TEXAS A&M UNIVERSITY – CORPUS CHRISTI
Department of Kinesiology
Physiological Aspects of Kinesiology (CRN 20709; 3 Credit Hours)
Course Syllabus

Course Number: KINE 2325 (section 01)  Instructor: Toyin Ajisafe, Ph.D.
Location: Online (MWF)  Office: Island Hall 356
Semester: Spring 2017 (7-week session)  Office hours: MW from 12:00 pm - 3:00 pm
Phone: 361-825-3834  Email: toyin.ajisafe@tamucc.edu

Important Note:
This course is delivered via Blackboard. Students must enter a User Name and Password to access their Blackboard account. Student User Names will be your user ID (e.g. lsmith12). If a student experiences technical difficulties, please call the Island Online (IOL) support line at 361-825-2825. Additionally, please notify the instructor right away via phone or e-mail.

I. Course Description
This course is an introduction to the fundamental principles of human physiology and their application to kinesiology. The web-based format will provide both information and some practical application to real life situations.

II. Rationale
Basic knowledge of the human physiological systems presented in this class is essential to understanding the content of many upper division kinesiology courses.

III. State Adopted Proficiencies for Teachers and/or Administrators/Counselors

1. LEARNER-CENTERED KNOWLEDGE: The teacher possesses and draws on a rich knowledge base of content, pedagogy, and technology to provide relevant and meaningful learning experiences for all students.

2. LEARNER-CENTERED INSTRUCTION: To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.

3. EQUITY IN EXCELLENCE FOR ALL LEARNERS: The teacher responds appropriately to diverse groups of learners.

4. LEARNER-CENTERED COMMUNICATION: While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills.

5. LEARNER-CENTERED PROFESSIONAL DEVELOPMENT: The teacher, as a reflective practitioner dedicated to all students’ success, demonstrates a commitment to learn, to improve the profession, and to maintain ethics and personal integrity.
IV. TExES Competencies & CAATE Competencies & Proficiencies

a. TExES Competencies

Domain II – HEALTH AND PHYSICAL FITNESS
Competency 006 - The teacher understands major body systems, principles of physical fitness development and training, and the benefits of a healthy active lifestyle.

b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING (CAATE 4th Ed.)

Diagnosis Competencies Taught & Evaluated

- DI-C4: Explain directional terms and cardinal planes used to describe the body and the relationship of its parts.
- DI-C5: Describe the principles and concepts of body movement including functional classification of joints, arthrokinematics, normal ranges of joint motion, joint action terminology, and muscle groups responsible for joint actions (prime movers, synergists), skeletal muscle contraction, and kinesthesia/proprioception

V. Course Objectives and Student Learning Outcomes

At the conclusion of this course, students will be able to:

1. Understand the mechanical properties of cells and tissues and how cells are compartmentalized and form tissues within the body.
2. Discover how biological energy is acquired, transferred, and used to do biological work, how molecular interactions play a major role in protein function, and how compartmentalizing enzymes is essential to organizing and separating metabolic processes.
3. Explain how substances move across cellular membranes in response to gradients and molecular interactions.
4. Understand that functional control systems require efficient communication using a combination of chemical and electrical signals.
5. Know how the endocrine system plays a major role in communication and control of physiological processes via hormonal interactions and pathways.
6. Learn how the nervous system is responsible for maintaining homeostasis and how the divisions of the nervous systems, including the central nervous system, the sensory systems, and efferent division, correlate with the different steps in a reflex pathway.
7. Understand the structure-function relationships and mechanical properties of muscles.
8. Exemplify the importance of the cardiovascular system, blood flow, and the control of blood pressure.
9. Analyze the cellular and protein components of blood and their functions.
10. Understand the mechanics of the respiratory system and how these demonstrate mass flow, homeostatic balance, mass balance, and the law of mass action.
11. Learn that the urinary and renal systems play a vital role in human physiology in terms of absorption, excretion, and filtration.
12. Understand that energy balance and metabolism are dependent upon intake, output, and the glucose that powers the brain.
13. Discover how the digestive system maintains mass balance and homeostasis through the process of secretion, absorption, and movement of nutrients and molecules across membranes.
14. Develop a basic understanding of the endocrine system, its function on growth and metabolism, and how each hormone has stimuli that initiate its secretion and feedback signals that modulate its release.
15. Know that the function of the immune system is based on chemical communication and molecular interactions between receptors, antibodies, and antigens that work together to fight pathogens.
VI. Course Topics
The major topics to be considered are:
1. The Human Body: An Orientation
2. Basic Chemistry
3. Cells and Tissues
4. Skin and Body Membranes
5. The Skeletal System
6. The Muscular System
7. The Nervous System
8. Special Senses
9. The Endocrine System
10. Blood
11. The Cardiovascular System
12. The Lymphatic System and Body Defenses
13. The Respiratory System
14. The Digestive System and Body metabolism
15. The Urinary System
16. The Reproductive System

