

EXRS 4130 Athletic Training Emergency Care: ATEC

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Required Texts: ATEC textbook (purchase through course instructor)

Course Description: Athletic Training Emergency Care (ATEC) teaches the basics of emergency care focused on sports injuries. It is a comprehensive course for the athletic trainer who must initially evaluate and stabilize an athlete in a trauma situation. Using a lecture/laboratory format, the course teaches rapid assessment, resuscitation, packaging and transportation of injured athletes.

Course Objectives: Upon completion of this course, the student should be able to:

- Understand the potential for emergency situations to occur in athletics
- Identify the components of a functioning EMS system
- Know what is required of athletic trainers, physicians, and emergency medical technicians – roles and responsibilities, relationships with pre-hospital and hospital personnel, personal safety, and training standards
- Know risk management issues related to athletics and be able to develop an emergency plan
- Be able to select and utilize various types of emergency equipment.
- Be able to perform athletic trauma assessment of various athletic emergencies.
- Be able to identify emergency medical situations and be able to apply appropriate first aid measures.
- Demonstrate knowledge in bloodborne pathogen precautions in emergency care.

General Course Information: EXRS 4130 will be taught in Butts-Mehre Hall in the both auditorium and the athletic training facility. There will be lecture as well as laboratory instruction. The student will be expected to dress appropriately for laboratory activities. There will be one field trip (St. Mary's Hospital Emergency Department on Thursday, February 10, 2005). The instructors realize there may be occasions when the student may miss class due to clinical experiences (i.e. traveling with an athletic team). It is the responsibility of the student to notify the instructors in advance and arrange to make up any missed coursework/assignments. The student should note that there are several occasions when EXRS 4130 will meet in the evening at 7:00 pm in lieu of the regularly scheduled class time in order to accommodate the schedules of guest presenters.

Testing: There will be randomized pop quizzes throughout the course (10 points each). The pop quiz grades will be compiled, averaged and counted as an exam grade (100 points). The lowest pop quiz grade will be discarded. There will be 2 exams (100 points each) plus a comprehensive final exam (150 points) to test cognitive knowledge. Further, there will be 6 laboratory skill check-offs (pass/fail), 3 oral/practical exams (50 points each), 1 first aid exam (50 points), and 2 computer written simulation exams (pass/fail). There will be a required professional journal article review on an emergency medical topic (50 points: student should contact instructor for additional information).

Attendance Policy: Each student is expected to be present and on time for all class and laboratory sessions. You must make up all missed work. Unexcused missed tests (class or lab) will not be made up unless prior permission was obtained from one of the instructors.

Academic Honesty: The University of Georgia and the Athletic Training Education program seeks to promote and ensure academic honesty and personal integrity among students and members of the University community. Academic honesty means performing all academic work without cheating, lying, tampering, stealing or receiving assistance from any other person or using any source of information that is not common knowledge. You should read and become familiar with A Culture of Honesty publication which defines the policies, procedures and sanctions for academic honesty. These procedures will be strictly enforced by your instructor(s).

Grading: Grading will be based on points earned from all the tests and evaluations as follows:

▪ Exam One	100 Points
▪ Written Simulation Exam One	Pass/Fail
▪ Exam Two	100 Points
▪ Written Simulation Exam Two	Pass/Fail
▪ Final-Comprehensive	150 Points
▪ Professional Journal Article Review One	50 Points
▪ O/P Exam (ATAM)	50 Points
▪ Lab 1 Skill Check-Off (Vital Signs)	Pass/Fail
▪ Lab 2 Skill Check-Off (CPR)	Pass/Fail
▪ O/P Exam (AED)	50 Points
▪ Lab 3 Skill Check-Off (Airway/O2)	Pass/Fail
▪ O/P Exam (Spine Board)	50 Points
▪ Lab 4 Skill Check-Off (Facemask Removal)	Pass/Fail
▪ Lab 5 Skill Check-Off (MDI/Epi-Pen)	Pass/Fail
▪ Lab 6 Skill Check-Off (Splinting)	Pass/Fail
▪ Professional Journal Article Review Two	50 Points
▪ Randomized Pop Quizzes	100 Points
▪ <u>American Red Cross First Aid Exam</u>	<u>50 Points</u>
TOTAL	750 Points

