Kinesiology 3372
Biomechanics (Kinesiology)
10:00 and 11:00 MWF----Fall 2018

Instructor: Dr. Kathleen Price (Kathleen.Price@angelo.edu)
Office: Center for Human Performance CHP #108
Important Phone Numbers: Dr. Price’s direct line (325) 486-6175
Kinesiology Department Office (325) 942-2173

Office Hours:
MWF 8:30-10:00 MWF and 12:00-12:30 Friday
TTH 8:30-9:30 and 10:45-11:45 and 1:30-2:00

**Additional hours by appointment. I anticipate being in my office many more hours than this appears. I serve on both university committees and community organizations. If I will be unavailable, I will leave a note on my office door. Please contact me via e-mail or leave a message to contact me. I will get back to you! All class communication will be done through Blackboard and angelo.edu email accounts. Please check these daily!

I. Resource Materials
   A. Required Text
      Choices……
      1. Do you want a Bound Text Book? This type book is only for rent!
         This can be rented through McGraw-Hill Publishers. ISBN #978-1-259-91387-7
      2. Would you prefer a Loose Leaf Version? This can be purchased at ASU
         Bookstore. ISBN# 9781260137392
   B. Anatomy Coloring Book- You’ll use this again in this course. Some pictures of
      bones and muscles may be distributed with class notes.

II. Student Learning Outcomes
   A. Students will develop a knowledge and understanding of selected anatomical and
      mechanical principles. This will be assessed by quizzes, homework, exams, and
      lab opportunities.
   B. Students will develop an awareness of the importance of mechanics and
      application of mechanical principles to the study of anatomical structure and
      analysis of human movement. This will be assessed by lab, website analysis, and
      formal quizzes and exams.
   C. Students will develop the ability to effectively analyze selected motor patterns.
      This will be assessed by choosing a skill and critically evaluating the
      components within the task.
III. Evaluation

3 tests and Final exam------->70%  Quizzes/Homework--------->30%

Grading Scale
90-100------>A  70-79------>C  59-BELOW------>F
80-89 -------> B  60-69------>D

IV. Attendance Policy and Class Policies
Attendance is necessary to fully understand the concepts and theories introduced in class. ASU functions must have a sponsor note. More than 5 absences will result in a deduction of 10 points from the final course average. More than 7 absences will result in a 20 point deduction from the final course average. No make-ups will be given on major tests unless prior arrangements have been made. Don’t call me the morning of a test and say you need to reschedule. This is not acceptable.

No make-ups will be given for daily quizzes. You will be given an opportunity to drop 3 quiz grades with a critique exchange. You MUST turn in critiques on the day stated on the syllabus. The critique is due at the beginning of class. (typed d-s) A copy of the article must also be turned in to complete the assignment. No late work will be accepted. If you are absent and miss a quiz, it is recorded as a zero. A poor quiz grade can be dropped with this exchange. This is the only method of extra credit.

***Keep track of all grades through Blackboard. If there is an error, please check in with me in a timely manner.

NO HATS WILL BE WORN AT ANY TIME by any student! Please!! Be respectful!

Please respect your classmates and your professor by turning off your cell phone prior to coming into class. If your phone rings during class, you will be asked to leave class and will be counted absent!

NO TEXTING permitted during class! PUT YOUR PHONES AWAY!
If you choose to text and I see you, you will be asked to leave and will be counted absent!
Fall 2018  
10 MWF and 11 MWF 3372  
TENTATIVE SYLLABUS

Mon Aug 27  Orientation and Introduction  
Ch 1 pp 1-25 What is Biomechanics?  
Learn key terms, basic concepts, and how biomechanics is used in various professions.

Wed Aug 29  Ch 1 continued

Fri August 31  Ch 2 pp 27-56 (Planes, axes, terminology)  
Kinematic Concepts for Analyzing Human Motion  
Learn key terms for planes, joint movements, and directional terms.

Mon Sept 3  University Holiday- No classes (Martin Luther King Day)

Wed Sept 5  Ch 2 continued and  
Ch 4 pp 83-108 (Bones)  
The Biomechanics of Human Bone Growth and Development  
Learn key terms associated with bone structure, growth and development, and injuries.

Fri Sept 7  Ch 4 continued and  
Ch 3 pp 57-82 (Force, weight, mass, volume, pressure, vectors)  
Kinetic Concepts for Analyzing Human Motion  
Learn key terms, units of measurement, and types of loading/forces present in sport and ADL.

Mon Sept 10  Ch 5 pp 109-133 (Joints)  
The Biomechanics of Human Skeletal Articulations  
Learn key terms associated with joint structure/movement capabilities, flexibility/ROM, and properties of connective tissue.

