

# Novice Teen Driver Education and Training Administrative Standards (NTDETAS)



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# **Executive Summary**

Crashes continue to be one of the leading causes of death among American teens, accounting for more than one-third of all deaths of 15 to 19-year-olds. The crash rate is greatest among 16-year-olds, who have the most limited driving experience and maturity that often results in risk-taking behind the wheel.<sup>1</sup> Novice teen drivers have been over-represented in U.S. crashes since tracking began and the trend continues to this day.<sup>2</sup> The impacts of these senseless tragedies on families and society are immeasurable.

To address the issue, the Novice Teen Driver Education and Training Administrative Standards (NTDETAS) were developed, hereafter referred to as the NTDETAS or the Standards. The Standards have been developed and substantiated from research findings, when available, and are based on the highest collective knowledge of subject matter experts (SMEs) in the field. The Standards were further reviewed and approved by the Association of National Stakeholders in Traffic Safety Education (ANSTSE); the professional body recognized by the National Highway Traffic Safety Administration (NHTSA) to maintain the Standards.

This document provides guidance for all novice teen driver education and training programs across the U.S. for widespread implementation. The NTDETAS are recommended and intended to be accepted as the standard for novice teen driver education and training programs, and States are encouraged to adopt and implement them as established.

The NTDETAS were originally published in 2009<sup>3</sup> and revised in 2017.<sup>4</sup> This current 2023 edition incorporates enhancements including but not limited to risk/emergency preparedness; data collection; services for drivers with disabilities; virtual classroom training; prerequisites, training and, requirements for candidate instructor trainers and mentors; testing for licensure through driver education and training; and parent/guardian involvement.

The NTDETAS are comprised of five key sections:

- Section 1. Program Administration
- Section 2. Education/Training
- Section 3. Instructor, Mentor, and Instructor Trainer Qualifications
- Section 4. Coordination, Collaboration, and Communication with Driver Licensing
- Section 5. Parent/Guardian Involvement

The Standards also contain the following attachments:

A-B	Curriculum Content Standards (ADTSEA and DSAA)
C-D	Stages for an Instructor Preparation Program, Table of Contents of the Model Training Materials for the Teaching Task
Е	The National Highway Traffic Safety Administration's (NHTSA's) Highway Safety Program Guideline No. 4 – Driver Education
F	Reference Guide regarding Taxonomy use related to Driver Rehabilitation Specialists, Special Education Driver Education Schools or Other Specialty Instructors

It is understood that States may not be able to implement all the Standards at once. In such a case, States should strive to improve driver education and training programs incrementally by implementing the Standards over time. States interested in obtaining expert input regarding priorities for improving programs are encouraged to request ANSTSE State Consultation Services in specific areas of need related to the NTDETAS. Further, States are encouraged to conduct a State Self-Assessment (utilizing the NTDETAS State Self-Assessment tool), and/or to conduct a NHTSA State Driver Education Assessment.

For the most current version of the NTDETAS, supporting documents, model instructor training materials for the teaching task, other additional resources, or to request ANSTSE State Consultation Services, visit <u>www.anstse.info</u>.

### Introduction

A valid driver's license represents considerable freedom. In fact, a license has become the key to unlocking barriers identified through the social determinants of health,<sup>5</sup> which can impact individual health, well-being, and quality of life. Transportation inequities, especially in underserved and disadvantaged communities, can negatively impact an individual's overall health throughout their entire life. For example, compared to higher income households, disadvantaged households often lack access to a motor vehicle or driver license and consequently are typically limited to a smaller range of travel. As a result, their social determinants of health are negatively affected, such as obtaining an education (which then impacts economic stability), access to proper healthcare, and interactions with social support networks. Unfortunately, these freedoms and conveniences often come at a high price, which continues to be paid via traffic-related fatalities, life-altering injuries, and economic costs.

Driver education and training programs and methodologies date back to the 1930's. Since that time, much has changed in the world of traffic safety, specifically with roadway and vehicle design, as well as with laws and policies. All of these developments have informed the field of traffic safety education and training. While the value of novice teen driver education and training has long been a subject of debate among researchers,<sup>6</sup> educators, and others in the transportation and traffic safety community, it continues to be the primary introduction to the driving task for American teens. McKnight<sup>7</sup> (1985) writes, "…it is clearly something of a distortion to attribute accidents to driver education just because it leads to driving. Any group of people that drive will have accidents. By agreeing to license them, society accepts that risk. Driver education is simply a means of achieving a socially accepted goal."

The Highway Safety Act of 1966 (P.L.89-564, 80 Stat. 731),<sup>8</sup> established a coordinated national highway safety program with the intention of reducing the number of deaths on U.S. roadways. NHTSA's Uniform Guidelines for State Highway Safety Programs and specifically Guideline No. 4 – Driver Education (Attachment E),<sup>9</sup> provides State Highway Safety Offices, in cooperation with its political subdivisions and tribal governments, the power and guidance to implement a comprehensive, culturally competent driver education and training program to educate new drivers and provide remedial training for existing drivers.

