

Driving School Association of the Americas

Beginner Driver Education and Training

Curriculum Content Standards



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PREFACE

All across the Americas you will find people learning to drive. Professional instruction to the beginning driver plays an important and valuable role in our society. We all benefit when drivers begin their driving careers with as much skill, information and background as possible.

The original version of these standards was developed in collaboration with Sue McNeill of the Road Safety Educators' Association (RSEA), Ontario, Canada. In December 2008, Sue lost her courageous battle with cancer but left her legacy as an expert in road safety. The Driving School Association of the Americas is proud of its collaboration with Sue McNeill and RSEA that has resulted in these curriculum content standards which have proven extremely useful for curriculum planning and development.

Sue was acknowledged by academics and practitioners alike as a person who advocated for high standards in driver education and training. She had the unique ability to bring a common sense approach in establishing curriculum content standards, methods of training, and instructor competency guidelines.

The Driving School Association of the Americas' Curriculum Content Standards are intended to provide guidance towards the highest level of instruction that can be attained so that as people learn to drive they will pose the least risk possible to themselves and others and to help them remain crash- and violation-free in their driving careers.

The Driving School Association of the Americas has also adopted a process for curriculum review and approval to assist schools in measuring their curriculum against the DSAA Curriculum Content Standards. Visit the DSAA website for more information www.thedsaa.org.

CURRICULUM CONTENT STANDARDS REVISION

The revision of the DSAA Curriculum Content Standards was an activity in the DSAA FY 2016 Technical Assistance Project with the Association of National Stakeholders for Traffic Safety Education (ANSTSE), Highway Safety Services (HSS) and supported by the National Highway Traffic Safety Administration (NHTSA). The Foundation for Safe Driving was sub-contracted to complete the revision of the DSAA Curriculum Content Standards. The DSAA's Education Committee, Board of Directors, and Communication Office reviewed and supplied feedback to the DRAFT version of the revision. The Foundation for Safe Driving used the feedback to continue the revision of the Curriculum Content Standards and to finalize the 2016 revision. A Phase 2 Driver Education Program was also added to the standards as well as a glossary of terms. The terms defined in the glossary are *italicized* in the document. The 2017 revision of the DSAA Curriculum Content Standards included the addition of Vehicle Technology Systems and Automated Vehicle Systems. This is the current version of the standards and if anyone needs an updated copy, please contact the DSAA Communication Office.

INTRODUCTION

Driving is a complex and demanding skill. Every driver needs to be aware of all the elements that form the foundation to becoming a safe and responsible driver such as: knowledge of risk prevention and avoidance, understanding the vehicle, vehicle handling, perception and risk management, the highway transportation system (HTS) rules of road, interacting with other drivers, driver behavior, attention, and personal responsibility.

Death from a motor vehicle crash is the number one “disease” for young people in the United States. And fatalities are not the only problem; injury crashes are epidemic as well. There are many professional curriculums for driver education and training programs to consider. It is our hope that DSAA’s curriculum content standards will help identify curriculum elements that target the reasons for crashes.

These standards provide teaching objectives, topics, and knowledge outcomes and abilities, as well as examples of required topics and will help to prepare the beginning driver, parents and mentors, and all those who will support and interact with the new driver as their driving career begins.

CURRICULUM CONTENT STANDARDS OVERVIEW

- 1.0 Rules of the Road.** To develop knowledge, appreciation, and skills related to the jurisdictional rules of the road and how they set a foundation for safe, responsible, and incident-free driving.
- 2.0 Vehicle Components.** To develop knowledge, appreciation, and skills related to the vehicle and its basic components and safety features and how they contribute to safe, responsible and incident-free driving.
- 3.0 Vehicle Handling.** To develop knowledge, appreciation, and skills related to vehicle handling and how it contributes to safe, responsible and incident-free driving.
- 4.0 Driver Behavior.** To develop knowledge, appreciation, and skills related to driver behavior and how it contributes to safe, responsible, and incident-free driving.
- 5.0 Sharing the Road.** To develop knowledge, appreciation, and skills related to effectively interacting with other road-users and how it contributes to safe, responsible, and incident-free driving.
- 6.0 Attention and Perception.** To develop knowledge, appreciation, and skills related to attention and how it contributes to safe, responsible, and incident-free driving.
- 7.0 Perception and Risk Management.** To develop knowledge, appreciation, and skills related to perception and risk management and how they contribute to safe, and responsible driving, and incident-free driving.
- 8.0 Vehicle Maintenance/Malfunctions and Technology.** To develop knowledge, appreciation, and skills related to vehicle maintenance, vehicle malfunctions, and vehicle technology and how they contribute to safe, responsible, and incident-free driving.
- 9.0 Managing Emergences and Adverse Conditions.** To develop knowledge, appreciation, and skills related to managing emergences and adverse conditions and how they contribute to safe, responsible, and incident-free driving.
- 10.0 Respect and Responsibility.** To develop knowledge, appreciation, and skills related to respectful and responsible driving attitudes and how they contribute to safe, responsible, and incident-free driving.
- 11.0 Vehicle Technology Systems.** To develop knowledge, appreciation, and skills related to vehicle technology systems contributing to safe, responsible, and incident-free driving.
- 12.0 Automated Vehicle Systems.** To develop knowledge, appreciation, and skills related to automated vehicle Systems as to contributing to safe, responsible, and incident-free driving.

1.0 RULES OF THE ROAD

1.0 Rules of the Road. To develop knowledge, appreciation, and skills related to the jurisdictional rules of the road and how they set a foundation for safe, responsible, and incident-free driving.

1. Classroom Instruction.

- 1.1.1** To know the jurisdictional specific process for obtaining the *privilege to drive*, the student must be able to:
- A. Identify the process for obtaining and maintaining a Driver's License;
 - B. Recognize and implement the process for the *graduated drivers licensing system*;
 - C. Explain the process for *license suspension and revocation*;
 - D. Identify the process for *vehicle registration*;
 - E. Understand the process for obtaining *vehicle insurance*; and
 - F. Recognize the process for parental involvement in driver education.
- 1.1.2** To safely and responsibly comply with traffic laws and regulations to drive safely in the *Highway Transportation System (HTS)*, the student should be able to:
- A. Explain the road safety rationale for traffic laws and regulations to safely control traffic flow;
 - B. Explain current road safety issues and how traffic laws and regulations address these issues;
 - C. Explain the jurisdictional specific laws concerning speed selection, speed limits, *appropriate communication, passing and being passed, moving forward, turning, stopping, parking, leaving a parking space, proper following distance, backing, coasting, and distracted driving*;
 - D. Know the jurisdictional specific laws and penalties concerning intoxication including those applicable to adults, over legal driving age, improper use of a driver's license, Driving Under the Influence, Public Intoxication, Driving While Intoxicated, Intoxication Assault, and Intoxication Manslaughter violations, applicable to minors and adults and under legal drinking age, for improper use of a driver's license, Driving Under the Influence by a Minor, Public Intoxication, Minor in Possession, Driving While Intoxicated, Intoxication Assault, and Intoxication Manslaughter violations; Open Container Law, Open Container Enhancement Law, applicable to minors and adults for Administrative License Revocation and Implied Consent violations;
 - E. Explain the jurisdictional-specific laws concerning blind spot driving, the ability to stop a vehicle on a roadway various conditions, use of vehicle lights, and entering, traveling on, and exiting a freeway;
 - F. Understand the jurisdictional-specific recommendations for altering speed, route planning, and choosing not to drive for the duration of poor driving conditions

including heavy traffic, bad weather, low visibility, poor roadway, malfunctioning vehicle, and impaired or fatigued driver;

- G. Describe the jurisdictional-specific procedures for handling a common driving challenges such as vehicle breakdown, a vehicle in a skid, brake failure, running off pavement, blowout, driving down a steep hill and winter driving;
 - H. Explain how to demonstrate proper and safe responses to the rules of the road;
 - I. Understand drivers obligations and accountability to drive safely and responsibly;
 - J. Recognize the consequences of disobeying traffic laws and regulations; and
 - K. Identify that driver education provides the basis of knowledge and skills for a lifelong process of safely and responsibly complying with traffic laws and regulations.
- 1.1.3** To safely and responsibly comply with *yielding protocol* and with who should be given the *right of way*, the student should be able to:
- A. Explain the purpose and principles for *yielding protocol* and *right of way* laws;
 - B. Explain the jurisdictional specific *yielding protocol* and *right of way* laws;
 - C. Explain the *right of way* laws as they relate to *school buses*;
 - D. Understand the *yielding protocol* right of way laws as they relate to *emergency vehicles* and the Move Over Law in their jurisdiction;
 - E. Explain the *right of way* laws as they relate to pedestrians; and
 - F. Explain the *right of way* laws as they relate to interacting other motor vehicles and road users.
- 1.1.4** To safely and responsibly comply with traffic control devices, the student should be able to:
- A. Identify traffic control devices including signs, signals, and markings;
 - B. Explain the rationale for traffic control devices and how they contribute to road safety;
 - C. Identify the prominent characteristics of common traffic control devices to explain the specific meaning and purpose for each; and
 - D. Explain how to demonstrate proper and safe response to all traffic control devices; and
 - E. Recognize how the basic understanding of traffic control devices allows a driver to make educated and legal decisions on how to drive safely and responsibly.
- 1.1.5** To safely and responsibly understand the hierarchy of the *Highway Transportation System (HTS)*, the student should be able to:
- A. Describe the *Highway Transportation System*;
 - B. Identify the types of vehicles that use the *Highway Transportation System*;
 - C. Explain the differences between the different driving environments in the HTS that includes suburban, urban, and rural environments;
 - D. Explain the differences between the different driving environments in the HTS that includes *controlled, low, moderate, and complex risk environments*; and

- E. Compare the hierarchy and characteristics of parking areas, city streets, country roads, provincial highways, federal highways, freeways and expressways.

1.1.6 To safely and responsibly cooperate with other road users and law enforcement in the *Highway Transportation System (HTS)*, the student should be able to:

- A. List the different road users in the HTS including *vulnerable road users*;
- B. Explain the jurisdictional laws and responsibilities of sharing the road with other road users such as bicyclists, trucks, motorcyclists, slow-moving vehicles, work zone/ construction workers, and pedestrians (including a runner, physically disabled person, child skater, highway construction and maintenance worker, utility worker, and stranded motorist);
- C. Know the jurisdictional laws concerning responsibilities at the scene of a traffic crash including aiding the injured;
- D. List the jurisdictional laws for pedestrians, bicycles, motorcycles, trucks, light rail, neighborhood electronic vehicles, person on horseback, horse-driven conveyance, farm equipment and motor assisted scooters;
- E. Know the jurisdictional laws regarding *active and passive occupant restraints* and open truck beds;
- F. Describe the responsibilities if stopped by law enforcement;
- G. Identify define *aggressive driving* traits;
- H. Understand how *speed* reduces your *field of vision including central vision, focus vision, and peripheral vision*;
- I. Explain how to safely and responsibly transport cargo, using safety chains, and towing a vehicle; and
- J. Identify how avoid being poisoned by carbon monoxide.

1.2 In-Vehicle Behind the Wheel Instruction.

(No In-Vehicle Instruction until proper jurisdictional license is obtained.)

1.2 In-Vehicle Observation. (No In-Vehicle Observation until proper jurisdictional license is obtained.)

2.0 VEHICLE COMPONENTS

2.0 Vehicle Components. To develop knowledge, appreciation, and skills related to the vehicle and its basic components and safety features and how they contribute to safe, responsible and incident-free driving.

2.1. Classroom Instruction.

- 2.1.1** To safely and properly use basic vehicle components, the student should be able to:
- A. Identify and explain the functions of the basic *vehicle components*, including *control devices*, instruments, *warning or alert indicators*, *visibility devices including contemporary sideview mirror setting and traditional sideview mirror setting*, *safety devices*, *comfort devices*, *anti-theft devices*, *communication devices*, and *traction control devices*;
 - B. Identify and explain the functions of the vehicle *control devices* including steering wheel, *accelerator pedal*, *brake pedal*, *clutch pedal*, gear selector, and parking brake;
 - C. Explain the difference between automatic and manual transmissions;
 - D. Identify the gear shift lever for an automatic and manual transmission;
 - E. Identify the pedal operations for an automatic and manual transmissions;
 - F. Understand the *vehicle starting tasks*;
 - G. Demonstrate proper use and importance of the each vehicle component; and
 - H. Explain the importance of vehicle control and its effect on safe driving.
- 2.1.2** To consistently and properly use safety restraint systems, the student should be able to:
- A. Know the jurisdictional-specific safety belt laws;
 - B. Explain the laws of physics and how they affect the outcomes of a crash, including momentum, inertia, kinetic energy, gravity, friction, and force of impact;
 - C. Identify *active and passive occupant protection*;
 - D. Explain proper positioning for use of the safety restraint systems;
 - E. Identify child safety restraints; and
 - F. Understand that the driver is ultimately responsible for the safety of all passengers through the use of any and all appropriate safety restraint systems as required.
- 2.1.3** To safely and responsibly perform external and internal pre-trip checks, the student should be able to:
- A. Explain the *external pre-trip check*;
 - B. Explain the *internal pre-trip check*; and
 - C. Recognize the *blind areas* around a vehicle.

- 2.1.4** To safely and responsibly perform vehicle *post-drive checks*, the student should be able to:
- A. Explain the *post-drive check*;
 - B. Describe the procedures for ensuring children, adults and animals properly exit the vehicle; and
 - C. Explain how to secure the vehicle.