Wed Sept 12  Ch 5 continued

Fri Sept 14  Ch 6 pp 135-170 (Muscles)  
The Biomechanics of Human Skeletal Muscle  
Learn key terms, properties, and muscle fiber types/characteristics.

Mon Sept 17  Ch 6 continued

Wed Sept 19  Types of contractions, catch-up and review

Fri Sept 21  TEST #1
Mon Sept 24  First critique due
Ch 7 The Biomechanics of the Human Upper Extremity
Learn key terms and factors affecting mobility, muscles, and
biomechanical contributions to injuries in the upper extremities.
pp 171-189 (Shoulder movements)

Wed Sept 26  Ch 7 pp 189-196 (Elbow movements)

Fri Sept 28  Ch 7 pp 196-203 (Wrist/hand movements)

Mon Oct 1  Upper body exercise lab and activity

Wed Oct 3  Catch-up and Review Game

Fri Oct 5  Upper Extremity Test (#2A)

Mon Oct 8  Ch 8 The Biomechanics of the Human Lower Extremity
Learn key terms and factors affecting mobility, muscles, and
biomechanical contributions to injuries in the lower extremities.
pp 215-224 (Hip movements)

Wed Oct 10  Ch 8 The Biomechanics of the Human Lower Extremity  pp 224-235
(Knee movements)

Fri Oct 12  Ch 8 The Biomechanics of the Human Lower Extremity  pp 235-245
(Ankle/Foot movements) and Lower body exercise lab

Mon Oct 15 Ch 9 Biomechanics of the Human Spine
Learn key terms and factors affecting mobility, muscles, and
biomechanical contributions to injuries in the spine.
pp 259-296(Spine)

Wed Oct 17  Ch 9 continued and Catch-Up Review Game

Fri Oct 19  Lower Extremity Test (#2B)

Mon Oct 22  2nd critique due
Center of Gravity pp 60, 409-414
Balance and stability 414-416
Levers 400-405

Wed Oct 24  Lever lab and
Ch 10 Linear Kinematics of Human Movement pp 297-330
Learn key terms related to kinematic variables and projectiles.
Fri Oct 26  Ch 10 continued. Worksheet to review concepts.
Mon Oct 29  Ch 10 pp 309-323 (Projectiles and possible lab)
Wed Oct 31  Linear kinematics continued and problems
Fri Nov 2   Ch 11 pp 331-358 (Angular Kinematics of Human Movement)
            Learn key terms and concepts associated to angular kinematics
Mon Nov  5  Ch 11 continued.
Wed Nov  7  Angular kinematics continued and problems
Fri Nov  9  Review game and catch-up
Mon Nov 12 TEST #3
Wed Nov 14 3rd critique due
            Ch 12 pp 359-391 (Linear Kinetics of Human Movement)
            Learn key terms associated with kinetics including Newton’s Laws,
            friction, work, power, and energy.
Fri Nov 16  Ch 12 continued
Mon Nov 19 Linear kinetics continued and problems for linear kinetics
Wed Nov 21 Thanksgiving Holiday
Fri Nov 23 Thanksgiving Holiday
Mon Nov 26 Ch 14 pp 427-452 (Angular Kinetics of Human Movement)
            Learn key terms, concepts, and factors related to angular kinetics that
            influence movement. Introduction and worksheet
Wed Nov 28 Ch 14 Continued
Fri Nov 30  Ch 14 Continued
Mon Dec  3  Problems in angular kinetics and lab activities in kinetics
Wed Dec  5  Sport Science in action and qualitative movement analysis skills
Fri Dec  7 Movement analysis skill presentation
IMPORTANT DATE: Thursday Nov 1 is the last day to drop a class or withdraw from the University for the Fall 2018 semester.

FINAL EXAM SCHEDULE
10:00 MWF CLASS, your final is Monday December 10 from 10:27 am -12:30 pm.

11:00 MWF CLASS, your final is Wednesday December 12 from 10:27 am-12:30 pm.

Students with Special Needs- "Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request such accommodations prior to any accommodations being implemented. You are encouraged to make this request early in the semester so that appropriate arrangements can be made."

Honor Code
"Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook."
Critique #1

A Biomechanical Analysis of the Speed Skating Start

Angelo State University

Kinesiology 3372

Jane Doe

Dr. Kathleen M. Price

September 24, 2018

****Notes on format of cover page:
Line 1- Critique #1 (this is which critique # you’re doing….1st, 2nd, or 3rd)
Line 2- This is the title of the article you’ve reviewed.
Line 3- Angelo State University
Line 4- Course #
Line 5- Put YOUR name here!!
Line 6- Put my name here! Dr. Kathleen M. Price
Line 7- This is the date this assignment is due!
Article Critique Requirements:
Critiques must be typed and double-spaced. They should have one-inch margins and have a font size of 12 point. Be sure to proofread your critiques. Please be sure to staple critiques prior to class. Be prepared to discuss the articles in class.

