TEXAS A&M UNIVERSITY-CORPUS CHRISTI
Nutrition for Human Performance

Course Number and Section: KINE 2375            Instructor: Jay Dawes, PhD.
Class Meeting Time and Location: M,W,F 1-1:50 pm Office: IH 358
Spring 2013                    Office Hours: M,W  10am – 1pm
Phone #: 361-825-3749          email: jay.dawes@tamucc.edu

I. COURSE DESCRIPTION
This course is an introduction to the physiological, anatomical, and psychological aspects of nutrition in relation to human performance and optimal health. Special emphasis is placed on sport and fitness enhancement and achievement of peak training levels, through proper nutrient ingestion.

II. RATIONALE
An introduction to sport nutrition is provided to prepare the potential physical educator, coach, or fitness trainer to recognize and understand the dietary needs of the human body, with particular emphasis on sport and fitness performance. Methods for effectively designing eating plans for a variety of athletic programs are taught. Classroom and practical experience opportunities will be provided to increase student awareness of the varied nutrient needs of athletes of different sports and training levels, as well as to facilitate the application of knowledge to real-life situations.

III. STATE ADOPTED PROFICIENCIES FOR TEACHERS &/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

Professional Development 02 – Elementary and 03 – Secondary: Domain I – Promoting Learners’ Physical Development
Competency 001 – The teacher uses an understanding of human developmental processes to nurture student growth through developmentally appropriate instruction.
Competency 002 – The teacher considers environmental factors that may affect learning in designing a supportive and responsive classroom community that promotes all students’ learning and self-esteem.
Competency 003 – The teacher appreciates human diversity, recognizing how diversity in the classroom environment in which both the diversity of groups and the uniqueness of individuals are recognized and celebrated.
Competency 005 – The teacher understands how motivation affects group and individual behavior and learning and can apply this understanding to promote student learning.
Competency 009 – The teacher uses a variety of instructional materials and resources to support individual and group learning.
Competency 010 – The teacher uses processes of informal and formal assessment to understand individual learners, monitor instructional effectiveness, and shape classroom climate that promotes the lifelong pursuit of learning and encourages cooperation, leadership, and mutual respect.

Professional Development 02 – Elementary and 03 Domain III – Understanding the Teaching Environment
Competency 011 – The teacher structures and manages the learning environment to maintain a classroom climate that promotes the lifelong pursuit of learning and encourages cooperation, leadership, and mutual respect.
Competency 012 – The teacher is a reflective practitioner who knows how to promote his or her own professional growth.

Physical Education (09 – all Level) - Domain I – Promoting Learners’ Physical Development
Competency 001 – The physical education teacher uses knowledge of motor development and principles of motor learning to facilitate learners’ development of fundamental movement skills and perceptual awareness skills.

Domain II – Promoting Learners’ Affective, Social and Cognitive Development
Competency 005 – The physical educator knows how to enhance learners’ self concept and emotional well-being through physical activity.
Competency 006 – The physical educator understands socialization processes related to physical activity and uses this understanding to foster learners’ social development.

Domain III – Implementing Physical Education Programs
Competency 008 – The physical educator knows how to develop and implement physical education programs that are responsive to learner needs and interests.
Competency 009 – The physical educator uses assessment as an integral part
of physical education instruction, applying informal and formal methods to understand learners, monitor instructional effectiveness, and guide instruction.

Competency 010 – The physical educator manages physical education classes in ways that establish a positive learning climate that encourages achievement and positive attitudes in all learners.

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

ATHLETIC TRAINING EDUCATION PROGRAM COMPETENCIES

Competencies & Proficiencies per Commission on Accreditation of Athletic Training Education (CAATE) 4th ed:

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

Risk Management Competencies Taught & Evaluated:
- RM-C8: Explain the principles of effective heat loss and heat illness prevention programs. Principles include, but are not limited to, knowledge of the body’s thermoregulatory mechanisms, acclimation and conditioning, fluid and electrolyte replacement requirements, proper practice and competition attire, and weight loss.