2.2 In-Vehicle Behind the Wheel Instruction.

- 2.2.1** To safely and properly use basic vehicle components, the student should be able to:
- A. Identify and demonstrate the proper use of basic vehicle components, including control devices instruments and warning indicators, visibility devices, safety devices, comfort devices, anti-theft devices, communication devices, and traction control devices;
 - B. Perform vehicle starting tasks;
 - C. Identify the gear shift lever for an automatic or manual transmission; and
 - D. Identify the pedal operations for an automatic or manual transmission.
- 2.2.2** To consistently and properly use safety restraint systems, the student should be able to:
- A. Use safety belts properly; and
 - B. Ensure that all passengers properly use safety belts.
- 2.2.3** To safely and responsibly perform external and internal pre-trip checks, the student should be able to:
- A. Perform an external *pre-trip check*;
 - B. Perform an internal *pre-trip check*; and
 - C. Identify the *blind areas* around a vehicle.
- 2.2.4** To safely and responsibly perform vehicle shut down procedures, the student should be able to:
- A. Shut down the vehicle properly;
 - B. Ensure all passengers safely exit the vehicle including children, adults and animals; and
 - C. Secure the vehicle.

2.3 In-Vehicle Observation (If required in your jurisdiction).

- 2.3.1.** To observe the use of basic vehicle components, the student should be able to:
- A. Observe the driver identifying and demonstrating proper use of basic vehicle components, including control devices instruments and warning indicators, visibility devices, safety devices, comfort devices, *anti-theft devices*, communication devices, and traction control devices;
 - B. Observe vehicle *starting tasks*;

- C. Observe the driver identifying the gear shift lever for an automatic or manual transmission; and
 - D. Observe the driver identifying the pedal operations for an automatic or manual transmission.
- 2.3.2** To consistently and properly use safety restraint systems as a passenger, the student should be able to:
- A. Use safety belts properly; and
 - B. Ensure that all passengers properly use safety belts.
- 2.3.3** To safely and responsibly observe external and internal pre-trip checks, the student should be able to:
- A. Observe the driver perform an external pre-trip check;
 - B. Observe the driver perform an internal pre-trip check; and
 - C. Identity the *blind areas* around a vehicle.
- 2.3.4** To safely and responsibly observe vehicle shut down procedures, the student should be able to:
- A. Observe the driver shut down the vehicle properly;
 - B. Safely exit the vehicle after the vehicle is shut down properly; and
 - C. Observe the driver secure the vehicle.

3.0 VEHICLE HANDLING

3.0 Vehicle Handling. To develop knowledge, appreciation, and skills related to vehicle handling and how it contributes to safe, responsible and incident-free driving.

3.1 Classroom Instruction.

- 3.1.1** To safely and responsibly control the vehicle to drive safely, the student should be able to:
- A. Explain the importance of vehicle control in vehicle handling and its effect on safe driving;
 - B. Demonstrate how to control the vehicle properly by using the *proper hand position* on the steering wheel, visual tracking procedures, *steering control*, seating position, starting and stopping procedures, acceleration, speed control, deceleration and braking, and parking brake procedures;
 - C. Explain the use of the *vehicle controls* to perform *vehicle movements* including moving forward, parking, changing directions, turning, backing, entering the highway or freeway, and yielding the right-of-way in urban and rural driving environments;
 - D. Identify how to manage *complex intersections*; and
 - E. Explain reasons a driver would use or avoid using certain driving techniques.
- 3.1.2** To safely and responsibly use vehicle *reference points*, the student should be able to:
- A. Identify vehicle reference points;
 - B. Explain how vehicle *reference points* are used to position the front, sides, corners, and rear of the vehicle; and
 - C. Describe how vehicle *reference points* are used to perform *vehicle maneuvers* and manage *vehicle space*.
- 3.1.3** To safely and responsibly maintain the vehicle's *balanced weight*, the student should be able to:
- A. Explain the role of *balanced weight* in vehicle handling;
 - B. Explain the effect of the following on the vehicle's *balanced weight*, steering inputs, acceleration/deceleration, braking/slowing weight management, time management, *space management*, stopping distances, braking distances, *following too closely (tailgating)*, adjusting speed for conditions effect of road surfaces on stopping, seasonal changes and road surfaces, and tire types and conditions;
 - C. Explain the benefits of proper tire inflation;
 - D. Explain appropriate point of brake application under various conditions and situation;
 - E. Explain the role of friction under various conditions;
 - F. Understand how a *vehicle's roll, pitch and yaw* effect a vehicle's balanced weight; and

G. Explain how to demonstrate caution in maintaining the *vehicle's balanced weight* in compensating for different driving conditions.

3.1.4 To safely and responsibly maintain traction and properly use other driver inputs, the student should be able to:

- A. Explain the role of *traction* in vehicle handling;
- B. Explain *traction* as it relates to time management, space management, and changing speed and/or position such as moving off, cornering, changing lanes, stopping distances, backing, and following;
- C. Explain *friction* as it relates to speed maneuvers, road surfaces and stopping, seasonal changes and road surfaces, and tire types and conditions;
- D. Explain the benefits of proper tire inflation as it relates to friction and traction;
- E. Understand the appropriate point of brake application under various conditions and situations as it relates to traction; and
- F. Explain the role of *friction* under various conditions as it relates to traction;

3.1.5 To safely and responsibly detect and recover from skidding and sliding, the student should be able to:

- A. Identify the driving situations under which skidding or sliding might occur;
- B. Identify driving situations under which brake lock-up might occur;
- C. Explain the principles of skid control and slide control;
- D. Identify how to recover from skidding and sliding; and
- E. Explain the emotions and how to compensate for these emotions that a driver may experience when vehicle control is lost beyond the point of no return.

3.2 In-Vehicle Behind the Wheel Instruction.

3.2.1 To safely and responsibly control the vehicle and to drive safely, the student should be able to:

- A. Use the *vehicle controls*;
- B. Control the vehicle properly by using the *proper hand position* on the steering wheel, *visual tracking procedures*, steering control, *seating position*, *starting and stopping procedures*, *acceleration*, *speed control*, *deceleration and braking*, and *parking brake procedures*;
- C. Use the vehicle controls to perform *vehicle movements* including moving forward, parking, changing directions, turning, backing, entering the highway or freeway, yielding the *right-of-way* in urban and rural driving environments; and
- D. Use or avoid using certain driving techniques in the proper situations.

- 3.2.2** To safely and responsibly use vehicle *reference points*, the student should be able to:
- A. Identify reference points;
 - B. Use vehicle reference points to position the front, sides, corners, and rear of the vehicle; and
 - C. Use vehicle reference points to perform vehicle maneuvers and manage vehicle space.
- 3.2.3** To safely and responsibly maintain the vehicle's *balanced weight*, the student should be able to:
- A. Maintain the vehicle's *balanced weight* while steering inputs, acceleration, deceleration, braking/slowing, weight management, time management, *space management*, stopping distances, braking distances, following distances, adjusting speed for conditions, effect of road surfaces on stopping, seasonal changes and road surfaces, and tire types and condition;
 - B. effect of road surfaces on stopping; seasonal changes and road surfaces, and tire types and conditions;
 - C. Use the appropriate brake, macerator, and steering applications; and
 - D. Maintain the vehicle's balanced weight in compensating for different driving conditions.
- 3.2.4** To safely and responsibly maintain traction and using other driver inputs, the student should be able to:
- A. Maintain traction as it relates to time management, space management and changing speed and/or position such as; moving off, cornering, changing lanes, stopping, backing, and following; and
 - B. Manage friction as it relates to speed, maneuvers, road surfaces and stopping, seasonal changes and road surfaces, and tire types and conditions.

3.3 In-Vehicle Observation (If required in your jurisdiction).

- 3.3.1** To safely and responsibly observe controlling the vehicle to drive safely, the student should be able to:
- A. Observe the use of the vehicle controls;
 - B. Observe controlling the vehicle properly by using the proper hand position on the steering wheel, visual tracking procedures, steering control, seating position, starting and stopping procedures, acceleration, speed control, deceleration and braking, and parking brake procedures;
 - C. Observe the use the *vehicle controls* to *move forward, park, change directions, turn, back, enter the highway or freeway, yield the right-of-way* in urban and rural driving environments; and
 - D. Observe the avoidance of using certain driving techniques in the proper situations.

- 3.3.2** To safely and responsibly use vehicle *reference points*, the student should be able to:
- A. Observe the use of reference points;
 - B. Observe the positioning of the front, sides, corners, and rear of the vehicle; and
 - C. Observe the use of vehicle reference points to perform vehicle maneuvers and manage vehicle space.
- 3.3.3** To safely and responsibly maintain the vehicle's balanced weight, the student should be able to:
- A. Observe maintaining the vehicle's *balanced weight* while managing; steering inputs, acceleration/deceleration, braking/slowing, weight management, time management, *space management*, stopping distances, braking distances, following distances, adjusting speed for conditions, effect of road surfaces on stopping, seasonal changes and road surfaces, and tire types and conditions;
 - B. Observe the use of proper brake, accelerator, and steering applications;
 - C. Observe the maintaining the vehicle's balanced weight in compensating for different driving conditions.
- 3.3.4** To safely and responsibly maintain traction and use other driver inputs, the student should be able to:
- A. Observe the maintaining of traction as it relates to time management, space management and changing speed and/or position such as; moving off, cornering, changing lanes, stopping, backing, and following; and
 - B. Observe maintaining friction as it relates to speed, maneuvers, road surfaces and stopping, seasonal changes and road surfaces, and tire types and condition.

4.0 DRIVER BEHAVIOR

4.0 Driver Behavior. To develop knowledge, appreciation, and skills related to driver behavior and how it contributes to safe, responsible, and incident-free driving.

4.1 Classroom Instruction.

- 4.1.1** To safely and responsibly make *informed decision-making*, the student should be able to:
- A. Explain the impact of decision-making on driving;
 - B. Explain how the rules of the road and common *safe driving practices* contribute to *informed decision-making*;
 - C. Explain how *informed decision-making* contributes to *safe and responsible driving*;
 - D. Explain the importance of good decision-making;
 - E. Explain the consequences of poor decision-making;
 - F. Understand the *decision point* for all safe and responsible driving decisions; and
 - G. Explain how to demonstrate proper decision-making.
- 4.1.2** To safely and responsibly maintain a *positive driving attitudes and behaviors*, the student should be able to:
- A. Explain why driving is a privilege and not a right;
 - B. Explain how positive and negative personal factors influence *driving attitudes and behaviors*;
 - C. List personal driving values, beliefs and motives;
 - D. Explain how values, beliefs, and motives influence *driving attitudes and behaviors*;
 - E. Explain how *motives* influence driving;
 - F. Explain how *motive* may change under different circumstances;
 - G. Identify personal motivators and describe how each could positively and/or negatively influence personal driving attitudes and behaviors;
 - H. Identify how positive and negative social factors influence *driving attitudes and behaviors* including advertising, societal attitudes towards cars and driving, influence of other people's driving habits, and *peer pressure*;
 - I. Explain effective strategies for resisting negative pressures while driving including personal value of resisting negative pressure, resist negative informal pressure, resist negative media and commercial messages, and resist entertainment's media use of driving imagery;
 - J. Explain how positive driving attitudes and behaviors can overcome negative motives and result in safe and responsible driving behaviors such as driving courteously and cooperatively; and
 - K. Identify how one's own driver behavior can impact other drivers.

- 4.1.3** To safely and responsibly control emotional reactions to driving, the student should be able to:
- A. List different *emotions*;
 - B. Explain the potential effects that *emotions* may have on driving;
 - C. Explain how emotions effect a driver’s decision-making abilities;
 - D. Identify internal cues to *emotions*;
 - E. List personal control responses to *emotions*;
 - F. Describe driving strategies for avoiding the need for an emotional response; and
 - G. Explain strategies for managing and demonstrating control over *emotions*.
- 4.1.4** To safely and responsibly manage driver alertness and avoid *impaired driving*, the student should be able to:
- A. Define *impaired driving*;
 - B. List various types of impairments including distractions, drugs, alcohol, fatigue, drowsy driving, illness, medication, and mental stress;
 - C. Recognize that a combination of impairments may occur;
 - D. Explain the myths and facts related to impairments;
 - E. Identify the personal and social consequences of *impaired driving*;
 - F. Identify the legal and economic consequences of *impaired driving*;
 - G. Explain the effects of impairment on driving; and
 - H. Explain appropriate strategies for addressing the effects of driving impairments on attention.
- 4.1.5** To safely and responsibly avoid driving *fatigued*, the student should be able to:
- A. List and explain the possible causes and symptoms of fatigue;
 - B. Explain the causes of *highway hypnosis*;
 - C. Understand the dangers of fatigue in relation to driving risk; and
 - D. Develop appropriate strategies to avoid driving while fatigued.
- 4.1.6** To safely and responsibly avoid *aggressive driving* and aggressive drivers, the student should be able to:
- A. Describe the characteristics of aggressive driving;
 - B. Describe the dangers of *aggressive driving*;
 - C. Recognize the aggressive driver characteristics;
 - D. Explain common errors made by aggressive drivers; and
 - E. Develop appropriate strategies to avoid becoming and responding to an aggressive drivers.
- 4.1.7** To safely and responsibly avoid road rage, the student should be able to:
- A. Describe the possible causes of road rage on the roadway;
 - B. Describe the dangers of road rage;
 - C. Describe common actions of drivers exhibiting signs of road rage; and
 - D. Explain appropriate strategies to avoid becoming a victim of road rage.

- 4.1.8** To safely and responsibly avoid distracted driving and distracted drivers, the student should be able to:
- A. List the possible causes of distracted driving on the roadway;
 - B. Describe the dangers of distracted driving;
 - C. Describe common errors made by distracted drivers; and
 - D. List appropriate strategies to avoid becoming and responding to a distracted driver.

4.2 In-Vehicle Behind the Wheel Instruction.

- 4.2.1** To safely and responsibly make informed decisions, the student should be able to:
- A. Perform good decision-making skills while driving; and
 - B. Use common, safe driving practices to make informed driving decisions.