Final Grades

A= 675 points or better

B= 480-674 points

C= 525-479 points

D= 450-524 points

F= <450 points

EXRS 4130 "Athletic Training Emergency Care" Class Schedule: Spring Semester 2006 *Revised 1/10/06*

Week	Tuesday 9:30 – 10:45	Thursday 9:30 – 10:45	LAB Thursday 10:45 – 12:15
1	1/10 Syllabus: <i>Courson</i> Emergency Case Study	1/12 Emergency Situations in Athletics <i>Courson</i>	EMS System; EMT Education EMT/ATC Interaction <i>Glenn Henry, NREMT-P</i>
2	1/17 Emergency Preparation NATA Position Statement <i>Courson</i>	1/19 UGAA Emergency Plan <i>Courson</i>	Mechanisms of Injury <i>Courson</i>
3	1/24 Vital Signs Assessment <i>Courson</i>	1/26 Athletic Trauma Assessment & Management (ATAM) <i>Courson</i>	Vital Signs Laboratory Auscultation Laboratory <i>Courson</i>
4	1/31 ATEC Laboratory <i>Courson</i>	2/2 ATEC Laboratory <i>Courson</i>	ATAM Skill Evaluation
5	2/7 Basic Life Support Review <i>Randa</i>	2/10 Written Exam One: covers material 1/10-2/7	St. Mary's ED Orientation <i>Kip Hicks, MD/Lyn Wilkinson</i> St. Mary's EMS Ambulance Orientation <i>John Sartain, NREMT-P</i>
6	2/14 Cardiac Conditions <i>Fred Reifsteck, MD</i>	2/16 Cardiac Conditions <i>Fred Reifsteck, MD</i>	12 Lead EKG Laboratory <i>Courson</i>
7	2/21 Automated External Defibrillator <i>Courson</i>	2/23 AED Laboratory <i>Courson</i>	AED Skill Evaluation Simulated Code <i>Courson</i>
8	2/28 Airway Management/ Oxygen Therapy <i>Courson</i>	3/2 Airway Management/ Oxygen Therapy <i>Courson</i>	Airway/O2 Lab; Skill Check-Off <i>Courson</i>
9	3/7 Management of Head and Neck Injuries <i>Courson</i>	3/9 Spine Trauma <i>Kim Walpert, MD</i>	Spinal Immobilization; Facemask Removal <i>Courson</i> Professional Journal Article Review One due
Spring Break: March 13-17			
11	3/21 Head Trauma <i>Robert Dicks, MD</i>	3/23 Spinal Immobilization; Facemask Removal Laboratory <i>Courson</i>	Spinal Immobilization Special Situations Laboratory: Gymnastics Pit, Water Rescue <i>Courson</i>
12	3/28 Spinal Immobilization Skill Evaluation <i>Courson</i>	3/30 Orthopedic Trauma <i>Courson</i>	Orthopedic Trauma Laboratory <i>Courson</i>
13	4/4 Orthopedic Trauma Skill Evaluation <i>Courson</i>	4/6 Written Exam Two: (Take Home) covers material 2/14 - 4/4 Bleeding/Shock <i>Courson</i>	Vital Signs Trending <i>Jim Kyle, MD</i>
14	4/11 Pediatric Emergencies <i>Lisa Henry, NREMT-P</i>	4/13 General Medical Emergencies <i>Reifsteck</i>	General Medical Emergencies <i>Reifsteck</i> PEFR, Metered Dose Inhalers, Epi-Pen Administration <i>Courson</i>
15	4/18 Dental Emergencies <u>7 pm</u> <i>Glenn Alex, DMD</i> Athletic Injuries to Eye <i>Brent Crymes, MD</i>	4/20 Abdominal/Thoracic Trauma <i>Kelly Ward, PA</i>	Vascular Emergencies <i>David Sailors, MD</i>
16	4/25 Athletic Injuries to <u>7 pm</u> Face and Throat <i>Stan Satterfield, DMD</i>	4/27 Environmental Emergencies <i>Ron Elliott, MD</i>	IV Hydration Lab <i>Ron Elliott, MD</i> Professional Journal Article Review One due
	5/2 Optional Review Session	5/5 American Red Cross First Aid Exam; Final Exam 8:00-11:00 am	