Pharmacology Competencies Taught & Evaluated:
- PH-C10: Explain the known usage patterns, general effects, and short- and long-term adverse effects for the commonly used performance-enhancing substances.

Psychosocial Competencies Taught & Evaluated:
- PS-C10: Identify the symptoms and clinical signs of common eating disorders and the psychological and sociocultural factors associated with these disorders.

Nutritional Aspects Competencies Taught & Evaluated:
- NU-C1: Describe personal health habits and their role in enhancing performance, preventing injury or illness, and maintaining a healthy lifestyle.
- NU-C2: Describe the USDA’s “My Pyramid” and explain how this can be used in performing a basic dietary analysis and creating a dietary plan for a patient.
- NU-C3: Identify and describe primary national organizations responsible for public and professional nutritional information.
- NU-C4: Identify nutritional considerations in rehabilitation, including nutrients involved in healing and nutritional risk factors (e.g., reduced activity with the same dietary regimen and others).
- NU-C5: Describe common illnesses and injuries that are attributed to poor nutrition (e.g., effects of poor dietary habits on bone loss, on injury, on long-term health, and on other factors).
- NU-C6: Explain energy and nutritional demands of specific activities and the nutritional demands placed on the patient.
- NU-C7: Explain principles of nutrition as they relate to the dietary and nutritional needs of the patient (e.g., role of fluids, electrolytes, vitamins, minerals, carbohydrates, protein, fat, and others).
• **NU-C8**: Explain the physiological processes and time factors involved in the digestion, absorption, and assimilation of food, fluids, and nutritional supplements. Further, relate these processes and time factors to the design and planning of preactivity and postactivity meals, menu content, scheduling, and the effect of other nonexercise stresses before activity.

• **NU-C9**: Describe the principles, advantages, and disadvantages of ergogenic aids and dietary supplements used in an effort to improve physical performance.

• **NU-C10**: Explain implications of FDA regulation of nutritional products.

• **NU-C11**: Identify and interpret pertinent scientific nutritional comments or position papers (e.g., healthy weight loss, fluid replacement, pre-event meals, and others).

• **NU-C12**: Explain principles of weight control for safe weight loss and weight gain, and explain common misconceptions regarding the use of food, fluids, and nutritional supplements in weight control.

• **NU-C13**: Explain consequences of improper fluid replacement.

• **NU-C14**: Describe disordered eating and eating disorders (i.e., signs, symptoms, physical and psychological consequences, referral systems).

• **NU-C15**: Identify effects of macronutrients (e.g., saturated fats, incomplete proteins, and complex carbohydrates) on performance, health, and disease.

• **NU-C16**: Describe signs, symptoms, and physiological effects of mineral deficiency (e.g., iron, and calcium), and identify foods high in specific mineral content.

• **NU-C17**: Identify and explain food label Daily Value recommendations and common food sources of essential vitamins and minerals in using current USDA Dietary Guidelines.

• **NU-C18**: Describe the principles and methods of body composition assessment (e.g., skinfold calipers, bioelectric impedance, body mass index [BMI]) to assess a patient’s health status and to monitor progress in a weight loss or weight gain program for patients of all ages and in a variety of settings.

• **NU-C19**: Explain the relationship between basal metabolic rate, caloric intake, and energy expenditure in the use of the Food Pyramid Guidelines.

• **NU-C20**: Identify the nutritional benefits and costs of popular dietary regimen for weight gain, weight loss, and performance enhancement.

---

**Nutritional Aspects Proficiencies Taught**

- **NU-P3**: Provide educational information about basic nutritional concepts, facts, needs, and food labels for settings associated with physically active individuals of a wide range of ages and needs.

---

**V. COURSE OBJECTIVES AND OUTCOMES**

This course is designed to enable students to:

- Define the terms: nutrition, nutrient, ergogenic aid, and supplement.
- Identify and discuss the six essential nutrients and their roles in basic health and sport performance.
- Identify and discuss nutritional factors related to common chronic pathologies of health and fitness.
- Demonstrate an ability to design a nutritional plan for athletes in varied sports.
• Identify and discuss ergogenic aids and supplements, and their role in sport performance.
• Demonstrate a basic knowledge of current laws/regulations regarding the use of ergogenic aids/supplements.
• Identify and discuss physiological and psychological factors involved in weight gain and weight loss, and the potential ramification to athletic performance.
• Demonstrate the ability to analyze nutrient content of individual foods, food groups, and meal plans.