VII. Instructional Methods and Activities
A. Traditional Experiences (Quizzes, exams; discussions; video)
B. Online Experiences (On-line deliveries; case Studies)

VIII. Evaluation and Grade Assignment
Your grade in this class will be determined from a point percentage. Points will be given for exams and completed skill proficiencies. The grading scale is as follows:

A. Grading
1. Traditional assessment
   a. Pretest assessment 10 points
   b. Case Study 25 points
   c. Quizzes 225 points (15 total @ 15 points each)
   d. Exams 240 points (4 total @ 60 points each)
   Total: 500 points

B. Grading Scale
The percentage and point equivalent associated with each letter grade are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
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<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100%</td>
<td>B</td>
<td>80 – 89%</td>
<td>C</td>
<td>70 – 79%</td>
<td>D</td>
<td>60 – 69%</td>
<td>F</td>
<td>&lt; 60%</td>
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<tr>
<td></td>
<td>448 - 500 points</td>
<td></td>
<td>398 - 447 points</td>
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<td>348 - 397 points</td>
<td></td>
<td>298 - 347 points</td>
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<td>&lt; 298 points</td>
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</tbody>
</table>

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IX. Course Schedule and Policies
The entire course including assignments, quizzes and exams are available on-line and are available according the course schedule. Students are required to complete all work by the respective deadlines. Excused absences are limited to participation in a TAMUCC-sanctioned event or participation in a religious holy day as outlined in the University catalog. Any assignment, quiz, or test missed due to a TAMUCC-sanctioned event must be completed prior to the absence. Coursework, assignments, and quizzes may not be made up due to tardiness.

**Consistent attention to assignment instructions and submission deadlines is critical to the successful completion of this course.**

Academic Integrity/Plagiarism
University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as plagiarism, cheating on an exam, unauthorized collaboration, illicit possession of examinations or examination materials, or forgery. **Plagiarism** is the presentation of the work of another as one’s own work; **cheating on examinations** involves giving or receiving unauthorized help before, during, or after an examination; **unauthorized collaboration** is the submission for academic credit of an entire work (or part thereof) as one's own effort, when it has been developed in substantial collaboration with another person or source without the professor’s permission.

Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to the course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanction to any student involved. Penalties that may be applied to individual cases of academic dishonesty include one or more of the following:

1. Written reprimand
2. Requirement to re-do work in question
3. Requirement to submit additional work
4. Lowering of grade on work in question
5. Assigning grade of “F” to work in question
6. Assigning grade of “F” for course
7. Recommendation for more severe punishment, such as dismissal from the program or university. (See the University Catalog for more information).

Dropping a Class
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. **02/26/2016** is the last day to drop a class with an automatic grade of “W” this term.

Preferred methods of scholarly citations
Classroom/professional behavior
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article
VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

**Statement of Civility (can be in place of classroom/professional behavior)**
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

**Grade Appeals**
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Dean’s office in the college in which the course is taught or the Office of the Provost.

**Disabilities Accommodations**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall 116.
If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

**Statement of Academic Continuity**
In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student. NOTE: Printing online tests and/or quizzes is strictly prohibited.
X. Required or Recommended Readings
   (Lists of required/recommended texts and reading)

   Website: (required if on-line course)
   The Website that accompanies and is coordinated with this course is
   https://bb9.tamucc.edu/

XI. Bibliography
   The knowledge bases that support course content and procedures include:


Hoffman, J. (2002). Physiological Aspects of Sport Training and Performance. Champaign, IL:
   Human Kinetics.