- 4.2.2** To safely and responsibly maintain positive driving attitudes and behaviors, the student should be able to:
- A. Use positive personal factors while driving;
 - B. Use personal motivators that positively influence personal driving attitudes and behaviors; and
 - C. Avoid negative social factors that can adversely influence driving attitudes and behaviors including advertising, societal attitudes towards cars and driving, influence of other people's driving habits, and peer pressure.

- 4.2.3** To safely and responsibly control emotional reactions to driving, the student should be able to:
- A. Use personal control responses to manage emotions;
 - B. Use Perform driving strategies that minimize the need for an emotional response; and
 - C. Use the strategies for managing and demonstrating control over emotions.

- 4.2.4** To safely and responsibly manage driver alertness and avoid *impaired driving*, the student should be able to:
- A. Avoid *impaired driving*;
 - B. Recognize that a combination of impairments may occur;
 - C. Use appropriate strategies to address the effect of driving impairments on attention.

- 4.2.5** To safely and responsibly avoid driving fatigued, the student should be able to:
- A. Avoid driving fatigued;
 - B. Use appropriate strategies to avoid driving fatigue; and

4.2.6 To safely and responsibly avoid *aggressive driving* and aggressive drivers, the student should be able to:

- A. Recognize aggressive driver on the roadway;
- B. Identify common errors made by aggressive drivers; and
- C. Use appropriate strategies to avoid becoming and responding to aggressive drivers.

4.2.7 To safely and responsibly avoid distracted driving and distracted drivers, the student should be able to:

- A. Recognize distracted drivers on the roadway;
- B. Identify common errors made by distracted drivers; and
- C. Use appropriate strategies to avoid becoming and responding to a distracted driver.

4.3 In-Vehicle Observation (If required in your jurisdiction).

4.3.1 To safely and responsibly make informed decisions, the student should be able to:

- A. Observe the performance of good decision-making skills while driving; and
- B. Observe the use of common safe driving practices to make informed driving decisions.

4.3.2 To safely and responsibly maintain a positive driving attitudes and behaviors, the student should be able to:

- A. Observe the use of positive personal factors while driving;
- B. Observe the use of personal motivators that positively influence personal driving attitudes and behaviors; and
- C. Avoid negative social factors that can adversely influence driving attitudes and behaviors including advertising, societal attitudes towards cars and driving, influence of other people's driving habits, and peer pressure.

4.3.3 To safely and responsibly control emotional reactions to driving, the student should be able to:

- A. Use personal control responses to manage emotions;
- B. Observe the use of driving strategies for avoiding the need for an emotional response; and
- C. Observe the use of strategies for managing and demonstrating control over emotions.

4.3.4 To safely and responsibly manage driver alertness and avoid *impaired driving*, the student should be able to:

- A. Avoid *impaired driving*;
- B. Recognize that a combination of impairments may occur; and
- C. Observe the use of appropriate strategies to address the effect of driving impairments on attention.

- 4.3.5** To safely and responsibly avoid driving fatigued, the student should be able to:
- A. Avoid driving fatigued; and
 - B. Observe the use of *appropriate strategies* to avoid driving fatigue; and
- 4.3.6** To safely and responsibly avoid *aggressive driving* and aggressive drivers, the student should be able to:
- A. Recognize aggressive drivers on the roadway;
 - B. Identify common errors made by aggressive drivers; and
 - C. Observe the use of appropriate strategies to avoid becoming and responding to aggressive drivers.
- 4.3.7** To safely and responsibly avoid distracted driving and distracted drivers, the student should be able to:
- A. Recognize distracted drivers on the roadway;
 - B. Identify common errors made by distracted drivers; and
 - C. Observe the proper use of appropriate strategies to avoid becoming and responding to a distracted driver.

5.0 SHARING THE ROAD

5.0 Sharing the Road. To develop knowledge, appreciation, and skills to related to effectively interacting with other road-users and how this contributes to safe, responsible, and incident-free driving.

5.1 Classroom Instruction.

- 5.1.1** To safely and responsibly cooperate with other road-users, the student should be able to:
- A. Explain the difference between cooperative driving and defensive driving;
 - B. List various types of cooperative driving including sharing the road in a safe and considerate manner, respecting other road-users, understanding other road-users' needs, passing safely, space management. sharing the road with school buses, sharing the road with commercial vehicles, and cooperative freeway driving
 - C. Explain the benefits of cooperative and courteous driving;
 - D. Explain how to demonstrate the ability to predict and anticipate the behaviors of other road-users.
- 5.1.2** To safely and responsibly use appropriate *communication* with other road-users, the student should be able to:
- A. Explain why appropriate communication is essential for an orderly and safe road system;
 - B. List ways to effectively communicate and communicate driving intentions to *other road-users*;
 - C. Explain how habits and attitudes relate to effective communication;
 - D. Explain how to adjust communication based on observation of the driving environment and actions of other road-users;
 - E. Explain how to demonstrate appropriate communication with other road-users in a variety of driving situations including *eye contact*, directional signals, headlights, brake lights, and vehicle placement; and
 - F. Explain why appropriate communication is essential for an orderly and safe roadway system.

5.2 In-Vehicle Behind the Wheel Instruction.

- 5.2.1** To safely and responsibly cooperate with other road-users, the student should be able to:
- A. Perform cooperative driving and defensive driving;
 - B. Use cooperative driving including sharing the road, in a safe and considerate manner, respecting other road-users, understanding other road users' needs, passing safely, practicing effective space management. sharing the road with school buses, sharing the road with commercial vehicles, and cooperative freeway driving
 - C. Demonstrate the ability to predict and anticipate the behaviors of other road users.

- 5.2.2** To safely and responsibly use *appropriate communication* with other road-users, the student should be able to:
- A. Use *appropriate communication* essential for an orderly and safe road system;
 - B. *Appropriately communicate* driving intentions to other road-users;
 - C. Adjust communication based on observation of the driving environment and actions of other road-users; and
 - D. Demonstrate *appropriate communication* with other road-users in a variety of driving situations.

5.3 In-Vehicle Observation (If required in your jurisdiction).

- 5.3.1** To safely and responsibly cooperate with other road-users, the student should be able to:
- A. Observe cooperative driving and defensive driving;
 - B. Observe cooperative driving including sharing the road, in a safe and considerate manner, respecting other road-users, understanding other road users' needs, passing safely, practicing effective space management. sharing the road with school buses, sharing the road with commercial vehicles, and cooperative interstate driving
 - C. Observe the ability to predict and anticipate the behaviors of other road-users.
- 5.3.2** To safely and responsibly use appropriate communication with other road-users, the student should be able to:
- A. Observe appropriate communication essential for an orderly and safe road system;
 - B. Observe communicating driving intentions to other road-users;
 - C. Observe adjusting communication based on observation of the driving environment and actions of other road-users; and
 - D. Observe the demonstration of appropriate communication with other road-users in a variety of driving situations.

6.0 DRIVER ATTENTION

6.0 Driver Attention. To develop knowledge, appreciation, and skills related to attention and how it contributes to safe, responsible, and incident-free driving

6.1 Classroom Instruction.

- 6.1.1** To safely and responsibly manage driver attention, the student should be able to:
- A. Define driver attention;
 - B. Identify strategies for managing driver attention including switching *attention*, *divided attention*, focused attention, sustained attention to effectively maintain attention to driving;
 - C. List communication techniques used by other road users to obtain a driver's attention; and
 - D. Explain how to demonstrate effective management of driver attention.
- 6.1.2** To safely and responsibly perform visual tracking as it relates to vehicle control, the student should be able to:
- A. Describe visual tracking
 - B. Explain how to use *visual glance behavior* to gather information in the driving environment including scanning the forward field, using the mirrors, and turning the head.
 - C. Explain how to use *visual tracking* to sustain visual attention and mental attention;
 - D. Understand how each field of vision supports visual tracking;
 - E. Identify how increasing *visual memory* supports the ability to drive safely;
 - F. Understand how *saccadic eye movement* effects the ability to drive safely;
 - G. Understand how *visual clutter/noise* effects the ability to drive safely;
 - H. Describe how vehicle speed impacts driver attention and visual tracking; and
 - I. Relate how driver attention and visual tracking are used to manage vehicle operating space, right-of-way, following distance, vehicle speed, communication, and compensating for limitations.
- 6.1.3** To safely and responsibly assess driving environments accurately and road conditions to make appropriate driving adjustment, the student should be able to:
- A. List different driving environments;
 - B. List different driving conditions and characteristic including speed limits, and right of way situations inherent to each driving environment and *complex intersections*;
 - C. Explain how to properly adjust driver attention for the different driving environments, *complex intersections*, and road conditions; and
 - D. Describe the *traffic flow and traffic volume*, and various types of motorized and non-motorized road-users in each driving environment.

6.2 In-Vehicle Behind the Wheel Instruction.

- 6.2.1** To safely and responsibly manage driver attention, the student should be able to:
- A. Use strategies for managing driver attention including switching attention, divided attention, focused attention, sustained attention to effectively maintain attention to driving;
 - B. Identify communication techniques used by other road users to obtain a driver's attention; and
 - C. Perform effective management of driver attention.
- 6.2.2** To safely and responsibly perform visual tracking as it relates to vehicle control, the student should be able to:
- A. Perform visual tracking;
 - B. Use visual tracking to sustain visual attention and mental attention;
 - C. Use visual glance behavior to gather information in the driving environment including scanning the forward field, using the mirrors, and turning the head.
 - D. Use *visual memory* to drive safely;
 - E. Use each field of vision to support visual tracking;
 - F. Manage how vehicle speed impacts driver attention and visual tracking; and
 - G. Use driver attention and visual tracking to manage vehicle operating space, right-of-way, following distance, vehicle speed, communication, and compensating for limitations.
- 6.2.3** To safely and responsibly assess driving environments accurately and road conditions to make appropriate driving adjustments, the student should be able to:
- E. Recognize different driving environments;
 - F. Identify the different driving conditions and characteristics including speed limits, and right of way situations inherent to each driving environment;
 - G. Adjust driver attention for the different driving environments and road conditions; and
 - H. Recognize traffic flow and traffic volume and various types of motorized and non-motorized road users in each driving environment.

6.3 In-Vehicle Observation (If required in your jurisdiction).

- 6.3.1** To safely and responsibly manage driver attention, the student should be able to:
- A. Observe the use of strategies for managing driver attention including switching attention, divided attention, focused attention, sustained attention to effectively maintain attention to driving;
 - B. Identify communication techniques used by other road users to obtain a driver's attention; and
 - C. Observe the performance of effective management of driver attention.

- 6.3.2** To safely and responsibly perform visual tracking as it relates to vehicle control, the student should be able to:
- A. Observe the performance of visual tracking;
 - B. Observe the use of visual tracking to sustain visual attention and mental attention;
 - C. Observe the use of visual glance behavior to gather information in the driving environment including scanning the forward field, using the mirrors, and turning the head.
 - D. Observe the use of *visual memory* to drive safely;
 - E. Observe the use of each field of vision to support visual tracking;
 - F. Observe how vehicle speed impacts driver *attention* and *visual tracking*; and
 - G. Observe the use of driver attention and visual tracking to manage vehicle operating space, right-of-way, following distance, vehicle speed, communication, and compensating for limitations.
- 6.3.3** To safely and responsibly assess driving environments accurately and road conditions to make appropriate driving adjustments, the student should be able to:
- A. Recognize different driving environments;
 - B. Identify the different driving conditions and characteristic including speed limits, and right of way situations inherent to each driving environment; and
 - C. Observe the adjustment of driver attention for the different driving environments and road conditions; and
 - D. Observe the recognition of *traffic flow and traffic volume* and various types of motorized and non-motorized road users in each driving environment.

7.0 PERCEPTION AND RISK MANAGEMENT

7.0 Perception and Risk Management. To develop knowledge, appreciation, and skills related to perception and risk management and how these skills and abilities contribute to safe, responsible, and incident-free driving.

7.1 Classroom Instruction.

- 7.1.1** To safely and responsibly use visual observation skills, the student should be able to:
- A. Explain the parts of vision and their specific uses to driving safely;
 - B. Explain proper observation skills;
 - C. Explain what, where, when to observe including 360 degree vision, distance scanning and judgment, peripheral vision, blind spots, visual obstructions, and limits of observation;
 - D. Explain how to observe including active attention, *eye-lead time*, shoulder checks, peripheral vision, and using the inside and outside mirrors;
 - E. Explain a visual search and scanning to detect potential hazards including distinguishing hazards from typical occurrences, scanning patterns under all conditions, and detecting potential path deviations;
 - F. Explain how to focus on appropriate visual targets while scanning the environment; and
 - G. Explain how to demonstrate potential hazard detection by means of visual scanning.
- 7.1.2** To safely and responsibly identify potential hazards and effective response to hazards, the student should be able to:
- A. Explain potential driving hazards including vehicle malfunctions, weather/ environmental conditions, road conditions, vehicle conditions, distractions inside the vehicle, distractions outside the vehicle, other road-users, unpredictable driving behaviors, and driving error resulting in danger to self and to other road-users; and
 - B. Explain the effective responses to these potential hazards of driving.
- 7.1.3** To safely and responsibly use effective decision-making skills to ensure safe driving, the student should be able to:
- A. Describe hazard perception, decision-making, and judgement;
 - B. List a hierarchy of appropriate responses to various traffic situations;
 - C. Understand how to *prioritize information* to choose the appropriate responses to various traffic situations;
 - D. Use decision-making skills to make the correct driving movement at the *decision point* to drive safely;
 - E. Recognize what factors affect decision-making skills;
 - F. Evaluate traffic situations to *anticipate* what may happen;
 - G. Identify how visual search patterns help a driver gather information in the driving environment;

- H. Recognize how to select the appropriate gap between two approaching vehicles which will afford a driver enough time to move into or through another lane of travel without interfering with other road users;
- I. Predict possible solutions to traffic situations;
- J. Prioritize appropriate decisions to traffic situations;
- K. Make appropriate decisions to traffic situations while under pressure and quickly; and
- L. Describe the effects of driver impairment on decision-making.

