KINE 4340: EXERCISE TESTING AND PRESCRIPTION

COURSE DESCRIPTION
This course provides classroom and hands-on experience addressing all facets of exercise testing and prescription ranging from health appraisal, physical fitness testing, principles of exercise prescription, clinical exercise prescription, and special populations.

Prerequisites:
1. Prerequisite course required: BIOL 2401 or Prerequisite course required: KINE 2325
2. AND Prerequisite course required: KINE 4312
3. AND Prerequisite course required: KINE 1320 or Prerequisite course required: KINE 2313

LEARNING OBJECTIVES
- Demonstrate knowledge of the structure and function of the body as it relates to physical activity.
- Demonstrate proficiency in testing different systems in the body, both performance and health oriented.
- State representative values of the various body systems at rest, sub-maximal exercise, and maximal exertion.
- Identify laboratory procedures with respect to exercise testing and prescription.
- To know basic and advanced premises as well as manipulation of exercise prescription for both healthy and special populations

MAJOR COURSE REQUIREMENTS
Exams (30%):
Five (5) exams including the final will be given. The final exam is mandatory (i.e., not optional). The final and three (3) additional exams (top scores by percentage of total possible points on the exams) will be weighted equally towards the exam percentage.

Client Project (30%)
You will recruit a client to work with this semester and perform assessments of health and exercise testing, evaluation of client results, and delivery of suggestions for an exercise program. Further details for each assignment will be provided on Blackboard in the Client Project folder. At the end of the semester, you will submit a client notebook that includes all the assignments you submitted during the semester. Failure to complete this assignment will result in failing the course.

Assignments (15%):
Throughout the semester there will be various assignments you will be asked to complete. Further details for each assignment will be provided on Blackboard in the Assignments folder.

Quizzes (15%):
Online quizzes are given via Blackboard. The quizzes will cover material from the readings up to the week they are given and may include previously assigned material (including course readings and lecture material, supplemental material and exercise terminology).
Quizzes may also be given in class periodically throughout the semester (at the professor’s discretion) to assess student’s understanding of material covered in the lecture and assigned course readings. Students arriving to the lecture after a quiz has been passed out will not be permitted to take the quiz and will receive a score of zero for that quiz (i.e., be on time).

**Skills Assessments (10%)**

Students will demonstrate their ability to perform basic skills of health evaluation and exercise testing. This will occur during the last 2 weeks of the semester.

**Grading Scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
</tr>
<tr>
<td>B</td>
<td>80-89%</td>
</tr>
<tr>
<td>C</td>
<td>70-79%</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
</tr>
<tr>
<td>F</td>
<td>59% and below</td>
</tr>
</tbody>
</table>

**REQUIRED AND RECOMMENDED MATERIALS**

**Textbooks:**


**Recommended or Supplemental Readings**


**Website:**

The website that accompanies and is coordinated with this course is found on Blackboard.

**List of Supplies:**

*Calculator.* A basic calculator will be necessary for the calculations required by the homework, assignments, and tests. NOTE: Cell phones, smart phones, Iphones, Ipads, etc. may not to be used during exams or other testing situations as a calculator.

*3-Ring Binder/Notebook.* Each student must use a 3-ring notebook or binder (no greater than 1” inches wide) for their Client Notebook. See the assignment sheet on Blackboard for further details.
I. 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.

II. TeXeS COMPETENCIES & CAATE COMPETENCIES & PROFICIENCIES

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

III. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING

Diagnosis Competencies Taught & Evaluated:
DI-C3: Describe the physiological and psychological effects of physical activity and their impact on performance.

Psychosocial Competencies Taught & Evaluated:
PS-C2: Explain the stress-response model and the psychological and emotional responses to trauma and forced inactivity.

PS-C3: Describe the motivational techniques that the athletic trainer must use during injury rehabilitation and reconditioning.
PS-C4: Describe the basic principles of mental preparation, relaxation, visualization, and desensitization techniques.

PS-C5: Describe the basic principles of general personality traits, associated trait anxiety, locus of control, and patient and social environment interactions.

PS-C6: Explain the importance of providing health care information to patients, parents/guardians, and others regarding the psychological and emotional well being of the patient.

PS-C9: Explain the basic principles of counseling (discussion, active listening, and resolution) and the various strategies that certified athletic trainers may employ to avoid and resolve conflicts among superiors, peers, and subordinates.

PS-C12: Describe the basic signs and symptoms of mental disorders (psychoses), emotional disorders (neuroses, depression), or personal/social conflict (family problems, academic or emotional stress, personal assault or abuse, sexual assault, sexual harassment), the contemporary personal, school, and community health service agencies, such as community-based psychological and social support services that treat these conditions and the appropriate referral procedures for accessing these health service agencies.

