

ECO: First Aid/CPR/ AED Refresher Course (21797)
Presenter: Tulare County Sheriff's Department

First Aid/CPR/ AED Refresher Course #21797

I. Class Overview/Administrative Issues

- A. Administrative issues/registration/safety policy
- B. Instructor introductions
- C. Course description
 - 1. Time allocations
 - 2. Course structure
 - a. Course requirements for successful completion
 - 1) Skills demonstrations
 - 2) Written examination of cognitive skills
 - a) Pre-test/post-test written examination

II. Students Testing of Basic Life Support Skills and Retention of Training Received Prior to April 1, 2017

- A. Course Pre-requisite
 - 1. All previously trained students
 - 2. Completed Basic Course, Learning Domain #34 – First Aid and CPR
 - 3. And/or recently completed required Continuing Professional Training of First Aid/CPR course
- B. Written Assessment of Basic Life Support (BLS)
- C. Practical Application Assessment will be conducted by oral quizzes and skills observations
- D. Note: BLS cognitive knowledge and manipulative skills will be tested to determine if the students retained the required BLS training. This testing will evaluate all statutory training required prior to EMSA Title 22 standards effective April 1, 2015. Student's deficiencies will be re-trained during portions of the total course. Only identified needs will be addressed during the classroom portion of the training course. The following issues will be assessed and addressed if identified by the testing process:
 - 1. Identification of peace officers' response as EMS first responders
 - 2. Body Substance Isolation (Including removal of gloves)
 - 3. Personal Protective Equipment
 - 4. Legal Issues
 - a. Identifying conditions under which a peace officer is protected from liability
 - b. Agency-established standards

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

5. Primary victim assessment
6. Secondary victim assessment
7. Obtain a patient history
8. Prioritizing when assessing multiple victims
9. Victim movement
10. Cardiopulmonary Resuscitation (CPR) for:
 - a. Adults
 - b. Children
 - c. Infants
11. Victim airway opening or maintenance
 - a. Conscious
 - b. Unconscious
12. Rescue breathing
 - a. Mouth-to-mouth
 - b. Pocket masks
 - c. Bag valve mask
13. Bleeding Control Techniques
 - a. Direct pressure
 - b. Tourniquets, improvised
14. Head, neck, and back Injuries
15. Open and closed injuries to:
 - a. Chest
 - b. Abdomen
16. Skeletal, bone, and joint injuries
17. Spinal column injuries
18. Fractures/dislocations
19. Splinting techniques
20. First Aid measures for burns
 - a. Thermal burns
 - b. Chemical burns
 - c. Electrical burns
 - d. Radiation burns
21. Recognize indicators and first aid measures for victims experiencing:
 - a. Cardiac emergency

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

- b. Respiratory emergency
- c. Seizure
- d. Stroke
- e. Diabetic emergencies
- f. Poisoning
- g. Cold-related emergencies - hypothermia and frostbite
- h. Heat-related emergencies
- i. Stings and bites

22. Obstetrical Emergencies

III. Role of Public Safety First Aid Provider Within the EMS System

A. Peace officer responsibilities

- 1. Integration with EMS personnel to include active shooter incidents
- 2. Personal safety
- 3. Scene size-up
- 4. Address law enforcement threat, then render aid
- 5. Activate EMS as needed/render appropriate care
- 6. Identification of local EMS and trauma systems
- 7. Mass casualty responsibilities

B. Minimum equipment and first aid kits

- 1. Department standards
- 2. Personal protective equipment
- 3. Dressing/bandaging materials for effective control of bleeding

IV. Recognizing and identification of adult and pediatric patients for both medical and traumatic emergencies

A. Primary Patient Assessment

- 1. Scene safety/PPE
- 2. Check responsiveness/tap and shout
- 3. Unresponsive
- 4. Activate EMS
- 5. Check breathing/pulse (No more than 10 seconds)
- 6. Responsive
- 7. Ensure ABCs adequate/check Levels of Consciousness (LOC)
- 8. Determine chief complaint