What must be included?
Cover Page: The following items should appear on the title page:
Critique #, article title, Angelo State University, Kinesiology 3372, Kinesiology/Biomechanics, your name, my name, and the date. This information should be centered on the cover page.

Page 2: Annotation: This is a brief, yet concise, summary of the main points of the article. This should be one page double-spaced.

Page 3: Critique: This is a statement of your feelings concerning the article. Was it good, bad, or well written? Be sure to identify the strengths and weaknesses of the article. How does this information relate to what has been discussed in class or is in the text? Be specific. This should be two paragraphs double-spaced.

Page 4: Reference: Use the APA format from the following example to cite the article and journal you used for your critique. Be sure to double space the reference!


Page 5: Xeroxed copy of article: A complete copy of the article must accompany each critique. DO NOT TEAR ARTICLES OUT OF THE JOURNALS!!!
<table>
<thead>
<tr>
<th>Suggested Journals and Databases for Article Critiques</th>
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<tbody>
<tr>
<td>Academic Leader</td>
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<td>Athletic Journal</td>
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<td>American Journal of Health Behavior</td>
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<td>Ballet Review</td>
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<td>British Journal of Physical Education</td>
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<td>Coaching Clinic</td>
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<td>Dance Magazine</td>
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<td>Dance Teach Now</td>
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<td>ERIC</td>
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<td>Exercise and Sport Sciences Review</td>
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<td>Health Letter</td>
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<td>International Gymnast</td>
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<td>International Journal of Sport Biomechanics</td>
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<td>Journal of Applied Physiology</td>
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<td>Texas Assn. for Health, P.E., &amp; Rec.</td>
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<td>Journal of Exercise and Sport Psychology</td>
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<td>Journal of Health Education</td>
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<td>Journal of Motor Behavior</td>
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<td>Journal of Physical Education, Recreation &amp; Dance</td>
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<td>Journal of Sport Literature</td>
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<td>Journal of Sport Sociology</td>
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<td>National Strength &amp; Conditioning</td>
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<td>Palaestra</td>
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<td>Parks and Recreation</td>
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<td>Perceptual and Motor Skills</td>
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<td>Physical Education Index</td>
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<td>Physician and Sports Medicine</td>
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<td>Quest</td>
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<td>Referee</td>
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<td>Research Quarterly</td>
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<td>Scholastic Coach</td>
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<td>Sports and the Courts</td>
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<td>Sport Discus</td>
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<td>Sports Psychologist</td>
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<td>Track &amp; Field News Quarterly</td>
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<td>Texas Coach</td>
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<td>Texshare/Ovid</td>
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<td>The Physical Educator</td>
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<td>Women’s Coaching Clinic</td>
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<td>Journal of Sport Medicine</td>
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Please note that you MUST use a **professional journal** for this assignment. Sports Illustrated, Muscle Magazine, Vogue, Time, etc., are not considered professional journals. Please check with me if you are in doubt about the authenticity of a periodical that you plan to use for this assignment.
KIN 3372 INFORMATION SHEET

Name ___________________________
CID # ___________________________
E-MAIL ADDRESS ______________________________
Address (not PO Box) ___________________________
Phone _______________________________________
Birthdate ______________________________

Do you have a job during the semester? ____
If yes, where? _______ How many # hrs/wk? ______

Are you involved in athletics or other ASU extracurricular events that
may cause you to miss class? _______ which one? ______

Hometown __________________________________________

Career Aspirations (What will you be doing in 7 years?)
_____________________________________________________
_____________________________________________________
_____________________________________________________

Do you have any relatives who are teachers? ______ who? __________

What semester did you take Anatomy? ______

Grade in Anatomy (Bio 2423) ________ Professor ________________

“Academic dishonesty in this course will not be tolerated. If you are suspected of
cheating in this course, you will be asked to meet with a committee of the Kinesiology
department faculty to determine if you are guilty of cheating. If you are found to be
guilty of academic dishonesty, you will be given a grade of F in the course. A letter
regarding your academic dishonesty may also be placed in your permanent file in the
Registrar’s Office. The Kinesiology faculty hopes that this penalty is severe enough to
discourage cheating in any form. Please don’t force us to make an example out of you.”

Angelo State University expects its students to maintain complete honesty and integrity
in their academic pursuits. Students are responsible for understanding the Academic
Honor Code, which is contained in both print and web versions of the Student
Handbook.

I have received and understand the requirements of this course and the academic
honesty policy.

_______________________________________ Signature