**STATEMENT OF PURPOSE AND COURSE OBJECTIVES:**

The course will refresh the trainee on the knowledge and skills to safely and effectively provide first aid, CPR/AED and basic life support. This course meets the EMSA and Title 22 required content for Law Enforcement First Aid CPR/AED Refresher and basic life support refresher. The course consists of both lecture and hands-on/practical skills training for in-service officers.

Student learning activities & methods for assessing learning: Skills demonstration of proper techniques using First Aid, CPR and AED on an adult, child, and infant. Evaluated by a POST certified CPR Instructor to POST standards.

**EXPANDED COURSE OUTLINE**

1. **Introduction, Registration & Orientation**
   1. Introduction, Registration and Orientation
      1. Instructor and Student Introductions
      2. Course Roster
      3. Facility Overview
   2. Course Objectives/Overview, Exercises, Evaluation/Testing
   3. Safety Policy/Orientation
   4. Orientation to EMS
      1. 9-1-1 Access
      2. Interaction with EMS personnel
      3. Identification of local EMS and trauma systems
2. **Legal Issues**
   1. Title 22, Division 9, Chapter 1.5
      1. Section 100011
      2. Section 100013
      3. Section 100015
      4. Section 100018
      5. Section 100019
      6. Section 100020
      7. Section 100022
      8. Section 100023
      9. Section 100024
      10. Section 100025
      11. Section 100026
      12. Section 100027
      13. Section 100028
      14. Epi-pen (Discussed, but optional skill)
      15. Oral glucose (Discussed, but optional skill)
      16. Naloxone administration (Discussed, but optional skill)
      17. Understanding optional skills
   2. California Code of Regulations (CCR)
      1. Section 1051
      2. Section 1052
      3. Section 1053
      4. Section 1053
      5. Section 1055
      6. Section 1070
      7. Section 1082
   3. California Penal Code
      1. Section 13518
      2. Section 13518.1
   4. Federal OSHA Requirements (29 CFR 1910)
      1. 1910.1030 Bloodborne Pathogen
      2. 19140.134 Respiratory Protection
   5. California OSHA Requirements (CCR Section 5193)
      1. Requirements
      2. Analysis
      3. Training
      4. Equipment
   6. California OSHA Requirements (CCR Section 5199)
      1. Initial Training
      2. Fit Testing
   7. Standards for First Aid Training
      1. American Red Cross
      2. American Heart Association
      3. Department of Transportation
      4. National Safety Council
      5. Updates and changes in documents
   8. Liability
      1. Instructor knowledge and material demonstration
      2. Student participation and skill demonstration
3. **First Aid, Role of the Public Safety-First Aid Provider**
   1. Scene Evaluation
      1. Type of call
      2. Safety issues
         1. Officer safety, public safety, victim safety
         2. Environmental, hazmat, weapons, fire
   2. Victim Assessment
      1. Primary Survey
         1. Determine responsiveness and breathing
         2. If not breathing, call for EMS and check pulse
         3. If breathing, but unresponsive place in recovery position
         4. Check carotid pulse
         5. If no pulse, initiate CPR
         6. If pulse present, continue with rescue breathing
         7. Look for obvious bleeding and control bleeding with direct pressure
      2. Secondary Survey for unresponsive and breathing victims
         1. Check for other injuries and obvious bleeding
         2. Determine if a life-threatening emergency exists
         3. Conscious vs. unconscious
         4. Consent to treatment required by conscious victim(s) and inform victim(s) of your qualifications
      3. Obtain patient history
   3. Bleeding Control
      1. Open injuries: lacerations, abrasions, puncture wounds, amputations and some fractures
      2. Closed injuries: bruises, concussion, contusions and some fractures
      3. Arterial vs. venous bleeding
   4. Obvious External Bleeding
      1. Direct pressure controls almost all bleeding
      2. Pressure dressing
         1. Use clean material to cover the wound and wrap tightly
         2. Check distal pulse to make sure circulation has not been compromised
      3. Tourniquets
         1. SWAT-T and CAT
         2. Note time and T on forehead
      4. Hemostatic dressing, if bleeding cannot be controlled by other means
      5. Types of EMSA approved hemostatic dressings
         1. Quick Clot®, Combat Gauze® LE
         2. HemCon®
         3. ChitoFlex® PRO Dressing
         4. Celox® Gauze, Z-Fold Hemostatic Gauze
         5. Celox® Rapid, Hemostatic Z-Fold Gauze
         6. Other types of dressing:
            1. Quick Clot®, Z-Medica®
            2. Rolled Gauze, 4x4 Dressing, Trauma Pad
   5. Shock
      1. Lack of oxygen to tissues due to blood loss, spinal injury, heart attack, infection or psychogenic
      2. Pale, cool, clammy, AMS, dilated pupils, dull eyes, thirsty, dizzy, nausea, anxious, rapid weak pulse, rapid breathing