7.1.4 To safely and responsibly understand the risk of entering the driving population, the student should be able to:

- A. Define risk as it related to driving;
- B. Identify how to judge risk accurately and objectively;
- C. Explain the factors that affect a driver's risk perception;
- D. Identify how to anticipate the actions of other road-users;
- E. Illustrate how to react timely and effectively in risk situations;
- F. Perform proactive versus reactive driving actions
- G. Analyze the consequences of performing properly or improperly driving maneuvers that are expected by other road-users;
- H. Summarize how to use safe time and space margins; and
- I. Describe the most common causes of crashes

7.1.5 To safely and responsibly describe accurate risk situations, the student should be able to:

- A. Identify factors that affect a driver risk perception;
- B. Identify the expected actions and actual actions of other road-users;
- C. Explain quick and effective reaction time;
- D. Differentiate between proactive and reactive driver's action;
- E. Understand the consequences of not doing what other road-users expect;
- F. Describe safe time margins; and
- G. Describe the most common crash situations

7.1.6 To safely and responsibly plan trips/routes, the student should be able to:

- A. Recognize the purpose for trip/route planning; and
- B. List the procedures for trip/route planning including recognition of work zone and construction areas.

7.2 In-Vehicle Behind the Wheel Instruction.

7.2.1 To safely and responsibly use visual observation skills, the student should be able to:

- A. Use proper observation skills;
- B. Use active attention, shoulder checks, peripheral vision, and using the inside and outside mirrors;

- C. Use a visual search and scanning to detect potential hazards including distinguishing hazards from typical occurrences, scanning patterns under all conditions, and detecting potential path deviations;
 - D. Focus on appropriate visual targets while scanning the environment; and
 - E. Demonstrate potential hazard detection by means of visual scanning
- 7.2.2** To safely and responsibly identify potential hazards and effective response to hazards, the student should be able to:
- A. Recognize potential driving hazards including vehicle malfunctions, weather/ environmental conditions, road conditions, vehicle conditions, distractions inside the vehicle, distractions outside the vehicle, other road-users, unpredictable driving behaviors, and driving error resulting in danger to self and to other road-users; and
 - B. Perform effective responses to these potential hazards of driving.
- 7.2.3** To safely and responsibly use effective *decision-making skills* to ensure safe driving, the student should be able to:
- A. Use *hazard perception, decision-making*, and judgement;
 - B. Use the appropriate responses to various traffic situations;
 - C. Use decision-making skills to drive safely;
 - D. Use visual search patterns help a driver gather information in the driving environment;
 - E. Evaluate traffic situations to anticipate what may happen;
 - F. Predict and implement possible solutions to traffic situations;
 - G. Prioritize appropriate decisions to traffic situations; and
 - H. Perform appropriate decisions to traffic situations while under pressure and quickly
- 7.2.4** To safely and responsibly understand the risk of entering the driving population, the student should be able to:
- A. Recognize risk accurately;
 - B. Anticipate the actions of other road-users; and
 - C. React timely and effectively in risk situations.
- 7.2.5** To safely and responsible describe accurate risk situations, the student should be able to:
- A. Recognize the expected actions and actual actions of other road-users;
 - B. Perform quick and effective reaction time;
 - C. Use proactive driver's action; and
 - D. Use safe time and margins.
- 7.3 In-Vehicle Observation** (If required in your jurisdiction).
- 7.3.1** To safely and responsibly use visual observation skills, the student should be able to:
- A. Observe the use of proper observation skills;

- B. Observe the use of active attention, shoulder checks, peripheral vision, and using the inside and outside mirrors;
 - C. Observe the use of a visual search and scanning to detect potential hazards including distinguishing hazards from typical occurrences, scanning patterns under all conditions, and detecting potential path deviations;
 - D. Observe the appropriate visual targets while scanning the environment; and
 - E. Observe the Demonstration of potential hazard detection by means of visual scanning
- 7.3.2** To safely and responsibly identify potential hazards and effective response to hazards, the student should be able to:
- A. Observe potential driving hazards including vehicle malfunctions, weather/ environmental conditions, road conditions, vehicle conditions, distractions inside the vehicle, distractions outside the vehicle, other road-users, unpredictable driving behaviors, and driving error resulting in danger to self and to other road-users; and
 - B. Observe the performance of effective responses to these potential hazards of driving.
- 7.3.3** To safely and responsibly use effective decision-making skills to ensure safe driving, the student should be able to:
- A. Observe hazard perception, decision-making, and judgement;
 - B. Observe the use of the appropriate responses to various traffic situations;
 - C. Observe decision-making skills to drive safely;
 - D. Observe the use of visual search patterns help a driver gather information in the driving environment;
 - E. Observe the evaluation of traffic situations to anticipate what may happen;
 - F. Observe the prediction and implementation of possible solutions to traffic situations; and
 - G. Observe the performance of the *appropriate decisions* to traffic situations while under pressure and quickly
- 7.3.4** To safely and responsibly understand the risk of entering the driving population, the student should be able to:
- A. Recognize risk accurately;
 - B. Anticipate the actions of other road-users; and
 - C. Observe the timely and effectively reaction to risk situations.
- 7.3.5** To safely and responsible describe *accurate risk* situations, the student should be able to:
- A. Recognize the expected actions and actual actions of other road-users;
 - B. Observe the performance of quick and effective reaction time;
 - C. Observe proactive driver's action; and
 - D. Observe the use of safe time and margins.

8.0 VEHICLE MAINTENANCE/MALFUNCTIONS AND TECHNOLOGY

8.0 Vehicle Maintenance and Technology. To develop knowledge, appreciation, and skills related to vehicle maintenance, vehicle malfunctions, and technology contributing to safe, responsible, and incident-free driving.

8.1 Classroom Instruction.

8.1.1 To safely and responsibly maintain the vehicle in good working order, complete vehicle maintenance, the student should be able to:

- A. Recognize and identify the purpose for *vehicle's mechanical maintenance* and *tire service* requirements utilizing the *vehicle owner's manual as a resource*;
- B. Identify a *tire wear bar*; and
- C. Identify *scheduled and unscheduled vehicle maintenance*.

8.1.2 To safely and responsibly manage *vehicle malfunctions*, the student should be able to:

- A. Identify vehicle malfunctions such as *tire blowout, power steering failure, engine failure, accelerator failure, tire failure, traction loss, car catches on fire, power brake failure, brake failure, total steering failure, etc.*;
- B. Explain the appropriate strategies to compensate for *vehicle malfunctions*; and
- C. Explain the procedural steps to safely move a disabled vehicle off the roadway.

8.2 In-Vehicle Behind the Wheel Instruction.

8.2.1 To safely and responsibly drive in different driving environments, the student should be able to:

- A. Perform driving maneuvers in urban, suburban, and rural driving environments;
- B. Perform driving maneuvers in residential areas;
- C. Perform driving maneuvers on city streets;
- D. Perform driving maneuvers on freeway and expressways; and
- E. Perform driving maneuvers on rural roadways.

8.3 In-Vehicle Observation (If required in your jurisdiction).

8.3.1 To safely and responsibly drive in different driving environments, the student should be able to:

- A. Observe the performance of driving maneuvers in urban, suburban, and rural driving environments;
- B. Observe the performance of driving maneuvers in residential areas;
- C. Observe the performance of driving maneuvers on city streets;
- D. Observe the performance of driving maneuvers on freeway and expressways; and
- E. Observe the performance of driving maneuvers on rural roadways.

9.0 MANAGING EMERGENCIES AND ADVERSE CONDIDITONS

9.0 Managing Emergencies and Adverse Conditions. To develop knowledge, appreciation, and skills related to managing emergencies and adverse conditions and contributing to safe, responsible, and incident-free driving.

9.1 Classroom Instruction

- 9.1.1** To safely and responsibly drive to avoid crashing, the student should be able to:
- A. Demonstrate consistently caution in driving behavior to compensate for different conditions;
 - B. Explain evasive maneuvers and how to apply them to avoid crashing;
 - C. Describe appropriate situations to apply evasive maneuvers to avoid crashing; and
 - D. Describe inappropriate situations for applying evasive maneuvers;
- 9.1.2** To safely and responsibly respond to vehicle crashes and emergency situations, the student should be able to:
- A. Identify minor or major motor vehicle crashes;
 - B. Identify *potential and immediate emergency situations*;
 - C. Explain how to respond to vehicle crash;
 - D. Explain what to do when arriving at the scene of a crash;
 - E. Explain what to do when stopped by a police officer; and
 - F. Explain how to yield to an *emergency vehicle*;
- 9.1.3** To safely and responsibly manage *adverse weather* and *reduced visibility conditions*, the student should be able to:
- A. Recognize the distractions associated with adverse weather and reduced visibility conditions;
 - B. Recognize the characteristics of *adverse conditions* that may involve the roadway, vehicle, traffic, and driver;
 - C. Recognize the characteristics of *reduced visibility conditions*;
 - D. Understand the importance of seeing and being seen in *adverse conditions* and *reduced visibility conditions* including *headlight usage*; and
 - E. Describe and demonstrate the driving practices necessary to compensate for *adverse weather and reduced visibility conditions*.

9.2 In-Vehicle Behind the Wheel Instruction.

- 9.2.1** To safely and responsibly drive to avoid crashing, the student should be able to:
- A. Demonstrate consistently caution in driving behavior to compensate for different conditions; and
 - B. Perform evasive maneuvers to avoid crashing.

- 9.2.2** To safely and responsibly perform parking maneuvers, the student should be able to:
- A. Perform pulling to and from the curb or line;
 - B. Perform *angle parking* maneuvers;
 - C. Perform *perpendicular parking* maneuvers; and
 - D. Perform *parallel parking* maneuvers.

- 9.2.3** To safely and responsibly manage adverse weather and reduced visibility conditions, the student should be able to:
- A. Recognize the characteristics and distractions associated with adverse weather and *reduced visibility* conditions; and
 - B. Demonstrate the driving practices necessary to compensate for adverse weather and *reduced visibility* conditions.

9.3 In-Vehicle Observation (If required in your jurisdiction).

- 9.3.1** To safely and responsibly drive to avoid crashing, the student should be able to:
- A. Observe the demonstration of consistently caution in driving behavior to compensate for different conditions; and
 - B. Observe the performance of evasive maneuvers to avoid crashing.

- 9.3.2** To safely and responsibly perform parking maneuvers, the student should be able to:
- A. Observe the performance of pulling to and from the curb;
 - B. Observe the performance angle parking maneuvers;
 - C. Observe the performance of perpendicular parking maneuvers; and
 - D. Observe the performance of parallel parking maneuvers.

- 9.3.3** To safely and responsibly manage adverse weather and reduced visibility conditions, the student should be able to:
- A. Recognize the characteristics and distractions associated with adverse weather and reduced visibility conditions; and
 - B. Observe the demonstration of the driving practices necessary to compensate for adverse weather and reduced visibility conditions.

10.0 RESPECT AND RESPONSIBILITY

10.0 Respect and Responsibility. To develop knowledge, appreciation, and skills to related to respectful and responsible driving attitudes and how they contribute to safe, responsible, and incident-free driving.

10.1 Classroom Instruction

10.1.1 To safely and responsibly show leadership in promoting safe driving, the student should be able to:

- A. Identify safe, respectful, and responsible driver behavior;
- B. Explain how leadership, safe driving behaviors, and respect for other road-users contribute to safe and responsible driving;
- C. Describe how using and having others use safety restraints displays a responsible driver behavior;
- D. Describe how always being fit to drive and promoting others to be fit to drive displays responsible driver behavior;
- E. Describe how caring and being empathic towards other road users displays responsible driver behavior;
- F. Describe how avoiding conflict regardless of fault displays responsible driver behavior;
- G. Describe how respecting other road users safety margins displays responsible driver behavior; and
- H. Describe how avoiding road rage contributes to being a responsible driver;

10.1.2 To safely and responsibly respect the environment as it relates to operating a vehicle, the student should be able to:

- A. Identify environmentally conscious behavior including mandatory emissions testing, proper disposal of vehicles, fluids, tires, and not littering;
- B. List efficient driving behaviors including fuel efficiency, planning safer and more efficient routes, group driving activities, and the economic benefits of efficient driving; and
- C. Explain how being environmentally conscious contributes to driving safety.

10.1.3 To safely and responsibly take the lifelong learning approach to driving, the student should be able to:

- A. Explain how different factor contribute to changes in driver skills;
- B. Explain why how driving is a lifelong learning process;
- C. Identify opportunities for lifelong learning related driving;
- D. Identify factors that contribute to changes in driving skills including changes in driving practices, traffic laws, and age of the driving population.

10.2 In-Vehicle Behind the Wheel Instruction.

10.2.1 To safely and responsibly perform driving maneuvers, the student should be able to:

- A. Successfully complete a Driver Competency Assessment (DCA) or alternative assessment; and
- B. Use the analysis of the DCA or alternative assessment to become a safer and responsible driver.

10.3 In-Vehicle Observation (If required in your jurisdiction).

10.3.1 To safely and responsibly perform driving maneuvers, the student should be able to:

- A. Observe completion a Driver Competency Assessment (DCA) or alternative assessment; and
- B. Use the analysis of the DCA or alternative assessment to become a safer and responsible driver.

11.0 VEHICLE TECHNOLOGY SYSTEMS

11.0 Vehicle Technology Systems. To develop knowledge, appreciation, and skills related to vehicle technology systems contributing to safe, responsible, and incident-free driving.

