

**CENTRAL TEXAS COLLEGE
SYLLABUS FOR EMSP 1272 EMT-B Refresher**

Semester Hours Credit: 2

INSTRUCTOR:

OFFICE HOURS:

I. INTRODUCTION

- A. The course is designed to update the Certified Emergency Medical Technician Basic with changes in trends, policies, and procedures in the field of pre-hospital emergency care. The course adheres to the modules of the DOT EMT-B Refresher curriculum and includes a review of Emergency Medical Technician Basic knowledge and skills.**
- B. The course fulfills the requirement for EMT-B refresher training necessary to maintain National Registry certification.**
- C. This course is occupationally related and serves to maintain certification in the field of Emergency Medical Technology at the Basic level.**
- D. Prerequisite: EMSP 1401/1160 or EMT-B licensure.**

II. LEARNING OUTCOMES

Upon successful completion of this course, EMSP 1291, the student will:

- A. Define the roles and responsibilities of the EMT-Basic within the Emergency Medical Services system and identify changes in the Emergency Medical Technician's role in the recent past. Describe the factors that impact on the EMT's ability to fulfill his roles and responsibilities to include: the EMT-B's safety and well-being, legal and ethical issues, quality assessment and quality improvement, medical direction, body mechanics and their relationship to lifting and moving.
(C-1, 4-7, 9, 11, 12, 14, 15, 18-20; F-1, 2, 5-17)**
- B. Demonstrate the EMT-B skills required to maintain adequate oxygenation in a patient, including the use of: upper airway opening devices, ventilating devices, supplemental oxygen delivery devices. Explain the rationale for the use of: upper airway opening devices, ventilating devices, supplemental oxygen delivery devices.
(C-1, 3-7, 9-12, 15, 16, 18-20; F-1, 4-6, 9-17)**

- C. **List the steps involved in the performance of the five areas of patient assessment: scene size-up, initial assessment, rapid assessment, focused history and physical exam, on-going assessment. Given a simulated trauma patient, choose the appropriate assessment, rapid or focused, and explain the rationale for doing so. Given a simulated medical patient, choose the appropriate assessment, rapid or focused, and explain the rationale for doing so.**
(C-1, 3-7, 9-12, 14-16; F-1, 2, 4-17)
- D. **Demonstrate proficiency in the care of patients experiencing the following medical emergencies: respiratory distress, chest pain, cardiac arrest, altered mental status, allergic reactions, poisoning and overdose, and behavioral disturbances.**
(C-1, 3, 4-7, 9-12, 14-16, 18-20; F-1, 4-17)
- E. **Demonstrate proficiency in the care of patients with trauma incurred conditions, including: shock (hypoperfusion), spinal injury, head injury, soft tissue injuries, and bone fractures.**
(C-1, 3, 4-7, 9-12, 14-16, 18-20; F-1, 4-17)
- F. **Demonstrate proficiency in the care of obstetric patients, patients in active labor, newborns, and injured and ill children.**
(C-1, 3, 4-7, 9-12, 14-16, 18-20; F-1, 4-17)

III. INSTRUCTIONAL MATERIALS

- A. **Required Text: Refresher: Emergency Care and Transportation of the Sick and Injured, American Academy of Orthopaedic Surgeons (AAOS), 2000 (ISBN: 0763709123).**
- B. **Alternate Text: Emergency Care and Transportation of the Sick and Injured, 8th Edition, American Academy of Orthopaedic Surgeons (AAOS), (ISBN: 0763716669).**
- B. **References: EMT-Basic Refresher: National Standard Curriculum, The US Department of Transportation, National Highway. Traffic Safety Administration, (06/06/96), (ISBN: 0160493374)**

IV. COURSE REQUIREMENTS:

- A. **This is a 32 contact hour course which follows the six modules of the US DOT curriculum for an EMT-B Refresher course: I. Preparatory; II. Airway; III. Patient Assessment; IV. Medical/Behavioral Emergencies; V. Trauma; VI. Obstetrics, Infants, and Children.**

The subject matter of each module will guide what parts of the textbook are covered. For areas in which there are new developments in the field of pre-hospital care, the instructor will provide additional handouts. The amount of time spent on didactic and practical activity will be determined by the instructor through testing and skills performance observation at the onset of the course. Areas of the EMT-B's scope of practice in which a large proportion of the class needs updating will be covered in greater depth.