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

9. Move toward secondary survey/treatment as needed
 - B. Secondary patient assessment (conscious patient/safe scene)
 1. Vital signs/general appearance/skin color, temperature, moisture
 2. Level of Consciousness - AVPU acronym
 - a. Alert
 - b. Verbal
 - c. Painful
 - d. Unresponsive
 3. Head to toe "hands-on" assessment
 4. Patient history - S A M P L E acronym
 - a. Signs/symptoms
 - b. Allergies
 - c. Medications
 - d. Last oral intake
 - e. Event leading up to present illness/injury
 - C. Obtain Patient History
 - D. Multiple-Victim Assessment – Tactical Casualty Care
 1. Discuss mass causality incidents
 2. Declaration of such by first responders
 3. Necessary when number of victims overwhelms resources
 4. Determine treatment priorities (AKA triage)
 5. Determine what resources should be given to which patient
 6. R P M acronym
 - a. Check R respiration > 30<8... immediate care
 - b. Check P pulse, capillary refill >2 seconds...immediate care
 - c. Check M mentation, doesn't follow simple commands....immediate care
 7. Determine which patients are in most immediate danger and seem salvageable
- V. AED use for Heart Attack/Sudden Cardiac Arrest**
- A. Follow current American Heart Association (AHA) Guidelines
 - B. Rescue breathing
 1. Mouth-to-mouth
 2. Mouth-to-mask

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

3. Bag Valve Mask (BVM)
- C. AED
1. Basic AED operation
 2. Using the AED
 3. Troubleshooting and other considerations
- D. Care for Heart Attack
1. Activate EMS
 2. Obtain A.E.D. for early defibrillation
 3. Position of comfort/assist with nitro as prescribed
 4. Treat for shock
- E. Sudden Cardiac Arrest (Chain of Survival)
1. Recognizing a heart attack or other emergency and activating the emergency response system, such as dialing 9-1-1
 2. Early CPR
 3. Rapid defibrillation
 4. Effective advanced life support
 5. Integrated post-cardiac arrest care
- F. CPR (Cardiopulmonary Resuscitation) Coordinated with AED
1. Adult rescue breathing/CPR
 - a. Rescue breathing, 1 breath each 5 seconds (with CPR mask)
 - b. CPR 30 compression, 2 breaths (one- and two-rescuer)
 - c. Depth 2-2.4 inches
 - d. Rate 100-120 compressions/minute (heel of two hands)
 2. Child Rescue Breathing/CPR
 - a. Rescue breathing, 1 breath each 3 seconds (with CPR mask)
 - b. CPR 30 compressions, 2 breaths (one rescuer)
 - c. CPR 15 compressions, 2 breaths (two rescuer)
 - d. Depth about 2 inches (heel of one or two hands)
 - e. Rate 100-120 compressions/minute
 3. Infant Rescue Breathing /CPR
 - a. Rescue breathing 1 "puff" each 3 seconds (with CPR mask)
 - b. CPR 30 compressions 2 "puffs" of air (one rescuer)
 - c. Tips of two fingers below nipple line
 - d. Depth about ½ to 1 inch
 - e. CPR 15 compressions 2 "puffs" of air (two rescuer)
- G. Recovery Position

ECO: First Aid/CPR/ AED Refresher Course (21797)
Presenter: Tulare County Sheriff's Department