Recent studies show promising evidence that driver education and training impacts driver safety. Studies in Oregon<sup>10</sup> and Nebraska<sup>11</sup> concluded that there are modest, positive safety effects for novice teen drivers. These findings provide evidence that driver training can impact traffic citations and crash rates for novice teen drivers.<sup>12</sup> A study in Georgia found that classroom instruction with behind-the-wheel instructor hours had fewer convictions, crashes, serious injuries, and deaths than other delivery methods, including, classroom instruction with parent/teen driving guide; online instruction with behind-the wheel instructor hours, and online instruction with parent/teen driving guide.<sup>13</sup> The Ohio study evaluated the effectiveness of comprehensive licensing requirements (graduated driver licensing, driver education, and behind-the-wheel training) on the crashes of drivers younger than 18 years.<sup>14</sup> The study reported that those licensed younger than 18 years, subject to these licensing policies, had lower crash rates than those licensed at 18 years, exempt from them. (See ANSTSE's State of Driver Education – A Review of Recent Driver Education Studies).

Driver education and training is available through either public secondary schools and/or privately owned and operated driving schools. Although regulations pertaining to the delivery of driver education and training programs exist in most jurisdictions in the U.S., the content and scope of regulations that govern the administration and delivery of these education programs varies.

While recognizing that the administration of educational standards and policies are a State's responsibility, the NTDETAS were created to serve as the foundation for State and/or organization policies on driver education and training, which:

- Influences novice teen drivers' skills and abilities that can impact knowledge, attitudes, and behaviors, resulting in safer drivers.
- Trains novice teen drivers to perform as safe and competent drivers, thereby minimizing their risk, and contributing to the reduction of crashes, fatalities, and injuries.
- Promotes driver education and training as an integral component of a comprehensive Graduated Driver Licensing (GDL) program (i.e., multi-stage driver licensing process).
- Influences a lifelong learning process.
- Promotes instructional hours delivered in multiple learning segments to provide time to gain experience between each segment.

ANSTSE and its stakeholders have worked diligently to stay updated with the most current practices in driver education and training. The Sections and Standards detailed in the NTDETAS have been developed and substantiated from research findings, when available, and are based on the highest collective knowledge, experience, and expertise from subject matter experts (SMEs) in the field. A community of practice<sup>15</sup> was established in 2021 that consisted of over 70 SMEs to provide input on updates to the Standards, ensure they reflect current practice, and hold promise for enhancing driver education and training.

# **Purpose and Objectives**

The Novice Teen Driver Education and Training Administrative Standards (NTDETAS):

- Are intended to serve as a model to guide all novice teen driver education and training programs throughout the U.S.
- Provide a tool for States and/or organizations to assess program strengths, accomplishments, and opportunities for improvement to assure quality, consistent driver education and training.
- Support a State and/or organization in successfully administering and/or providing quality and uniform driver education and training, consistent with the latest advances in methodology, subject matter, and technology.
- Are available for use by any person or organization, private or government.
- Are designed to be voluntary and consensus-based. They may become mandatory as a result of their use, reference, implementation, or adoption by a regulatory authority (e.g., a State).

# **Maintenance of the NTDETAS**

Much like the initiation and evolution of best practices for GDL (i.e., multi-stage driver licensing),<sup>16</sup> which incorporate driver education and training as an integral component through a multi-phase approach, these driver education and training standards must be accompanied by a commitment to ongoing funding and research to reexamine, analyze, and refine the best practices for an optimal State driver education and training program.

ANSTSE meets at least twice a year to review the status of the NTDETAS, as established in the organization's *"Requirements for the Review and Update of the Novice Teen Driver Education and Training Administrative Standards and the Strategic Plan<sup>17</sup>."* This document outlines the requirements for regularly scheduled meetings and the process for submitting recommendations for the review and update of the NTDETAS.

# ANSTSE State Consultation Services and NHTSA State Driver Education Assessments

Available, **at no cost to the State**, ANSTSE State Consultation Services can be requested by any State wanting to adopt any component(s) of the NTDETAS or to make improvements to the driver education and training program. ANSTSE State Consultation Services can be provided in conjunction with a NHTSA State Driver Education Assessment or on its own. ANSTSE State Consultation Services can provide a preliminary analysis of the State's driver education and training program prior to a NHTSA State Driver Education Assessment. Following an assessment, ANSTSE can provide State Consultation Services to help with meeting the resulting recommendations.

A State may utilize highway safety funds, or other funds, to conduct a NHTSA State Driver Education Assessment. The NTDETAS will serve as the basis to assess a State's driver

education and training program during a NHTSA State Driver Education Assessment. Examples of NHTSA State Driver Education Assessment reports can be found at <u>www.anstse.info</u>.

ANSTSE State Consultation Services, the NTDETAS State Self-Assessment Tool, and the NHTSA State Driver Education Assessments offer States tools to use over time to review driver education and training programs, note the program's strengths and accomplishments, and identify where and how improvements can be made. For more information visit <u>www.anstse.info</u>.

# What Are Standards?

In general, a "Standard" is a written definition, program description, limit or rule, approved and monitored for compliance by an authoritative agency, professional or recognized body as an acceptable benchmark.

Standards are an acknowledged measure of comparison for quantitative or qualitative value, such as a practice or a product that is widely recognized or employed, especially because of its excellence. Standards may be classified as (1) mandatory and enforced by law or (2) voluntary and placed in public domain to encourage widespread use.

Specific, strong, and measurable driver education and training standards are a tool to ensure students receive the necessary knowledge and skills to begin their learning to drive experience.

