EASTERN ILLINOIS UNIVERSITY

Kinesiology and Sports Studies Department KSS 3800 Biomechanics Course Outline Fall 2012

INSTRUCTOR: Jeffrey M. Willardson, PhD, CSCS*D (call me Dr. Willardson)

PHONE: 217-581-7592

E-MAIL: <u>imwillardson@eiu.edu</u>
OFFICE LOCATION: Lantz 2230

OFFICE HOURS: M and W 9-10AM; T and TH 2:15-3PM; TH 12:15-1PM

CLASS DAYS: M, W, F (section 1); T, TH (section 2) CLASS LOCATION: LTNZ 1420 (section 1 and section 2) CLASS TIME: 8-8:50AM (section 1); 1-2:15PM (section 2)

Student Success Center

Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Student Success Center provides individualized consultations. To make an appointment, call 217-581-6696, or go to 9th Street Hall, Room 1302.

COURSE DESCRIPTION

This purpose of this course is to gain an understanding of how the laws of physics apply to the body and sports implements during the performance of sports skills. **Please note that a basic scientific calculator is a required for this class.**

TEXTBOOK

HALL, S.J. Basic Biomechanics (6th edition). New York, NY: McGraw-Hill, 2012.

COURSE OBJECTIVES

- 1. Recognize the external forces that act on the body.
- 2. Analyze movement through the use of linear kinematics.
- 3. Analyze the influence of linear kinetic laws on human movement.
- Examine the relationships between mechanical work and energy and the application to human movement.
- 5. Understand resultant torques and how they contribute to equilibrium in human movement.
- 6. Understand angular kinetics impact on human movement.
- 7. Understand the influence of angular kinematics on human motion.

DATES TO REMEMBER

Aug 20 First day of class

Sept 3 Labor Day observance no class

Oct 5 Fall break no class

Oct 10 Mid-term

Nov 19-23 Thanksgiving break no class

Dec 7 Last class day

Thurs Dec 13 Section 1 Final Exam, 8-10AM Section 2 Final Exam, 12:30-2:30PM

GRADING

90-100% = A 80-89% = B 70-79% = C 60-69% = D <59% = F

Midterm exam = 25%
Learning modules (quizzes, notes, assignments) = 30%
Final Exam = 25%
Research Project = 20%
No opportunities will be given for extra credit.

ACADEMIC MISCONDUCT

Examples of academic misconduct are cheating, plagiarism, and excessive absences. Please consult the Student Handbook for the official academic misconduct policy. Any academic misconduct will be dealt with according to the student handbook and the discretion of the instructor.

RESPECT FOR DIVERSITY

Diversity encompasses age, life experiences, profession, race, religion, sexual orientation, and lifestyle, social class, learning style, philosophy of life, personality, mental and physical challenges, customs, values, and gender. Diversity is to be respected in this class.

PROFESSIONALISM

This is a biomechanics class and therefore we will be studying the human body and human movement. This class may utilize students as human examples during the course of the class. Professional conduct is expected at all times. Failure to uphold this expectation will result in removal or failure in this class.