      3. Maintain body temperature with a blanket
   6. Facial Injuries
      1. Objects in the eye
      2. Chemical in the eye
      3. Assess level of consciousness and treat for neck injury by immobilization of the head
      4. Ask who, where, when and what happened to assess the level of consciousness (LOC)
      5. Glasgow Coma Scale
      6. Look for bleeding from the ear or nose and suspect cerebral spinal fluid (CSF) due to fractured skull if;
         1. CSF is present. It is clear colorless fluid found in the brain and spine.
         2. Bleeding from the ear is a type of bleeding NOT controlled by direct pressure. Allow to bleed, yet cover with loose dressing
      7. Dental emergencies
         1. Wear PPE
         2. Check the victim’s mouth for any missing, broken or loose teeth
         3. If the tooth is chipped, gently clean the injured area and send the victim to the dentist
         4. If the tooth is loose, have the victim bite down on a piece of gauze to keep the tooth in place and send the victim to a dentist
         5. If the tooth is knocked out, place in milk/saliva or clear plastic wrap and transport with the patient
   7. Neck or spinal injury
      1. Numbness, tingling, hot or cold sensation, paralysis, weakness in extremities could mean nerve damage
      2. Immobilize in the position found
      3. Suspect neck injury with any visible head injury or reported loss of consciousness due to trauma
      4. Monitor ABC’s (airway, breathing, pulse) and treat for shock
   8. Chest injuries
      1. Penetrating
      2. Suspect sucking chest wound - apply occlusive dressing
   9. Amputations
      1. Control bleeding
      2. Locate body part; keep dry and cool. Do not freeze
   10. Fractures Dislocations and Sprains
       1. Pain, swelling, deformity may mean a fracture. All bone or joint injuries are treated as fractures until x-ray
       2. Consider mechanism of injury and apply icepack to the injury site
       3. Immobilize and if necessary move the patient to apply a splint
       4. Open fracture vs. closed fracture
          1. Bleeding control, treat for shock, monitor ABC’s (airway, breathing, pulse)
   11. Internal Bleeding
       1. Abdominal pain, decreased level of consciousness (LOC) bruising on abdomen
       2. Treat for shock and monitor ABC’s (airway, breathing, pulse)
       3. Tend to be found curled in fetal position
   12. Impaled Objects
       1. Do not remove unless obstructing the airway
       2. Use bulky dressings packed around the object to secure it
4. **Safety Protocols**
   1. Understanding the Bloodborne Pathogen Standard
      1. OSHA Bloodborne Standard
      2. Who is covered
      3. What are pathogens
      4. How pathogens are spread
      5. Training requirements
      6. Exposure Control Plan
      7. Record keeping
      8. Needle-stick Safety and Prevention
   2. Bloodborne Pathogens
      1. Means of transmission
         1. Bloodborne
         2. Airborne
      2. Common Serious Bloodborne Diseases
         1. Hepatitis B
         2. Hepatitis C
         3. HIV
         4. Preventive measures
         5. Other infectious materials
         6. Does an exposure always cause an infection?
         7. OSHA requirements for immunization by the employer
   3. Preventing infection from bloodborne pathogens
      1. OSHA requirements
         1. Engineering controls
         2. Work practice controls
         3. Personal Protective Equipment (PPE)
         4. Universal precautions
         5. Response to exposure incidents
   4. Understanding Airborne Pathogens
      1. Diseases of concern
         1. Meningitis
         2. Influenza
         3. Pneumonia
         4. Tuberculosis
      2. Protective measures
5. **Respiratory Emergencies**
   1. Respiratory emergencies including asthma and Chronic Obstructive Pulmonary Disease (COPD) Symptoms:
      1. Identify & define asthma
      2. Chronic inflammation of airways
      3. Usually a result of exposure to inhaled irritants such as smoke and tobacco
      4. Baseline oxygen saturation is low
         1. Identify respiratory distress in adults, children and infants
