KINE 2375 Nutrition for Human Performance

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. Course topics will include: Eating behaviors and guidelines, reading nutrition 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, and current issues in sports and exercise nutrition.

Learning Objectives
At the conclusion of this course, the student will be able to:
1. Define the terms: nutrition, nutrient, ergogenic aid, and supplement.
2. Identify and discuss the six essential nutrients and their roles in basic health and sport performance.
3. Identify and discuss nutritional factors related to common chronic pathologies of health and fitness.
4. Demonstrate an ability to design a nutritional plan for athletes in varied sports.
5. Identify and discuss ergogenic aids and supplements, and their role in sport performance.
6. Demonstrate a basic knowledge of current laws/regulations regarding the use of ergogenic aids/supplements.
7. Identify and discuss physiological and psychological factors involved in weight gain and weight loss, and the potential ramification to athletic performance.
8. Demonstrate the ability to analyze nutrient content of individual foods, food groups, and meal plans.

Major Course Requirements
At the conclusion of this course, the student will complete:
Weekly “Food For Thought” prompts, chapter questions, chapter quizzes, and participate in class discussion posts. Students will also complete four (4) major tests which assess mastery and comprehension of course material as well as compile a week-long Nutrition Log including a food journal and personal dietary assessment.

Required Readings/Textbook

STATE ADOPTED PROFICIENCIES FOR TEACHERS
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.

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
Texas A&M University- Corpus Christi - Athletic Training Program
BOC Role Delineation Study/Practice Analysis, Sixth Edition (Athletic Training Education Competency)**Not all Athletic Training Competencies are taught in this course as there are often multiple competencies for each role delineation study area/item. Role Delineation items listed are at least partially covered by this course.**

**DOMAIN I: Injury/illness prevention and wellness protection**

A. Minimize risk of injury and illness of individuals and groups impacted by or involved in a specific activity through awareness, education and intervention.

Knowledge of:
2. Behavioral risks (e.g., nutritional, sexual, substance abuse, blood-borne pathogens, sedentary lifestyle and overtraining)-(PHP 5, PHP 24, PHP 25)

G Promote healthy lifestyle behaviors using appropriate education and communication strategies to enhance wellness and minimize the risk of injury and illness.

Knowledge of:
2. Accepted nutritional practices (PHP 32, PHP 33, PHP 35, PHP 38, PHP 39, PHP 45)

3. Effective communication techniques (e.g., multimedia videos, pamphlets, posters, models, handouts and oral communication) (PHP 33)
4. Predisposing factors for nutritional and stress-related disorders (PHP 32, PHP 45, PS 13)
7. Related nutritional disorders, inactivity-related diseases, overtraining issues and stress-related disorders (PHP 24, PHP 32, PHP 33, PHP 35, PHP 45, PS 12)

**Skill in:**
8. Accessing information concerning accepted guidelines for nutritional practices (PHP 35, PHP 36, PHP 37, PHP 39, PHP 40, PS 13)
9. Addressing the issue of special nutritional needs in regard to competition or activity (e.g., pre- and post-game meals and nutritional supplements) (PHP 33, PHP 40, PHP 41, PHP 42)
10. Communicating with appropriate professionals regarding referral and treatment for individuals (PHP 43, PHP 47, PS 11, PS 14, PD 10)
11. Educating appropriate individuals on nutritional disorders, maladaptation, substance abuse and overtraining (PHP 32, PS 18)
12. Recognizing signs and symptoms of nutritional, addiction and stress-related disorders (PHP 43, PHP 46, PS 14)

**DOMAIN II: Clinical Evaluation and Diagnosis**
E. Educate the appropriate individual(s) about the clinical evaluation by communicating information about the injury, illness or health-related condition to encourage compliance with recommended care.

**Skill in:**
7. Communicating with appropriate professionals regarding referral and treatment for individuals (PS 11, PS 14)

**DOMAIN III: Immediate and Emergency Care**
C. Implement appropriate referral strategies, while stabilizing and/or preventing exacerbation of the condition(s), to facilitate the timely transfer of care for health-related conditions beyond the scope of practice of the Athletic Trainer.

**Knowledge of:**
4. Indications for referral to other health care providers (PS 11, PS 14, PS 15)

**DOMAIN V: Organizational and Professional Health and Well-being**
D. Demonstrate appropriate planning for coordination of resources (e.g., personnel, equipment, liability, scope of service) in event medical management and emergency action plans.