VII: Instructional Methods and Activities

Methods and activities for instruction include:
• Traditional Experiences include online lectures, discussions, and group activities.
• Clinical Experiences include applied assignments that compliment lectures and text readings.
• Field Experiences will be incorporated by allowing the students to apply lecture materials to a real world situations/scenarios and write a report for several applied assignments.

VI. Course Topics

The major topics to be considered are:
• Orientation/introduction
• Eating behaviors and Guidelines
• Reading labels
• Digestion/absorption
• Essential nutrients
• Obesity and weight management
• Nutritional Considerations for Sports Performance
• Nutrient Timing Strategies for Specific Sports
• Ergogenic aids and supplements
• Nutrition regulation/legislation
• Role of nutrition/exercise/recovery in sport
• Current issues in Sports and Exercise Nutrition

VII. Instructional Methods and Activities

Methods and activities for instruction include:
A. Traditional Experiences include lectures, discussions, and group activities.
B. Clinical Experiences include applied assignments that compliment lectures and text readings.
C. Field Experiences will be incorporated by allowing the students to apply lecture materials to a real world situations/scenarios and write a report for several applied assignments.

VIII. Evaluation and Grade Assignment

The methods of evaluation and the criteria for grade assignment are:
A. Methods and Percentage of Final Course Grade Each Assessment constitutes
All written work may be subject to submission through www.turnitin.com as a means of determining original work.

Evaluation will be based on successful completion of the following activities:

- **Tests (3)** 300 pts.
- Misc Quizzes and Assignments 200 pts.
- Nutrition log/Assessment 100 pts.

**B. Grading Scale**

- A – 89.50 – 100
- B – 79.50 – 89.49
- C – 69.50 – 79.49
- D – 59.50 – 69.49
- F – Below 59.49

**IX. COURSE SCHEDULE AND POLICIES**

*Tentative Course Outline:*

- **Week 1:** Orientation/introduction/ Nutrition, for Health Fitness and Performance
- **Week 2:** Energy Metabolism/ Digestion/absorption
- **Week 3:** Carbohydrates
- **Week 4:** Proteins
- **Week 5:** Fats
- **Week 6:** Vitamins
- **Week 7:** Minerals
- **Week 8:** Reading labels/ Eating behaviors and Guidelines
- **Week 9:** Obesity and weight management
- **Week 10:** Nutritional Considerations for Sports Performance
- **Week 11:** Ergogenic aids and supplements
- **Week 12:** Nutrient Timing Strategies for Specific Sports
- **Week 13:** Current issues in Sports and Exercise Nutrition
- **Week 14:** Current issues in Sports and Exercise Nutrition
- **Week 16:** Finals

**Policies:**

**Academic Honesty:**
As per the university catalog, “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, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one’s own).
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

The faculty member involved will be responsible for determining the appropriate penalty or penalties for individual cases of academic dishonesty, and may file a record of such offenses in his classes along with any materials involved to his or her college dean. The office of the academic dean of the college which the offense took place will maintain records of all cases of academic dishonesty reported for a period of not more than two years.

Any student who has been penalized for academic dishonesty has the right to appeal the judgment or the penalty assessed. The Appeals Procedure will be the same as that specified for grade appeals. The grade appeals procedure may be found in the University Rules manual at: [http://www.tamucc.edu/~pioweb/rules/index.htm](http://www.tamucc.edu/~pioweb/rules/index.htm).

X. Textbook:

XI. Bibliography:

Students will be made aware of other resources utilized when appropriate

XII. Grade Appeals*:
As stated in University Rule 13.02.99.C2, Student Grade Appeals, 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 Rule13.02.99.C2, Student Grade Appeals, and 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 Office of Student Affairs.

XIII. 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 Driftwood 101.

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.

*Required by SACS