

EXPANDED COURSE OUTLINE  
REGULAR BASIC COURSE  
**LEARNING DOMAIN 19**  
VEHICLE OPERATIONS

I. LEARNING NEED

Peace officers need to know the importance of defensive driving principles and techniques in order to develop safe driving habits.

LEARNING OBJECTIVES

- A. Determine a safe distance when following another vehicle
  - 1. Space cushion
  - 2. Following distance
  - 3. Reaction time
- B. Identify the effect of speed on a driver's peripheral vision
  - 1. Increase in speed = decrease in peripheral vision
  - 2. Tunnel vision
  - 3. Difficulties detecting objects outside central vision
- C. Discuss how perception and reaction time affects a vehicle's total stopping distance
  - 1. Perception time
  - 2. Stopping time = perception = reaction time
  - 3. Converting time into distance based on speed
- D. Demonstrate appropriate actions to prevent intersection collisions
  - 1. Look left, right, left
  - 2. Clear lane by lane
  - 3. Get a visual commitment from others
  - 4. Green lights
  - 5. Turns
- E. Recognize potential hazards of freeway driving and appropriate actions to prevent collisions
  - 1. Merging onto
  - 2. Re-entry after traffic stop
  - 3. High speed driving over time
- F. Demonstrate appropriate actions to prevent collisions when operating a vehicle in reverse
  - 1. Backing > 10 mph
  - 2. Backing on roadway
  - 3. Backing into traffic
- G. Demonstrate the importance and proper use of safety belts in a law enforcement vehicle
  - 1. Single most effective protective device for occupants
  - 2. Tactical considerations
  - 3. Department policies

- H. Identify psychological and physiological factors that may have an effect on a peace officer's driving
  - 1. Excitement
  - 2. Impatience
  - 3. Aggression
  - 4. Overconfidence
  - 5. Lack of confidence
  - 6. Self-righteousness
  - 7. Fear
  - 8. Peer pressure
  - 9. Preoccupation
  - 10. Rapid pulse
  - 11. Rapid breathing
  - 12. Tunnel vision
  - 13. Adrenaline
  - 14. Sensory perception
  - 15. Decision making skills
  - 16. Motor skills
  - 17. Fatigue
- I. Identify hazards of various road conditions
  - 1. Standing water/rain
  - 2. Loose gravel
  - 3. Mud
  - 4. Hills
  - 5. Construction
  - 6. Pothole
  - 7. Snow and ice
  - 8. Fog
  - 9. Night driving
- J. Discuss the components of a vehicle inspection
  - 1. Tires
  - 2. Attitude
  - 3. Underneath
  - 4. Exterior
  - 5. Lights
  - 6. Interior
- K. Demonstrate proper techniques for recognizing and coping with distractions while operating a law enforcement vehicle
  - 1. Map/GPS
  - 2. Unsecure objects
  - 3. Code 3 equipment

## II. LEARNING NEED

Peace officers must recognize that emergency response (Code 3) driving demands a thorough understanding of the associated liability and safety issues.

## LEARNING OBJECTIVES

- A. Identify the objectives of emergency response driving
  - 1. Get to scene quickly and safely
  - 2. Quickly
  - 3. Safely
- B. Recognize the statute(s) governing peace officers when operating law enforcement vehicles in the line of duty
  - 1. Rules of the road
  - 2. Liability
- C. Explain the importance of agency-specific policies and guidelines regarding emergency response driving
  - 1. Officers must know and follow
  - 2. Differs from agency to agency
  - 3. Agency policies and guidelines can have more restrictions than state law
- D. Identify the statutory responsibilities of non-law enforcement vehicle drivers when driving in the presence of emergency vehicles operated under emergency response conditions
  - 1. CVC 17001
  - 2. CVC 17004
  - 3. CVC 21055
  - 4. CVC 21056
- E. Demonstrate the use of emergency warning devices available on law enforcement vehicles
  - 1. Light bar
  - 2. Wig-Wag lights
  - 3. Siren
- F. Identify factors that can limit the effectiveness of a vehicle's emergency warning devices
  - 1. Heavy traffic
  - 2. Fog, rain and snow
  - 3. High speed
  - 4. Other drivers
- G. Demonstrate the use of communication equipment
  - 1. Stay calm; speak clearly
  - 2. Radio use on straight sections
  - 3. Roll up windows
  - 4. No computer use
- H. Identify the effects of siren syndrome
  - 1. Increased stress
  - 2. Increased adrenaline
  - 3. Physiological/psychological affects
- I. Recognize guidelines for entering an intersection when driving under emergency response conditions
  - 1. Approach

2. Clearing intersections
3. Be prepared to stop if necessary

### III. LEARNING NEED

All peace officers who operate law enforcement emergency vehicles must recognize that even though the purpose of pursuit driving is the apprehension of a suspect who is using a vehicle to flee, the vehicle pursuit is never more important than the safety of peace officers and the public.

