I. **Course Description**
This is the required laboratory course with KINE 4312. Demonstration and hands-on learning will introduce students to the scientific basis, techniques, and methods used in exercise physiology. Lab activities will complement lecture materials from KINE 4312.

II. **Rationale**
The goal of this lab is to familiarize the student with the skills involved in obtaining muscular, cardiovascular, body composition, and performance data collection and their analysis. Emphasis will be placed on the interrelationships of these factors.

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

A. **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.

B. **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.

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

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

E. **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**

**Competency 002** - Physical education teacher applies principles and concepts of fitness and fitness development/maintenance to evaluate, select, and adapt activities that help learners achieve and maintain appropriate fitness levels.

**Competency 003** - The teacher appreciates human diversity, recognizes how diversity in the classroom and the community may affect learning and creating a classroom environment in which both the diversity of groups and the uniqueness of individuals are recognized and celebrated.
**Competency 004** - Fitness-related health, nutrition, and safety. The physical education teacher knows health, nutrition, and safety principles and practices related to fitness/performance and encourages learners to apply these principles and practices.

**Competency 011** - Legal, ethical, medical, and safety issues. The physical education teacher understands legal, ethical, medical, and safety issues relating to physical education programs and applies this understanding in a variety of contexts.

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

**Risk Management Proficiencies Taught**

- **RM-P1:** Instruct the patient how to properly perform fitness tests to assess his or her physical status and readiness for physical activity. Interpret the results of these tests according to requirements established by appropriate governing agencies and/or a physician. These tests should assess:
  - **RM-P1.4:** Muscular Endurance

**V. Course Objectives/Student Learning Outcomes**

*This course is designed to enable students to:*

A. Demonstrate knowledge of the structure and function of the body as it relates to physical activity.

B. Understand and be able to apply the basic concepts and terminology associated with exercise physiology.

C. Demonstrate knowledge of the integrative nature of the physiological systems under the stress of exercise.

D. State representative values of the various body systems at rest, submaximal exercise, and maximal exertion.

E. Identify functional changes in response to a session of exercise.

F. Identify laboratory procedures with respect to exercise physiology.

G. Identify the scientific body of knowledge in exercise physiology.

**VI. Course Topics**

*The major topics to be considered are:*

Testing and analyzing relationships between various physical characteristics such as: muscular strength, muscular endurance, muscular power, and muscle cross-sectional area.

B. The responses of heart rate, systolic and diastolic blood pressure, partial pressure, mean arterial pressure, body composition, isometric exercise, dynamic exercise, aerobic exercise, aerobic power, Valsalva maneuvers.
VII. Instructional Methods and Activities

Methods and activities for instruction include:

A. Traditional lecture via power point, classroom discussion, independent learning, and online instruction/readings.

B. Hands-on collection, analysis, and interpretation of exercise physiology lab data.

VIII. Evaluation and Grade Assignment

Requirements and point values.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Lab Reports</td>
<td>65%</td>
</tr>
<tr>
<td>Lab Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Lab Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Lab Attendance</td>
<td>5%</td>
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</tbody>
</table>

*Points values may be altered to reflect the needs of the course. Lab reports consist of you the student;

Grading Scale: 90-100% = A  80-89% = B  70-79% = C
  60-69% = D  59% and below = F

IX. Course Schedule and Policies

Note: Topics and schedule may be altered without notice.

Lab 1: Upper and lower body muscular strength in relation to muscular cross-sectional area and body composition.

Lab 2: Relationships between muscular strength, endurance, and power to multi-modal muscular performance.

Lab 3: Cardiovascular responses to multi-modal forms of exercise.

Lab 4: Comparisons of maximal and sub-maximal aerobic testing.

A. Class Policies

Attendance/tardiness
Is not optional for this laboratory class. Each lab report is worth 16.75% of your grade. Each quiz (given only at start of each lab) is worth 5% of your grade. Your participation is also worth 2.5% of your grade and the lab attendance portion of the grade is deducted at the end of the course if you miss a lab, so failure to attend a single lab class results in a total loss of 30% of your overall grade and result in your failing the lab.

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 illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.)
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 from the 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. April 10, 2015 is the last day to drop a class with an automatic grade of “W” this term.

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
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.

X. **Required or Recommended Readings**

**Textbook:**
There is no text book for this lab. All materials are provided online through the Physiology of Exercise Blackboard account. The book designated for the lecture portion of this class is a valuable source of information for this lab.

**Recommended or Supplemental Reading:** See Blackboard

**Website:** See Blackboard

XI. **Bibliography**
Champaign: Human Kinetics.

XII. **List of Supplies:** Calculator, access to Microsoft Excel