#### Administrative Standards (Provided in Sections 1 and 4)

Standards that identify the **"Who," "What," "Where"** and **"When"** for the administration of a State's driver education and training program. For example: **"Who"** is responsible; **"What"** procedures are to be followed; **"Where"** is information/data to be submitted; **"When"** may courses be held. The Administrative Standards address the key requirements for the administration of driver education and training.

**Content Standards** (Provided in Sections 2, 3 and 5 and Attachments A and B) Standards that address **"What"** content driver education and training courses or parent/guardian seminars should cover and **"What"** knowledge and skills transfer is expected. The content identifies **"What"** critical knowledge and skills should be taught in driver education and training courses to improve the overall quality of instructional content and the driving skills of the student.

#### Delivery Standards (Provided in Sections 2, 3, and 5)

Standards that establish **"How"** driver education and training is delivered to new drivers in an effort to improve the overall quality of instructional delivery methods. Included as part of these Standards are delivery methods for classroom, behind-the-wheel, and online instruction.

#### Instructor Standards (Provided in Sections 2 and 3)

Standards that define **"Who"** delivers driver education and training. They establish the criteria for **"What"** instructor candidates should be taught, the qualifications required of instructor candidates, and **"How"** instructor candidates should teach.

### How to Use This Document

For the most current version of the NTDETAS, supporting documents, instructor training materials, and additional resources visit <u>www.anstse.info</u>.

The NTDETAS are composed of both "**Normative**" or mandatory and "**Informative**" or optional components.

Standards that are **normative** (mandatory), utilize descriptors such as "shall," "must" or "will." These standards are in **bold font** in this document. To be in compliance, a State must meet these Standards in full.

Standards that are **Informative** (optional), utilize descriptors such as "should" or "may." These standards are in regular font in this document. They generally support an overall larger standard and support the State in meeting the standard and should be met if possible.

The two primary descriptors for standards in this document are:

- "shall" (the State must meet to be considered in compliance); and
- "should" (the State should strive to meet this standard or portion of a standard).

A Glossary and list of acronyms are provided in this document. The glossary terms and acronyms are in alphabetical order. The Glossary provides commonly-accepted definitions and should be reviewed both prior to and during review of the NTDETAS. Referring to the Glossary will provide clear guidance regarding the intended meaning of specific terms. For each term, the section in which the term can be found, and the source of the definition is indicated. Sources can include:

- NTDETAS, meaning it originated from the original 2009 standards.
- ANSTSE, meaning it was defined by the members of the association.
- An organization.
- A website.

Throughout this document, the definition of terms defined in the glossary is provided by hovering over the term when viewing the document in Microsoft Word. The definition of the term will appear in a small text box next to the term. A PDF of the NTDETAS is also available for printing but does not contain the definition of terms throughout the document.

# Acknowledgements

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# The Standards

#### 1.0 Program Administration

Quality program administration can improve the driver education and training program through effective organization, planning, implementation, and supervision. Responsibilities within the program can be divided to handle smaller parts of the larger whole. This division of duties can harness expertise and help to address disproportionate workloads; however, it can also create gaps and inefficiency if not properly managed. Further, receiving input from other driver education and training stakeholders can identify real-world issues being experienced on our roadways and by driver education and training providers. The administration of a State's driver education and training program establishes a foundation for administrators and program managers to provide quality oversight to coordinate activities and improve the program.

This section provides standards for:

- Management, Leadership, and Administration
- Application, Monitoring, and Recordkeeping
- Data Collection
- Program Evaluation
- Communication Program
- Risk/Emergency Preparedness

Resources related to this section on the ANSTSE website (<u>www.anstse.info</u>):

- Guidelines for Establishing and Maintaining State Driver Education Interagency Working Groups and Advisory Boards<sup>18</sup>
- Stopgap Measures in Driver Education During a Pandemic or Emergency<sup>19</sup>

#### 1.1 Management, Leadership, and Administration

- **1.1.1** States shall have a single agency or coordinated agencies to regulate, administer, and oversee all novice teen driver education and training programs. The agency/agencies shall:
  - a) have authority and responsibility to regulate, administer, and oversee the implementation, monitoring, evaluation, and enforcement of the NTDETAS and State standards;
  - b) establish and maintain an interagency working group consisting of State agencies responsible for the management of driver education and training, driver testing and licensing, and traffic safety to improve communication between State agencies and establish a formal communication and decision-making process;

Note: Refer to the ANSTSE *Guidelines for Establishing and Maintaining State Driver Education Interagency Working Groups and Advisory Boards*<sup>18</sup> for more information. c) establish and maintain a driver education and training advisory board, or similar group of stakeholders, to provide input on current processes and initiatives of the State agency/agencies and/or the State interagency working group;

Note: Refer to the ANSTSE Guidelines for Establishing and Maintaining State Driver Education Interagency Working Groups and Advisory Boards<sup>18</sup> for more information.

