INSTRUCTOR: Jerry Hilker MSED, ATC-LAT  
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PHONE: 361-825-2035  
E-Mail: Jerry.Hilker@tamucc.edu

I. COURSE DESCRIPTION:
This course provides general knowledge of the athletic training profession, epidemiology of athletic injuries, the pre-participation physical exam, strength and conditioning of athletics, environmental concerns, protective equipment, emergency management of athletic injuries and sports nutrition. Materials fee required.

II. RATIONALE:
This course will provide information on medical terminology, risk management, general medical conditions and other topics that are related to the athletic trainer/sports medicine team relationship. This course is required for students majoring in Athletic Training and accepted into the Athletic Training Education Program at Texas A&M University-Corpus Christi. This course is to be taken concurrently with KINE 2191 (Clinical experiences in Athletic Training I) for all athletic Training majors. This is a preparatory course for students seeking to be a Certified Athletic Trainer (ATC) as they plan to sit for the Board of Certification (BOC) exam.

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 AND CAATE COMPETENCIES

a. TExES Competencies:

Domain II – HEALTH-RELATED PHYSICAL FITNESS
Competency 008 – The teacher understands principles and activities for developing and maintain flexibility, posture, and muscular strength and endurance.

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.

PROGRAM STUDENT LEARNING OUTCOMES
A. BS in Athletic Training
   1. National Competencies & Proficiencies for Athletic Training (CAATE 5th Ed.)
   2. Depth and breadth of knowledge-state licensure.

B. BS Kinesiology EC-12 Kinesiology
   1. Knowledge of health-related physical fitness
   2. Knowledge of physical education programs

C. BS Kinesiology Exercise Science
   1. Knowledge of fitness and exercise
   2. Knowledge of anatomy and physiology

D. BS Kinesiology Pre-PT/OT
   1. Knowledge of Anatomy and Physiology
   2. Knowledge of fitness and exercise
   3. Knowledge of preventive care
   4. Knowledge of rehabilitation of injuries

b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING (CAATE 5th Ed.)

Prevention and Health Promotion (PHP)

PHP-1. Describe the concepts (eg, case definitions, incidence versus prevalence, exposure assessment, rates) and uses of injury and illness surveillance relevant to athletic training.

PHP-7. Implement disinfectant procedures to prevent the spread of infectious diseases and to comply with Occupational Safety and Health Administration (OSHA) and other federal regulations.

PHP-8. Identify the necessary components to include in a preparticipation physical examination as recommended by contemporary guidelines (eg, American Heart Association, American Academy of Pediatrics Council on Sports Medicine & Fitness).
PHP-9. Explain the role of the preparticipation physical exam in identifying conditions that might predispose the athlete to injury or illness.

PHP-10. Explain the principles of the body’s thermoregulatory mechanisms as they relate to heat gain and heat loss.

PHP-11. Explain the principles of environmental illness prevention programs to include acclimation and conditioning, fluid and electrolyte replacement requirements, proper practice and competition attire, hydration status, and environmental assessment (e.g., sling psychrometer, wet bulb globe temperatures [WBGT], heat index guidelines).

PHP-12. Summarize current practice guidelines related to physical activity during extreme weather conditions (e.g., heat, cold, lightning, wind).

PHP-13. Obtain and interpret environmental data (web bulb globe temperature [WBGT], sling psychrometer, lightning detection devices) to make clinical decisions regarding the scheduling, type, and duration of physical activity.

PHP-17. Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:

   - PHP-17a. Cardiac arrhythmia or arrest
   - PHP-17b. Asthma
   - PHP-17c. Traumatic brain injury
   - PHP-17d. Exertional heat stroke
   - PHP-17e. Hyponatremia
   - PHP-17f. Exertional sickling
   - PHP-17g. Anaphylactic shock
   - PHP-17h. Cervical spine injury
   - PHP-17i. Lightning strike

PHP-18. Explain strategies for communicating with coaches, athletes, parents, administrators, and other relevant personnel regarding potentially dangerous conditions related to the environment, field, or playing surfaces.

PHP-20. Summarize the basic principles associated with the design, construction, fit, maintenance, and reconditioning of protective equipment, including the rules and regulations established by the associations that govern its use.

PHP-21. Summarize the principles and concepts related to the fabrication, modification, and appropriate application or use of orthotics and other dynamic and static splints.

PHP-22. Fit standard protective equipment following manufacturers’ guidelines.

PHP-23. Apply preventive taping and wrapping procedures, splints, braces, and other special protective devices.