   Kinetics.


   IL: Human Kinetics.
### KINE 2325: Spring 2016 Course Calendar

<table>
<thead>
<tr>
<th>DATE</th>
<th>Topic</th>
<th>Book chapter</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed, Jan. 18</td>
<td>Day 1: Complete pretest online</td>
<td></td>
<td>Pretest (online)</td>
</tr>
<tr>
<td>Fri, Jan. 20</td>
<td>Day 2: The Human Body: An Orientation</td>
<td>Chapter 1</td>
<td>Quiz 1 (online)</td>
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<tr>
<td>Mon, Jan. 23</td>
<td>Day 3: Basic Chemistry</td>
<td>Chapter 2</td>
<td>Quiz 2 (online)</td>
</tr>
<tr>
<td>Wed, Jan. 25</td>
<td>Day 4: Cells and Tissues</td>
<td>Chapter 3</td>
<td>Quiz 3 (online)</td>
</tr>
<tr>
<td>Fri, Jan. 27</td>
<td>Day 5: Skin and Body Membranes</td>
<td>Chapter 4</td>
<td>Quiz 4 (online)</td>
</tr>
<tr>
<td>Mon, Jan. 30</td>
<td>Day 6: <strong>Exam #1 (chapters 1-4)</strong></td>
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<tr>
<td>Wed, Feb.  1</td>
<td>Day 7: The Skeletal System</td>
<td>Chapter 5</td>
<td>Quiz 5 (online)</td>
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<tr>
<td>Fri, Feb.  3</td>
<td>Day 8: The Muscular System</td>
<td>Chapter 6</td>
<td>Quiz 6 (online)</td>
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<tr>
<td>Mon, Feb.  6</td>
<td>Day 9: The Nervous System</td>
<td>Chapter 7</td>
<td>Quiz 7 (online)</td>
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<tr>
<td>Wed, Feb.  8</td>
<td>Day 10: Special Senses</td>
<td>Chapter 8</td>
<td>Quiz 8 (online)</td>
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<tr>
<td>Fri, Feb. 10</td>
<td>Day 11: <strong>Exam #2 (chapters 5-8)</strong></td>
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<tr>
<td>Mon, Feb. 13</td>
<td>Day 12: The Endocrine System</td>
<td>Chapter 9</td>
<td>Quiz 9 (online)</td>
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<tr>
<td>Wed, Feb. 15</td>
<td>Day 13: Blood</td>
<td>Chapter 10</td>
<td>Quiz 10 (online)</td>
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<tr>
<td>Fri, Feb. 17</td>
<td>Day 14: The Cardiovascular System</td>
<td>Chapter 11</td>
<td>Quiz 11 (online)</td>
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<tr>
<td>Mon, Feb. 20</td>
<td>Day 15: The Lymphatic System and Body Defenses</td>
<td>Chapter 12</td>
<td>Quiz 12 (online)</td>
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<tr>
<td>Wed, Feb. 22</td>
<td>Day 16: <strong>Exam #3 (chapters 9-12)</strong></td>
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<tr>
<td>Fri, Feb. 24</td>
<td>Day 17: The Respiratory System</td>
<td>Chapter 13</td>
<td>Quiz 13 (online)</td>
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<tr>
<td>Mon, Feb. 27</td>
<td>Day 18: The Digestive System and Body metabolism</td>
<td>Chapter 14</td>
<td>Quiz 14 (online)</td>
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<tr>
<td>Wed, Mar. 1</td>
<td>Day 19: The Urinary System</td>
<td>Chapter 15</td>
<td>Quiz 15 (online)</td>
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<tr>
<td>Fri, Mar. 3</td>
<td>Day 20: The Reproductive System</td>
<td>Chapter 16</td>
<td>Quiz 16 (online)</td>
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<tr>
<td>Mon, Mar. 6</td>
<td>Day 21: Case Study</td>
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<td>Case Study (online)</td>
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<tr>
<td>Wed, Mar. 8</td>
<td>Day 22: Study for Final</td>
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<tr>
<td>Fri, Mar. 10</td>
<td>Day 23: <strong>Exam #4 (chapters 13-16)</strong></td>
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*The course syllabus provides a general plan for the course; deviations may be necessary.*