- B. Attendance at all the designated sessions is required of students. Absences must be explained to the satisfaction of the course coordinator and Medical Director. Excessive absenteeism or being absent from any mandatory sessions may/will result in dismissal from the program.

NOTE: CTC Attendance Policy

The following statements are from the Central Texas College Student Handbook: "Students are required to attend regularly, all classes in which they enrolled. Students are required to be in class on time."

"Absences from classes, for any reason, must not exceed College standards. Students may be administratively withdrawn from any class when their absences exceed a total of four class meetings in a long semester, three class meetings for an eleven-week, eight-week semester, or for a six-week semester, and in the opinion of the instructor, they cannot satisfactorily complete the course. The final decision rest solely with the instructor."

Overall: Students are responsible for written work, meeting class and clinical objectives. The instructor must be notified in advance (except in cases of an emergency) of any absences and upon return to class the student must check with the instructor. Failure to make up missed sessions, classroom work, or exams within the time frame of the class may result in the student being assigned a letter grade F.

V. EXAMINATIONS

There will be one practical exam and one written exam. The practical exam will be graded on a pass-fail basis and must be passed for the student to pass the course. The written exam will be the final exam and will determine the letter grade the student obtains for the course.

VI. SEMESTER GRADE COMPUTATIONS

The grading scale is as follows:

- A 90-100
- B 80-89.9
- C 70-79.9
- D 60-69.9

VII. NOTES AND ADDITIONAL INSTRUCTIONS FROM THE INSTRUCTOR

- A. **Course Withdrawal:** It is the student's responsibility to officially withdraw from a course if circumstances prevent attendance. Any student who desires to, or must, officially withdraw from a course after the first scheduled class meeting must file a Central Texas College Application for Withdrawal (CTC Form 59). The withdrawal form must be signed by the student.

CTC Form 59 will be accepted at any time prior to Friday of the 12th week of classes during the 16-week fall and spring semesters. The deadline for sessions of other lengths is:

10-week session Friday of the 8th week
8-week session Friday of the 6th week
5-week session Friday of the 4th week

The equivalent date (75% of the semester) will be used for sessions of other lengths. The specific last day to withdraw is published each semester in the Schedule Bulletin.

A student who officially withdraws will be awarded the grade of "W" provided the student's attendance and academic performance are satisfactory at the time of official withdrawal. Students must file a withdrawal application with the College before they may be considered for withdrawal.

A student may not withdraw from a class for which the instructor has previously issued the student a grade of "F" or "FN" for nonattendance.

- B. **Administrative Withdrawal:** An administrative withdrawal may be initiated when the student fails to meet College attendance requirements. The instructor will assign the appropriate grade on CTC Form 59 for submission to the registrar.
- C. **Incomplete Grade:** The College catalog states, "An incomplete grade may be given in those cases where the student has completed the majority of the coursework but, because of personal illness, death in the immediate family, or military orders, the student is unable to complete the requirements for a course." Prior approval from the instructor is required before the grade of "I" for Incomplete is recorded. A student who merely fails to show for the final examination will receive a zero for the final and an "F" for the course.
- D. **Cellular Phones and Beepers:** Cellular phones and beepers will be turned off while the student is in the classroom or laboratory.

- E. **American's With Disabilities Act (ADA):** Students requiring accommodations for disabilities are responsible for notifying the instructor. Reasonable accommodations will be granted in full compliance with federal and state law and Central Texas College policy.
- F. **Instructor Discretion:** The instructor reserves the right of final decision in course requirements.
- G. **Civility:** Individuals are expected to be cognizant of what a constructive educational experience is and respectful of those participating in a learning environment. Failure to do so can result in disciplinary action up to and including expulsion.

VIII. COURSE OUTLINE

- A. **Lesson One: Preparatory (EMT-B Refresher Curriculum Mod. I)**
 - 1. **Learning Outcomes:** Upon successful completion of this lesson, the student will:
 - a. Describe the steps the EMT-Basic should take for personal protection from airborne and bloodborne pathogens.
 - b. List the steps to be followed when approaching a hazardous situation.
 - c. Define quality improvement and discuss the EMT-Basic's role in the process.
 - d. Define medical direction and discuss the EMT-Basic's role in the process.
 - e. Describe the relationship between body mechanics and patient care and it's impact on the EMT-Basic.
 - f. List the signs and symptoms of critical incident stress.
 - g. State possible steps that the EMT-Basic may take to help to reduce/alleviate stress.
 - h. Define consent and discuss the methods of obtaining consent.
 - i. Discuss the implications for the EMT-Basic in patient refusal of transport.
 - j. Discuss the importance of Do Not Resuscitate [DNR] (advance directives) and local or state provisions regarding EMS application.
 - k. Discuss the special considerations for assessing and managing a patient with suspected abuse or neglect.
 - l. Explain the role of EMS and the EMT-Basic regarding patients with DNR orders.
 - m. Working with a partner, move a simulated patient from the ground to a stretcher and properly position the patient on the

stretcher.