- d) develop and execute an action plan, with input from stakeholders for program improvement; and
- e) oversee and treat all driver education and training providers fairly and equitably, hold all providers to the NTDETAS and State standards, and provide equal access to all State resources.
- **1.1.2** States shall fund a full-time State administrator for driver education and training. The administrator:
  - a) shall be qualified to manage and oversee all aspects of the State's functions in driver education and training, and be familiar with the administration and delivery practices of driver education and training;
  - b) shall be an employee of the agency that has oversight of driver education and training;
  - c) should have experience working with multiple agencies related to driver education and training (e.g., Department of Education, State Highway Safety Office, Department of Motor Vehicles);
  - d) should have knowledge of and experience with State, regional, and national level novice teen driver and traffic safety associations and organizations; and
  - e) should meet or exceed the qualifications and training required by the State for a novice teen driver education and training instructor in the public or private sector.
- **1.1.3** States shall provide adequate funding to the agency/agencies responsible for the regulation, administration, and oversight of the driver education and training program.
- 1.1.4 States shall ensure driver education and training providers have access to resources, standards, policies, and procedures, as well as the latest State and local crash statistics.
- 1.1.5 States shall ensure driver education and training providers refer students with disabilities to a provider that specializes in working with students with disabilities, if applicable (e.g., a driver rehabilitation specialist or specialized instructor).
- 1.1.6 States should encourage parents/guardians, if applicable, to share a student's Individualized Education Plan (IEP) or 504 Plan with the provider.

- 1.1.7 States should ensure that driver education and training services are offered equitably, consistently, fairly, justly, and impartially for all, as defined by the State.
- 1.1.8 States should provide funding or subsidies to all providers to make driver education and training available for students, especially wards of the State and those who are underserved and would otherwise not receive services.

#### 1.2 Application, Monitoring, and Recordkeeping

- 1.2.1 States shall have an application and approval process for driver education and training providers, including qualified driver rehabilitation programs, to conduct novice teen driver education and training courses. The process:
  - a) shall ensure that driver education and training programs conform to applicable State standards and the NTDETAS;
  - b) shall ensure that driver education and training programs are culturally equitable and inclusive, and apply multicultural education practices to all students;
  - c) shall provide administrative oversight for certification/licensure and recertification of:
    - i. driver education and training instructors (see Section 3.0 Instructor, Mentor, and Instructor Trainer Qualifications); and
    - ii. public and private driver education and training providers.
  - d) should list and make publicly available all approved driver education and training providers (including online and driver rehabilitation providers) on the appropriate State website, as well as providers who previously held State approval, but are no longer approved.
- 1.2.2 States shall have and execute a standardized procedure for monitoring and/or evaluating compliance with State standards. The procedure shall include, at a minimum, a review of:
  - a) each provider's compliance with all State requirements;
  - b) the classroom facilities, training vehicles, other appropriate training equipment (e.g., simulator, driving range), and training records maintained in connection with courses conducted;
  - c) the ongoing eligibility of driver education and training instructors;
  - d) the delivery in the classroom, behind-the-wheel (BTW), and other methods of instruction, based on established State criteria;
  - e) the provider's compliance with all applicable Americans with Disabilities Act (ADA) requirements; and

- f) the qualifications of personnel offering services to students with disabilities, and of the process by which such students are referred to an approved provider.
- **1.2.3** States shall have and execute a standardized procedure for driver education and training providers to address issues with non-compliance. The State shall:
  - a) establish and maintain a conflict resolution process (e.g., negotiation, mediation, arbitration) for disputes between the State agency and driver education and training providers and instructors;
  - b) establish and maintain a remediation process for driver education and training programs and instructors when sanctions are issued; and
  - c) impose financial and/or administrative sanctions (e.g., suspend or revoke a provider's business license or instructor certification) for non-compliance with the State requirements.
- **1.2.4** States shall ensure driver education and training providers identify a primary point of contact responsible for provider operations.
- 1.2.5 States shall require providers who work with novice teen drivers to comply with privacy protection regulations, including, but not limited to the Family Educational Rights and Privacy Acts (FERPA) and the Health Insurance Portability and Accountability Act (HIPAA) requirements.

Note: A summary of these requirements can be found here: www.hhs.gov, www2.ed.gov

- 1.2.6 States shall require those individuals who have access to personal identification information within student files meet State and/or Federal legal requirements for working with youth (e.g., State and Federal criminal background checks or fingerprinting).
- **1.2.7** States shall require driver education and training providers to maintain program and course records, as established by the State, to include at a minimum:
  - a) instructor information;
  - b) insurance records (e.g., vehicle, liability);
  - c) an individual record for each student, including the registration form, attendance record, performance results, and successful and unsuccessful completion of the classroom and BTW course; and
  - d) course completion certificates.

- **1.2.8** States shall require providers to follow State legal requirements for the transmission of personal and/or confidential student information electronically or in hard copy format.
- **1.2.9** States shall require providers to obtain parent/guardian authorization for minors to participate in all phases of the driver education and training course.

#### **1.3 Data Collection**

- 1.3.1 States shall require the responsible agency/agencies for driver education and training to utilize traffic citation, crash, and other available State data by coordinating/participating with their State Highway Safety Office and Traffic Records Coordinating Committee to improve the driver education and training program.
- **1.3.2** States shall require the responsible agency/agencies for driver education and training to collect and utilize data specific to the driver education and training program (e.g., student, instructor, course information) to improve the driver education and training program.
- **1.3.3** States shall require the responsible agency/agencies for driver education and training to maintain student information (e.g., driver license number) that can be linked to the driver record.
- **1.3.4** States shall require driver education and training providers to collect and report student identification/information, performance, and other data to the responsible State agency/agencies.
- 1.3.5 States should develop and make available a standardized post-course evaluation to be completed by participants.

