LAW ENFORCEMENT DRIVING SIMULATOR (LEDS)
TRAIN the TRAINER
24 HOUR COURSE

I. LEARNING OUTCOMES

A. Instructors attending this course will be able to instruct a POST-certified four-hour LEDS course and facilitate student learning using instructional methodologies such as driving simulators, class discussion, self-evaluation, group discussion, and creating critical thinking through questioning.

B. Instructors attending this course will be able to operate and conduct basic maintenance on a FAAC driving simulator system.

II. LEDS INSTRUCTOR QUALIFICATIONS AND CHARACTERISTICS

- *Learning Objective: The student will be able to explain the minimum qualifications and desired characteristics of a LEDS instructor.*

A. P.O.S.T. Administrative Manual requirements (PAM 1070 (b))

1. Driver Awareness Instructor (DAI)
2. Driver Training Instructor (EVOC)
3. Law Enforcement Driving Simulator Instructor (LEDS) (Cap class at 8)

B. Desired LEDS Instructor characteristics

1. Possesses computer aptitude
2. Possesses a basic understanding of the Windows operating system
3. Ability to deal with resistant students
4. Supportive and enthusiastic about simulator training
5. Possesses an understanding that simulators are serious training equipment

III. THE RELEVANCE OF DRIVING SIMULATOR INSTRUCTION

- *Learning Objective: The student will be able to justify the relevance of a driving simulator as a training methodology.*

A. National Traffic Safety Bureau (NTSB) citation

1. One hour of simulator training equals 8 hours of behind the wheel training

B. Vehicle Operations Training Advisory Council (VOTAC)

1. A 2009 study commissioned by P.O.S.T. “POST Driver Training Study”
2. Confirmed that driving simulator training combined with “real world” driving is the most effective approach to law enforcement driver training
3. Established a correlation between the rate of law enforcement officer collisions and training received

IV. ESTABLISHING THE RELEVANCE OF LEDS FOR STUDENTS

- *Learning Objective: The student will be able to defend the relevance of simulator-based driver training using law enforcement collision data and statistics.*

A. Law enforcement collision statistics

1. ODMP
2. FBI
3. LEOKA

B. Comparison of collision fatalities vs. officer deaths by other means

C. Pursuit conclusion percentages
    1. Suspect gave up
    2. Use of force required
    3. Suspect collision
    4. Officer collision
    5. Instructors should update statistics used in their LEDS course at least annually

V. SIMULATOR ADAPTATION SYNDROME (SAS)

- *Learning Objective: The student will be able to evaluate SAS symptoms and suggest mitigation strategies.*

A. What is it?
    1. SAS is caused by the brain expecting motion when the body is not moving
    2. "Lack of motion" sickness

B. SAS symptoms
    1. Eye strain
    2. Dizziness
    3. Disorientation
    4. Headache
    5. Nausea
    6. Sweating
    7. Hyper –salivation

C. SAS contributing factors
    1. Age
    2. Gender
    3. Fatigue
    4. Room too warm
    5. Screens/room too bright
    6. Lack of airflow
    7. Empty stomach
    8. Susceptibility to car/motion sickness

D. SAS mitigation strategies
    1. High Visual Horizon
    2. Scan screens
    3. Cold room temperature
    4. Minimize initial exposure to simulators
    5. Minimize turns during initial exposure
    6. Dramamine (Arranged by student prior to class)
    7. Other prescription medications (Arranged by student prior to class)
    8. Darken first scenarios
    9. Sea Bands
    10. Ginger
    11. Hard candy: wintergreen lifesavers
    12. Sunglasses

VI. SIMULATOR ROOM FAMILIARIZATION

- *Learning Objective: None*

A. Simulator room tour
B. Room environment adjustment
    1. Temperature
    2. Lighting
    3. Airflow

VII. FAAC DRIVING SIMULATOR FAMILIARIZATION AND OPERATION (Adapted from FAAC 8-hour Operator Outline)

- *Learning Objective: The student will be able to demonstrate the activation, scenario operation, scenario after-action review, deactivation, and basic maintenance of the FAAC driving simulator.*

A. General overview of components
    1. Image generators/Instructor operating system/camera/screens
    2. Driver cab/Dashboard/MDC/Cabinets
B. Powering up & down procedures
    1. Powering system up ("Juice Goose")
    2. Powering screens on/off
    3. Powering system down
C. Instructor Operating System (IOS)
    1. IOS icon
    2. Log in procedures
    3. Exercise screen
    4. Loading a scenario
    5. Control buttons
    6. Mobile Instructor Control Keypad (MICK)
    7. Advanced controls (Icons)
    8. Environment/description/ scoring/views/map
D. Mobile Data Computer
    1. Map
    2. Messaging
    3. Student instructions
E. After Action Review (AAR)
    1. Camera operation
F. After Action Review controls
    1. Slide bar
    2. Review/Re-drive options
G. Radio
    1. IOS instructor station
    2. Floor instructor station
H. Troubleshooting
    1. Common situations
    2. Reboot
I. Maintaining the simulator
    1. Daily wipe-down
    2. Weekly rack vacuum
    3. Provided tools are to be used only when directed by a certified FAAC Technician

J. Exposure to CAP scenarios and simulator environments

VIII. FOUR-HOUR LEDS COURSE CONTENT

- *Learning Objective: The student will be able to explain the relation of the LEDS course learning outcome to the various course components.*

A. Learning outcome
    1. Officers attending the LEDS course will demonstrate improved decision making, judgment, and tactics while operating a police emergency vehicle.