   2. Signs
      1. Pale, cool, sweaty, SOB
   3. Treatment
      1. Position of comfort, assist with Rx
6. **Allergic Reactions**
   1. Anaphylaxis
      1. Define and review characteristics of anaphylaxis
         1. Mild: stuffy nose, sneezing and itching around the eyes, itchy skin, raised, red rash on skin
         2. Severe: trouble breathing, swelling of tongue and face, signs of shock
      2. Assisted administration of epinephrine auto-injector
         1. Remove the auto-injector from its protective case.
         2. Remove the safety release mechanism to arm the device, making sure that the appropriate end is perpendicular to the middle of the outer thigh.
         3. Firmly push the auto-injector against the middle of the outer thigh until you hear a clicking sound. This can be done through clothing, if needed.
         4. Hold firmly against the thigh for 5-10 seconds (depending on the manufacturer) to deliver the medication.
         5. The victim or the person administering the injection should rub the injection spot for approximately 10 seconds
   2. Call 911
7. **Stroke**
   1. Signs
      1. Stroke Scale-Slurred speech, weakness or paralysis on one or both sides of face, facial droop, blurry vision, sudden headache, speech problems, confusion
   2. Treatment
      1. Place conscious victim in a semi sitting with head and shoulder slightly elevated
      2. If unconscious place in recovery position, weak side down
      3. Monitor ABC’s (airway, breathing, pulse) and treat for shock, nothing by mouth
8. **Diabetes**
   1. Look for Medical Alert Bracelet
   2. If unconscious place in recovery position
   3. Type I vs. Type II
   4. Sugar imbalance caused by ineffective or missing Insulin
   5. Blood sugar may be low due to overdose of Rx Insulin or too much exercise and not enough food
      1. Signs
         1. Pale, cool, moist, aggression, sudden onset
      2. Treatment
         1. 1 tbsp. sugar or 15 grams of carbohydrate
   6. Too much sugar in the blood due to under dose or missed dose of Insulin
      1. Signs
         1. Warm, dry, flushed appearance, AMS (drunk like), dehydrated
      2. Treatment
         1. Sugar or oral glucose, and if ineffective transport to hospital
   7. Monitor ABC’s (airway, breathing, pulse) and treat for shock
9. **Poisoning, Alcohol and Overdose**
   1. Exposure to chemical, biological, radiological or nuclear (CBRN) substances
      1. Recognition of exposure
      2. Scene safety
   2. Poison control system
   3. Find out what, when and how much
      1. Inhaled poisoning
      2. Ingested poisoning
      3. Injection
      4. Absorption
   4. Call 911 and Poison Control
      1. Do not give anything by mouth unless directed by Poison Control
      2. Do NOT dilute with water or anything else unless directed by Poison Control
      3. Administration of naloxone, if indicated
   5. Consider all safety issues especially around drugs/suicide
   6. If necessary, remove victim from toxic environment and monitor
10. **Bites and Stings**
    1. Insect Bites and stings
       1. Look for allergic reaction: wheezing, swollen, racing heart, hives
       2. Position of comfort and assist with Rx if necessary
       3. Scrape the stinger away if still embedded
       4. Apply cold pack to affected area
       5. Monitor ABC’s (airway, breathing, pulse) and treat for shock
    2. Human Bites
       1. Wash with soap and water and transport
    3. Animal Bites
       1. Wash with soap and water and transport
    4. Allergic reactions with anaphylaxis
       1. Assisted administration of epinephrine auto-injector and accessing EMS
11. **Burns**
    1. Thermal burns
       1. Superficial (sunburn)
          1. Cool with water 20 minutes and wrap in a loose dry dressing
       2. Partial thickness (blisters)
          1. Cool with water 20 minutes and wrap in loose dry dressing
       3. Full thickness (charred)
          1. Cool with water and wrap in a loose dry dressing
          2. Access airway for possible inhalation of heated gas or flame. May lead to respiratory compromise
          3. Treat for shock