#### **1.4 Program Evaluation**

- 1.4.1 States shall require the responsible State agency/agencies to utilize collected data (see 1.3 Data Collection) to evaluate the State's driver education and training program and identify opportunities for improvements.
- 1.4.2 States shall present evaluation findings of the driver education and training program to the State driver education advisory board, driver education and training providers, instructors, applicable State agencies, and make available to the public.
- 1.4.3 States should utilize a comprehensive evaluation tool, such as the NTDETAS State Self-Assessment Tool, to improve the driver education and training program.

Note: The NTDETAS State Self-Assessment Tool is available at <u>www.anstse.info</u>.

#### **1.5 Communication Program**

- **1.5.1** States shall develop and implement communication strategies directed at supporting driver education and training policy and program elements among stakeholders (e.g., State agencies, students, parents/guardians).
- **1.5.2** States shall promptly communicate to State approved driver education and training providers changes to laws, regulations, procedures, and other matters related to driver education and training.
- **1.5.3** States shall create a centralized resource library to house driver education and training information/documents for providers to access resources.
- 1.5.4 States should develop and implement a Statewide culturally equitable communication plan in collaboration and cooperation with the State Highway Safety Office, driver education and training programs, driver licensing, and highway safety partners that informs the public:
  - a) about the State GDL system (i.e., multi-stage driver licensing process) laws including, but not limited to:
    - i. the role of supervised driving,
    - ii. duration of each GDL stage,
    - iii. passenger restrictions,
    - iv. safety belt use,
    - v. nighttime driving restrictions, and
    - vi. restrictions of electronic devices.
  - b) of the risk factors associated with novice teen driver crashes;
  - c) of the benefits of completing a State approved driver education course;
  - d) on the role of parental/guardian monitoring and involvement;
  - e) about State guidelines and regulation of driver education and training;
  - f) of resources for novice teen drivers with disabilities that includes a list of approved driver rehabilitation programs; and
  - g) on the State's highway safety initiatives.

1.5.5 States should utilize National and State traffic safety marketing materials (e.g., public service announcements, advertisements, flyers) to promote novice teen driver safety.

#### **1.6 Risk/Emergency Preparedness**

1.6.1 States shall prepare for both emergency and disaster situations through risk management planning. As part of a greater Statewide Risk Management Plan, individual agencies shall develop and maintain a Continuity of Operations Plan (COOP) that provides guidance for ensuring essential functions in driver education and training programs continue in spite of unforeseen circumstances. The State shall:

Note: Refer to *Stopgap Measures in Driver Education During a Pandemic or Emergency*<sup>19</sup> for more information.

- a) conduct a risk/emergency assessment process to identify potential risks, provide a description of the risks, and estimate a timeline for the risks;
- b) determine the list of essential functions that must be conducted to avoid or minimize interruption in services;
- c) establish and maintain a risk manager role or position (i.e., not a specific person); and
- d) develop a risk/emergency Response Plan to help determine when to accept, avoid, mitigate, transfer, or take some other action to address an emergency, should one arise.

#### 2.0 Education/Training

Quality driver education and training prepares students to perform safer driving practices, thereby reducing crashes, injuries, and fatalities on our roadways. Quality driver education and training courses facilitate learning experiences that cultivate the students' ability to receive and retain the information needed to drive safely.

This section provides standards for:

- Driver Education Course Requirements
- Driver Education Curricula
- Assessment and Feedback on Student Progress
- Traditional Classroom Instruction
- Virtual Classroom Instruction (if authorized by the State)
- Online Classroom Instruction (if authorized by the State)
- Blended/Hybrid Classroom Instruction
- Behind-the-Wheel (BTW) Instruction

Attachments related to this section:

- Attachment A ADTSEA Curriculum Standards
- Attachment B DSAA Curriculum Standards
- Attachment F Reference Guide regarding Taxonomy use related to Driver Rehabilitation Specialists, Special Education Driver Education Schools or Other Specialty Instructors

Note: The standards contained in Sections 2.1 through 2.3 apply to multiple delivery channels/modalities of instruction, followed by Sections 2.4 through 2.8 that provide standards specifically for traditional classroom, virtual, online, blended/hybrid and BTW instruction.

#### 2.1 Driver Education Course Requirements

2.1.1 States shall, at a minimum, require courses to:

- a) be taught by State approved instructors who meet Section 3.0 of the NTDETAS;
- b) conduct classroom and behind-the-wheel (BTW) instruction that is concurrent and integrated;
- c) distribute classroom/theory instruction over a period of 30 days or more;
- d) consist of classroom/theory instruction with a maximum of 120 minutes per day;
- e) consist of BTW instruction with a maximum of 90 minutes per day per student (may be in addition to classroom instruction provided daily);
- f) consist of a maximum number of 30 students;
- g) ensure that students successfully complete all approved instructional elements to receive credit;