#### LEARNING OBJECTIVES

- A. Discuss the requirements of Penal Code Section 13519.8
  1. When to initiate pursuits
  2. Number of allowed vehicles
  3. Responsibility of primary/secondary units
- B. Discuss the requirements of Vehicle Code Section 17004.7
  1. Establish a written policy for safe conduct of motor vehicle pursuits by peace officers
  2. Outline factors and considerations for the initiation and continuation of a vehicle pursuit
  3. Request appropriate support (air, outside agencies, etc.)

### IV. LEARNING NEED

Peace officers must be proficient in the operation of the vehicle and know the dynamic forces at work. Proper steering control, throttle control, speed judgment, and brake use enhance driving expertise.

#### LEARNING OBJECTIVES

- A. Distinguish between longitudinal and lateral weight transfer
  1. Side to side
  2. Front to back
  3. Weight transfer caused by turning movement vs. braking and accelerating
- B. Demonstrate the ability to mitigate the effects of spring loading
  1. Build up and release of energy
  2. Causes
  3. Correction techniques
- C. Demonstrate proper techniques for two-handed shuffle steering
  1. 8 and 4 or 9 and 3 hand positioning
  2. Hands shuffle up and down
  3. Hands don't cross 12 o'clock when turning
- D. Demonstrate proper throttle control
  1. Smooth operation
  2. Acceleration skid
  3. Weight transfer
- E. Demonstrate proper roadway position and the three essential reference points of a turning maneuver
  1. Entry

2. Apex
  3. Exit
- F. Explain the primary effects speed has on a vehicle in a turning maneuver
1. Speed increases radius
  2. Traction limits may be exceeded as speed increases
  3. Weight transfer occurs in the opposite direction
- G. Demonstrate proper braking methods
1. Threshold braking
  2. ABS considerations/failure
  3. Shift to lower gear if speed allows
- H. Distinguish between and describe the causes of the following types of vehicle skids:
1. Understeer skid
  2. Oversteer skid
  3. Locked-wheel skid
  4. Acceleration skid
  5. Centrifugal skid
- I. Identify the causes and contributing factors of vehicle hydroplaning
1. Speed
  2. Water depth
  3. Tire conditions

## V. REQUIRED TESTS

### VEHICLE OPERATIONS SAFETY

All vehicle operations exercise testing must be conducted under written academy/presenter safety procedures and/or protocols established in accordance with the POST safety guidelines. Students are required to comply with every aspect of presenter safety procedures and/or protocols during vehicle operations training and testing.

- A. An **exercise test** that requires the student drive a law enforcement vehicle not equipped with Electronic Stability Control (ESC) and demonstrate the ability to control the vehicle during understeer and oversteer conditions or drive a law enforcement vehicle equipped with ESC and demonstrate the ability to control the vehicle during understeer conditions.

The student will demonstrate competency in the following performance dimensions:

1. Safety
2. Situational Awareness
3. Braking Technique(s)
4. Steering Technique(s)
5. Throttle Control
6. Control of Weight Transfer
7. Skid Control
8. Rate of Performance
9. Fluency of Performance
10. Level of Response

Presenters must use the POST-developed Vehicle Operations Competency Exercise Test Form or a presenter-developed form approved by POST, which minimally includes the performance dimensions used for this exercise test.

- B. An **exercise test** that requires the student to drive a law enforcement vehicle and demonstrate the ability to safely drive and control the vehicle while operating under emergency response (Code 3) conditions to include interacting with an interference vehicle driven by a qualified Driver Training Instructor (as defined in Regulation 1070).

The student will demonstrate competency in the following performance dimensions:

1. Safety
2. Situational Awareness
3. Braking Technique(s)
4. Steering Technique(s)
5. Throttle Control
6. Roadway Positioning
7. Operating Associated Equipment
8. Rate of Performance
9. Fluency of Performance
10. Level of Performance

Presenters must use the POST-developed Vehicle Operations Competency Exercise Test Form or a presenter-developed form approved by POST, which minimally includes the performance dimensions used for this exercise test.

- C. An **exercise test** that requires the student to drive a law enforcement vehicle and demonstrate the ability to safely drive and control the vehicle while operating under vehicle pursuit situations to include interacting with an interference vehicle driven by a qualified Driver Training Instructor (as defined in Regulation 1070).