    2. Chemical burns
       1. Dry chemical burn
          1. Brush off excess chemical and wash off with plenty of water
       2. Wet chemical burn
          1. Wash off with plenty of water
          2. Avoid cross contamination
    3. Electrical burns
       1. Turn off power before rendering aid
12. **Emergency Child Birth**
    1. The signs of imminent birth
       1. Contractions less than 2 minutes apart
       2. BOW broken
       3. Previous deliveries
    2. Appropriate first aid measures and emergency situations that may occur in childbirth
       1. Bleeding before and after delivery
       2. Do not pack
       3. Clean cloth over vagina and rapid transport knee chest position
13. **Environmental Emergencies**
    1. Heat emergencies
       1. Heat exhaustion
          1. Appear moist, pale, cool
       2. Get out of heat, give small sips of fluids and cool rapidly
       3. No CNS Involved
    2. Heat stroke
       1. Appear hot, dry, blushed
       2. Life threatening
       3. AMS
       4. Get out of the heat, call 911, cool rapidly by immersion if possible
    3. Cold emergencies
       1. Frostbite
          1. The skin over the frostbitten area is white, waxy, or grayish-yellow
          2. The frostbitten area is cold and numb
          3. The frostbitten area is hard, and the skin doesn’t move when you push it
       2. Make sure the scene is safe for you and the person with frostbite
       3. Move the person to a warm place
       4. Get the first aid kit
       5. Wear PPE
       6. Activate EMS
       7. Remove wet or tight clothing and pat the body dry
       8. Put dry clothes on the person and cover the person with a blanket
       9. Remove tight rings or any bracelets from the frostbitten area
       10. Monitor the person until EMS arrives and takes control
    4. Hypothermia
       1. Signs of hypothermia
          1. Skin that’s cool to the touch
          2. Shivering, which stops when the body temperature is very low
          3. Confusion
          4. Personality change
          5. Sleepiness and the person’s lack of concern about their condition
          6. Stiff, rigid muscles while the skin becomes ice-cold and blue
       2. Make sure the scene is safe for you and the person with hypothermia
       3. Get the person out of the cold
       4. Remove wet clothing, pat the person dry, and cover with a blanket
       5. Get the first aid kit and AED
       6. Activate EMS
       7. Put dry clothes on the person
       8. Cover the body and head, but not the face with blankets, towels, or even newspapers
       9. Monitor the person until EMS arrives and takes over
       10. If the person becomes unresponsive and is not breathing normally or only gasping give CPR

1. **Psychological Emergencies**
   1. Mental health resources in decline
      1. Epidemic proportions
      2. Psych facilities closing
      3. Psych inpatient beds in decline
   2. Altered mental status & mental status exam
      1. Consider all behavioral emergencies until proven otherwise
      2. Known psych history?
   3. Depression
      1. Broad mental illness
      2. Major depressive episode
      3. Watch for mania
   4. Bipolar
      1. Both forms are a type of depression: Manic vs. depressive
      2. Often runs in families
      3. Average age of diagnosis 21 (usually 15-19)
      4. Symptoms
   5. Mania
      1. Depressive episodes
      2. Excessive mood elevations
      3. Irritability
      4. Insomnia
      5. Reckless behaviors
      6. Mind moves quickly
      7. Care depends on where they are in mood swing
   6. Schizophrenia
      1. Ages 16-30
      2. Genes and environment
      3. Brain chemistry
   7. Psychosis
      1. Disruption of thoughts
   8. Drugs and addiction
      1. Drugs can precipitate psychosis
      2. Drugs can alter perception
      3. Increased strength
      4. Altered reality
   9. Care Considerations
      1. Ensure scene safety
      2. Size up the patient and scene
      3. Maintain open airway
      4. Altered mental status until proven otherwise
   10. De-Escalation
       1. Calm voice
       2. Sit down with them