- n. Working with a partner, demonstrate the technique for moving a patient secured to a stretcher to the ambulance and loading the patient into the ambulance.

2. Learning Activities:

- a. Presentation of actual case law and common law decisions relative to EMT-Basic care. (C5) (F6)
- b. View audio-visual materials of scenes requiring personal protection. (F5) (F10)
- c. View proper lifting, carrying and reaching techniques. (F5) (F10)
- d. View samples of documents pertaining to medical/legal terms such as consent, confidentiality, refusal of care. (C5) (F1)
- e. Demonstrate proper lifting, carrying and reaching techniques. (C7)
- f. Practice making decisions while role playing the various medical/legal and ethical situations that occur in the EMT's environment. These scenarios should include, as minimum, consent, confidentiality, refusal of care and DNR orders. (C7) (C9) (F6) (F8) (F9)

3. Equipment and Materials:

- a. TV/VCR, computer-projector set-up.
- b. Instructor-prepared handouts

4. Audio-Visual Aids:

- a. Instructor's Tool Kit, Refresher Emergency Care and Transportation of the Sick and Injured(C-D Rom)
- b. FETN EMT-B Skills, #044-0001 to #044-0014 (videos)

5. Lesson Outline:

- a. Scene Safety
 - i. Body substance isolation (BSI) (Bio-Hazard)
 - ii. Personal protection
- b. Quality improvement
 - i. Medical Direction
 - ii. Quality review
- c. Health and Safety
 - i. Lifting techniques
 - ii. Carrying
 - iii. Reaching
 - iv. Pushing and pulling guidelines
 - v. Stressful situations
 - vi. Critical incident stress debriefing (CISD)
 - vii. Comprehensive Critical Incident Stress Management
- d. Medical - Legal
 - i. Expressed Consent

- ii. Implied Consent
- iii. Children and mentally incompetent adults
- iv. Confidentiality
- v. Refusal of Care
- vi. Do Not Resuscitate (DNR) orders
- vii. Abuse and neglect (child or elder)

B. Lesson Two: Airway (EMT-B Refresher Curriculum Mod. II)

1. Learning outcomes: Upon successful completion of this lesson, the student will:

- a. Describe the steps in performing the head-tilt chin-lift.
- b. Describe the steps in performing the jaw thrust.
- c. Describe the techniques of suctioning.
- d. Describe how to measure and insert an oropharyngeal (oral) airway.
- e. Describe how to measure and insert a nasopharyngeal (nasal) airway.
- f. Describe the steps in performing the skill of artificially ventilating a patient with a bag-valve-mask for one and two rescuers.
- g. Describe the steps in artificially ventilating a patient with a flow restricted, oxygen-powered ventilation device.
- h. Identify a non-rebreather face mask and state the oxygen flow requirements needed for its use.
- i. Identify a nasal cannula and state the flow requirements needed for its use.
- j. Explain the rationale for basic life support artificial ventilation and airway protection skills taking priority over most other life support skills.
- k. Explain the rationale for providing oxygenation through high inspired oxygen concentrations to patients who, in the past, may have received low concentrations.
- l. Demonstrate the steps in performing the skill of artificially ventilating a patient with a bag-valve-mask for one and two rescuers.
- m. Demonstrate how to insert an oropharyngeal and nasopharyngeal airway.
- n. Demonstrate the use of a non-rebreather face mask and a nasal cannula.
- o. Demonstrate artificial ventilation of a patient with a flow restricted, oxygen powered ventilation device.
- p. Demonstrate the techniques of suctioning.