h) issue completion certificates in a secure manner specified by the State;
i) be culturally equitable and apply multicultural education practices for all students;
j) be accessible to all students; and.
k) accommodate those with disabilities.
2.1.2 States shall require core driver instructional hours, that focus on the driving task and safe driving practices, to meet the criteria established by the course goals, objectives, and outcomes. States:
<ul> <li>a) shall require minimum instruction hours consisting of at least: <ul> <li>45 hours of classroom/theory (e.g., traditional, online, virtual, hybrid)</li> <li>10 hours of behind-the-wheel instruction;</li> <li>10 hours of additional flexible, verifiable instruction, such as but not limited to the following: <ul> <li>Observation</li> <li>Behind-the-wheel</li> <li>Range</li> <li>Simulation</li> <li>Classroom/Theory (e.g., traditional, online, virtual, hybrid)</li> <li>Online independent student learning (e.g., hazard anticipation training)</li> <li>Virtual/Augmented reality</li> </ul> </li> <li>Note: Use of substitution hours within classroom and BTW shall not reduce the amount of instruction.</li> </ul></li></ul>
b) should require instructional hours be delivered in multiple learning segments, such as provided in Attachments A and B, giving the student time to gain exposure and experience between each segment.
<ul> <li>2.1.3 States shall require each student to utilize an approved (hardcopy or electronic) driver education textbook, workbook, and/or other educational materials of equal scope.</li> <li>Note: A State driving manual or handbook is a supplement and not a substitute for a textbook.</li> <li>2.1.4 States shall require distribution of course information to students and parents/guardians, including but not limited to: <ul> <li>a) syllabus,</li> <li>b) requirements and applicable policies,</li> </ul> </li> </ul>

- c) overall learning objectives and outcomes,
- d) grading policy/rubric,
- e) timeline of important dates and deadlines,
- f) parent/guardian requirements and resources,
- g) privacy and legal policies; and
- h) contact information, hours of availability, and expected response time for providers.

#### 2.2 Driver Education Curricula

2.2.1 States shall have driver education and training curricula that meet or exceed current nationally recognized curriculum content standards such as those provided by ADTSEA and DSAA – Attachments A and B.

Note: Each State retains authority in determining which curricula meet its State standards.

# 2.2.2 States shall require driver education and training providers to use State approved formalized curricula. The curricula shall:

- a) be up-to-date, accurate, and meet State specified driver education and training curriculum content standards as described in Section 2.2.1;
- b) include formalized lesson plans for theory (e.g., traditional classroom, online, virtual), practical (e.g., BTW, driving ranges, simulation), and observational learning (observation if applicable);
- c) include goals, objectives, and outcomes for learning;
- d) include methodology for assessing student performance;
- e) be organized into lessons which build upon previous instruction;
  - f) employ learning techniques to aid student retention, including a variety of learning modalities in various combinations, such as discussion, reflection, videos, written materials, activities, projects, testing, animation, interactive media, and simulation;
- g) incorporate both active learning and higher-order/critical thinking opportunities (e.g., risk management and decision making);
- h) provide student resources with appropriate levels of readability;
- i) be culturally equitable and apply multicultural education practices for all students;

- j) adhere to copyright / intellectual property laws; and
- k) include a glossary.

#### 2.3 Assessment of and Feedback on Student Progress

2.3.1 States shall ensure that providers and instructors deliver timely and ongoing feedback to students and parents/guardians on students' progress in classroom, BTW, and any other laboratory phases, including remedial instruction, during and at the conclusion of the driver education and training course. Feedback on the student's progress shall be:

a) consistent with the concepts, lessons, and course objectives;

#### b) provided following the teaching of classroom and driving instruction; and

c) constructive, informative, and frequently provided.

2.3.2 States shall establish requirements for the process of student assessments, including:

- a) types of assessments;
- b) how assessments will be conducted; and
- c) verification of each student's identity, if not in-person, as specified by the State.

2.3.3 States shall require on-going classroom and BTW assessments that are graded, tracked, and recorded by the provider and/or the instructor. The methods for assessment (e.g., homework assignments, worksheets, quizzes, driving assessments) shall be clearly stated.

2.3.4 States shall require successful completion of approved end-of-course knowledge and skill assessments based on course goals and objectives. End-of-course knowledge and skills assessments shall:

- a) have at least two different versions or a pool of randomized questions to prevent students from copying and/or sharing test information; and
- b) be accessible to all students and accommodate those with disabilities, when necessary.

#### 2.4 Traditional Classroom Instruction

- 2.4.1 States shall require providers to make available seating and writing space for each student.
- 2.4.2 States shall prohibit instructors from teaching in multiple classrooms simultaneously.

	rtual Classroom Instruction (applicable only if virtual instruction is thorized by the State)	
No	te: This section does not refer to asynchronous online delivery of driver education.	
cla	ates shall establish requirements for the virtual delivery (synchronous) of assroom instruction that specify how to organize, standardize, communicate, and liver the instructional content/curriculum. At a minimum:	
a)	<ul> <li>a) provide course information, including technical troubleshooting, instructional support, contact information, hours of availability, and expected response time by the instructor(s);</li> </ul>	
b)	verify student's identity for attendance requirements;	
c)	indicate resources and materials that are supplemental to the course and made available through links, downloadable documents, software, an online resource center, or other means that are easily accessible to the student;	
<b>d</b> )	facilitate courses by State-approved instructors who meet Section 3.0 of the NTDETAS;	
e)	instructors who facilitate are trained in the effective use of virtual/synchronous driver education learning systems and methodologies by means of State approved training, in addition to the basic instructor training program;	
f)	instructors facilitate the course by interacting with students regularly, through chat and other instructor managed communication tools, actively monitoring students' progress, and reviewing assignments or tests as necessary;	
g)	instructors should facilitate student-to-student interaction, through chat and other instructor managed communication tools, which allows students to benefit from the questions and experiences of others; and	
h)	students should have their webcam turned on, allowing the instructor to facilitate interactions and actively monitor students, if permitted.	
	ates shall establish requirements for the technological design and capabilities for tual delivery of driver education. The requirements shall, at a minimum:	
a)	ensure the technological requirements for virtual delivery are provided, prior to the beginning of the course;	
b)	track student time in the course by amount of time logged in;	
c)	require students to have meeting login information to access the course; and	
<b>d</b> )	establish policies for addressing student inactivity.	