11.1 Classroom Instruction

11.1.1 To safely and responsibly manage *warning, mitigating, convenience and support* vehicle technology systems whether factory installed, retro-fitted, or portable (list in Appendix A), the student should be able to:

- A. identify different types vehicle technology systems;
- B. understand the purpose, benefits and limitations of *warning, mitigating, convenience and support* vehicle technology systems;
- C. know the use of the vehicle technology systems in accordance with the manufactures instructions;
- D. minimize the distractibility of the vehicle technology systems; and
- E. identify intelligent traffic systems and how it interact with vehicles.

11.1.2 To safely and responsibly acknowledge emerging vehicle technology systems, the student should be able to:

- A. recognize the potential purpose of the emerging vehicle technology systems whether factory installed, retro-fitted, or portable
- B. understand the purpose, benefits, and limitations of emerging vehicle technology systems; and
- C. know how the manufacturer integrates the emerging vehicle technology systems into the vehicle.

11.2 In-Vehicle Behind the Wheel Instruction.

11.2.1 To safely and responsibly manage *warning, mitigating, convenience and support* vehicle technology systems whether factory installed, retro-fitted, or portable (list in Appendix A), the student should be able to recognize and properly use warning and mitigating vehicle technology systems in the vehicle.

11.2.2 To safely and responsibly acknowledge emerging vehicle technology systems, the student should be able to recognize and properly use emerging vehicle technology systems in the vehicle.

11.3 In-Vehicle Observation (If required in your jurisdiction).

11.3.1 To safely and responsibly manage *warning, mitigating, convenience and support* vehicle technology systems whether factory installed, retro-fitted, or portable (list in Appendix A), the student should be able to recognize and observe the use of warning and mitigating vehicle technology systems in the vehicle.

11.3.2 To safely and responsibly acknowledge emerging vehicle technology systems, the student should be able to recognize and observe the use of emerging vehicle technology systems in the vehicle.

12.0 AUTOMATED VEHICLE SYSTEMS

12.0 Automated Vehicle Systems. To develop knowledge, appreciation, and skills related to automated vehicle systems, contributing to safe, responsible, and incident-free driving.

12.1 Classroom Instruction

12.1.1 To safely and responsibly operate automated vehicles, the student should be able to:

- A. understand the purpose, benefits and limitations of how automated vehicle systems operate in accordance with the manufactures instructions;
- B. understand the various levels of vehicle automation according to the Society of Automative Engineers (SAE) international definitions for automation;
- C. acknowledge and understand the importance of vehicle cybersecurity; and
- D. explain countermeasures for automated vehicle systems malfunctions in accordance to the manufactures instructions.

12.1.2 To safely and responsibly interact with automated vehicles, the student should be able to:

- A. recognize how to share the road and interact with automated vehicles; and
- B. recognize how automated vehicles share the road with non-automated vehicles.

12.2 In-Vehicle Behind the Wheel Instruction.

12.2.1 To safely and responsibly operate automated vehicles, the student should be able to perform the skills necessary to safety operate an automated vehicle.

12.2.2 To safely and responsibly interact with automated vehicles, the student should be able to share the road and interact with automated vehicle whether in an automated vehicle or non-automated vehicle.

12.3 In-Vehicle Observation (If required in your jurisdiction).

12.3.1 To safely and responsibly operate automated vehicles, the student should observe the operation of an automated vehicle.

12.3.2 To safely and responsibly interact with automated vehicles, the student should observe sharing the road and interacting with automated vehicle whether in an automated vehicle or non-automated vehicle.

Phase 2

PHASE 2

1.0 Risk Management. To safely and responsibly *reduce driving risk* and how it contributes to safe, responsible, and incident-free driving.

1. Classroom.

- 1.1.1** To safely and responsibly to identify and manage traffic risk, the student should be able to:
- A. Know the jurisdictions traffic laws;
 - B. Understand yielding protocols;
 - C. Complete and use a self-reported assessment of driving skills to indicate driving behavior as a young driver;
 - D. Recognize that participation in the HTS involves constant risk that must be identified and managed;
 - E. Explain how to identify and manage potential and immediate risk by categorizing risk factors into controlled, low, moderate, and complex risk;
 - F. Understand how risk is processed differently by novice and experienced driver;
 - G. Describe how risk-taking diminishes the ability to manage risk;
 - H. Give examples of how managing risk allows the driver to respond to potential and immediate risk in controlled, low, moderate, and complex risk environments;
 - I. Explain the consequences when the driver's *perceived risk* is different from *objective risk* and formulate plans to accurately recognize risk;
 - J. Recognize how distractions complicate identifying and managing risk factors;
 - K. List the top five contributing factors to crashes and fatalities in the jurisdiction by examining the motor vehicle crash and fatality statistics as reported by the appropriate state agency;
 - L. Compare the traffic crash and fatality rates of drivers in various age groups to the rates of novice drivers ages 15 – 17;
 - M. Recognize the decision making skills and defensive driving skills necessary to be a safe and responsible driver; and
 - N. Understand and list appropriate strategies for the novice drivers' over-representation in crashes, injuries, and fatalities including those involving speed, alcohol and other drugs, single vehicles, and off-road control loss crashes.
- 1.1.2** To safely and responsibly employ a *space management system*, the student should be able to:
- A. Define a space management process;
 - B. Explain how to identify and manage risk factors by utilizing a space management system;
 - C. Describe how to employ a *space management system* while establishing vehicle operating space, *right-of-way*, *following distance*, vehicle speed, and communication;

- D. Explain how to employ a space management system to understand and manage risk; and
- E. Understand how to employ a *space management system* to safely interact with other road users including vulnerable road users including pedestrians including a runner, physically disabled person, child skater, highway construction and maintenance worker, utility worker, or other worker with legitimate business in or near the roadway or right of way, or stranded motorist or passenger, person on horseback, person operating equipment other than a motor vehicle including, bicycle, motorcycle, horse-drawn vehicle, farm equipment, slow moving vehicles, etc.

2.0 In-Vehicle Behind the Wheel Instruction.

- 1.2.1** To safely and responsibly perform appropriate driving maneuvers and movements, the student should be able to:
 - A. Use defensive driving skills; and
 - B. Use decisions making skills.
- 1.2.2** To safely and responsibly perform driving maneuvers, the student should be able to:
 - A. Successfully complete a Driver Competency Assessment (DCA) or alternative assessment; and
 - B. Use the analysis of the DCA or alternative assessment to become a safer and responsible driver.

3.0 In-Vehicle Observation (If required in your jurisdiction).

- 1.3.1** To safely and responsibly observe appropriate driving maneuvers and movements, the student should be able to:
 - A. Observe defensive driving skills; and
 - B. Observe decisions making skills.
- 1.3.2** To safely and responsibly observe driving maneuvers, the student should be able to:
 - A. Observe completion a Driver Competency Assessment (DCA) or alternative assessment; and
 - B. Use the analysis of the DCA or alternative assessment to become a safer and responsible driver.

GLOSSARY

- A -

Accelerator Failure – Failure could be caused by either a broken spring or the pedal getting stuck in the down position.

Accelerator Pedal – Usually a foot-operated pedal is suspended from the firewall on the right side of the driver's position. Speed is controlled by adjusting pressure on the pedal. The driver regulates speed by how much pressure is applied to the accelerator pedal.

Active Occupant Restraint – Occupant restraint devices that the driver actively has to engage to make it effective.

Adverse Conditions – Conditions that present a negative effect on the driving task. When making the decision whether to drive or the appropriate speed that is safe/reasonable, the driver must take in consideration the condition of the weather, visibility, traffic, roadway, vehicle and driver.

Aggressive Driving – Driving behavior exhibited in driving in a combative, forceful, or competitive manner usually caused by frustration with other drivers.

Angle Parking – Process of using reference points to position a vehicle diagonally to the curb with the bumper 3-6 inches from the curb (parking the vehicle diagonally to the curb).

Animal-Drawn Vehicle – A person riding an animal on a roadway or operating a vehicle drawn by an animal on a roadway has the rights and duties applicable to the operator of a vehicle.

Anticipate - To think and plan ahead, to see a situation developing early enough to alter one's strategies.

Anti-Theft Devices - Devices used to deter the theft of a vehicle including door locks, vehicle alarms, etc.

Appropriate Decisions – Choosing and implementing the proper safety measure to respond safely and responsibly to a traffic situation or an adverse condition.

Appropriate Communication – Informing other drivers of your intentions prior to turning, slowing, stopping, changing lane position, etc. using a mechanical or hand/arm signals, headlights, horn, lane position, etc.

Appropriate Practice – Practice that enhances experiences and creates acceptable habits and judgments.

Attention – Person's ability to concentrate on several sources of incoming information more than to concentrate on just one source of information. Since the driving task requires attention to a large number of items, this is an important concept. The act or state of attending especially through applying the mind to an object of sense or thought and a condition of readiness for such attention involving especially a selective narrowing or focusing of consciousness and receptivity.

Automated Vehicle - An automated vehicle includes a vehicle that is equipped with one or more collision avoidance systems (i.e., electronic blind spot assistance, automated emergency braking systems) or other similar systems that enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without the active control or monitoring of a human operator.

Autonomous Vehicle Technology - Technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator. Vehicles which are capable of driving themselves. Technology installed on a motor vehicle that has the capability to drive WITHOUT active control or monitoring by a human operator.

- B -

Backing – Vehicle movement moving the vehicle to the rear.

Balance Weight – Vehicle suspension configurations that control the size of the tire patches as they contact the roadway for ideal vehicle traction and control. Changes to the suspension configuration (and therefore the tire patches affecting traction) are initiated by driver actions of steering, braking, and/or accelerating the vehicle. The vehicle suspension is in the ideal state of balance and tire traction when it is parked on a level surface.

Being Passed – Being overtaken and proceeded by another vehicle moving in the same direction or the attempt of the maneuver.

Bicycle – A device that a person may ride and that is propelled by human power and as two tandem wheels at least one of which is more than 14 inches in diameter.

Blind Area – The area around the vehicle that the driver cannot see from the driver's seat.

Blindspot (Blindzone) – Areas to the sides and rear of the vehicle that rearview mirrors cannot show.

Blindzone Glare Elimination (BGE) Mirror Setting – This mirror setting the inside rear view mirror becomes the primary mirror, and the left and right side view mirrors become directed to side view use only. The driver can move the head toward the window to get a right and left side view when pulling from the curb. The mirror setting that reduces the mirror blind-zone and eliminates night glare from a following vehicle to the left or right. Mirrors are set 15 degrees to the outside for viewing side positions rather than rear corner of vehicle. Mirror setting does not completely eliminate making a visual check to the left or right when searching for open zones or space.

Blowout – Sudden loss of tire air pressure while driving.

Brake Failure – Failure of the vehicle's brakes to stop the vehicle properly.

Brake Pedal – Pedal that enables the driver to slow or stop a vehicle (regulates speed).

Braking Distance – Distance your vehicle travels from the time you apply the brake until your vehicle stops.

- C -

Car Catches on Fire – Failure where the vehicle is on fire.

Center of Gravity – The point at which the entire weight of a body is considered concentrated so that, if supported at this point, the body would remain in equilibrium in any position. A point around which the vehicle's weight is evenly distributed.

Central Vision – The field of vision around your focal vision in which you can see clearly while looking straight ahead that aids in determining vehicle position to the roadway.

Child Safety Seat/Child Restraint – A crash tested device that is specially designed to provide infant/child crash protection. A general term for all sorts of devices including those that are infant/child vests or infant car beds restrained with a motor vehicle safety belt rather than seats.

Clutch Pedal – Pedal in a manual transmission vehicle that enables a driver to shift gears.

Collision/Crash – Contact between two or more objects, as when two vehicles collide into each other. Collision Insurance – Pays cost of fixing or replacing owner’s vehicle after a crash— regardless of who was driving or who was to blame.

Commentary Driving – System of thinking aloud as you practice the searching process. The driver verbalizes the reasons for speed and roadway position adjustments.

Communication Devices – Devices that the driver uses to communicate with other road users such as mechanical or hand/arm signals, headlights, horn, lane position, etc.

Complex Intersections - Intersections that are oddly configured, have unusual signage, or a high number and/or a high number and/or a variety of users.

Complex Risk Environment – A complex risk environment is limited to speeds under 70 mph, having controlled or limited access interchanges or intersections in urban, suburban, and rural settings. Traffic flow is heavy and many times unpredictable, which does not allow excessive time for the novice driver to identify risks through changes to line of sight or path of travel. Two-way, one-way, access lanes, and multi-lane roadways are recommended for use in complex risk environments.

Contemporary Sideview Mirror Setting (Blindzone/Glare Setting) – In this mirror setting the inside rear view mirror becomes the primary mirror. The left and right side view mirrors become directed to side view use only.

Control Devices – Devices that the driver uses to control the vehicle, such as the steering wheel, accelerator, brake, clutch, gear selector, parking brake, etc.

Controlled Environment – A controlled risk environment reduces the incidence or severity of harmful incidents. The traffic speed and traffic flow volume in controlled risk environments should be at a minimal allowing time for novice driver to identify risks through changes to line of sight or path of travel.

Controlling Consequences – Lessening the results of an impending crash.

Convenience and Comfort System Devices – Devices that offer the driver convenience and comfort, such as radio; heating, ventilation, and air conditioning; seat adjustment; etc.

Crash Involvement – Association with a conflict or collision with an object/other road user.

Cruise/Speed Control – Device that lets you maintain your speed without keeping your foot on the accelerator.

- D -

Danger to Self or Others – May cause harm to himself or someone else.

Decision Making Skills – A person’s ability to judge right from wrong, good from bad or the ability to reason effectively. Making the correct driving decision to drive safely and responsibly.