Athletic Training Educational Competencies

Upon completion of this course, the student will demonstrate clinical proficiency in the following content areas as outlined in the NATA Athletic Training Educational Competencies:

Risk Management and Injury Prevention: Cognitive Domain

- 5 - Identifies areas that athletic personnel or supervisors must be familiar with in order to avoid or reduce the possibility of injury or illness occurring to athletes and others engaged in physical activity (e.g., CPR and first aid).
- 19 - Identifies basic legal concepts and considerations associated with protective equipment, including product and personal liability.
- Psychomotor Domain
- 5 - Implements prevention and treatment of environmental stress factors that pertain to acclimation and conditioning, fluid and electrolyte replacements, proper practice and competition attire, and weight loss.

Risk Management and Injury Prevention: Affective Domain

- 4 - Appreciates and respects the role of athletic personnel and supervisors in injury and illness prevention programs.

Assessment and Evaluation: Cognitive Domain

- 6 - Differentiates injury recognition, assessment, and diagnosis.
- 9 - Demonstrates knowledge of a systematic process that uses the medical or nursing model to obtain a history of an injury or illness that includes, but is not limited to, the mechanism of injury, chief complaint, and previous relevant injuries or illnesses.
- 10 - Explains how to take measurements of the neurological function of cranial nerves, spinal nerves, and peripheral nerves, and describes their relationships in a neurological examination.
- 11 - Describes the use of myotomes, dermatomes, and reflexes (deep tendon, superficial) including manual muscle-testing, range-of-motion testing, and distinguishes between primary, cortical, and discriminatory forms of sensation.
- 12 - Defines the measurement and grading of dermatomes, myotomes, and reflexes and their relationships in a neurological examination.
- 19 - Explains how to recognize and evaluate athletes and others involved in physical activity who demonstrate clinical signs and symptoms of environmental stress.
- 23 - Describes the signs and symptoms of injuries to the abdominal viscera.
- 25 - Demonstrates familiarity with the function of a stethoscope in the examination of the heart, lungs, and bowel.

Assessment and Evaluation: Psychomotor Domain

- 1 - Constructs and phrases appropriate questions to obtain a medical history of an injured or ill individual that includes a previous history and a history of the present injury or illness.
- 11 - Conducts auscultation of normal heart, breath, and bowel sounds, demonstrating proper position and location of stethoscope.
- 13 - Performs and interprets appropriate palpation techniques and special tests of the abdomen, chest, cranium, and musculoskeletal system.
- 14 - Assesses the neurological function of cranial nerves, spinal nerves, and peripheral nerves and assesses the level of spinal cord involvement following injury, including the function of dermatomes, myotomes, and reflexes (e.g., deep tendon, superficial).
- 16 - Performs an appropriate examination to evaluate the return to activity of an individual who has sustained a head injury.
- 17 - Uses appropriate terminology in the communication and documentation of injuries and illnesses.

Assessment and Evaluation: Affective Domain

- 6 - Accepts the professional, ethical, and legal parameters that define the proper role of the certified athletic trainer in the evaluation and appropriate medical referral of injuries and illnesses of athletes and others involved in physical activity.

Acute Care of Injuries and Illnesses: Cognitive Domain

- 1 - Explains the legal, moral, and ethical parameters that define the scope of first aid and emergency care, and identifies the proper roles and responsibilities of the certified athletic trainer.
- 2 - Describes the availability, contents, purposes, and maintenance of contemporary first aid and emergency care equipment.