- 2.5.3 States shall establish legal requirements for the delivery of virtual driver education and training. At a minimum:
  - a) authorize the virtual provider of the course by the State regulating authority to operate within the State and to provide virtual driver education instruction that meets State certification requirements;
  - b) indicate on the virtual providers website if they are currently approved by the State regulating authority;
  - c) meet State and/or Federal accessibility standards (e.g., conforms to US Sections 504 and 508 of the Rehabilitation Act in connection to information technology) to ensure equitable access to all users;
  - d) ensure student information is kept confidential, protected, and securely stored in all electronic or non-electronic formats. The virtual provider meets all privacy and confidentiality requirements as set out by State laws, by the Family Educational Rights and Privacy Act (FERPA), Health Insurance Probability and Accountability Act (HIPAA) and by any other Federal laws;
  - e) follow State and/or Federal legal requirements for the transmission of personal and/or confidential information, electronically or in hard copy format;
  - f) provide the virtual provider's privacy policy;
  - g) keep all recorded student activity and test results in a secure file/location as required by the State regulating authority; and
  - h) meet all State and/or Federal requirements concerning the use of technology for professional or instructional purposes.

# 2.6 Online Classroom Instruction (applicable only if online instruction is authorized by the State)

Note: This section does not refer to live (synchronous) virtual delivery of driver education.

- 2.6.1 States shall establish requirements for the instructional design of online asynchronous delivery of classroom instruction that specifies how to organize, standardize, communicate, and deliver the instructional content/curriculum. At a minimum:
  - a) post on the course website course information, including technical troubleshooting, instructional support, contact information, hours of availability, and expected response time by the instructors;
  - b) indicate resources and materials that are supplemental to the course and made available through links, downloadable documents, software, an online resource

	center, or other means that are easily accessible to the student;
c)	facilitate courses by State-approved instructors who meet Section 3.0 of the NTDETAS;
d)	in addition to the basic instructor training program, instructors who facilitate are trained in the effective use of online/ asynchronous driver education learning systems and methodologies by means of State approved training;
e)	ensure courses are instructor-led or instructor-monitored/supported; and
f)	ensure there is no commercial marketing or advertising within the actual course content and lessons, other than the course provider's labeling/branding.
del	ates shall establish requirements for the structural design of online asynchronous livery of driver education that describes how the course will be implemented to bet the learning and course requirements. At a minimum:
a)	the structure of the course should facilitate student-to-student interaction, which allows students to benefit from the questions and experiences of others, through asynchronous mode(s) (e.g., blogs, emails, forums, message boards, podcasts, etc.); and
b)	the course content should be delivered in chronological order.
	ates shall establish minimum requirements for the technological design and pabilities of online asynchronous delivery of driver education. At a minimum:
a)	the technological requirements such as hardware, web browser, software, internet connection speed, and other required components to take the course are provided or clearly described on the website, prior to the opportunity to purchase or begin the course;
b)	student time in the course is tracked by amount of time logged in and work successfully completed. Technical support, downloading videos, and other non-course related support shall not count toward student time;
c)	the web pages and components (i.e., site map, contact page, orientation section, etc.) are clearly organized and explain how to navigate and use the course;
d)	the course and the website are user-friendly, easy to navigate, and accessible to students;
e)	students are required to have a username and password to enroll in and access the course at all times;
f)	the identity of each student is verified on a random basis throughout the course to ensure the student who signed in is the individual registered for and taking the course (i.e., the student is prompted with security questions upon login and

	randomly during the course);
g)	when students log back into the course, they are able to resume from their last verified activity; and
h)	students are logged out or removed from the course after a specified amount of inactivity, as established by the State. The student shall be required to login again to resume or start the course over.
	ates shall establish legal requirements for the delivery of online asynchronous iver education. At a minimum:
a)	the online provider of the course shall be authorized by the State regulating authority to operate within the State and to provide online driver education instruction that meets State certification requirements;
b)	online providers indicate clearly and accurately on their website if they are currently approved by the State regulating authority;
c)	how the course meets State and/or Federal accessibility standards (e.g., conforms to US Sections 504 and 508 of the Rehabilitation Act in connection to information technology) to ensure equitable access to all users;
d)	student information is kept confidential, protected, and securely stored in all electronic or non-electronic formats. The online provider meets all privacy and confidentiality requirements as set out by State laws, by the Family Educational Rights and Privacy Act (FERPA), Health Insurance Probability and Accountability Act (HIPAA) and by any other Federal laws;
e)	online providers follow State and/or Federal legal requirements for the transmission of personal and/or confidential information, electronically or in hard copy format;
<b>f</b> )	the online provider's privacy policy is clearly stated on the website;
g)	all recorded student activity and test results are kept in a secure file/location as required by the State regulating authority; and
h)	all hardware and software meet State and/or Federal requirements concerning the use of technology for professional or instructional purposes.
2.7 Ble	ended/Hybrid Classroom Instruction
ins Cla	ates shall require providers utilizing blended/hybrid delivery to meet the relevant struction standards for Traditional Classroom Instruction (Section 2.4), Virtual assroom Instruction (Section 2.5), and/or Online Classroom Instruction (Section 6) settings.