       3. Keep the exit at your back
       4. Maintain distance
       5. Attempt rapport
       6. Listen
       7. Get on eye level if possible
2. **Basic Life Support/CPR**
   1. Early defibrillation
      1. Five points – the chain of survival
         1. Immediate recognition of cardiac arrest and activation of the emergency response system
         2. Early cardiopulmonary resuscitation (CPR) with an emphasis on chest compressions
         3. Rapid defibrillation
         4. Effective advanced life support
         5. Integrated post-cardiac arrest care
      2. Signs and symptoms of cardiac issues
         1. Respiratory dis
         2. Nausea, indigestion, fatigue, radiating pain to jaw/arm/back, dizzy, short of breath (SOB), pressure/tightness across chest, squeezing sensation
         3. Pale/cool, sweaty & shortness of breath
      3. Treatment
         1. Position of comfort and assist with prescription
   2. Sudden Cardiac Arrest
      1. There is no blood flow to the brain during cardiac arrest and must be corrected quickly to prevent brain damage
      2. CPR is needed until the heart beats again. Protocols emphasize good compressions
      3. Hard and fast
   3. Basic Life Support Components
      1. Foreign body obstructed airway
      2. Conscious vs. unconscious
      3. Rescue breathing
         1. Opioid overdose
         2. Drowning
      4. Cardio Pulmonary resuscitation
         1. Adult, child and infant
         2. Single and two rescuers
   4. Airway Adjuncts
   5. Pocket mask
   6. Face shields
   7. Bag Valve mask
      1. Best with two rescuers
3. **Adult CPR – One Person**
   1. Determine responsiveness
      1. Tap & shout
      2. Request additional EMS resources and get an AED if available
      3. Assess for breathing
      4. Look for no breathing or abnormal breathing
   2. Check Airway, Check Breathing (CAB)
      1. If unresponsive and not breathing check pulse
      2. If no pulse, perform 30 compressions. Open airway and give two breaths
   3. 30 compressions to 2 breaths
   4. At least 2” deep and no more than 2.4”
   5. At least 100 per minute
      1. Firm flat surface
   6. Middle of chest
      1. Allow chest to fully recoil
   7. Continue CPR until the AED arrives
   8. Use AED as soon as available
   9. Minimize interruptions to CPR and never longer than 10 seconds
4. **Adult CPR – Two Persons**
   1. Determine responsiveness
      1. Tap & shout
      2. Request additional EMS resources and get an AED if available
      3. Assess for breathing
      4. Look for no breathing or abnormal breathing
   2. Check Airway, Check Breathing (CAB)
      1. If unresponsive and not breathing check pulse.
      2. If no pulse, perform 30 compressions. Open airway and give two breaths
   3. 30 compressions to 2 breaths
   4. At least 2” deep
   5. At least 100 per minute
      1. Firm flat surface
   6. Middle of chest
      1. Allow chest to fully recoil
   7. Continue CPR until the AED arrives
   8. Use AED as soon as available
   9. Minimize interruptions to CPR and never longer than 10 seconds
   10. Every 5 cycles or approximately every 2 minutes duties should be switched
   11. Switching duties with the second rescuer should take less than 5 seconds
5. **Adult Rescue Breathing**
   1. Determine responsiveness and breathing. Call 911 if unresponsive
   2. If not breathing, but carotid pulse is present begin rescue breathing
      1. 1 breath every 5-6 seconds, enough air to make the chest rise
      2. Recheck pulse after 2 minutes
      3. If pulse present continue rescue breathing
      4. If pulse is absent begin CPR
6. **Child CPR – One Person**
   1. CAB and if no pulse or pulse is less than 60 per minute we continue with CPR
      1. Basically, the same as Adult CPR
   2. Chest Compressions
      1. Position yourself at the child’s side
      2. Make sure the child is lying face-up on a firm, flat surface. If the child is lying face-down, carefully roll the victim face-up. If you suspect the child has a head or neck injury, try to keep the head, neck, and torso aligned when rolling the child to a face-up position.