PHP-36. Describe current guidelines for proper hydration and explain the consequences of improper fluid/electrolyte replacement.

PHP-40. Explain the physiologic principles and time factors associated with the design and planning of pre-activity and recovery meals/snacks and hydration practices.
PHP-41. Identify the foods and fluids that are most appropriate for pre-activity, activity, and recovery meals/snacks.

PHP-46. Identify and describe the signs, symptoms, physiological, and psychological responses of clients/patients with disordered eating or eating disorders.

PHP-49. Identify which therapeutic drugs, supplements, and performance-enhancing substances are banned by sport and/or workplace organizations in order to properly advise clients/patients about possible disqualification and other consequences.

Clinical Examination and Diagnosis (CE)

CE-3. Identify the common congenital and acquired risk factors and causes of musculoskeletal injuries and common illnesses that may influence physical activity in pediatric, adolescent, adult, and aging populations.

CE-16. Recognize the signs and symptoms of catastrophic and emergent conditions and demonstrate appropriate referral decisions.

Acute Care of Injuries and Illnesses (AC)

AC-1. Explain the legal, moral, and ethical parameters that define the athletic trainer’s scope of acute and emergency care.

AC-2. Differentiate the roles and responsibilities of the athletic trainer from other pre-hospital care and hospital-based providers, including emergency medical technicians/paramedics, nurses, physician assistants, and physicians.

AC-4. Demonstrate the ability to perform scene, primary, and secondary surveys.

AC-6. When appropriate, obtain and monitor signs of basic body functions including pulse, blood pressure, respiration, pulse oximetry, pain, and core temperature. Relate changes in vital signs to the patient’s status.

AC-8. Explain the indications, guidelines, proper techniques, and necessary supplies for removing equipment and clothing in order to access the airway, evaluate and/or stabilize an athlete’s injured body part.

AC-10. Establish and maintain an airway, including the use of oro- and nasopharyngeal airways, and neutral spine alignment in an athlete with a suspected spine injury who may be wearing shoulder pads, a helmet with and without a face guard, or other protective equipment.

AC-12. Identify cases when rescue breathing, CPR, and/or AED use is indicated according to current accepted practice protocols.

AC-13. Utilize an automated external defibrillator (AED) according to current accepted practice protocols.

AC-19. Explain the proper procedures for managing external hemorrhage (eg, direct pressure, pressure points, tourniquets) and the rationale for use of each.

AC-21. Explain aseptic or sterile techniques, approved sanitation methods, and universal precautions used in the cleaning, closure, and dressing of wounds.

AC-23. Use cervical stabilization devices and techniques that are appropriate to the circumstances of an injury.

AC-25. Perform patient transfer techniques for suspected head and spine injuries utilizing supine log roll, prone log roll with push, prone log roll with pull, and lift-and-slide techniques.

AC-26. Select the appropriate spine board, including long board or short board, and use appropriate immobilization techniques based on the circumstance of the patient’s injury.

AC-27. Explain the role of core body temperature in differentiating between exertional heat stroke, hyponatremia, and head injury.


AC-30. Explain the role of rapid full body cooling in the emergency management of exertional heat stroke.

AC-34. Explain the importance of monitoring a patient following a head injury, including the role of obtaining clearance from a physician before further patient participation.

AC-36. Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for:
   AC-36b. brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture
   AC-36d. heat illness including heat cramps, heat exhaustion, exertional heat stroke, and hyponatremia
   AC-36e. exertional sickling associated with sickle cell trait
   AC-36f. rhabdomyolysis
   AC-36i. asthma attacks
   AC-36j. systemic allergic reaction, including anaphylactic shock
   AC-36l. shock
   AC-36o. local allergic reaction

AC-37. Select and apply appropriate splinting material to stabilize an injured body area.

AC-40. Determine the proper transportation technique based on the patient’s condition and findings of the immediate examination.

AC-41. Identify the criteria used in the decision-making process to transport the injured patient for further medical examination.

AC-42. Select and use the appropriate short-distance transportation methods, such as the log roll or lift and slide, for an injured patient in different situations.

**Therapeutic Interventions (TI)**

TI-1. Describe and differentiate the physiological and pathophysiological responses to inflammatory and non-inflammatory conditions and the influence of these responses on the design, implementation, and progression of a therapeutic intervention.

TI-16. Describe common surgical techniques, including interpretation of operative reports, and any resulting precautions, contraindications, and comorbidities that impact the selection and progression of a therapeutic intervention program.
**TI-21.** Explain the federal, state, and local laws, regulations and procedures for the proper storage, disposal, transportation, dispensing (administering where appropriate), and documentation associated with commonly used prescription and nonprescription medications.