2. Learning activities

- a. Practice opening a patient's airway using a head-tilt chin lift and a jaw thrust maneuver.(C15) (C18) (C19)

- b. Practice using a bag-valve-mask device and a flow restricted, oxygen powered ventilation device.(C15) (C18) (C19)
 - c. Practice using a non-rebreather mask and a nasal cannula.(C15) (C18) (C19)
 - d. Practice correct operation of oxygen tanks, regulators and flow meters. (C15) (C18) (C19)
 - e. Practice suctioning. (C15) (C18) (C19)
- 3. Equipment and Materials:
 - a. TV/VCR, computer-projector set-up.
 - b. Instructor-prepared handouts
 - c. Pocket mask, bag-valve-mask, flow restricted, oxygen powered ventilation device, oral airways, nasal airways, suction units, suction catheters, oxygen tank, regulator, nonrebreather mask and nasal cannula.
- 4. Audio-Visual Aids:
 - a. Instructor's Tool Kit, Refresher Emergency Care and Transportation of the Sick and Injured(C-D Rom)
 - b. FETN EMT-B Skills, #044-0001 to #044-0014 (videos)
- 5. Lesson Outline:
 - a. Opening the Airway
 - i. Head-tilt chin-lift
 - ii. Jaw thrust
 - iii. Assess need for suctioning.
 - b. Techniques of Suctioning
 - c. Techniques of Artificial Ventilation
 - i. Mouth-to-mask with supplemental oxygen
 - ii. Two person bag-valve-mask
 - iii. Flow restricted, oxygen powered ventilation device
 - iv. One person bag-valve-mask
 - d. Airway Adjuncts
 - i. Oropharyngeal (oral) airways
 - ii. Nasopharyngeal (nasal) airways
 - e. Oxygen
 - i. Equipment for oxygen delivery

C. Lesson Three: Patient Assessment (EMT-B Refresher Curriculum Mod. III)

- 1. **Learning outcomes**: Upon successful completion of this lesson, the student will:
 - a. Describe common/potential hazards found at the scene of a trauma and a medical patient.
 - b. Given the description of a scene, determine if it is safe to enter.
 - c. Explain the reason for identifying the need for additional help or assistance
 - d. List common mechanisms of injury/nature of illness.

- e. Summarize the reasons for forming a general impression of the patient.
 - f. Describe methods of assessing altered mental status.
 - g. Describe methods used for assessing airway and breathing.
 - h. Describe the methods used to obtain a pulse.
 - i. Describe normal and abnormal findings when assessing skin color, temperature and condition.
 - j. Explain the reason for prioritizing a patient for care and transport.
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- k. Identify the components of a SAMPLE history.
 - l. State the reasons for performing a rapid trauma assessment.
 - m. Discuss the reason for performing a focused history and physical examination.
 - n. Differentiate between the history and physical examination that are performed for responsive patients with no known prior history and responsive patients with a known history.
 - o. Differentiate between the assessment that is performed for a patient who is unresponsive or has an altered mental status and other medical patients requiring assessment.
 - p. State the areas of the body that are evaluated during the detailed physical examination.
 - q. Explain what additional care should be provided while performing the detailed physical examination.
 - r. Discuss the reasons for repeating the initial assessment as part of the on-going assessment.
 - s. Describe the components of the on-going assessment.
 - t. Discuss the communication skills that should be used to interact with the patient.
 - u. Demonstrate the steps in performing an initial assessment.
 - v. Demonstrate the rapid trauma assessment that should be used to assess a patient based on mechanism of injury.
 - w. Demonstrate the steps in performing a focused history and physical on a medical and a trauma patient.
 - v. Demonstrate the skills involved in performing a detailed physical examination.
 - x. Demonstrate the skills involved in performing an on-going assessment.
 - y. Complete a prehospital care report.

2. Learning activities

- a. View simulations of various safe and unsafe scenes. (F5) (F10)
- b. Students should see visual aids or materials of various patient situations. (F5) (F10)
- c. Students should see the inspection and palpation of programmed

- patients for various injuries and patterns of injury. (F5) (F10)
- d. Students should see the entire assessment completed for each patient category. (F5) (F10)
- e. Students should practice role playing the actions taken at various safe and unsafe scenes. (C15) (C18) (C19)
- f. Students should practice all components of the assessment.(C15) (C18) (C19)
- g. Students should practice examining interventions to assure that they continue to be effective. (C15) (C18) (C19)
- h. Students should practice recording assessment findings. (C15) (C18) (C19) (F2)

3. Equipment and Materials:

- a. TV/VCR, computer-projector set-up.
- b. Instructor-prepared handouts
- c. Exam gloves, airway management equipment, stethoscope, blood pressure cuff and a penlight.