- 3 - Determines what emergency care supplies and equipment are necessary for event coverage, such as biohazardous waste disposal containers, splints, short-distance transportation equipment, emergency access tools, primary survey instruments (CPR mask, bag-valve-mask), and ice.
- 5 - Recognizes appropriate written medical documentation and abbreviations.
- 6 - Describes the principles and rationale for a primary survey of the airway, breathing, and circulation.
- 7 - Differentiates the components of a secondary survey, including obtaining a history, inspection and observation, palpation, and the use of special tests to determine the type and severity of the injury or illness sustained.
- 8 - Interprets vital signs as normal or abnormal including, but not limited to, blood pressure, pulse, respiration, and body temperature.
- 9 - Assesses pathological signs of injury including, but not limited to, skin temperature, skin color, skin moisture, pupil reaction, and neurovascular function.
- 10 - Applies the current standards of first aid, emergency care, rescue breathing, and cardiopulmonary resuscitation for the professional rescuer, including (1) use of a bag-valve-mask, (2) use of a pocket mask, and (3) the chin lift-jaw thrust maneuver.
- 11 - Describes the role and function of an automated external defibrillator in the emergency management of acute heart failure and abnormal heart rhythms.
- 12 - Describes the role and function of oxygen administration as an adjunct to cardiopulmonary resuscitation techniques.
- 13 - Recognizes the characteristics of common life-threatening conditions that can occur either spontaneously or as the result of direct trauma to the throat, thorax and viscera, and identifies the management of these conditions.
- 14 - Describes the management of external hemorrhage, including the location of pressure points, use of universal precautions, and proper disposal of biohazardous materials.
- 15 - Recognizes signs and symptoms associated with internal hemorrhaging.
- 16 - Recommends the appropriate use of aseptic or sterile techniques, approved sanitation methods, and universal precautions for the cleansing and dressing of wounds.
- 17 - Discriminates those wounds that require medical referral.
- 20 - Recognizes signs and symptoms of head trauma, including loss of consciousness, changes in standardized neurological, cranial nerve assessment, and other symptoms that indicate underlying trauma.
- 21 - Explains and interprets the signs and symptoms associated with increasing intracranial pressure.
- 22 - Explains the importance of monitoring a patient following a head injury, including obtaining clearance from a physician before further patient participation.
- 23 - Defines cerebral concussion and lists the signs and symptoms used to classify cerebral concussions according to accepted grading scales (e.g., Cantu, Colorado, Torg, American Neurology Association standards).
- 24 - Recognizes the signs and symptoms of trauma to the cervical, thoracic and lumbar spines, the spinal cord, and spinal nerve roots, including neurological signs, referred symptoms, and other symptoms that indicate underlying trauma.
- 25 - Selects a cervical stabilization device that is appropriate to the circumstances of the injury.
- 26 - Recites the indications and guidelines for removing the helmet and shoulder pads from an athlete with a suspected cervical spine injury.
- 27 - Describes the proper techniques for removing the helmet and shoulder pads from an athlete with a suspected cervical spine injury.
- 28 - Describes the proper techniques and necessary supplies for removing equipment and clothing in order to evaluate and/or stabilize the involved area.
- 29 - Recognizes proper positioning and immobilization of a person with a suspected spinal cord injury when using a spine board or body splint, including preparatory positioning prior to placement of the spine board or body splint.
- 30 - Explains the need for leadership and teamwork when using a spine board or body splint.
- 31 - Identifies the appropriate short-distance transportation method for an injured athlete or other physically active individual, including immobilization if applicable.
- 32 - Recognizes the signs and symptoms of shock.
- 33 - Identifies the different types of shock type (traumatic, hypovolemic, anaphylactic, septic) and the proper management of each.

- 41 - Recognizes the signs, symptoms, and treatment of individuals suffering from adverse reactions to environmental conditions.
- 43 - Describes the proper immobilization techniques and selects the appropriate splinting material to stabilize the injured joint or limb and maintain distal circulation.
- 44 - Recognizes the proper technique for using ambulatory aids, including selecting an aid appropriate for the injury and person.

Acute Care of Injuries and Illnesses: Psychomotor Domain

- 1 - Acquires and maintains skills in first aid and emergency care.
- 2 - Acquires and maintains skill in rescue breathing and CPR, including two-person skills and the use of a bag-valve-mask and a pocket mask.
- 3 - Performs a primary survey/assessment in appropriate situations.
- 4 - Performs a secondary survey/assessment, including obtaining a history, inspection/observation, palpation, and using special tests.
- 5 - Palpates a variety of anatomic locations to assess the pulse in resting (non-emergency) and trauma situations.
- 6 - Demonstrates proper use of universal precautions and aseptic or sterile techniques when controlling external hemorrhaging.
- 9 - Assesses a patient for possible closed-head trauma using standard neurological tests and tests for cranial nerve function.
- 10 - Demonstrates the proper technique for removing a face from a helmeted athlete in respiratory distress or arrest.
- 11 - Demonstrates the proper technique for removing the helmet, shoulder pads, and other protective equipment from an athlete with a possible cervical injury.
- 12 - Demonstrates the proper technique for removing the helmet, shoulder pads, and other protective equipment from an athlete with an injury to the trunk or extremities.
- 13 - Applies various cervical stabilization devices correctly, with the victim in various positions.
- 14 - Performs the correct technique for moving an injured person safely onto a spine board for stabilization and transportation purposes.
- 15 - Palpates for the rigidity, guarding, and rebound tenderness of the abdomen associated with internal injury or illness.
- 16 - Performs proper care and positioning of an individual suffering from shock.
- 17 - Applies various types of splints to different body parts, employing different constructions of splinting materials and allowing for distal pulse palpation.
- 18 - Performs short-distance transportation using proper positioning techniques, immobilization, and appropriate transportation methods.