**Knowledge of:**
4. Institutional drug testing and substance abuse policies (PHP 49, PS 14, PS 15)

**OTHER NOT SPECIFIED BY DOMAIN**
Describe contemporary nutritional intake recommendations and explain how these recommendations can be used in performing a basic dietary analysis and providing appropriate general dietary recommendations (PHP 34)

**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.
COURSE POLICIES

Website

The website that accompanies and is coordinated with this course: https://bb9.tamucc.edu/. For steps in preparing a computer for Blackboard: https://iol.tamucc.edu/techreq.html. If a student experiences technical difficulties, please call the Island Online (IOL) support line at 361-825-2825. Additionally, please notify the instructor ASAP via e-mail.

Attendance

The entire course including assignments, quizzes and exams are available on-line and are available according the course schedule. Students are required to complete the course work when assigned and complete the work by the due date. Excused absences are limited to participation in a TAMUCC sanctioned event or participation in a religious holy day as outlined in the University catalog; however, because there is typically is sufficient time to complete all assignments missed assignments, quizzes and exams will only be made up in extreme circumstances. 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 and punctual attendance and participation is critical to the successful completion of this course. If the student misses an assignment, quiz or exam due to emergencies which involve illness, family emergencies etc., it is the responsibility of the student to notify the instructor as soon as possible via e-mail.

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.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a zero and protocol will be followed as outlined in the University Catalog.

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. Please see the TAMU-CC Academic Calendar regarding 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. 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.C0.03, 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 Procedure 13.02.99.C0.03, Student Grade Appeals. These documents are accessible through the University Rules Web site at http://academicaffairs.tamucc.edu/rules_procedures/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 CCH 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 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.
http://falcon.tamucc.edu/~students/JAffairs/ja_hndbk_academic_info.htm

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 TOPICS

1. Introduction to Nutrition for Health, Fitness, and Sports Performance
2. Healthful Nutrition for Fitness and Sport: The Consumer Athlete
3. Human Energy
4. Carbohydrates: The Main Energy Food
5. Fat: An Important Energy Source during Exercise
6. Protein: The Tissue Builder
7. Vitamins: The Organic Regulators
8. Minerals: The Inorganic Regulators
9. Water, Electrolytes and Temperature Regulation
10. Body Weight and Composition for Health and Sport
11. Weight Maintenance and Loss through Proper Nutrition and Exercise
12. Weight Gaining through Proper Nutrition and Exercise
13. Food Drugs and Related Supplements

INSTRUCTIONAL METHODS AND ACTIVITIES

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

High Impact Practices:
A. Common Intellectual Experiences- a theme is selected with various readings, activities, and discussion focused around that theme.
B. Collaborative Assignments and Projects- development of higher-level thinking, communication, and self-management.
C. Undergraduate Research- preparation by reading relevant literature and experience working independently of faculty with opportunities for “real-life” applications.
D. Diversity and Global Learning- provides opportunities to interact with peers from varying backgrounds and experiences.
EVALUATION AND GRADE ASSIGNMENT
  o All written work may be subject to submission through www.turnitin.com as a means of determining original work.
  o Evaluation will be based on successful completion of the following activities:

  Syllabus/Intro                      10 pts
  Assignments (13 @ 10 pts each, 15%) 130 pts
  Quizzes (13 @ 15 pts each, 25%)     195 pts.
  Tests (4 @ 100 pts each, 48%)       400 pts.
  Nutrition log/Assessment (12%)      100 pts.

  835 pts

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

COURSE SCHEDULE AND POLICIES

  January 21- Spring First 7-Weeks Begins; Intro, Syllabus, AS 1-2 and Quizzes 1-2 Open
  January 28- AS 1-2, Q 1-2, Intro, Syllabus Due
  February 4- AS 3-4, Q 3-4 Due
  February 5- Test (1-4) Due
  February 11- AS 5-6, Q 5-6 Due
  February 18- AS 7-8, Q 7-8 Due
  February 19- Test II (5-7) Due
  February 25- AS 9-10, Q 9-10 Due
  February 26- Test III (8-10) Due
  March 3- AS 11-13, Q 11-13 Due
  March 9-13 Spring Break
  March 17- Nutrition Log Due
  March 17- Test IV (11-13) Due

KINE 2375 Syllabus Acknowledgment Form
I, (print name)____________________________________________, certify by my signature that I have read and understand the class policies that have been presented in the class syllabus for KINE 2375 at Texas A&M University-Corpus Christi.
Signature _______________________________ Date ____________________
Student ID # ______________________________
Copy, paste, fill out, and submit this form to instructor via Blackboard Submission Box (“type submission” link)