Decision Point – (a) A point on the roadway at which the driver must decide to slow down, speed up and/or move laterally or (b) after stopping at the legal stop position, a driver moves forward to a position where he/she can access all the information needed to make a decision on whether or not it is safe to go.

Denial of Driver’s License – The withholding of a driver’s license or driving privilege because the person is ineligible for a license. A driver’s license may be issued when eligibility requirements are met.

Distracted Driver – When a driver is delayed in the recognition of information needed to accomplish the driving task safely because some event, activity, object, or person within or outside the vehicle compelled or tended to induce the driver’s shifting attention away from the driving task. The act of distracting or the state of being distracted, especially: mental confusion, to draw or direct one's attention to a different object or in different directions at the same time

Divided Attention – Changing attention from the path of travel to traffic, roadway, weather, vehicle, passengers, gauges, etc. Failure to complete multi-task performances correctly to compensate for divided attention produces unsafe driving.

Driver Education – to transfer knowledge, develop skills, and enhance the disposition of the novice so they, so can perform as a safely and responsibly as a driver, thereby contributing to the reduction of crashes, fatalities, and injuries.

Driver Inattention – The driver is distracted, asleep or fatigued, or otherwise “lost in thought”.

Driver Responsibility – A driver’s moral, legal, and mental accountability to the driving task.

Driver/Vehicle Control Sequence – Vision control (visual targeting), motion control (accelerator or brake), then steering control (steering wheel).

Driving as a Privilege – An opportunity granted to a person to drive within the HTS.

Driving Conditions – When making the decision whether to drive or the appropriate speed that is safe/reasonable, the driver must take in consideration the condition of the weather, visibility, traffic, roadway, vehicle and driver.

Driving Environments – Controlled, low, moderate, complex risk driving environments.

Driving Task – All social, physical, legal, and mental skills required to drive.

Driving Under the Influence (DUI) – An offense for which a driver can be charged even if blood alcohol level is below 0.08%. Driving Under the Influence can include driving while under the influence of an alcoholic beverage, drug, medication, etc.

Driving Under the Influence of Alcohol by a Minor – It is illegal for a minor (those under 21 years of age) while having above the jurisdictional level of alcohol in the minor’s system to operating a motor vehicle in a public place.

Driving While Intoxicated (DWI) – A person commits an offense for which a driver can be charged in all states if the person is intoxicated while driving or operating a motor vehicle in a public place.

- E -

Engine Failure – Vehicle failure that occurs when the engine quits running completely because the engine becomes flooded, overheats, etc.

Emergency – An unforeseen combination of circumstances or the resulting state that calls for immediate action.

Emergency Vehicle – A fire department, police vehicle, a public or private ambulance.

Emotions – Includes affections, feelings, motives, needs, and everything that pertains to the goal-directedness of people's actions. Feelings that Include anger, anxiety, joy, happiness, fear, hate, grief, care, and/or love.

Engine Starting Procedures – Check parking brake; foot on brake; key in ignition; gear in “Park or Neutral”; check for fuel injection or automatic choke; turn key to “on” position; check alert lights and gauges; turn key to start engine; adjust Heating, Ventilation, and Air Conditioning

(HVAC); set accessories (headlights or daylight running lights are recommended); check warning lights and gauges.

Establish Vehicle Speed – Obeying the speed limit or the flow of traffic, whichever is slower.

Evasive Steering – Emergency steering technique used to steer quickly around an object in your path. Without removing hands from the steering wheel, turn the wheel so that the forearms touch each other, then turn the wheel in the opposite direction until the forearms touch again. Return the wheel to center position. This is the maximum steer input for lane change and activated ABS. Less input may be used to perform maneuvers for emergency lane adjustment to the left or right.

Experienced Driver – Practical knowledge, skill, and practice derived from direct observation of or participation in driving. A driver with more than five years' experience in operating the motor vehicle.

External Pre-Trip Checks – Pre-Trip checks that include the approach to the vehicle checking for vehicle damage, fluid leaks, tire condition, children or animals around the vehicle, unwanted persons around the vehicle, and objects in the way of vehicle movement.

Eye Contact - A form of non-verbal communication which involves meeting the eyes of another user.

Eye-Lead Time - The distance (measured in seconds) ahead of your vehicle which is recommended to allow a driver to scan the driving environment, pick up all needed information, and have time to process and react to it: in general 15 seconds in city traffic and 20 seconds in a rural environment.

- F -

Fatigue – Physical or mental weariness resulting from exertion or other effect.

Financial Responsibility - The ability to respond in damages for liability for an accident that occurs after the effective date of the document evidencing the establishment of the financial responsibility and arises out of the ownership, maintenance, or use of a motor vehicle.

Focus Vision (Fovial) – That part of the vision field that allows the driver to read signs and make distinctions between vehicles and objects often measured as visual acuity.

Following Distance – The amount of time/space recommended between vehicles when following another vehicle in the intended path of travel to avoid conflict. To set a following interval a driver must select an object near the road surface. When the vehicle ahead passes that object, the driver should start counting “one thousand-one”, “one thousand-two,” etc., until the front of his/her vehicle reaches that object. For speeds above 30 mph, maintain 4 seconds (more for adverse conditions) of following time. Developing a 4-second following interval is the best practice for a novice driver.

1/2 Second – The maximum amount time a driver has to divide attention from the path of travel that should reduce risk of missing critical information needed to change speed or position.

2-Second Following Distance – Designed for use if there is an alternate path to steer the vehicle into on the roadway. Stopping in this time frame is usually not possible unless the driver is searching well ahead for clues. Therefore, a 3-4 second following distance is required.

3-Second Following Distance – Permits a driver time to steer out of problem areas at all listed speeds on dry surface and braking out of problems at speeds to 45 mph.

4-Second Following Distance – Permits a driver to steer out of problems at all listed speeds on dry surface and braking out of problems at speeds to legal limit of 65 mph.

Friction – Force that creates heat and helps each tire to maintain traction on the road, unless too much heat is generated which may cause traction loss due to melting of tire rubber on the roadway.

- G -

Gap - the open space between two approaching vehicles which will afford a driver enough time to move into or through another lane of travel without interfering with other road users.

Gear Selector – Device in vehicles used to select gears. In an automatic transmissions the gears usually are “P” – park, “R” – reverse, “N” – neutral, “D” – drive, “2” and “1” – lower drive gears. In a manual transmission the gears are usually “1st” – low drive gear, “2nd”, 3rd”, 4th, “R” – reverse.

Good Driving – Loosely defined term that many drivers assume includes themselves when each reaches the point of skilled vehicle operation.

Good Samaritan Law – Liability for emergency care: a person in good faith administers emergency care, including using an automated defibrillator, at the scene of an emergency (not in a hospital or other health care facility or means of medical transport) is not liable in civil damages for an act performed during the emergency unless the act is willful or wantonly negligent.

Graduated Driver Licensing System – A system that requires young drivers to progress through a series of licensing stages with various restrictions as to accompany drivers, times permitted to drive, allowable passengers, and the use of electronic communications devices.

- H -

Hand-over-Hand Steering – Pulling the steering wheel down with one hand while the other hand crosses over to pull the wheel farther down. Used for quick turns at speeds below air bag deployment speed.

Hand Position – Placement of the hands at 9 and 3 or 8 and 4 o’clock for best balance based on the vehicle steering wheel and input.

Hand-to-Hand Steering – Pushing with one hand on the side of the wheel while pulling with the other hand on the opposite side of the wheel using positions at 10 to 7 on left side and 2 to 5 o’clock on the right side of steering wheel. Used to maintain stability in cornering and avoid poor hand and arm position with impending air bag deployment. Most commonly used international steering technique on rack and pinion steering mechanism vehicles.

Hazard - Risk or danger found in the driving environment.

Hazard Perception – The ability to detect and recognize dangerous situations developing on the road.

Headlight Usage – Use of the vehicle headlights to see and be seen including in adverse conditions and limited visibility situations.

High Risk Drivers – A driver proven to be a financial risk for an insurance company due to negative motor vehicle report or owning a vehicle built for speed. Usually, a driver rated as “high risk” will pay a higher premium for insurance.

Highway - The width between the boundary lines of a publicly maintained way any part of which is open to the public for vehicular travel. The entire width between property lines of a road, street, or way in this state that is not privately owned or controlled and some part of which is open to the public for vehicular traffic and over which the state has legislative jurisdiction under its police power.

Highway Hypnosis – Drowsy or trancelike condition caused by concentration on the roadway ahead and monotony of driving.

Highway Transportation System – The highway transportation system (HTS) is a complex system including a consortium of federal, state, local, and individual systems functioning together to provide a reduced-risk and lawful driving Highway Transportation System environment made up of people, vehicles, and roadways.

Hydroplaning – Traction loss on water. Occurs when a tire patch loses roadway contact by rising up on top of water.

- I -

Illegal Use of License – False name to get a license; possess more than one license; use a canceled or revoked license; use another person’s license; lend your license to someone else; or display or possess a false license.

Immediate Risk – High priority possibility of having a conflict that results in a crash or collision needing a driver’s visual attention.

Impaired Driving - Driving while fatigued, under the influence of alcohol or other drugs, or distracted.

Implied Consent Law – This law relates to license suspension for refusing to take a legally requested breath or blood test. It is a civil action apart from a DWI criminal case.

Information Devices – Devices that provide information about the vehicle to the driver.

Information Processing – The brain’s ability to interpret information provided by the human senses and to employ critical-thinking, decision-making, and problem-solving skills in performing legal and responsible reduced-risk driving practices in the Highway Transportation System (HTS).

Inherent Risk – Risk that is built in or normal to a situation.

Intelligent Traffic Systems - are advanced applications which, without embodying intelligence as such, aim to provide innovative services relating to different modes of transport and traffic management and enable various users to be better informed and make safer, more coordinated, and 'smarter' use of transport networks.

Internal Pre-Trip Checks – Pre-trip checks involve all the procedures necessary to place the vehicle in motion in the HTS including procedures used to safely enter, inside checks, start engine, and move the vehicle. Procedures for checking and preparing the inside of the vehicle and driver prior to operating in vehicle.

Insurance – Pays other people’s expenses for accidents caused by drivers covered under owner’s policy.

Intoxication – (a) Not having the normal use of mental or physical faculties by reason of the introduction of alcohol, a controlled substance, a drug, a dangerous drug, or a combination of two or more of those substances or any other substance into the body; or... (b) Having an alcohol concentration of .08 or more.

In-Vehicle Behind-the-Wheel Instruction - That portion of the driver education laboratory instruction where the novice driver is actually seated behind the wheel of a vehicle or simulated vehicle, operating it either in real or simulated traffic situations, through the direct guidance of a driver education teacher.

In-Vehicle Observation – Refers to that time during which a student is riding in the back seat of a dual-controlled training vehicle observing and listening to instructions of the driver instructor related to procedures and techniques of the student driver who is behind the wheel. It involves observations of the actions and behavior of the student driver and other road users. Instructional time whereby novice teen drivers observe a behind-the-wheel lesson and receive perceptual practice in how to manage time and space for risk reduction outcomes.

- J -

Jack – Hand-operated device used to lift and hold one corner or side of the vehicle.

Joining Traffic – Turning right or left into lanes of other vehicles.

- L -

Lane Change – Lateral movement of the vehicle from one lane to another using proper space management procedures.

Large Trucks – A motor vehicle designed, used, or maintained primarily to transport property.

Lateral Maneuver – Vehicle movements to the side (swerve, pulling to and from the curb, lane change, merging, exiting).

License – An authorization to operate a motor vehicle that is issued under or granted by the laws of this state. The term includes: (A) a driver’s license; (B) the privilege of a person to operate a motor vehicle regardless of whether the person hold a driver’s license; and (C) a nonresident’s operating privilege.

Lifelong Learning – the ongoing formal and informal acquisition of knowledge or skills to continue safely and responsibly driving practices for a lifetime.

Light Truck – A truck, including a pickup truck, panel delivery truck, or carryall truck, that has a manufacturer's rated carrying capacity of 2,000 pounds or less.

Limit/Manage Distractions – A driver maintains attention to the driving task and utilizing risk reduction techniques.

Low Risk Environment – A low risk environment is usually limited to speeds under 40 mph, having uncontrolled and controlled intersections in urban, suburban, and rural settings. Traffic flow volume in low risk environments should be at a minimal allowing time for novice driver to identify risks through changes to line of sight or path of travel.

Low Water Crossing – Roadways that may have been covered with water or even washed away during flooding, creating unsafe driving condition. Drivers who repeatedly drive through flooded low-water crossings often do not recognize the dangers of a small increase in the water level.

- M -

Maintenance Checks – Checks and routine maintenance performed to ensure that a vehicle operates properly.

Mechanical Service – Safeguarding the vehicle’s motorized parts by servicing and performing necessary repairs utilizing the vehicle’s owner’s manual as a resource.

Mental Behaviors – Includes cognitions, thoughts, reasoning, and everything that pertains to the decision-making and evaluating characteristic of people's actions.

Mirrors – Detection devices and should be checked prior to and after any speed or position change.

Moderate Risk Environment – A moderate risk environment is usually limited to speeds under 40 mph, having uncontrolled and controlled intersections in urban, suburban, and rural settings. Traffic flow volume in moderate risk environments should be at a minimal allowing time for novice driver to identify risks through changes to line of sight or path of travel. Two-way, one way, and multi-lane roadways are recommended for use in moderate risk environments depending on the traffic conditions.

Motorcycle – A motor vehicle, other than a tractor that is equipped with a rider’s saddle, and designed to have when propelled not more than three wheels on the ground.

Motor Vehicle – A vehicle that is self-propelled.

Moving Forward – Vehicle movement moving the vehicle to the front.