4. Audio-Visual Aids:

- a. Instructor's Tool Kit, Refresher Emergency Care and Transportation of the Sick and Injured(C-D Rom)
- b. FETN EMT-B Skills, #044-0001 to #044-0014 (videos

5. Lesson Outline:

- a. Scene Size-up/Assessment
 - i. Definition
 - ii. Body substance isolation (BSI) review
 - iii. Scene safety
- b. Initial Assessment
 - i. General Impression of the Patient
 - ii. Assess patient's mental status.
 - iii. Assess the patient's airway status
 - iv. Assess the patient's breathing
 - v. Assess the patient's circulation
 - vi. Identify priority patients
 - vii. Expedite transport of the patient. Consider ALS backup
 - viii. Proceed to the appropriate focused history and physical examination
- c. Focused History and Physical Examination
 - i. Trauma
 - ii. Responsive Medical Patients
 - iii. Unresponsive Medical Patients
- d. Detailed Physical Exam (contains components of the former "secondary survey")
 - i. Patient and injury specific; e.g., cut finger would not require the detailed physical exam

- ii. Perform a detailed physical examination on the patient to gather additional information
- e. Ongoing Assessment
 - i. Repeat initial assessment
 - ii. Re-establish patient priorities
 - iii. Reassess and record vital signs
 - v. Repeat focused assessment regarding patient complaint or injuries
 - vi. Check interventions
- f. Verbal communication
 - i. After arrival at the hospital, give a verbal report to the staff
 - ii. Introduce the patient by name (if known).
 - iii. Summarize the information given over the radio:
- g. Interpersonal communication.
- h. Prehospital care report
 - i. Functions
 - ii. Use
 - iii. Falsification issues

D. Lesson Four: Medical/Behavioral Emergencies (EMT-B Refresher Curriculum Mod. IV)

1. Learning outcomes: Upon successful completion of this lesson, the student will:

- a. List the signs and symptoms of difficulty breathing
- b Describe the emergency medical care of the patient with breathing difficulty.
- c. State the generic name, medication forms, dose, administration, action, indications and contraindications for the prescribed inhaler.
- d Describe the emergency medical care of the patient experiencing chest pain/discomfort.
- e. List the indications for the use of nitroglycerin.
- f. Explain the considerations for interruption of CPR, when using the automated external defibrillator.
- g. List the steps in the operation of the automated external defibrillator.
- h. Discuss the need to complete the Automated Defibrillator: Operator's Shift Checklist.
- i. State the steps in the emergency medical care of the patient taking diabetic medicine with an altered mental status and a history of diabetes.
- j. Recognize the patient experiencing an allergic reaction.
- k. Describe the emergency medical care of the patient with an allergic reaction.
- l. State the generic and trade names, medication forms, dose,

- administration, action, and contraindications for the epinephrine autoinjector.
- m. Differentiate between the general category of those patients having an allergic reaction and those patients having an allergic reaction and requiring immediate medical care, including immediate use of epinephrine auto-injector.
 - n. Describe the steps in the emergency medical care for the patient with suspected poisoning.
 - o. Discuss the emergency medical care for the patient with possible overdose.
 - p. Discuss the characteristics of an individual's behavior which suggests that the patient is at risk for suicide.
 - q. Discuss the special considerations for assessing a patient with behavioral problems.
 - r. Discuss the general principles of an individual's behavior which suggests that he is at risk for violence.
 - s. Discuss methods to calm behavioral emergency patients.
 - t. Given medical scenarios, demonstrate the ability to properly assess a patient and demonstrate the ability to properly utilize the intervention to include inhaler, nitroglycerin, oral glucose and activated charcoal.
 - u. Demonstrate the use of an epinephrine auto-injector.
 - v. Given a cardiac arrest scenario, demonstrate the use of the AED.

2. Learning activities

- a. View a demonstration of the proper steps in assisting in the usage of handheld inhalers. (F5)(F10)
- b. View an instructor team appropriately resuscitate a simulated cardiac arrest patient using an automated external defibrillator. (F5) (F10)
- c. View re-enactments of cardiac arrest resuscitation efforts by EMT-Basics using automated external defibrillators.(F5)(F10)
- d. View an instructor team appropriately administer a small candy or breath spray sublingually to a simulated patient presenting with chest pain. (F5)(F10)
- e. View various methods to calm the behavioral emergency patient.(F5)(F10)
- f. View the administration of oral glucose (as a simulated paste) to a simulated patient.(F5)(F10)
- g. Students should see the instructor demonstrate the appropriate steps in using an auto-injector.(F5)(F10)
- h. View a demonstration of how to administer activated charcoal. (F5) (F10)
- i. Practice inspecting and reading the labels of each type of medication they will use on the EMS unit. (F1)