B. Training philosophy

C. Vehicle-related deaths

D. Driving simulator program application
    1. Emphasizes judgment and proper driving tactics
    2. Provides simulated life and death situations

E. Simulator vehicle performance
    1. The simulator will perform similar to a law enforcement vehicle
    2. Limited depth perception
    3. Weight transfer indicated by hood moving up and down/side to side
    4. Accelerator/throttle usage

F. Scenarios
    1. Pre-programmed set of circumstances
    2. Scenario characteristics
    3. Allows students to experience the consequences of their decisions
    4. Requires demonstration of decision making and knowledge of statute/policy

G. Universe and scenario orientation
    1. Use of universe map
    2. GPS displayed on MDC/MCT

H. Vehicle control techniques
    1. "Real-world" vehicle behavior replicated by simulator
    2. High visual horizon – "you cannot expect to live beyond your line of sight"
    3. Steering
    4. Braking
    5. Weight transfer
    6. Road position
    7. Speed judgment

I. Drive to stay alive
    1. Proactive driving
    2. Anticipating hazards and actions of others
    3. Recognizing dangerous attitudes
    4. Defensive driving

J. Intersection analysis - "take your time in a hurry"
    1. Start early before entering intersection

K. Collision avoidance
    1. Maintain a high visual horizon
    2. Perception and reaction time
    3. Maintain a safe space cushion

4. Consider steering to the rear of the conflict vehicle "drive through the smoke" (nascar)
5. Drive around the problem
6. Radio use while driving
7. Dangerous distractions

L. Emergency vehicle operation regulations
1. 21052 CVC
2. 21055 CVC
3. 21056 CVC
4. 21806 CVC

M. Emergency vehicle operation tactics
1. Close distance before attempting a traffic stop
2. Tactical issues

N. Pursuit considerations (penal code § 13519.8(b), vehicle code §17004.7(c))
1. The "balance test" should be used as a guide in determining whether or not to pursue.
2. Factors influencing pursuit initiation, continuation, and termination
3. Emotional factors impacting pursuing officers
4. Pursuits are following actions
5. Proactive pursuit tactics
6. Blocking public access

O. Legal Standards
1. Case Law
2. State Statutory Regulations

IX. LEDS FACILITATION METHODOLOGIES

- *Learning Objective: The student will be able to demonstrate application of LEDS facilitation methodologies.*

A. Adult learning concepts
1. Learning Domains
2. Learning Modalities
3. Transference

B. Critical thinking
1. Application to driving and LEDS
2. Creating a critical thinking classroom
3. Facilitation and questioning

C. Scenario Debrief
1. Facilitation and questioning
2. Guiding the self-critique process

D. Resistant students
1. Negative attitudes about the simulator
2. Diffusion tactics

E. Fatal simulator malfunctions
1. Alternative class presentation methods

X. STUDENT INSTRUCTOR FACILITATIONS

- *Learning Objective: Using adult learning concepts and critical thinking strategies, the student will be able to create and perform a facilitation on case laws or statutes related to emergency vehicle operation.*
- *Learning Objective: Using the provided Facilitation Rubric, the student will evaluate a student instructor facilitation.*

A. Individual topic facilitations
    1. Each student will create and perform a facilitation on case laws or statutes related to emergency vehicle operation
    2. Facilitations will employ adult learning concepts
    3. Facilitation vs presentation
    4. Students will utilize a teaching or visual aid (i.e. power point, chart board, etc)

B. Facilitation Critique
    1. Each presentation will be evaluated using the provided Facilitation Rubric
    2. What was effective?
    3. What was less effective?

XI. SIMULATOR INSTRUCTOR PRACTICE

- *Learning Objective: The student will be able to demonstrate the operation of the driving simulator*

A. Each student will take part in a driving scenario as:
    1. IOS operator
    2. Student Driver
    3. Instructor

B. Each student will perform a MINIMUM of two scenarios in each role

C. Student performance as Instructor and IOS Operator will be critiqued

XII. SIMULATOR INSTRUCTOR EVALUATION

- *Learning Objective: In pairs and using content from the four hour LEDS course, the students will create and facilitate a fifty-minute block of instruction including the use of the driving simulator as a teaching methodology.*
- *Learning Objective: In pairs, the students will facilitate a ten-minute critique of their fifty-minute course.*

A. Students in pairs will be assigned to facilitate a fifty-minute course of LEDS instruction, to include a segment of driving simulator operation.
    1. The facilitation will include the application of adult learning concepts, facilitation, and critical thinking questions.
    2. This facilitation is designed to replicate portions of the LEDS class to be presented by the student upon completion of the train the trainer course.

B. The students will facilitate a ten-minute assessment and critique of their performance using the provided Facilitation Rubric and the Driving Simulator Operation Rubric.
    1. The students will lead a class critique of their own performance using the rubrics as a guide.