VI. Medical Emergencies

- A. Respiratory Emergencies
 - 1. Breathing difficulties
 - 2. COPD patients
 - a. Asthma, acute loss of airway
 - b. Assist with prescribed inhaler
 - c. Monitor ABCs treat for shock
- B. Allergic Reaction (Anaphylaxis)
 - 1. Assist with prescribed auto-inject epinephrine
 - 2. Monitor ABCs, treat for shock
- C. Altered Mental Status - Identify Signs and Symptoms of Psychological Emergencies
 - 1. Crying/extreme withdrawal from outside contact
 - 2. Agitated or aggressive behavior
 - 3. Unusual outbursts or disoriented statements
 - 4. Behavior inconsistent with normal behavior/demeanor
 - 5. Paranoia
 - 6. Delusions/hallucinations
- D. Diabetic Emergencies
 - 1. Insulin shock vs. diabetic coma
 - 2. Signs/symptoms
 - 3. Give the victim oral glucose substances
 - 4. Monitor ABCs, treat for shock
- E. Alcohol and Drug Emergencies
 - 1. Assisted naloxone
 - 2. Administration vs. assisted
 - a. Administration can only be authorized by LEMSA
 - b. See additional information in Section XII
 - 3. Accessing EMS
 - 4. LEMSA authority and directions
- F. Facial Injuries
 - 1. Objects in the eye
 - 2. Impaled objects
 - a. Immobilize with bulky dressing

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

- b. Cover both eyes
 - 3. Lacerations/abrasions of eye
 - a. Cover eye
 - b. Minimize eye movement
 - 4. Chemical in the eye
 - a. Flush with water 15-20 minutes
 - b. Seek medical evaluation
 - 5. Nosebleeds
 - a. Pressure to bridge of nose/lean patient forward/manage airway
 - 6. Dental emergencies
 - a. Avulsed or displaced tooth
 - b. Place in sterile water, milk, or victim's saliva/transport with victim
- G. Management of foreign body airway obstruction on adults, children and infants.
 - 1. Conscious patients
 - 2. Unconscious patients
- H. Recognition of signs and symptoms of shock
 - 1. Basic treatment for shock
 - 2. Importance of maintaining normal body temperature

VII. Environmental Emergencies

- A. Drowning
 - 1. Move victim safely onto land
 - 2. Assess victim
 - 3. Treat with rescue breathing/CPR as needed
- B. Animal/human bites
 - 1. Control bleeding
 - 2. Cleanse wound
 - 3. Clean dressing
- C. Venomous snake bites
 - 1. Calm victim
 - 2. Immobilize injury site
 - 3. Keep lower than heart
 - 4. Seek medical care
- D. Insect Bites and Stings (Bee, etc.)

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

1. Concern for anaphylaxis
2. Loss of airway
3. Assist with prescribed auto-inject epinephrine and accessing EMS
4. Monitor ABC's
5. Ensure EMS is enroute

E. Poisoning

1. Recognition of exposure to CBRN agents
2. Scene safety - assessing patient
3. Determine source of poison
4. Poison control system notification and advice
5. Ingested poison
6. Inhaled poison

VIII. Patient Movement

- A. Emergency Movement
- B. Move Only When Necessary (Imminent Danger, Treatment Assessment, etc.)
- C. Spinal Immobilization Techniques
 1. C-collar is now contraindicated in 2015 guidelines
- D. General Guidelines
 1. Plan ahead
 2. Reassure victim
 3. Victim stability
- E. Lifts and Carries, Including:
 1. Shoulder drag
 2. Soft litters
 3. Manual extractions
 4. Fore/aft carry – AKA trunk-leg carry
 5. Side-by-side carries – AKA two-handed seat
 6. Shoulder belt
- F. Additional considerations discussed in active shooter situations

IX. Tactical and Rescue First Aid Principles Applied to Violent Circumstances

- A. Principles of Tactical Emergency Casualty Care
- B. Determining Treatment Priorities

ECO: First Aid/CPR/ AED Refresher Course (21797)
Presenter: Tulare County Sheriff's Department

X. Trauma Emergencies

A. Amputations

1. Concern for bleeding control (tourniquet)
2. Pack amputated part in clean dressing and keep cool
3. Transport amputated part with victim

