Course Name: Sports Conditioning
Course Number: KINE 2225.001
Location: IH 158
Professor: Billie Jo Morales
Meeting Time: M, W, F 9:00 - 9:50AM; 01/14/19 - 05/01/19
Office Hours: Make an appointment by email
Email: billiejo.morales@tamucc.edu

I. Course Description:
(KINE 2225; Sports Conditioning): This course is designed to provide a comprehensive overview of strength and conditioning. Emphasis is placed on the exercise sciences (including anatomy, exercise physiology, and biomechanics) and nutrition, exercise technique, program design, organization and administration, and testing and evaluation. Additionally, this course is designed to prepare students for either the nationally accredited Certified Strength and Conditioning Specialist (CSCS) or the NSCA certified personal trainer (CPT) exams.

Prerequisites: 1. Requires Department Approval; 2. Prerequisite course required-BIOL2401; Prerequisite course required-KINE2313 or Prerequisite course required-KINE2325 and Prerequisite/Co-Requisite course required-KINE4312

II. Rationale
The primary goal of this class is to acquaint students with a basic fundamental knowledge, understanding of basic resistance programming. Students will apply scientific knowledge to train athletes for the primary goal of improving athletic performance. They will conduct sport-specific testing sessions, design and implement safe and effective strength training and conditioning programs and provide guidance regarding nutrition and injury prevention.

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 & CAATE Competencies & Proficiencies**

1. **TExES Competencies:**
   - **Domain I – Movement Skills and Knowledge**
     - Competency 003: *The teacher understands and applies knowledge of movement concepts and biomechanical principles.*
   - **Domain II – Health Related 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.*
     - Competency 007: *The teacher understands principles and activities for developing and maintaining cardiovascular endurance.*
     - Competency 008: *The teacher understands principles and activities for developing and maintaining flexibility, posture and muscular strength and endurance.*
     - Competency 009: *The teacher understands health and wellness concepts, including those related to nutrition, weight control and stress management, and analyzes ways in which personal behaviors influence health and wellness. Domain III - The Physical Education Program*
     - Competency 013: *The teacher understands legal issues and responsibilities of physical education teachers in relation to supervision, planning and instruction, safety, first aid and risk management.*
   - **Domain II – Medical Sciences**
     - Competency 004: *The teacher understands the anatomical structures of the human body and their relationship to the physiological functions and processes that maintain homeostasis.*

2. **National Competencies & Proficiencies for Athletic Training (CAATE 4th Ed.)**

   **A. Prevention and Health Promotion:**
   - CIP-3: Develop, implement, and monitor prevention strategies for at-risk individuals (e.g., persons with asthma or diabetes, persons with a previous history of heat illness, persons with sickle cell trait) and large groups to allow safe physical activity in a variety of conditions. This includes obtaining and interpreting data related to potentially hazardous environmental conditions, monitoring body functions (e.g., blood glucose, peak expiratory flow, hydration status), and making the appropriate recommendations for individual safety and activity status.

   **C. Risk Management Competencies Taught & Evaluated:**
   - RM-C11: Explain the importance and use of standard tests, test equipment, and testing protocol for the measurement of cardiovascular and respiratory fitness, body composition, posture, flexibility, muscular strength, power, and endurance.
   - RM-C12: Explain the components and purpose of periodization within a physical conditioning program.
   - RM-C13: Identify and explain the various types of flexibility, strength training, and cardiovascular conditioning programs. This should include the expected effects (the body’s anatomical and physiological adaptation), safety precautions, hazards, and contraindications of each.

   **D. 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-P1.1**: Flexibility
  - **RM-P1.2**: Strength
  - **RM-P1.3**: Power
  - **RM-P1.4**: Muscular Endurance
  - **RM-P1.5**: Agility
  - **RM-P1.6**: Cardiovascular Endurance
  - **RM-P1.7**: Speed

• **RM-P2**: Develop a fitness program appropriate to the patient’s needs and selected activity or activities that meet the requirements established by the appropriate governing agency and/or physician for enhancing:
  - **RM-P2.1**: Flexibility
  - **RM-P2.2**: Strength
  - **RM-P2.3**: Power
  - **RM-P2.4**: Muscular Endurance
  - **RM-P2.5**: Agility
  - **RM-P2.6**: Cardiovascular Endurance
  - **RM-P2.7**: Speed

• **RM-P3**: Instruct a patient regarding fitness exercises and the use of weight training equipment to include correction or modification of inappropriate, unsafe, or dangerous lifting techniques.

E. **Therapeutic Exercise Competencies Taught:**
  - **EX-C4**: Describe the appropriate selection and application of therapeutic exercises taking the following into consideration:
  - **EX-C4d**: The physiological adaptations induced by the various forms of therapeutic exercise, such as fast- versus slow-twitch muscle fibers

V. **Course Objective and Outcomes**

*This course is designed to enable students to:*

1. Apply scientific knowledge to train athletes and clients for the primary goals of improving athletic performance and fitness.
2. Learn how to conduct sport-specific testing sessions.
3. Learn how to demonstrate and teach proper exercise techniques.
4. Learn how to design and implement safe and effective strength training and conditioning and personal training programs.
5. Learn how to provide guidance regarding nutrition and performance-enhancing substances.
6. Apply exercise prescription principles for training variation, injury prevention, and reconditioning.