- j. Practice assessment and management of adult, child and infant patients having a respiratory illness who have been prescribed a handheld inhaler by his physician. (C15) (C18) (C19)
- k. Practice the steps in facilitating the use of a handheld inhaler. (C15) (C18) (C19)
 - l. Practice role play situations where use of handheld inhalers is appropriate and inappropriate. (C15) (C16) (C18) (C19)
- m. Practice the application and operation of the automated external defibrillator. (C15) (C18) (C19)
- n. Practice maintenance checks of the automated external defibrillator. (C15) (C16) (C19)
- o. Practice performing the steps in facilitating the use of nitroglycerin for chest pain using a suitable candy tablet and breath spray. (C15) (C18) (C19)
- p. Practice the assessment and documentation of patient response to the automated external defibrillator. (C15) (C18) (C19) (F2) (F6)
- q. Practice the assessment and documentation of patient response to nitroglycerin. (C15) (C18) (C19) (F2) (F6)
- r. Practice assessment, defibrillation, airway management, lifting and moving a patient, and transportation out of the training laboratory of a manikin in a simulated cardiac arrest situation in which a patient does respond to defibrillation. (C15) (C18) (C19) (F2) (F6)
- s. Practice the steps in the administration of oral glucose. (C15) (C18) (C19)
- t. Practice the correct way to use an epinephrine autoinjector. (C15) (C18) (C19)

3. Equipment and Materials:

- a. TV/VCR, computer-projector set-up.
- b. Instructor-prepared handouts
- c. Exam gloves, stethoscope, blood pressure cuff, penlight, suction equipment, tube of oral glucose, epinephrine autoinjector trainer, handheld inhaler suitable for training purposes, defibrillator manikins, automated external defibrillator, nitroglycerin training bottle, activated charcoal.

4. Audio-Visual Aids:

- a. Instructor's Tool Kit, Refresher Emergency Care and Transportation of the Sick and Injured(C-D Rom)
- b. FETN EMT-B Skills, #044-0001 to #044-0014 (videos)

5. Lesson Outline:

- a. General Pharmacology
 - i. Overview
 - ii. Medications (carried on the EMS unit)

- iii. Medications (prescribed by a physician and the patient has them in his possession; they are not carried on the EMS unit).
 - iv. Nomenclature
 - v. Indications
 - vi. Contraindications
 - vii. Medication Form
 - viii. Dose - state how much of the medication should be given
 - x. Administration
 - xi. Actions
 - xii. Side Effects
 - xiii. Re-assessment strategies
- b. Breathing Difficulty
 - i. Signs and symptoms
 - ii. Emergency Medical Care
 - iii. Medications
- c. Cardiac Emergencies
 - i. Emergency Medical Care
 - ii. Cardiac assessment and care
 - iii. Relationship to Basic Life Support
 - v. Automated External Defibrillation
 - vi. Medications
- d. Emergency Medical Care of a patient with an Altered Mental Status
 - i. Caused by a variety of conditions
 - ii. Emergency medical care
- e. Emergency medical care of altered mental status with a history of diabetes
 - i. Perform initial assessment
 - ii. Perform history and physical exam
 - iii. Performs baseline vital signs and SAMPLE history
 - v. Assure known history of diabetes (medical identification tags), etc.
 - vi. Determine last meal, last medication dose, any related illness
 - vii. Determine if patient can swallow
 - viii. Administer oral glucose in accordance with local medical direction or protocol
 - x. Medication
- f. Emergency medical care of allergic reactions
 - i. Patient has come in contact with substance that caused past allergic reaction and complains of respiratory distress or exhibits signs and symptoms of shock (hypoperfusion)
 - ii. Patient has contact with substance that causes allergic reaction without signs of respiratory distress or shock (hypoperfusion)

- iii. Medications
- g. Emergency Medical Care of Poisoning/Overdose
 - i. Ingested
 - ii. Emergency medical care
 - iii. Inhaled
 - v. Toxic injection
 - vi. Absorbed
- h. Behavioral Emergencies
 - i. Assessment for Suicide Risk
 - ii. Emergency medical care
 - iii. Medical/Legal Considerations
 - iv. Avoiding unreasonable force
 - v. Police and medical direction involvement
 - vi. Protection against false accusations
 - vii. Principles for Assessing Behavioral Emergency Patients
 - viii. Assessment of Potential Violence
 - ix. Methods to Calm Behavioral Emergency Patients