Multicultural Education Principles – is an educational field of study that refers to any form of education, teaching and learning that incorporates the histories, texts, values, beliefs, and perspectives of people from different cultural backgrounds and how that education, teaching and learning impact their lives to create equitable opportunities for living and working in cultural pluralist society.

Multistage Driver Education – a system where combined phases of classroom/theory and behind-the-wheel instruction are delivered at different times to enhance learning. That is, a portion of the required classroom and behind-the-wheel instruction is completed, then the parent conducts supervised driving for a specified time or amount, then the novice teen driver returns for the remaining classroom and behind-the-wheel instruction.

- N -

Night Driving – Operating a vehicle during the hours of darkness.

Night Time – The period beginning one-half hour after sunset and ending one-half hour before sunrise.

Novice Driver – Satisfies one or more of the following criteria: (1) a person with limited or no exposure to operating the motor vehicle; (2) a person with vehicle operating experience, but limited experience with the motor vehicle; (3) a driver with less than one year experience in operating the motor vehicle.

No-Zones – Large mirror blind-zones where truck drivers cannot see other vehicles to the front, side, or rear where truck drivers cannot see other vehicles and where most collisions occur. These no zones are in front beside the truck, to the sides of the truck, and to the rear of every large truck.

- O -

Obligations of a Driver – If a driver encounters conflict with other road users or the roadway and consequences occur, the driver has the obligation of driving to accept the consequences and be morally and financially responsible.

Objective Risk – The accurate or objective perception of the risk.

Occupant Protection Systems – Protection incorporating technological advances in vehicle integrity in the event of a crash and response capability, such as safety belts, airbags, padded dash, padded sun visors, crunch zones, etc. For most persons the term “occupant protection” refers to safety belts, child restraints, driver, and passenger side air bags. In the context of this lesson, the term “occupant protection” is much more inclusive, incorporating technological advances in vehicle integrity in the event of a crash and response capability. Advances in roadway and off road design and re-engineering of crash barriers to meet changes in motor vehicle weight and size have added substantially to crash survival.

One-Hand Steering – Movement of the steering wheel with one hand is recommended only for backing maneuvers which do not require full left or right turns or when operating information, safety, or comfort devices.

Other Drugs – Legal and illegal drugs other than alcohol.

Other Road Users – People who use the HTS by walking, driving, or riding (including other cars, vans, pick-up trucks, motorcycles, commercial vehicles, semi-trucks, pedestrians, animals, etc.).

Outside Checks – Procedures for checking for problems that might impede the vehicles movement.

Oversteer – When the rear tire patches lose varying degrees of traction and the front tire patches have more traction causing a spinning effect (yaw) around the vehicle’s center of gravity. The vehicle has a tendency to spin to the left or right even though the driver is not turning the steering wheel.

Overtake – Pass the vehicle ahead.

Owner – The person who holds legal title to a motor vehicle; the purchaser or lessee of a motor vehicle subject to an agreement for the conditional sale or lease of the vehicle.

- P -

Parallel Parking – Parking where the vehicle lines up parallel or going the same direction as the curb. When parallel parking, the vehicle must be at least six (6) inches but not more than 18 inches from the curb.

Park or Parking – To stand an occupied or unoccupied vehicle, other than temporarily while loading or unloading merchandise or passengers. Examples of parking are angle, perpendicular, curb, and parallel parking.

Parking Brake – Mechanical brake that holds a vehicle in place when it is parked and to protect the transaxle, constant velocity joints, or transmission.

Pass or Passing – Overtake and proceed passed another vehicle moving in the same direction as the passing vehicle or to attempt the maneuver.

Passenger Vehicle - A passenger car, light truck, sport utility vehicle, truck, or truck tractor.

Passive Occupant Restraint – Occupant restraint, such as an air bag or an automatic seat belt, that works without the passenger or driver initiating the device. Systems designed to protect the occupants of a vehicle without any further actions on the occupant's part. Passive restraint systems, energy-absorbing crumple zones, energy-absorbing steering columns, driver and passenger airbags, side airbags, padded dash panel, padded sun visor, safety glass, padded head restraints are all examples of passive safety features.

Pavement Marking – A marking on the pavement to warn or direct drivers and to regulate traffic.

Pedestrian – Highway user on foot.

Peer Pressure – Mental and social influence of others of a similar age on decision-making skills.

Perceived Risk – What a person “thinks” is the risk. It is usually different from what is the objective risk. We want the perceived risk to become similar to the objective risk.

Perception Distance – Distance your vehicle travels during perception time. **Perception Time** – Length of time it takes the driver to make a risk-reduction decision.

Peripheral Vision – Area a person can see that is around the central field of vision. It is conical in shape around the other vision fields. It functions to notice changes in color and object movement.

Perpendicular Parking – Parking the vehicle at a right angle to a curb or parking stripe using visual reference points for entering and leaving.

Personal Needs Self-Assessment – Appraisal of an individual's necessary requirements and wishes in a vehicle.

Personal Reference Point – Adapting the standard reference point to the vehicle used by the driver.

Personal Preparation – Preparing self for the trip including route planning, number of hours to be driven in a day, getting sleep, having money to cover expenses, letting someone know your route, being prepared to pay a repair cost if vehicle breaks down, etc.

Physical Behavior – Includes all actions of a driver. For example, signaling before changing lanes is in the mental, emotional, and physical behavior.

Physiological Effects – Deal with movement and coordination of the body (i.e., legs, arms, hands, feet, balance, etc.).

Pitch of Vehicle – A vehicle suspension change to the front or rear that affects the size of the tire patches' contact with the roadway surface, initiated by driver actions of braking or accelerating the vehicle. An abrupt or sudden brake or acceleration may cause a traction loss due to the vehicle's inability to balance the traction quickly enough to maintain the tire patch and therefore traction.

Platooning - Platoon joining, leaving, etc. Platoon-wide situational awareness through fusion of vehicle-level sensors. Lead vehicle driven by a trained professional driver following vehicles have automated driving.

Point of Decision – Driver of the passing vehicle has entered the

passing lane and is in the left rear zone of the vehicle being passed. At this point, the driver of the passing vehicle has better visibility and has time to reevaluate and make a decision whether to complete the pass or abort it.

Point-of-No Return – Point beyond which a driver can no longer stop safely without entering the intersection.

Post-Trip Checks – Procedures used to safely shut down, exit, and secure the vehicle: stop within a legal, secure parking space; set parking brake; place shift selector in (P)ark; turn off any accessories used; turn ignition switch to “off”; “lock” ignition and remove key; remove occupant restraints; check traffic prior to exiting vehicle; secure doors and windows.

Potential Emergency Situations – Probable situations that may present a conflict that could result in a crash or collision.

Power Brake Failure – Failure is usually the loss of power that helps you brake. Braking power stops if the engine stops.

Power Steering Failure – Failure of the power steering to help the driver steer. With difficulty, a driver can still steer the vehicle.

Preparing the Vehicle – Checking and, if necessary, servicing the vehicle’s mechanical and tire functions.

Prioritize Information - The ability to identify what hazard, conflict or information needs attending to.

Privilege to Drive - the ability to obtain a driver’s license to drive on our nations roadways that comes with responsibilities to others on the roadway, obligations to obey traffic laws, and consequences for improper driving actions.

Psychological Effects – Deals with the mental aspects of driving such as judgment, reason, inhibitions, mood, etc.

Public Intoxication – A person commits an offense if the person appears in a public place while intoxicated to the degree that the person may be a danger to the person or others.

Public Place – Any place to which the public or a substantial group of the public has access and includes, but is not limited to, streets, highways, and common areas of schools, hospitals, apartment houses, office buildings, transport facilities, and shops.

Push-Pull Steering – Using the hand-to-hand steering technique (see hand-to-hand).

- R -

Race – The use of one or more vehicles in an attempt to: out gain or outdistance another vehicle or prevent another vehicle from passing; arrive at a given destination ahead of another vehicle or vehicles; or test the physical stamina or endurance of an operator over a long-distance route.

Railroad – A carrier that operates cars, other than streetcars, on stationary rails to transport persons or property.

Railroad Grade Crossing – An intersection of a through street and a railroad crossing.

Reaction Distance – Distance the vehicle travels from the point where the driver perceives the need to act and the point where the driver takes that action through braking, steering, or acceleration to change speed or position.

Reaction Time – The time the vehicle travels from the point where the driver perceives the need to act and the point where the driver takes the action through braking, steering, or acceleration to change speed or position.

Reckless Driving – A person commits an offense if the person drives a vehicle in willful or wanton disregard for the safety of persons or property.

Reduced Risk Driving – Applying knowledge, understanding, and skills including traffic laws including yielding protocol, right-of-way laws and occupant restraints, driver preparation, vehicle movements, driver readiness, risk reduction, environmental factors, distractions, impaired driving, adverse conditions, vehicle requirements, consumer responsibilities, and personal responsibilities.

Reduced Visibility – A driver Inability to see clearly. Limitations on gathering and processing information due to reduced illumination. Sight limitations may be due to weather, light, roadway, vehicle, traffic, or driver conditions.

Reference Point – Part of the outside or inside of the vehicle, as viewed from the driver’s seat, which relates to some part of the roadway, which allows the driver to estimate position on the roadway. The roadway positions (points of reference) of the vehicle assist the driver in determining when to start turning, vehicle limitations, or where the vehicle is actually located.

Responsibility of a Driver – A driver’s moral, legal, and mental accountability to driving practices that utilize the knowledge, understanding, skills, and experiences. A driver has the responsibility of driving a vehicle in the HTS without conflict with other road users or the roadway.

Restraint Device – Any part of a vehicle that holds an occupant in the seat during a collision.

Restriction – For good cause, the department may impose a limitation or endorsement suitable to the driver’s license holder’s driving ability.

Revocation – The termination of a driver’s license or driving privilege for an indefinite period of time. May be restored when all the requirements for the revocation have been satisfied.

Right of Way – The privilege of having immediate use of a certain part of a roadway. The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian that is approaching from a direction, at a speed, and within a proximity that could cause a collision unless one grants precedence to the other.

Risk – Chance of injury, damage, or loss. In driving, risk (potential or immediate) is the possibility of having a conflict that results in a crash or collision.

Risk Management – Reducing or managing the possibility of having a conflict (potential or immediate) that results in a non-incident, crash, or collision.

Risk-Taking – Taking a chance of injury, damage, or loss. In driving, risk-taking (potential or immediate) is chancing the possibility of having a conflict that results in a crash or collision.

Road Handling Characteristics – How a vehicle maneuvers on the roadway. Vehicles handle differently based on weight, center of gravity, load, wheelbase, engine size, tire size, etc.

Road Rage – Popular term for aggressive driving.

Road Users – People who use the HTS by walking, driving, or riding (including automobiles, vans, pick-up trucks, motorcycles, commercial vehicles, semi-trucks, pedestrians, animals, horse-drawn vehicles, bicycles, etc.).

Roadway – The portion of a highway, other than the berm or shoulder that is improved, designed, or ordinarily used for vehicular travel. If a highway includes at least two separate roadways, the term applies to each roadway separately.

Roll of Vehicle – Vehicle suspension changes to the left or right side that affect the size of the tire patches' contact with the roadway that are initiated by the driver action of steering the vehicle. Abrupt steering efforts (hand-over-hand) at higher speeds can cause traction loss due to the suspension's inability to keep the tire patches or traction in optimum traction positions.

Route Planning – Preparation for travel to familiar or unfamiliar areas. Knowing where you are going and planning, in advance, which roadways to take.

- S -

Saccadic Eye Movement - Irregular, uneven movement of the eye as it scans a scene. This is normal eye movement.

Safe and Reasonable Speed – An operator may not drive a vehicle at a speed greater than is reasonable and prudent under the conditions and having regard for actual and potential hazards then existing shall control the speed of the vehicle as necessary to avoid colliding with another person or vehicle that is on or entering the highway in compliance with law and the duty of each person to use due care.

Safely and Responsibly – A driver's legal, moral, dutiful, and mental accountability to driving practices that utilize the knowledge, understanding, skills, and experiences. A driver has the duty of driving a vehicle in the Highway Transportation System within the law and without conflict with other road users or the roadway.

Safety Belts – Restraining belts to protect the driver and passengers.

Safety Zone – The area in a roadway officially designated for exclusive pedestrian use and that is protected or so marked or indicated by adequate signs as to be plainly visible at all times while so designated.

Scheduled Maintenance – Vehicle service that is planned utilizing the vehicle's owner's manual as a resource.

School Bus – A motor vehicle that was manufactured in compliance with the federal motor vehicle safety standards for school busses in effect on the date of manufacture and that is used to transport pre-primary, primary, or secondary students on the route to or from school or on a school-related activity trip other than on routes to and from school.

Searching – Keep the eyes moving searching the path of travel, side to side, for line of sight restrictions, the rearview and sideview mirrors, vehicle reference to lane position, and the instrument panel, toward the target area.

- 4 - 8 Seconds Ahead (Searching) – Stopping zone and following interval
- 8 - 12 Seconds Ahead (Searching) – Identify alternate paths of travel and stopping zone
- 12 - 15 Seconds Ahead (Searching) – Identify objects that require a change in speed or direction
- 20 - 30 Seconds Ahead (Searching) – Identify potential problems - awareness

Selective Seeing – Searching only those clues and events that restrict your line of sight or can change your intended path of travel.

Shoulder – Means the portion of a highway that is: adjacent to the roadway, designed or ordinarily used for parking, distinguished from the roadway by different design, construction, or marking, and not intended for normal vehicular travel.

Shoulder Belt – Restraining belt to protect the driver and passengers that fastens across the shoulder and chest.

Shut-Down Procedures – Properly shutting down the engine, exiting the vehicle including a visual check to ensure that all passengers especially children and animals are out of the vehicle, and securing the vehicle.