      3. Put the heel of one hand on the center of the child’s chest on the lower half of the breastbone.
      4. Put the heel of your other hand on top of the first hand
      5. For very small children you may use either 1 or 2 hands for chest compressions
      6. Straighten your arms and position your shoulders directly over your hands
      7. Start compressions within 10 seconds of recognition of cardiac arrest
      8. Push hard, push fast: Compress at a rate of 100/min to 120/min. Chest compression should be at least 1/3 the depth of the chest or approximately 2 inches (5cm)
      9. Allow complete chest recoil after each compression
      10. Minimize interruptions in compressions (try to limit interruptions to less than 10 seconds)
      11. Give effective breaths that make the chest rise
      12. Avoid excessive ventilation
      13. If the victim is small or the rescuer is large one hand may be used to perform compressions.
      14. 30:2 ratio
      15. If 911 hasn’t been called, perform CPR for 2 minutes before calling EMS
      16. Minimize interruptions to CPR and never longer than 10 seconds
   3. Ventilation
      1. Open the victim’s airway using head-tilt or jaw-thrust maneuver
      2. Provide ventilation
      3. Give 2 breaths with each lasting 1 second
      4. Victim’s chest to visibly rise
   4. Compression Cycle
      1. After 30 compressions, open victim’s airway, give two breaths
      2. Continue cycle of 30 compressions to 2 breaths
      3. After 5 cycles, if someone has not already activated the EMS system or obtained an AED leave the victim to do this.
7. **Child CPR – Two Persons**
   1. CAB and if no pulse or pulse is less than 60 per minute we continue with CPR
      1. The same as Adult CPR
   2. Chest Compressions
      1. Position yourself at the child’s side
      2. Make sure the child is lying face-up on a firm, flat surface. If the child is lying face-down, carefully roll the victim face-up. If you suspect the child has a head or neck injury, try to keep the head, neck, and torso aligned when rolling the child to a face-up position.
      3. Put the heel of one hand on the center of the child’s chest on the lower half of the breastbone.
      4. Put the heel of your other hand on top of the first hand
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      7. Start compressions within 10 seconds of recognition of cardiac arrest
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      9. Allow complete chest recoil after each compression
      10. Minimize interruptions in compressions (try to limit interruptions to less than 10 seconds)
      11. Give effective breaths that make the chest rise
      12. Avoid excessive ventilation
      13. If the victim is small or the rescuer is large one hand may be used to perform compressions.
      14. 30:2 ratio
      15. Minimize interruptions to CPR and never longer than 10 seconds
      16. Every 5 cycles or approximately every 2 minutes duties should be switched
      17. Switching duties with the second rescuer should take less than 5 seconds
   3. Ventilation
      1. Open the victim’s airway using head-tilt or jaw-thrust maneuver
      2. Provide ventilation
      3. Give 2 breaths with each lasting 1 second
      4. Victim’s chest to visibly rise
   4. Compression Cycle
      1. After 30 compressions, open victim’s airway, give two breaths
      2. Continue cycle of 30 compressions to 2 breaths
      3. After 5 cycles, if someone has not already activated the EMS system or obtained an AED leave the victim to do this.
8. **Child Rescue Breathing**
   1. CAB
   2. Not breathing but carotid pulse present begin rescue breathing
      1. 1 breath every 3-5 seconds, enough air to make the chest rise
      2. Recheck the pulse after 2 minutes
      3. If pulse greater than 60 per minute continue rescue breathing
      4. If pulse is absent or below 60 per minute perform CPR
9. **Infant CPR – One Person**
   1. CAB and if no brachial pulse or less than 60 beats per minute perform CPR
      1. Check brachial pulse (no longer than 10 seconds)
      2. Place 2 fingers on the inside of the upper arm, between the infant’s elbow and shoulder
      3. Press the index and middle fingers gently on the inside of the upper arm for at least 5 but no more than 10 seconds when attempting to feel the pulse
      4. If no pulse or less than 60 beats per minute (BPM) with signs of poor perfusion, perform cycles of compressions and breaths (30:2 ratio), starting with compressions
      5. After 5 cycles, if someone has not already done so, activate EMS and get the AED (or defibrillator)
   2. Chest Compressions
      1. Place the infant on a firm, flat surface
      2. Place 2 fingers in the center of the infant’s chest just below the nipple line. Do not press on the bottom of the breastbone
      3. To give chest compressions, press the infant’s breastbone down at least one third the depth of the chest (approximately 1 ½ inches (4cm)). Deliver compressions at a rate of 100/min to 120/min.
      4. At the end of each compression, make sure you allow the chest to recoil (re-expand) completely. Chest recoil allows blood to flow into the heart and is necessary to create blood flow during chest compressions. Chest compression and chest recoil/relaxation times should be approximately equal.