The student will demonstrate competency in the following performance dimensions:

1. Safety
2. Situational Awareness
3. Braking Technique(s)
4. Steering Technique(s)
5. Throttle Control
6. Roadway Positioning
7. Operating Associated Equipment
8. Rate of Performance
9. Level of Performance
10. Fluency of Performance

Presenters must use the POST-developed Vehicle Operations Competency Exercise Test Form or a presenter-developed form approved by POST, which minimally includes the performance dimensions used for this exercise test.

- D. An **exercise test** that requires the student to drive a law enforcement vehicle and successfully demonstrate in four out of five attempts the collision avoidance exercise as described in the Emergency Vehicle Operations Course Instructor Manual. The test will include a light indicator

for lane selection and a minimum of 35 mph entry speed in dry surface conditions and a minimum of 30 mph entry speed in wet surface conditions. If the light indicator malfunctions, an alternate visual indicator shall be utilized.

The student will demonstrate competency in the following performance dimensions:

1. Safety
2. Situational Awareness
3. Braking Technique(s)
4. Steering Technique(s)
5. Throttle Control

Presenters must use the POST-developed Vehicle Operations Competency Exercise Test Form or a presenter-developed form approved by POST, which minimally includes the performance dimensions used for this exercise test.

- E. An **exercise test** that requires the student to drive a law enforcement vehicle and demonstrate a series of slow speed precision driving maneuvers. The slow speed precision driving maneuvers must include at least **three (3) tested maneuvers** contained in the Emergency Vehicle Operations Course Instructor Manual. The instructor manual slow speed maneuvers are listed as follows:

Turn around	Angled driveway
Off set lane	“Y” Driveway
Steering Course (forward and reverse)	Vehicle Control
“T” Driveway	Parallel parking
Bootleg Turn	

The student will demonstrate competency in the following performance dimensions:

1. Safety
2. Situational Awareness
3. Braking Technique(s)
4. Steering Technique(s)
5. Throttle Control
6. Speed Judgment
7. Vehicle Placement
8. Backing
9. Tactical Seatbelt Removal (TSR)
10. Rate of Performance
11. Fluency of Performance

Presenters must use the POST-developed Vehicle Operations Competency Exercise Test Form or a presenter-developed form approved by POST, which minimally includes the performance dimensions used for this exercise test.

- F. An **exercise test** that requires a student to drive a law enforcement vehicle during which the student must reach a speed of at least 65 mph prior to entering a turn of sufficient radius to

require a minimum 30 mph deceleration. This exercise test may be tested concurrently with emergency response or pursuit tests.

The student will demonstrate competency in the following performance dimensions:

1. Safety
2. Situational Awareness
3. Braking Technique(s)
4. Steering Technique(s)
5. Throttle Control
6. Speed Judgment
7. Roadway Positioning
8. Fluency of Performance
9. Level of Response

Presenters must use the POST-developed Vehicle Operations Competency Exercise Test Form or a presenter-developed form approved by POST, which minimally includes the performance dimensions used for this exercise test.

## VI. REQUIRED LEARNING ACTIVITIES

- A. The student will participate in a learning activity that requires the student to participate in the use of a Law Enforcement Driving Simulator (LEDS) and after acclimation participate in at least two (2) different emergency responses and two (2) different pursuits.
- B. The student will participate in a learning activity that requires the student to brake suddenly and engage the Anti-lock Braking System (ABS).
- C. The student will participate in a learning activity that requires the student to drive a law enforcement vehicle during the hours of darkness (as defined in Vehicle Code Section 280) utilizing headlights. The activity must include emergency response and/or pursuit.
- D. The student will participate in a learning activity that requires the student to drive a law enforcement vehicle, during which the student will demonstrate the ability to accurately steer and control the vehicle under high performance cornering conditions, including but not limited to:
  1. Safety
  2. Situational Awareness
  3. Braking Technique(s)
  4. Steering Technique(s)
  5. Throttle Control
  6. Speed Judgment
  7. Roadway Positioning
  8. Control of Weight Transfer
- E. The student will participate in one or more learning activities from the POST-developed Instructor's Guide to *Learning Activities for Leadership, Ethics and Community Policing (December 2005)* or other comparable sources regarding vehicle operations. At a minimum, each activity, or combination of activities must address the following topics:
  1. Use of critical thinking and decision making to balance the apprehension of violators against the obligation to drive safely, tactically and responsibly



2. Effects of personal attitudes on emergency or pursuit driving and the interests of public safety
3. Community expectations that officers should be exemplary drivers
4. Accountability as it relates to officer actions during vehicle operation
5. Universal concepts of *Penal Code Section 13519.8* and *Vehicle Code Section 17004.7*

Description	Hours
POST Minimum Required Hours	<u>40</u>
Agency Specific Hours	<u>0</u>
Total Instructional Hours	<u>40</u>