

## **I. INTRODUCTION**

- A. Introduce yourself as the instructor.
- B. Give title of lesson.

“Defensive Driving: A Matter of Attitude”

- C. State lesson objectives
  - 1. Explain the mental aspects to driving
    - a. Mental motivation.
    - b. The Five components of the driving Process.
    - c. Types of driver failures that contribute to incidents.
    - d. Driver Distraction
  - 2. Defensive Driving
  - 3. The responsibility of the emergency vehicle operator

## **II. CONCEPTS OF DEFENSIVE DRIVING**

- A. Mental Aspects to Driving
  - 1. Mental Motivation
  - 2. The power of the “psychological set”.  
Defensive driving is largely a matter of attitude. Understanding how your mental state affects your driving is critical to being a good driver. What is the psychological set and how does that play a role in driving? A psychological set is a cycle or routine that we become accustom too. If you are caught in this cycle or routine, you as the driver can react incorrectly to the situation. Individuals are subject to behavioral traits that are the result of routine, comfort and confidence; such as working in the same area day after day where driving can become routine. Our

mental motivation begins to decrease, we begin to lose focus and stop scanning the roadway for possible hazards.

Without warning, something appears in our field of vision, how long does it take to refocus your attention and respond to the potential hazard? If it takes too long to refocus, you can potentially wind up in an incident.

B. The five components of the driving process.

1. **Scan**
2. **Identify**
3. **Predict**
4. **Decide**
5. **Execute**

- A. **Scan** – May be described as the observation or view from the driver’s perspective as to the objects in their vision. The search can be broken down into three components (1) Focus of attention which refers to where and what the driver looks at as he confronts an ever-changing environment. (2) Search rate which is concerned with how frequently the driver searches his environment. (3) Search pattern is concerned with how efficiently the driver interprets his environment. For example, does the driver use a consistent search, look forward, look left, and look right, and look rear, check gauges and so on.
- B. **Identify** – Refers to the driver identifying the hazards that they are presented with. All of us have been driving our vehicle when brake lights appear suddenly in front of us, a pedestrian darts out into the crosswalk or a car swerves into your lane. Identifying the problem is the first step, in order to perform any further driving task.
- C. **Predict** – The third part of this process is to predict the outcomes. The driver needs to be able to predict whether they can stop in time? Can the vehicle behind me stop in time? Is there any traffic to the left or right?

*The driver uses these five components as the basis for his driving technique. The driver must perform these five components each time the driving situation changes, which is quite often continuous throughout the driving process.*

*Let’s look at the 90 – 10 rule that states how much mental or physical activity is required during the driving process.*

- D. **Decide** – Deciding refers to the cognitive formulation of a course of action. Based upon the prediction the driver arrives at a decision. “I have decided that I have enough time to stop before hitting the car in front of me and there are no cars behind me”. Arriving at a decision requires no physical movement.
- E. **Execute** – Execution refers to the basic control actions the driver makes: how much steering is needed, how much braking or acceleration is needed and how does that affect the vehicle stability.

**Note:** *Looking at the process, you notice that the first four components are all a mental process; only 10% of the last step is physical. Driving a vehicle is an ongoing process of scanning, identifying, predicting, deciding and executing. Whether the driver is pulling out of a parking space or simply driving down the highway, 90 percent of driving is mental.*

***90% of driving is mental***

### III. DRIVER FAILURE

*What do you think is the main cause of most vehicle incidents?*

Discuss: Driver Failure/Human Failure

A. Types of driver/human failure:

- \***Carelessness**
- \***Incompetence**
- \***Recklessness**
- \***Inattentiveness**
- \***Inability to judge distance**
- \***Slow reaction of drivers**

B. Some facts

1. Consider a driver with a poor attitude will usually place blame on something outside of their control such as: “the street was poor,” “the other driver was wrong,” “the intersection was blind,” “I had the right of way.”
2. Every apparatus driver owes his/her fellow firefighters a safe ride each time the apparatus moves, whether on a routine inspection tour or responding to a three-alarm fire. Drivers must report to work in good physical condition and, if not, should refrain from driving and ask for a relief driver when they feel there is an impairment of their physical well being; however slight or temporary. Some reasons for such action may be illness, fatigue and drowsiness.
3. Drivers must also be mentally fit; which changes from day to day, hour to hour, and minute by minute. Mental fitness is affected by and affects attitude. A driver, who is worried over financial difficulties, domestic problems, etc., may not be

*The majority of incidents are caused by human failure. Many incidents attributed to faulty equipment or adverse conditions are actually a matter of driver/human failure. Review and emphasize the types of human failure with the class.*

mentally fit to drive. Drivers who cannot clear their mind of such distractions and concentrate on the job of driving should remove themselves from driving.