Signaling – Letting others know when you are going to stop or turn. Give signal by either signal lights or hand/arm extended out of car window.

Single-Vehicle Crash – A collision with only one vehicle involved.

Skid – A skid occurs when the tire patches lose part or all of their traction on the roadway surface due to abrupt suspension balance changes or roadway surface conditions.

Slow Moving Vehicle – Vehicle unable to travel at highway speed.

Space Management Process – Critical-thinking, decision-making, and problem-solving in the Highway Transportation System (identifying, predicting, deciding, and executing).

Space Management System – System the driver uses to perform the space management process.

Speed – The act or state of moving.

Speed Limits – The safe and reasonable speed declared by the state for that part of the highway system.

Standard Sign Colors – Red, stop or prohibition; Green, indicated movements permitted, direction, or guidance; Blue, motorist services; Yellow, general warning; Black, regulation; White, regulation; Orange, construction or maintenance warning; and Brown, public recreation and scenic guidance

Steering Wheel – Wheel that allows the driver to direct the vehicle. The wheel is always turned in the direction the driver wants the vehicle to move, whether moving forward or in reverse.

Stopping a Vehicle – Ceasing movement of a vehicle or momentarily halting a vehicle, occupied or unoccupied.

Stopping Distance – Distance your vehicle travels while you make a stop.

Stop Sign – Stop before entering the crosswalk or intersection. Stop means bring the vehicle to a complete stop.

Stopping Position – Stopping behind a vehicle in a position that allows the driver enough space to steer around the vehicle to avoid a stalled, turning, or backing vehicle. Allows space to the front, which will avoid carjacking problems in heavy volume of traffic.

Street – The width between the boundary lines of a publicly maintained way any part of which is open to the public for vehicular travel.

Survival Features – The features incorporated into highway design to enhance occupant safety. A vehicle or roadway feature that allow you to continue to function.

Suspension – The temporary withdrawal of a driver's license or driving privilege for a definite period of time.

- T -

Tailgate – To follow another vehicle too closely.

Tire Blowout – Rapid deflation of air from the tire.

Tire Failure – Wearing out of the tires.

Tire Service – Safeguarding the vehicle's tires by servicing and performing necessary repairs utilizing the vehicle's owner's manual as a resource.

Tolerance – Tolerance is defined as the need to consume more of a drug to reach a given effect or the body's ability to eliminate the drug faster.

Total Steering Failure – Failure where the driver has loss the ability to steer the vehicle. This is a serious emergency.

Tracking – Following the roadway to maintain proper lane position.

Traction – Friction or gripping power between the tire patches and the roadway surface. The grip between the tires and the road surface that allows a vehicle to start, stop, and/or change direction.

Traction Control System – Helps maintain control by preventing any of the wheels from spinning while applying a hard acceleration. The accelerator pedal may be pushed, but the vehicle does maintain steering control with rolling traction.

Traction Loss – Loss of the adhesion between the tires and the road surface.

Traditional Intersection – A place where two or more road users meet and cross at a point.

Traditional Sideview Mirror Setting – Side view mirror adjusted to view sides rather than rear view. This setting must be used if rear view mirror is blocked. Left side mirror setting: while seated in the driving position, adjust left side mirror to see behind the vehicle to the left, level to the road surface, and where you see a small portion of your vehicle. Right side mirror setting: while seated in the driving position, adjust right side mirror to see behind the vehicle and to the right, level to the road surface, and where you see a small portion of your vehicle. Mirror setting does not eliminate making a visual check to the left or right.

Traffic – Means pedestrians, ridden or herded animals, and conveyances, including vehicles and streetcars, singly or together while using the highway for purposes of travel.

Traffic Control Devices – Devices used to control the movement of traffic, such as, traffic signals, signs, and roadway markings.

Traffic Flow – Number and types of vehicles that occupy a roadway (may differ during times of day or with other conditions).

Traffic Laws – A traffic rule of conduct or action prescribed or formally recognized as binding or enforced by a controlling authority.

Traffic Signal – Any signal used to control the movement of traffic.

Traffic Sign Shapes – Octagon, exclusively for Stop Signs; Horizontal rectangle, generally for guide signs; Equilateral triangle, exclusively for Yield signs; Pennant, advanced warning of No Passing Zones; Diamond, exclusively to warn existing or possible hazards on roadways or adjacent areas; Vertical rectangle, generally for regulatory signs; Pentagon, school advance and school crossing signs; and Round, railroad advance warning signs.

Traffic Volume – The quantity and type of motorized and non-motorized road users.

Trip/Route Planning – Planning an extended trip of several days, some of which will likely be over high-speed highways that requires extra preparation or short routes around a city.

Truck – A motor vehicle designed, used, or maintained primarily to transport property including light trucks, semi-trailers, truck tractor, large trucks, etc.

Turn – Vehicle movement to change direction or lane position.

Turnabout – Turning in which the driver utilizes a series of maneuvers to reverse the vehicles direction. Vehicle maneuver for turning into or out of an alley or driveway using reference points for best positioning.

Types of Driver’s Licenses – Instruction permit, Provisional License, Classified Driver’s License (Class A, Class B, Class C), Class M License, Classifications, Hardship License, and Essential Need.

- U -

Urban District – The territory adjacent to and including a highway, if the territory: is not in a municipality; and is improved with structures that are used for business, industry, or dwelling houses and located at intervals of less than 100 feet for a distance of at least one-quarter mile on either side of the highway.

Uncontrolled Intersection – Intersection that has no signs or signals to regulate traffic including railroad crossings that do not have flashing red lights or crossing gates.

Understeer – When the front tire patches lose varying degrees of traction and the rear tire patches have more traction causing a pushing effect on the vehicle due to momentum and inertia forces. The vehicle has a tendency to go straight even if the steering wheel is turned more dramatically.

Unscheduled Maintenance – Vehicle service that is unplanned utilizing the vehicle’s owner’s manual as a resource.

Useful Field of View – The vision that a driver uses to see the traffic environment. The useful field of view includes the central vision and fovial vision fields.

- V -

Vehicle – Every device, in, upon, or by which any person or property is or may be transported or drawn upon a highway, excepting devices used exclusively upon stationary rails or tracks.

Vehicle Balance – Vehicle suspension configurations that control the size of the tire patches as they contact the roadway for ideal vehicle traction and control. Changes to the suspension configuration (and therefore the tire patches affecting traction) are initiated by driver actions of steering, braking, and/or accelerating the vehicle. The vehicle suspension is in the ideal state of balance and tire traction when it is parked on a level surface.

Vehicle Components - control devices instruments and warning indicators, visibility devices, safety devices, comfort devices, anti-theft devices, communication devices, and traction control devices, etc.

Vehicle Control Devices – Devices that allow a driver to have power over a vehicle, such as gear selector, accelerator pedals, brake pedal, dead pedal, steering wheel, etc.

Vehicle Control Techniques – Techniques use to manage the vehicle control devices, such as hand to hand steering, hand over hand steering, one hand steering, etc.

Vehicle Cybersecurity - Focuses on layered solutions to ensure vehicle systems are designed to take appropriate and safe actions, even when an attack is successful.

Vehicle Imbalance – Loss of vehicle balance that causes traction loss.

Vehicle Inspection – Inspection of a vehicle at state inspection station or by an inspector to ensure the vehicle does not need adjustment, correction, or repair.

Vehicle Insurance - A policy to cover the costs connected with a motor vehicle crash.

Individuals pay premiums to an insurance company and the insurance company then covers the costs connected with a crash or other damage.

Vehicle Malfunctions (Breakdown) – When the vehicle fails to operate normally, such as brake failure, steering failure, accelerator failure, etc.

Vehicle Maintenance – Safeguarding the vehicle by servicing and performing necessary repairs on a vehicle utilizing the vehicle's owner's manual as a resource. Vehicle upkeep (scheduled or unscheduled). Use the vehicle's owner's manual to locate schedule maintenance plan.

Vehicle Maneuvers - Moving forward, turning, backing, lateral maneuvers, merging, turnabouts, etc.

Vehicle Movements – A procedure or method of moving the vehicle including moving forward, stopping, lateral maneuver, turning and backing. Changing a vehicle's direction or lane position.

Vehicle Operation Devices – Devices that perform the practical work of a vehicle, such as power train, suspension system, engine, transmission, steering, etc.

Vehicle Owner's Manual – Manual, supplied by manufacture that explains all aspects of the vehicle.

Vehicle Performance – How a vehicle functions on the roadway. Vehicles perform differently based on weight, center of gravity, load, wheelbase, engine size, tire size, etc.

Vehicle Registration – A resident must register with the county tax-assessor every vehicle that that is owned.

Vehicle Space - The space a vehicle occupies on or off the roadway in the Highway Transportation System.

Vehicle Technology Systems - List included in Appendix A.

Vulnerable Road Users – Persons that are at greater risk than vehicle occupants which include pedestrians including a runner, physically disabled person, child skater, highway construction and maintenance worker, utility worker, or other worker with legitimate business in or near the roadway or right of way, or stranded motorist or passenger, person on horseback, person operating equipment other than a motor vehicle including, bicycle, motorcycle, horse-driven conveyance, farm equipment, slow moving vehicles, etc.

Visibility – Capable of seeing and being seen.

Vision – the special sense by which the qualities of an object (as color, luminosity, shape and size) constituting its appearance are perceived and which is mediated by the eye.

Visual Acuity – Ability to see things clearly both near and far away.

Visual Attention – Directed attention, maintaining an open line of sight, searching skills, and targeting a line to maintain a safe path of travel.

Visual Clutter/Noise - An influx of a large amount of irrelevant visual information which may be distracting or confusing.

Visual Glance Behavior - The way drivers use their eyes to get information in the driving environment. It may be through scanning the forward field, using the mirrors, or turning the head.

Visual Functions – Focus vision, central vision, and peripheral vision.

Visual Memory - The ability to retain visual information in memory while searching other areas of the environment to build up an overview of where traffic is for example, remembering if vehicles are approaching from the right as you check to the left before making your decision to move into a gap.

Visual Search – Process can be described as an organized pattern of focused eye movements scanning the path of travel.

Visual Search Patterns - The systematic way in which drivers use their eyes to get information in the driving environment.

Visual Tracking - (a) The act of eyes following a moving object or (b) looking toward an intended path of travel: the eyes ‘run ahead’ of the vehicle, making a track to follow.

- W -

Warning or Alert Indicators – An instrument panel lighted symbol that warns of a system malfunction and usually stays on while the system is malfunctioning.

Wear Bar – Bar across the tread of a tire. When the wear bar appears across the tires, it is a sign that the tire needs replacing.

Weather Conditions – The state of the atmosphere with respect to heat or cold, wetness or dryness, calm or storm, clearness or cloudiness. Atmospheric conditions including that fog, heavy rain, snow, wind, etc.

- Y -

Yaw – The spinning effect of a vehicle around its center of gravity. When a vehicle loses traction to the rear, the vehicle tends to move to the left or right around its center of gravity.

Yield – To allow another vehicle or roadway user right of passage to proceed first.

Yielding Protocol – The procedures governing the decisions of who should be given the right of way to proceed first based on jurisdictional laws and sharing the road safely with other road users.

- Z -

Zero-Tolerance Law – Law stating it is illegal for persons under the age of 21 to drive with jurisdictional set amount of alcohol in the blood.

Appendix A

Vehicle Technology Systems

Warning
Mitigating
Convenience and Support

VEHICLE TECHNOLOGY SYSTEMS

Warning Vehicle Technology System

- Backup Sensors/Warning Systems
- Bicycle Detection
- Blind Spot Monitoring
- “Child/Pet Still Aboard” Warning Systems (To Prevent Heat-Related Deaths)
- Curve Speed Warning
- Driver Alertness/Fatigue Prevention
- Driver Function/Health Monitoring Systems
- Driver Impairment Prevention Systems
- EMS Proximity Notification
- Forward Collision Notification
- Lane Blockage Detection
- Lane Deviation Warning
- Left Turn Risk Warning
- Pedestrian Detection
- Rear Cross-Traffic Warning
- Tire Pressure Monitoring
- Traffic Sign Recognition
- Vehicle Status/Condition/Maintenance Monitoring Systems

Mitigating Vehicle Technology Systems

- Airbags
- Anti-Lock Braking Systems (ABS)
- Automatic Emergency Braking - Both Forward & Backing
- Automatic Evasive Steering
- Crash Preparation Systems (Brake Pre-Charge, Seats, Windows, Etc.)
- Electronic Stability Control
- Inflatable Safety Belts
- Lane Position Maintenance
- Left Turn Crash Prevention
- Pedestrian Collision Mitigation
- Road-Sensing Adjustable Suspension
- Traction Control

Convenience and Support Vehicle Technology Systems

- Adaptive Headlights
- Adaptive Cruise Control
- Advanced/Variable Headlight Projection Systems
- Augmented Reality Driver Information Systems
- Automatic Parking - Parallel
- Automatic Parking - Perpendicular
- Braking Assist
- Backup Cameras
- Camera-Based Mirrors
- Driver Seating Position Memory Systems (Seat, Steering Wheel, Mirrors, Etc.)
- Facial Recognition/Voice Commands
- Gesture-Controlled Functions
- Hill Descent Assist
- Hill Start Assist
- Holographic-Image Support Functions
- Keyless Ignition Systems
- On-Board Navigation Systems
- Partially-Automated Driving Systems
- Rear-Wheel Steering
- “See-Through” Body Panels
- Self-Repairing Paint
- Traffic Jam Assist
- Traffic Light Management/Countdown
- Variable Function Performance Systems (e.g. Limited Top Speed, Reduced Audio Volume, Etc.)
- Voice-Activated/Controlled Functions
- Vehicle-To-Infrastructure Communication (V2I)
- Vehicle-To-Vehicle Communication (V2V)