Acute Care of Injuries and Illnesses: Affective Domain

- 2 - Appreciates the legal, moral, and ethical parameters that define the scope of first aid and emergency care, and values the proper role of the certified athletic trainer in providing this care.
- 3 - Appreciates the roles and responsibilities of various community-based emergency care personnel (paramedics, emergency medical technicians, emergency room personnel).
- 4 - Appreciates the role and function of various medical/paramedical specialties, and values their respective areas of expertise in the definitive treatment of acute injuries and illnesses.
- 5 - Values the importance of certification in first aid and emergency care and cardiopulmonary resuscitation.
- 6 - Appreciates the systematic approach to acute injury or illness of the secondary survey components of obtaining a history, inspection/observation, palpation, and using special tests.
- 11 - Values the proper positioning and securing of a person with a suspected spinal injury onto a spine board or body splint, including preparatory positioning prior to placement of the spine board or body splint, as critical for prevention of further trauma.
- 12 - Appreciates the need for leadership and teamwork when using a spine board or body splint.
- 13 - Respects short-distance transportation techniques as a crucial means of moving an injured person.

Pharmacology: Cognitive Domain

- 7 - Identifies common methods used to administer medication.
- Psychomotor Domain
- 6 - Replicates the procedure for using an emergency epinephrine injection to prevent anaphylaxis as per physician instruction.

- 7 - Replicates procedures for using an asthmatic inhaler to prevent and treat exercise-induced bronchial spasms and/or asthmatic conditions.

Pharmacology: Affective Domain

- 2 - Recognizes the importance of pharmacological concepts in health care.

General Medical Conditions and Disabilities: Cognitive Domain

- 8 - Describes the use of a peak-flow meter in the evaluation and management of respiratory conditions.
- 12 - Recognizes the relationship between changes in blood pressure and changes in activity level.
- 13 - Recognizes the relationship between changes of respiration rate and changes in activity level.
- 14 - Explains the typical history, signs, and symptoms associated with cardiopulmonary conditions.
- 31 - Recognizes the main cerebral lesions caused by trauma (e.g., subdural, epidural hematoma,aneurysm).
- 33 - Recognizes postconcussional syndrome.

General Medical Conditions and Disabilities: Psychomotor Domain

- 5 - Recognizes and applies the appropriate treatments for diabetic coma and insulin shock.
- 12 - Palpates the abdominal quadrants for tenderness and rigidity.
- 13 - Uses the stethoscope correctly to auscultate the heart, lungs, and bowel.
- 14 - Assesses body temperature.
- 15 - Assesses vital signs.

Nutritional Aspects: Psychomotor Domain

- 1 - Accesses and uses information regarding the principles of fluid and electrolyte replacement.

Psychosocial Intervention and Referral: Cognitive Domain

- 20 - Formulates a plan for appropriate psychological intervention and referral with all involved parties when confronted with a catastrophic event.
- 21 - Describes the acceptance and grieving processes that follow a catastrophic event.

Health Care Administration: Cognitive Domain

- 2 - Lists the components of a medical record, such as permission to treat, emergency information, treatment documentation, and release of medical information.
- 7 - Describes the universal precautions mandated by the Occupational Safety and Health Administration (OSHA), and discusses how they apply to the athletic trainer.
- 14 - Uses accepted medical terminology and abbreviations (SOAP, CPT and HCFA coding).
- 21 - Describes typical community-based emergency health care delivery plans, including communication and transportation systems.