place:	MC 1081 (Lab: MC 2033)
Office:	MC 1127
E-mail Address:	bhr0002@auburn.edu
Office Hours:	By Appointment <u>or</u> Mon: 9am – 11am Wed: 9am – 11am
Credit Hours:	4 semester hours
Date Syllabus Prepared:	Spring 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 to Four exams will be given during this course. “Pop” quizzes may also be given during the class. In addition to exams and quizzes, laboratory assignments will be graded. If a computer problem occurs with the blackboard or canvas 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:	20%
B = 80 – 89%	Participation/ Quizzes:	5%
C = 70 – 79%	Exams: [3 @ 25% each]	<u>75%</u>
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).

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

CONTINGENCY PLAN

If normal class and/or lab activities 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 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** (www.auburn.edu/studentpolicies). 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 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 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

TENTATIVE SCHEDULE

Week	Reading	Topic
Week 1	Chapter 1	Introduction to Biomechanics
Week 2	Chapter 1/ 2	Introduction to Biomechanics / The Musculoskeletal System
Week 3	Chapter 2/3	The Musculoskeletal System
Week 4	Chapter 3	The Musculoskeletal System
Week 5	N/A	Review/ Test 1
Week 6	Chapter 4	Neurophysiology Review/ Neuromuscular Basis for Mvmt.
Week 7	Chapter 4/ 10	Neuromuscular Basis for Mvmt. / Terminology & Math Review
Week 8	Chapter 10/ 11	Terminology & Math Review / Description of Human Mvmt.
Week 9	Chapter 11	Description of Human Mvmt.
Week 10	N/A	Review/ Test 2
Week 11	Chapter 12	The Conditions of Linear Motion
Week 12	Chapter 12	The Conditions of Linear Motion
Week 13	Chapter 12/ 13	The Conditions of Linear Motion/ Rotary Motion
Week 14	Chapter 13	The Conditions of Rotary Motion
Week 15	N/A	Review for Final Exam

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