      5. Minimize interruptions in chest compressions
   3. Ventilation
      1. Open the victim’s airway using head-tilt or jaw-thrust maneuver
      2. Provide ventilation
      3. Give 2 breaths with each lasting 1 second
      4. Victim’s chest to visibly rise
   4. Compression Cycle
      1. After 30 compressions, open victim’s airway, give two breaths
      2. Continue cycle of 30 compressions to 2 breaths
      3. After 5 cycles, if someone has not already activated the EMS system or obtained an AED leave the victim to do this.
10. **Infant CPR – Two Persons**
    1. CAB and if no brachial pulse or less than 60 beats per minute perform CPR
       1. Check brachial pulse (no longer than 10 seconds)
       2. Place 2 or 3 fingers on the inside of the upper arm, between the infant’s elbow and shoulder
       3. Press the index and middle fingers gently on the inside of the upper arm for at least 5 but no more than 10 seconds when attempting to feel the pulse
       4. If no pulse or less than 60 beats per minute (BPM) with signs of poor perfusion, perform cycles of compressions and breaths (30:2 ratio), starting with compressions
       5. After 5 cycles, if someone has not already done so, activate EMS and get the AED (or defibrillator)
    2. Chest Compressions
       1. Place the infant on a firm, flat surface
       2. Place 2 fingers in the center of the infant’s chest just below the nipple line or encircle the ribs with both hands and use thumbs to compress chest. Do not press on the bottom of the breastbone.
       3. To give chest compressions, press the infant’s breastbone down at least one third the depth of the chest (approximately 1 ½ inches (4cm)). Deliver compressions at a rate of 100/min to 120/min.
       4. At the end of each compression, make sure you allow the chest to recoil (re-expand) completely. Chest recoil allows blood to flow into the heart and is necessary to create blood flow during chest compressions. Chest compression and chest recoil/relaxation times should be approximately equal.
       5. Minimize interruptions in chest compressions
       6. After every 15 compressions, pause briefly for the second rescuer to open the airway with a head- tilt/chin-lift and give 2 breaths. The chest should rise with each breath
       7. Continue compressions and breaths in a ratio of 15:2 (for 2 rescuers), switching roles every 2 minutes to avoid rescuer fatigue
    3. Ventilation
       1. Check the victim for a response and for breathing
       2. If there is no response and no breathing or only gasping, send the second rescuer to activate the emergency response system and get the AED (or defibrillator)
       3. Check the infant’s brachial pulse (take at least 5 but no more than 10 seconds)
       4. If there is no pulse or if, despite adequate oxygenation and ventilation, the heart rate (pulse) is <60/min with signs of poor perfusion, perform cycles of compressions and breaths (30:2 ratio), starting with compressions. When the second rescuer arrives and can perform CPR, use compression-ventilation ratio of 15:2
       5. Use the AED (or defibrillator) as soon as it is available
    4. Compression Cycle
       1. Use a compression-to-breaths ratio of 15:2 for infants per American Heart Association guidelines for CPR and ECC.
11. **Infant Rescue Breathing**
    1. CAB
    2. Not breathing but brachial pulse present begin rescue breathing
       1. 1 breath every 3-5 seconds, enough air to make the chest rise
       2. Recheck the pulse after 2 minutes
       3. If pulse greater than 60 per minute continue rescue breathing
       4. If pulse is absent or below 60 per minute perform CPR
12. **Obstructed Airway for the Adult and Child**
    1. If conscious and unable to breathe, removing the obstruction is necessary to prevent cardiac arrest due to lack of oxygen