**TI-22.** Identify and use appropriate pharmaceutical terminology for management of medications, inventory control, and reporting of pharmacological agents commonly used in an athletic training facility.

**TI-25.** Explain the concepts related to bioavailability, half-life, and bioequivalence (including the relationship between generic and brand name drugs) and their relevance to the patient, the choice of medication, and the dosing schedule.

**TI-27.** Describe the common routes used to administer medications and their advantages and disadvantages.

**Psychosocial Strategies and Referral (PS)**

**PS-6.** Explain the importance of educating patients, parents/guardians, and others regarding the condition in order to enhance the psychological and emotional well-being of the patient.

**PS-11.** Describe the role of various mental healthcare providers (eg, psychiatrists, psychologists, counselors, social workers) that may comprise a mental health referral network.

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### V. COURSE OBJECTIVE/LEARNING OUTCOMES:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Q1. Identify the historical foundation in athletic training, various employment settings, and licensure and certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>Multiple choice, short answer, participate in classroom discussion on Blackboard</td>
</tr>
<tr>
<td>Measure</td>
<td>Assignment(s) short answer definitions and multiple choice, matching and true/false questions</td>
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<tr>
<td>Measure</td>
<td>Assignment(s) short answer definitions, multiple choice, matching and true/false question(s), lab</td>
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<tr>
<td>Measure</td>
<td>Short answer definitions, participate in classroom discussion on Blackboard, matching and true/false question(s), lab</td>
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<tr>
<td>Measure</td>
<td>Short answer definitions, multiple choice, matching and true/false question(s), lab</td>
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<tr>
<td>Measure</td>
<td>Short answer definitions, multiple choice, matching and true/false question(s), lab</td>
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2. Learn about the health care administration in athletic training, pre-participation physical exams, legal concerns regarding tort, liability, and negligence, and the processes involving insurance.

3. Identify principles of conditioning, nutritional and environmental considerations

4. Understand the proper fit and selection of protective sports equipment, mechanisms and characteristics of sports trauma

5. Describe Acute care and emergency procedures, learn to establish plan for handling emergency situations, and learn pharmacology as it relates to athletic training

Measure: Short answer definitions, multiple choice, matching and true/false question(s), lab
VI. COURSE TOPICS:
The major topics to be considered are introduction to the profession of athletic training, epidemiology of athletic injuries, the pre-participation physical exam, strength and condition of athletes, pharmacology in athletic training, environmental concerns, protective equipment, emergency management of athletic injuries, and sports nutrition.

VII. INSTRUCTIONAL METHODS AND ACTIVITIES:
The course will include lecture/discussions, demonstrations, and clinical education (hands-on application).

GUEST SPEAKER: Points will be earned for completion of specific criteria on each speaker. This has to be completed during class time. No make-ups are allowed!

ASSIGNMENT: Points will be earned for completion of an assignment that will be due on a specified date. Specifics regarding the criteria of the assignment will be identified in class.

EXAMS: Exams must be taken in class during the scheduled class session. Make-up exams will only be allowed if the student was ill and has a physicians note stating such. Examination material is taken from the class text book, notes and lecture.

QUIZ/LAB: Points will be earned based on performance from a quiz or lab. All work must be completed during the scheduled class period. No make up labs or “pop” quizzes are allowed.

ATTENDANCE:
Attendance is MANDATORY and promptness to class is expected. I will utilize a sign in sheet to track attendance. Your attendance may make a difference in your overall grade.

VIII. EVALUATION AND GRADE ASSIGNMENT:

Your grade in this class will be determined from a point percentage. The grade scale is as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Points:</th>
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<tbody>
<tr>
<td>90-100%</td>
<td>630 – 700 = A</td>
</tr>
<tr>
<td>80-89%</td>
<td>560 – 623 = B</td>
</tr>
<tr>
<td>70-79%</td>
<td>490 – 553 = C</td>
</tr>
<tr>
<td>60-69%</td>
<td>420 – 483 = D</td>
</tr>
<tr>
<td>Below 60%</td>
<td>= F</td>
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</tbody>
</table>

Exams (3) = 300 points
Guest Speaker (3) = 75 points
Assignment = 25 points
Lab (5) = 100 points
Final Exam = 100 points
“Pop” Quiz (5) = 100 points
Total points = 700 points
# IX. COURSE SCHEDULE AND POLICIES:

## TENTATIVE COURSE SCHEDULE:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 8-28</td>
<td>Introduction/ Syllabus</td>
<td></td>
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<tr>
<td></td>
<td>#1. Professional Development: The Athletic Trainer and the Sports Medicine Team: Lecture</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>T 9-02</td>
<td>Guest Speaker: Terry Greenup ATC LAT TSATA District 9 rep</td>
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<tr>
<td>R 9-04</td>
<td>#2. Administration: Pre-Participation Physical Examinations: Lecture</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>T 9-09</td>
<td>#3. Administration: Legal Concerns and Insurance Issues: Lecture</td>
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<tr>
<td>R 9-11</td>
<td>EXAM 1: (Ch. 1, 2, &amp; 3)</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>T 9-16</td>
<td>Results Exam 1. Lab1: (Pulse/ Blood Pressure)</td>
<td></td>
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<tr>
<td>R 9-18</td>
<td>#4. Training and Conditioning: Lecture</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>T 9-23</td>
<td>Guest Speaker: Dr. Kesterson Ed.D.</td>
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<tr>
<td>R 9-25</td>
<td>#5. Nutritional considerations: Lecture</td>
<td>Chapter 5</td>
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<tr>
<td>T 9-30</td>
<td>#6. Environmental Considerations: Lecture</td>
<td>Chapter 6</td>
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<tr>
<td>R 10-02</td>
<td>Lecture continued:</td>
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<tr>
<td>T 10-07</td>
<td>Lab 2: (Measure Heat Index reading)</td>
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<tr>
<td>R 10-09</td>
<td>EXAM 2: (Ch. 4, 5, &amp; 6)</td>
<td></td>
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<tr>
<td>T 10-14</td>
<td>Results Exam 2 Introduce: Risk Management: Protective Sports Equip.</td>
<td></td>
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<tr>
<td>R 10-16</td>
<td>#7. Protective sports equipment: Lecture</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>T 10-21</td>
<td>Lecture continued:</td>
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<tr>
<td>R 10-23</td>
<td>Lab 3: (Protective sports equipment)</td>
<td></td>
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<tr>
<td>T 10-28</td>
<td>#8. Mechanisms and Characteristics of Sports Trauma/ Psychosocial intervention: Lecture</td>
<td>Chapter 9/11</td>
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<tr>
<td>R 10-30</td>
<td>#9. Acute Care and Emergency Procedures: Lecture</td>
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<tr>
<td>T 11-04</td>
<td>Lecture continued:</td>
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<tr>
<td>R 11-06</td>
<td>Lab 4: (Acute Care &amp; Emergency Procedures)</td>
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<tr>
<td>T 11-11</td>
<td>Lab 5: (Spine boarding &amp; Splinting)</td>
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<tr>
<td>R 11-13</td>
<td>Guest Speaker: Blake George ATC LAT</td>
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<tr>
<td>T 11-18</td>
<td>EXAM 3: (Ch. 7, 9, &amp; 12)</td>
<td></td>
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<tr>
<td>R 11-20</td>
<td>Results Exam 3 Take Home Assignment: Due!</td>
<td></td>
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<tr>
<td>T 11-25</td>
<td>#10. Pharmacology, Drugs, and Sports: Lecture</td>
<td>Chapter 17</td>
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<td>Include review for final exam.</td>
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</table>
Thanksgiving Break Thursday 27th-28th.

The instructor reserves the right to change the schedule to cover all subjects thoroughly. This is the first time this course has been offered. It is very likely that the SCHEDULE WILL CHANGE. Information presented in class may come from a source other than the textbook. If you miss a class you will need to obtain that material from a classmate. It is your responsibility! No make up tests will be given except under extreme circumstances. A physician’s note is necessary if you are ill. If you cannot reach me please contact the office of Student Affairs for assistance. 361-825-2612 or Visit at University Center, room 318.

Other Information:
Tutoring & Learning Center 361-825-5933
Call TALK2ME 825-5263
Student Affairs 825-612
University Counseling Center 825-2703

X. TEXTBOOK:

XI. BIBLIOGRAPHY:

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 Rule 13.02.99.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.

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
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.)

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.

If the faculty member determines that assigning a grade of “F” to the course is the appropriate penalty and this disciplinary action occurs prior to the deadline for dropping courses, the student forfeits his/her right to drop the course in question.

The faculty member may file a record of cases of academic dishonesty, including a description of the disciplinary action taken, along with any materials involved, with his or her college dean and the Office of Student Affairs. The office of the academic dean of the college in 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 (See XII above).
XIII. DISABILITIES ACCOMODATIONS

Americans with Disabilities Act (ADA) - The 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 disability. 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.