E. Lesson Five: Trauma (EMT-B Refresher Curriculum Mod. V)

1. Learning outcomes: Upon successful completion of this lesson, the student will:
 - a. List methods of emergency medical care of external bleeding.
 - b. List signs and symptoms of shock (hypoperfusion).
 - c. List the steps in the emergency medical care of the patient with signs and symptoms of shock (hypoperfusion).
 - d. State the signs and symptoms of a potential spine injury.
 - e. Describe how to stabilize the spine.
 - f. Relate mechanism of injury to potential injuries of the head and spine.
 - g. Describe the emergency medical care of the patient with a closed soft tissue injury.
 - h. Describe the emergency medical care of the patient with an open soft tissue injury.
 - i. Describe the indications for the use of rapid extrication.
 - j. List steps in performing rapid extrication.
 - k. Explain the rationale for splinting at the scene versus load and go.
 - l. Explain the rationale for using rapid extrication approaches only when they will make the difference between life and death.
 - m. Demonstrate care of the patient experiencing external bleeding.
 - n. Demonstrate care of the patient exhibiting signs and symptoms of shock (hypoperfusion).
 - o. Demonstrate the steps in the care of open and closed soft tissue injuries. (chest injuries, abdominal injuries, burns and amputations).
 - p. Demonstrate the steps in the care of a patient with a head or spine

- injury.
- q. Demonstrate the procedure for rapid extrication.

2. Learning activities

- a. View audio-visual aids or materials of the proper methods to control external bleeding and treat for shock (hypoperfusion). (F5) (F10)
- b. View demonstrations for the proper method of managing an open chest wound.(F5) (F10)
- c. View demonstrations for the proper method of managing an open abdominal injury. (F5)(F10)
- d. View audio-visual aids or materials which illustrate superficial, partial thickness and full thickness burns.(F5) (F10)
- e. View demonstrations for the proper management of burns. (F5) (F10)
- f. View demonstrations for the proper immobilization of a painful, swollen, deformed extremity. (F5) (F10)
- g. View demonstrations of proper assessment and management of patients who have experienced head and spine injuries. (F5) (F10)
- h. Students should see audio-visual aids or materials illustrating situations that would require the use of rapid extrication.(F5) (F10)
- i. Practice the management of patients with external bleeding, internal bleeding and shock. (C15) (C18) (C19)
- j. Practice the care of patients with open and closed soft tissue injuries (chest injuries, abdominal injuries, burns and amputations). (C15) (C18) (C19)
- k. Practice the management of an injured extremity. (C15) (C18) (C19)
- l. Practice the assessment and management of a patient who has experienced a head or spine injury. (C15) (C18) (C19)
- m. Practice performing a rapid extrication. (C15) (C18) (C19)

3. Equipment and Materials:

- a. TV/VCR, computer-projector set-up.
- b. Instructor-prepared handouts
- c. Sterile dressings, bandages, splints, pneumatic anti-shock garment, triangular bandage, stick or rod, air splints, gloves, eye protection, blanket, universal dressing, occlusive dressing, roller bandages, 4 x 4 gauze pads, burn sheets, sterile water or saline.

4. Audio-Visual Aids:

- a. Instructor's Tool Kit, Refresher Emergency Care and Transportation of the Sick and Injured(C-D Rom)
- b. FETN EMT-B Skills, #044-0001 to #044-0014 (videos)

5. Lesson Outline:

- a. Shock (hypoperfusion syndrome)