B. Chest Injuries – Closed-Chest Injury

1. Assessment
 - a. May have fractures
 - b. Flail segment
 - c. Compromised breathing
2. Treatment
 - a. Place victim on injured side, or provide support to flail segment
 - b. Monitor ABCs
 - c. Treat for shock

C. Chest Trauma – Open or Penetrating Chest Injury

1. Assessment
 - a. Open or penetrating chest injuries
 - b. May be “sucking chest wound”
2. Treatment
 - a. Application of chest seal(s) over puncture/penetration
 - 1) Visualize wound site
 - 2) Clean area
 - 3) Apply seal
 - 4) Check respirations
3. Place on injured side
4. Monitor ABCs
5. Treat for shock

D. Abdominal Injuries

1. Closed - signs/symptoms, concern for internal bleeding, organ damage
2. Open - control bleeding with pressure
3. Eviscerations
 - a. Exposed abdominal contents/organs
 - b. Apply moist sterile dressing

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

- c. Cover with airtight bandage
 4. Monitor ABCs
 5. Treat for shock
- E. Impaled objects
 1. Do not attempt to remove the object
 2. Control bleeding by applying pressure on both sides of the object
 3. Stabilize the object in place by use of absorbent material
- F. Bleeding Control
 1. Direct pressure over injury to soft tissue (use PPE)
 2. Pressure dressing and bandage
 3. Tourniquet device
 - a. Including different commercially available or improvised devices
 4. Hemostatic dressing (wound packing)
 - a. Approved dressing
 1. Celox and Quick Clot
 - b. Different types of dressings
 5. Chest seals and dressing
- G. CPR (See Section VI, above)
 1. BLS CPR continues to provide effective rescue breathing and compressions
 2. EMSA 2015 added applying Automated External Defibrillator (AED) operation
 3. Goal to deliver high-quality CPR

XI. Local Emergency Medical Service Authority

- A. State of California EMSA vs. Local EMSA (AKA LEMSA)
- B. Authority of State to Establish Statewide Minimums
- C. Authority of LEMSA
 1. CA LEMSA areas of responsibility and authority
 2. Authorized to set local optional skills standards and authorize peace officers
- D. Title 22, Section 100019 – Optional skills requested by agency head
- E. Medical Director of the Local EMS Agency (LEMSA)
 1. Sets training standards
 2. Approves applications

ECO: First Aid/CPR/ AED Refresher Course (21797)

Presenter: Tulare County Sheriff's Department

XII. Exercise Tests and Learning Activities

- A. Students will demonstrate competency, as directed by the instructors, in the following Skills Expertise Test Form, which minimally meets current American Heart Association standards:
 - 1. Assesses victim
 - 2. Activates emergency response system
 - 3. Checks for pulse
 - 4. Delivery of high-quality CPR
 - 5. Provides effective breaths
 - 6. Automated External Defibrillator (AED) operation
- B. Students will participate in learning activities, as directed by the instructor, which minimally include:
 - 1. Primary victim assessment
 - 2. Techniques for controlling bleeding
 - 3. Treatment for shock
 - 4. Use of Personal Protective Equipment (PPE)
 - 5. Victim emergency movement

XIII. Course Closing

- A. Complete Final Questions-and-Answers Discussion
- B. Administer Post-test
- C. Collect Course Evaluation Forms
- D. Distribute Certificates of Completion

This Expand Course Outline document is founded on California Emergency Medical Services Authority (EMSA) revised California Code of Regulations, Division 9, Title 22, Chapter 1.5 First Aid Standards for Public Safety Personnel effective April 1, 2015: CA POST Bulletin 2015-31; the referenced "Required Minimum Content for POST-certified First Aid/CPR Update #21798; the POST Basic Course Training and Testing Specifications for Learning Domain #34 – First Aid and CPR dated February 1, 2017; plus reference materials contained in the unpublished DRAFT Basic Course Workbook Series, Student Materials, Learning Domain 34, First Aid, CPR, and AED, Version 6.0, Revised February 2017.