4. **Driver Distraction** involves momentary lapses of driver attention that inhibits safe driving practice when a vehicle is in motion. Driver performance can be affected in reaction times to hazards, maintaining lane position and distance from other vehicles. Driver distraction is caused by conditions that conflict with the primary task of driving such as inattention to unsafe conditions or demands on a driver to focus attention elsewhere. Increasing driver workload or distraction also adds to driver difficulty in processing information to enable the safe navigation of an emergency vehicle. Driver distraction can be either technological or non technological in nature and is understood on the following levels as identified by the US National Highway Traffic Safety Administration
  - a. **Auditory Distraction:** Driver focuses on sound instead of the road environment e.g. listening to a radio, passenger or phone call ring tone.
  - b. **Physical Distraction:** The removal of one or both hands from the steering wheel to move or interact with an in-vehicle object. This movement shifts the driver's body from the driving seating position into postures that compromise safe driving and reduces manual control over a vehicle.

- c. **Cognitive Distraction:** Driver distraction by thoughts that endanger driving ability. Mobile phone use is a prime example of cognitive distraction. Cognitive distraction is potentially one of the most invasive forms of driver distraction.
- d. **Visual Distraction:** When vision is blocked by objects or the driver neglects to look at potential road hazards i.e. when eyes are off the road caused by fatigue or glancing away from the road. Another visual distraction is the loss of visual attention i.e. when a driver looks but does not see or recognize dangerous road scenarios. This is identified as a selective withdrawal of attention.

*It is clear that concentration problems lead to a reduction of driving skills. The driver is slow to react, is late or entirely fails to notice things, and when they brake, it is often late and abrupt.*

#### IV. DRIVING DEFENSIVELY

- A. Defensive driving is largely a matter of attitude-the determination on your part to do everything reasonably possible to avoid being involved in a preventable incident, regardless of what the law says, what the other driver does, or the adverse driving conditions you encounter.

*Defensive driving can be defined as **observing the presence and intentions of other traffic to avoid incidents.***

- B. Defensive driving principles:
  - 1. Predict the unpredictable
  - 2. Expect the unexpected
  - 3. Handle unexpected problems

- C. Defensive Driving Methods – **SIPDE**

**S** – Search or scan ahead for problems in all four directions

**I** - Identify potential hazards

**P** – Predict what the hazard will do

**D** –Decide what action is necessary to avoid problem

1. Slow down
2. Stop
3. Choose a different route
4. Steer around

**E** – Execute or carry out decision smoothly and safely

D. Defensive driving visual habits

1. Get the big picture
2. Keep eyes moving, scan
3. Make sure other drivers see emergency vehicle
  - a. Emergency lights
  - b. Siren: Drivers tend to respond to sirens when they are within 125 ft. or less. The average stopping distance for a fire engine at 30 mph is 125 ft. At 60 mph, the siren is only audible from the front of the vehicle for a distance of approximately 12 ft. **This makes the siren a low speed device.**
  - c. Other audible device: Air horn, PA system
4. Identify an escape route
5. Following distance
6. Rate of closure; how fast are you approaching
7. Blind spots
8. Traffic closure

E. Speed Management

*Remember that 90% of the SIPDE process is mental and only 10% is physical. Incidents typically occur because the driver was not mentally aware; something unexpected enters their path of travel. If the driver is mentally focused and looking well ahead, they have a better chance of perceiving potential hazards before they become part of the hazard. Always be prepared to take evasive action or stop.*

1. Emergency vehicles should not exceed safe operating speeds with due regard to the safety of the public.

## V. BASIC MANUEVERS

### A. Steering

1. Use both hands on the wheel
2. Keep arms inside the vehicle
3. Maintain hands in the “3” AND “9” position

### B. Negotiating intersections

1. Scan for possible hazards
2. Slow down
3. Change siren cadence
4. Check options and avoid opposing lane if possible
5. Come to a complete stop
6. Establish eye contact
7. Proceed one lane at a time

### C. Crash avoidance

1. Identify escape routes
2. Brake smooth and firm
3. Smooth acceleration
4. Steer to avoid head-on impact

## VI. DEFENSIVE DRIVING RESPONSIBILITIES AND TRAITS

*There are a number of attitudes that characterize the defensive driver.*

- A. **Knowledge:** Do you know the traffic rules and regulations of the state? Are you aware of proper procedures for passing, yielding the right of way, and other maneuvers you'll be called upon to perform when you're behind the wheel?

- B. **Alertness:** Are you aware of what's going on around you? Are you conscious of traffic conditions ahead? Do you occasionally glance from side to side and at the side and rearview mirror?
- C. **Foresight:** Do you "look ahead" when you drive? Can you predict what is likely to happen? Foresight includes both short and long-range predictions, such as getting ready to stop when you see a traffic light ahead and making a pre-trip mental inventory of driving conditions.
- D. **Judgment:** Judgment involves knowing what to do and doing it at the right time-every time.
- E. **Skill:** Do you know how to handle the vehicle you are driving? How to start, stop, turn, go forward and in reverse, and how to execute various emergency maneuvers? Do you know how the vehicle you are driving handles when accelerating, braking and cornering?