- i. Severity
 - ii. Signs and symptoms of shock (hypoperfusion)
 - iii. Emergency medical care
- b. Emergency medical care of an open chest wound
 - i. Occlusive dressing to open wound
 - ii. Administer oxygen if not already done
 - iii. Position of comfort if no spinal injury suspected
- c. Emergency medical care for an open abdominal injury
 - i. Do not touch or try to replace the exposed organ.
 - ii. Cover exposed organs and wound with a sterile dressing, moistened with sterile water or saline, and secure in place.
 - iii. Flex the patient's hips and knees, if uninjured.
- d. Emergency medical care of amputations
 - i. Wrap the amputated part in a sterile dressing.
 - ii. Wrap or bag the amputated part in plastic and keep cool.
 - iii. Transport the amputated part with the patient.
 - v. Do not complete partial amputations, immobilize to prevent further injury.
- e. Emergency medical care of burns
 - i. Stop the burning process, initially with water or saline.
 - ii. Remove smoldering clothing and jewelry.
 - iii. Body substance isolation
 - iv. Continually monitor the airway for evidence of closure.
 - v. Prevent further contamination.
 - vi. Cover the burned area with a dry sterile dressing.
 - vii. Do not use any type of ointment, lotion or antiseptic.
 - viii. Do not break blisters.
 - ix. Transport.
 - xi. Know local protocols for transport to appropriate local facility.
- f. Injuries to bones and joints
 - i. Signs and symptoms
 - ii. Emergency medical care of bone or joint injuries
 - iii. General rules of splinting
- g. Head and Spine Injuries
 - i. Mechanism of injury with a high index of suspicion
 - ii. Signs and symptoms of Head and Spine injuries
 - iii. Assessing the potential spine injured patient
 - v. Skull injury - signs and symptoms
- h. Rapid Extrication
 - i. Indications
 - ii. Procedure

F. Lesson Six: Obstetrics, Infants, and Children (EMT-B Refresher Curriculum Mod. VI)

1. **Learning outcomes:** Upon successful completion of this lesson, the student will:
 - a. Describe the stages of labor.
 - b. List the signs and symptoms indicative of imminent delivery.
 - c. Identify the following pre-delivery emergencies: per-eclampsia, eclampsia, miscarriage, ectopic pregnancy, and placenta previa.
 - d. State the steps to assist in the delivery of a child.
 - e. Discuss the steps in the delivery of the placenta.
 - f. List the steps in the emergency medical care of the mother post-delivery.
 - g. Summarize neonatal resuscitation procedures.
 - h. Describe the procedures for the following abnormal deliveries: prolapsed cord, breech presentation, limb presentation
 - i. List the steps in the care of an infant or child with respiratory distress
 - j. List the steps in the care of an infant or child with shock (hypoperfusion)
 - k. List the steps in the care of an infant or child in cardiac Arrest
 - l. List the steps in the care of an infant or child with seizures
 - m. List the steps in the care of an infant or child with trauma
 - n. Describe possible providers' response (emotional) to caring for infants and children.
 - o. Demonstrate steps to assist in the normal cephalic delivery.
 - p. Demonstrate post delivery care of the infant.
 - q. Demonstrate post delivery care of the mother.

2. **Learning activities**

- a. View visual aids or materials of infant and child patients with common medical or traumatic complaints. (F5) (F10)
- b. View various infant or child equipment. (F5) (F10)
- c. View audio-visual aids or materials illustrating normal and abnormal delivery of an infant. (F5) (F10)
- d. Practice post delivery care of the infant and the mother (C15) (C18) (C19)
- e. Practice using various infant and child devices that are available in the area. (C15) (C18) (C19)

3. **Equipment and Materials:**

- a. TV/VCR, computer-projector set-up.
- b. Instructor-prepared handouts
- c. Exam gloves, stethoscope, blood pressure cuff, penlight, obstetrics mannequin.

4. **Audio-Visual Aids:**

- a. Instructor's Tool Kit, Refresher Emergency Care and Transportation of the Sick and Injured(C-D Rom)

b. FETN EMT-B Skills, #044-0001 to #044-0014 (videos

5. Lesson Outline:

a. Normal Delivery

- i. Pre-delivery considerations**
- ii. Precautions**
- iii. Emergency Delivery**
- iv. Vaginal bleeding following delivery - up to 500 cc of blood loss is normal following delivery.**
- v. Initial care of the newborn**
- vi. Resuscitation of the newborn follows the inverted pyramid**

b. Abnormal Deliveries

- i. Prolapsed Cord**
- ii. Breech birth presentation**
- iii. Limb presentation - occurs when a limb of the infant protrudes from the birth canal.**
- iv. Multiple births**
- v. Meconium**
- vi. Premature**

c. Medical Problems in Infants and Children

- i. Airway obstructions**
- ii. Complete obstruction and altered mental status or cyanosis and partial obstruction.**
- iii. Respiratory emergencies**
- iv. Cardiac arrest**
- v. Seizures**
- vi. Shock (hypoperfusion)**

d. Trauma in children

- i. Injuries are the number one cause of death in infants and children.**
- ii. Blunt injury is most common.**
- iii. Specific body systems.**