VI. **Course Topics**

*The major topics to be considered are:*

1. Structure and Function of Body Systems
2. Biomechanics of Exercise  
3. Bioenergetics of Exercise Training  
4. Endocrine Response to Training  
5. Adaptations to Anaerobic Training Programs  
6. Adaptations to Aerobic Endurance Training Programs  
7. Age and Sex-Related Differences and their Implications for Resistance Exercise  
8. Nutrition Strategies to Maximize Performance  
9. Performance Enhancing Substances and Methods  
10. Principles of Test Selection and Administration  
11. Administration, Scoring, and Interpretation of Selected Tests  
12. Warm-Up and Flexibility Training  
13. Exercise for Free Weight and Machine Training  
14. Exercise Technique for Non-traditional Training  
15. Program Design for Resistance Training  
16. Program Design and Technique for Aerobic Endurance Training  
17. Periodization  

VII. Instructional Methods and Activities  
Methods and activities for instruction include:  
A. Traditional Experiences (lecture/discussion; demonstration; guest speaker; video).  
B. Clinical Experiences (cooperative groups; student demonstrations or presentations; lab exercise; value clarifications).  

VII. Required Text:  

VIII. Supplementary Texts:  

IX. Bibliography:  

IX. GRADING:
Section Exams (200-280 pts):
There will be 1 exam for each section in the text. The exams will be variable in material covered and the points assigned to each. This point distribution is based on the distribution of points in the actual CSCS exam.

  Exam 1 (Chapters 1-3) 50-70 pts
  Exam 2 (Chapters 4-6) 50-70 pts
  Exam 3 (Chapters 7-10) 50-70 pts
  *Exam 4 (Chapters 11-13) 50-70 pts

Final Exam (Exam #4):
This will be comprehensive and simulate the CSCS exam. An alternative to taking the final exam is to prove scheduling of the actual NSCA-CPT or CSCS exam. If you choose to take the NSCA-CPT or CSCS exam you will automatically get full credit for the final. Both exams will be scheduled and be taken online at NSCA recommended testing sites for a fee for student members and non-student members). You must be a college senior or hold a B.S. degree to sit for the exam. Additionally, to take the exam you will also have to provide evidence of current CPR and AED certification. You will need to provide evidence that you are registered for this exam before the final. You can find more info at https://www.nsca.com/cspsexam-description/.

Exercise Analysis (25 pts):
Over the course of the semester we will learn and review proper technique for several exercises. We will watch an NSCA produced instructional video of these exercises in class. For the following class period you will need to complete each exercise and analyze the exercise. The analysis will come in the form of a written critique of each exercise. You should address such things as: The general description, perceived difficulty, ability of the exercise to target specific musculature, potential pitfalls with technique, alternatives, dangers, personal experience, gym observations, etc.

Program Design Project (75 pts):
The program design project provides experience in administering athletic performance tests and designing a resistance training program to meet the goals and needs of an athlete. Throughout the duration of this course, you must decide on four appropriate performance tests to administer to the participant. You must then recruit a healthy participant. After administering the performance pretests to the athlete and evaluating the results from the tests, you must design a 12-week resistance training program for the athlete. Areas of emphasis for the evaluation of the program will include (a) selection of appropriate performance pre-tests, (b) selection of appropriate program design variables for resistance training (exercise selection, training frequency, exercise order, training load and
repetitions, volume, and rest periods), and (c) appropriate rationale for each selection, you will present this information in a power point presentation at the end of the semester for the class.

**Participation (15 pts):**
You will be graded on your participation throughout the semester. You are required to participate in all class and lab activities unless prior arrangements are made.

**Late work:** An item is considered late if it is not turned in at the beginning of class or at another assigned time. If you foresee any issue with completing and turning in an assignment on time it is advisable to contact the course instructor as soon as possible.

*Grades will be assigned based on the assessments listed above. Final letter grade assignment will be based on the following percentages of total available points. Point value during semester is subject to change to benefit and assist student opportunity to be successful in course.*

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 50-59%

*Everything you turn in should by typed and presented in a professional manner.*

**Grade Appeals**
As stated in University Rule 13.02.99.C2.01, Student Grade Appeal Procedure, 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 Rule 13.02.99.C2.01, Student Grade Appeal Procedure. These documents are accessible through the University Rules Web site at [http://academicaffairs.tamucc.edu/rules_procedures/index.html](http://academicaffairs.tamucc.edu/rules_procedures/index.html). For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**X. 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 CCH 117. 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.

**XI. Academic Honesty**
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 a penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one's own work.)

XII. Classroom Conduct
Students and faculty each have responsibility for maintaining an appropriate learning environment. Faculty has the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which student’s express opinions. Disruptive students in the academic setting hinder the educational process. Disruption, as applied to the academic setting, means behavior that a reasonable faculty member would view as interfering with normal academic functions. Examples include, but are not limited to, persistently speaking without being recognized or interrupting other speakers, behavior which distracts the class from the subject matter or discussion, or in extreme cases, physical threats, harassing behavior or personal insults, or refusal to comply with faculty direction. Students are expected to refrain from disruptive behavior at all times. Students who fail to adhere to behavioral standards may be subject to disciplinary action.

XII. 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 gender, ethnic/racial origin, religious background, age, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

XIII. 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.

Tentative Schedule, actual schedule will be based on class progress. Exams will occur on the class period after material is covered (see exams above) unless otherwise announced.