Nutrition Competencies Taught & Evaluated:
NU-C14: Describe disordered eating and eating disorders (i.e., signs, symptoms, physical and psychological consequences, referral systems).

COURSE POLICIES

Attendance/Tardiness
IF you know in advance that you will miss class, please contact me to arrange for an alternate time and possibly form/version of missed assignment, quiz, or exam. The chance to ‘make-up’ missed assignments, quizzes, and tests absences will be limited to participation in a TAMUCC sanctioned event or participation in a religious holy day as outlined in the University catalog on the day the assignment, quiz, or test is due. Any assignment, quiz, or test missed due to a TAMUCC sanctioned event or religious holy day must be verified prior to the due date of the assignment, quiz, or test to be missed. No other excuses will be considered without verification of circumstances by the Dean of Students.

Late Work and Make-up Exams
The chance to ‘make-up’ missed assignments, quizzes, and tests absences will be limited to participation in a TAMUCC sanctioned event or participation in a verifiable religious holy day as outlined in the University catalog on the day the assignment, quiz or test is due. Any assignment, quiz, or test missed due to a TAMUCC sanctioned event or religious holy day must be verified prior to the due date of the assignment, quiz, or test to be missed. No other excuses will be considered without verification of circumstances by the Dean of Students.

Extra Credit
There are usually no extra credit possibilities in this class.

Cell Phone/Electronic Device Usage
I do allow you to use your cell phones and computers for various activities in the class. I do expect your use of these items to be class-related. I reserve the right to ask you to put these items away if they seem to be distracting you or your classmates from class activities.

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.)

Penalties that may be applied to individual cases of academic dishonesty include one or more of the following:
1. Assigning grade of ‘F’ to work in question;
2. Assigning grade of ‘F’ for course;
3. Recommendation for more severe punishment, such as dismissal from the program or from the University.

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 your academic advisor, the Financial Aid Office, and me, before you decide to drop this course.** 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. **November 9, 2018** 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.

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](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.
### COURSE OUTLINE (Dates and content subject to change)

<table>
<thead>
<tr>
<th>DATES</th>
<th>TOPIC</th>
<th>READINGS/Topics (Bk = Book; LM = Lab Manual #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 26</td>
<td>Course Syllabus &amp; Class Overview Physical Activity, Health, and Chronic Disease</td>
<td>Syllabus</td>
</tr>
<tr>
<td></td>
<td>Health Consequences of Physical Inactivity and Sedentary Behavior</td>
<td>Bk Chapter 2; LM #3</td>
</tr>
<tr>
<td></td>
<td>Preparticipation Screening</td>
<td>Bk Chapter 3; LM #4 &amp; 12</td>
</tr>
<tr>
<td></td>
<td>Principles of Exercise Prescription</td>
<td>Bk Chapter 8 &amp; 9</td>
</tr>
<tr>
<td></td>
<td><strong>EXAM 1</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Health Hx</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cardiorespiratory Fitness Assessment</td>
<td>Bk Chapter 4</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Cardiovascular Disease</td>
<td>Bk Chapter 10 - 13</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Pulmonary Disease</td>
<td>Bk Chapter 16 - 17</td>
</tr>
<tr>
<td></td>
<td><strong>EXAM 2</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cardio</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Muscle Strength Assessment</td>
<td>Bk Chapter 5</td>
</tr>
<tr>
<td></td>
<td>Flexibility and Functional Movement Assessments</td>
<td>Bk Chapter 7</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Chronic Pain</td>
<td>Bk Chapter 19</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Bone Health and Osteoporosis</td>
<td>Bk Chapter 21</td>
</tr>
<tr>
<td></td>
<td><strong>EXAM 3</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>M Fitness</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Body Composition Assessment</td>
<td>Bk Chapter 6</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Weight Management</td>
<td>Bk Chapter 18</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Metabolic Syndrome, Hypertension, and Dyslipidemia</td>
<td>Bk Chapter 15</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Type 1 and Type 2 Diabetes Mellitus</td>
<td>Bk Chapter 14</td>
</tr>
<tr>
<td></td>
<td><strong>EXAM 4</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Body Comp</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Cancer</td>
<td>Bk Chapter 20</td>
</tr>
<tr>
<td></td>
<td>Special Considerations for Physical and Intellectual Disabilities</td>
<td>Bk Chapter 23</td>
</tr>
<tr>
<td>Dec 10</td>
<td><strong>FINAL EXAM (Comprehensive)</strong></td>
<td></td>
</tr>
</tbody>
</table>