    2. Conscious choking
       1. Determine the choking emergency
       2. Ask ‘Are you choking’?
       3. Look for the universal sign of holding the throat
       4. Position yourself behind the victim
       5. Bladed stance
       6. One fist above the navel
       7. Perform in and upward thrusts
       8. Use chest thrusts for obese or pregnant victims
          1. Pull straight back
13. **Unconscious Victim**
    1. Determine unconscious, non-breathing
    2. Call 911
    3. Start CPR immediately
    4. If air does not go in during CPR re-tilt and try again
       1. Continue chest compressions if air does not in after a re-tilt.
       2. Looking in the airway before giving breaths and removing any debris that can be seen
       3. If the victim begins breathing normally, place in position recovery
14. **Conscious Infant Choking**
    1. Recognize a choking baby
    2. While controlling the head, turn the infant upside down onto one of your legs
       1. Perform up to 5 back blows between the shoulder blades
    3. If the infant is still not breathing at the end of the 5 back blows, turn the infant over onto your other leg
       1. Deliver up to 5 chest thrusts
    4. Repeat if necessary until the infant breathes normally or becomes unconscious
    5. If the infant or any choking victim becomes unconscious begin CPR and AED for adults, children, and infants, following current AHA Guidelines
15. **Automated External Defibrillator (AED)**
    1. Use when available on pulseless victims
    2. Demonstrate AED operation
       1. Turn on unit and follow voice prompts
       2. Attach pads
       3. Resume CPR after every shock or no shock prompt
       4. Do not turn off the unit or remove the pads
    3. Troubleshooting
    4. Fill out post event form
16. **Patient Movement**
    1. Emergency movement of patients
       1. Do not move an injured person unless circumstances require
       2. Place unresponsive victims in the recovery position using the HAINES technique
    2. Types of drags
       1. One person drags
       2. Two people drag
       3. Soft litter drags
       4. Shoulder drags
          1. Preferred to keep spine in line, supporting the head, without bending the victim or sitting them up
    3. Manual extractions including: fore/aft, side-by-side, shoulder/belt
    4. Types of carries – do not pull by the leg, arm or belt
       1. Hawes carry
       2. Fireman’s carry
       3. Side-by-side carry
       4. Two people assist
17. **Tactical and Rescue First Aid Principles Applied to Violent Circumstances (Active Shooter)**
    1. Movement to threat rather than casualty care
    2. Integration with EMS
    3. Principles of tactical casualty care
       1. Three Phases
          1. Care under fire
          2. Tactical combat care
          3. Casualty evacuation care
    4. Determining treatment priorities
       1. START (simple triage and rapid treatment)
       2. Jump START
       3. Triage tags
       4. Colors
18. **Trauma Emergencies**
    1. Soft tissue injuries and wounds
    2. Amputations and impaled objects
    3. Chest and abdominal injuries
       1. Review of basic treatment for chest wall injuries
       2. Application of chest seals
    4. Head, neck or back injury
    5. Spinal immobilization
    6. Musculoskeletal trauma and splinting
    7. Recognition of signs and symptoms of shock
       1. Basic treatment of shock
       2. Importance of maintaining normal body temperature
    8. Internal bleeding
    9. Control of external bleeding
       1. Direct pressure
       2. Tourniquet
       3. Hemostatic dressings, chest seals and dressings
    10. Training in the use of hemostatic dressing shall result in competency in the application of hemostatic dressing. Included in the training shall be the following topics and skills:
        1. Review of basic methods of bleeding control to include but not be limited to: direct pressure, pressure bandages, tourniquets, and hemostatic dressing and wound packing
        2. EMSA-approved hemostatic dressings
19. **Written, Oral and/or Demonstration Assessment**
    1. Written/oral tests
       1. First Aid and CPR
       2. Communicable Disease
       3. N95 Respirator
    2. Student to conduct a primary assessment
       1. Check for responsiveness
       2. Check pulse
       3. Check airway
       4. Check for breathing
    3. Skills test to demonstrate techniques for controlling bleeding of a limb while using (PPE)
       1. Direct pressure
       2. Pressure bandages
       3. Tourniquet device
       4. Hemostatic dressings/wound packing
       5. Chest seals and dressings
    4. Skills test to demonstrate basic life support techniques
       1. Clearing an obstructed airway on conscious and unconscious victims
       2. Rescue breathing
       3. Cardiopulmonary resuscitation
       4. Treat a victim for shock
    5. Skills test: Bandaging different injuries & using PPE to minimize exposure to infectious diseases
       1. Using cleanest material available
       2. Expose the injury site
       3. Cover the entire injury site
       4. Bandage snugly but without impairing circulation
       5. Leave victim’s fingers and toes exposed
       6. Immobilize injury site as necessary
20. **Course Wrap Up**
    1. Course Review
    2. Instructor Evaluations
    3. Certificate