#### 2.8 Behind-the-Wheel (BTW) Instruction 2.8.1 States shall require training vehicles used for driver education and training to meet State requirements. At a minimum, States: shall require vehicles to be in safe mechanical condition and be equipped with: a) i. dual-control brakes, ii. instructor eye-check and rear-view mirrors, iii. student driver signage visible from all sides of the vehicle, and iv. adaptive vehicle equipment controls for students with disabilities, if applicable. shall require vehicles, including dual control brake and cable be inspected, at b) least annually, by an inspection facility or Automotive Service Excellence certified technician and meet all other State vehicle requirements. Additionally, training vehicles with adaptive modifications shall be inspected as per manufacturer/installing vendor recommendations; c) should require a safety and maintenance log on each training vehicle; and should require additional equipment for BTW and driving range instruction such as: d) i. first-aid/body fluid kit ii. fire extinguisher, at least rated 5-B:C by the Underwriter Laboratories (UL) iii. reflective devices iv. flashlight v. other safety kits vi. crash reporting kit vii. brake and accelerator pedal extensions, if required viii. appropriate seat cushion(s), if required ix. cell phone (for emergency use only) x. on board camera to record lesson, if permitted by parent/guardian and allowed by the State xi. global positioning system (GPS) 2.8.2 States shall require instructor supervision at all times when students are operating a training vehicle. The instructor shall be in either a: a) seated position in the front right seat of the vehicle during BTW instruction; or b) central supervising position for driving range instruction, fully interactive simulation, and virtual/augmented reality, if applicable. 2.8.3 States shall establish requirements for a maximum of three students in a training vehicle at one time (one student driver and two observers). 2.8.4 States shall require providers to refer students with disabilities to a certified driver rehabilitation specialist or specialized instructor, when necessary.

- 2.8.5 States shall establish, if necessary, requirements for maximum substitution hours/ratio of simulation, virtual/augmented reality, and driving range instruction for BTW instruction. Substitution should be based/determined on published research and evidence-based best practices for novice teen drivers (e.g., no more than one-third of the required BTW hours shall be substituted with any combination of simulation, virtual/augmented reality, and driving range). If permitted, States shall establish requirements:
  - a) for an instructor to be trained in the use and instruction of:
    - i. simulation,
    - ii. virtual augmented reality, and/or
    - iii. driving ranges.
  - b) for simulation, virtual/augmented reality, and/or driving ranges to support classroom and BTW content and follow an approved curriculum.

#### 3.0 Instructor, Mentor, and Instructor Trainer Qualifications

Training of instructors is essential to the success of every State's driver education and training program. Driver education and training instructors have a clear and direct impact on the future driving behaviors of novice teen drivers. Well-trained instructors are better equipped to positively influence the novice teen's driving behavior, supporting a State's goal to reduce novice teen crashes, injuries, and fatalities. Quality instructor training produces knowledgeable and effective instructors capable of expertly facilitating the learning process.

Information relating to teaching/learning principles and how to deliver driver education and training must be the focal point of instructor training. Ample time must be devoted and required for successful completion of the instructor preparation program. It is also essential that instructors are prepared to meet or exceed all applicable standards provided in Section 2 Education/Training.

This section outlines minimum standards for instructor qualifications and training which applies to both public and private/commercial driving schools, including:

- Instructor Candidates
- Instructors
- Instructor Mentors
- Instructor Trainers

Attachments related to this section:

- Attachment C ANSTSE Stages for Driver Education Instructor Preparation Program
- Attachment D ANSTSE Table of Contents of the Model Training Materials for Driver Education Instructors, which corresponds to the training modules in the model training materials (available for free download at <u>www.anstse.info</u>)
- Attachment F Reference Guide regarding Taxonomy use related to Driver Rehabilitation Specialists, Special Education Driver Education Schools, or Other Specialty Instructors

#### **3.1 Instructor Candidates**

3.1.1 States shall utilize a system for preparing driver education and training instructor candidates to deliver driver education and training courses, such as provided in *Attachment C – Stages for Driver Education Instructor Preparation Program.* 

Note: The standards contained in Sections 3.1.2 through 3.1.5 are based on and support Attachment C.

- **3.1.2** States shall require, at a minimum, the following prerequisites for instructor candidates:
  - a) possess a valid driver's license for at least the previous three consecutive years;
  - b) have an acceptable driving record (e.g., no suspension, revocation, or cancellation within the previous three consecutive years);

- c) pass criminal background check(s);
- d) achieve minimum academic education requirement(s) (e.g., high school graduate, college graduate); and
- e) meet minimum age requirement (be at least 21 years of age).
- 3.1.3 States shall require programs to administer entry-level assessments to instructor candidates to evaluate their knowledge and skills for the safe operation of a motor vehicle to become eligible to participate in the driver education and training instructor preparation program, such as outlined in *Attachment C Stages for Driver Education Instructor Preparation Program –* Stage I Entry-Level Assessments. Each instructor candidate must pass a basic:
  - a) driver knowledge assessment, including State-specific traffic laws; and
  - b) driving skills assessment.
- 3.1.4 States shall require instructor candidates to successfully complete a program covering driver education and training classroom and behind-the-wheel (BTW) curricula content, such as outlined in *Attachment C Stages for Driver Education Instructor Preparation Program* Stage II Foundations of Novice Driver Education, from State approved driver education and training curricula that are based on State specific information and curriculum content standards, such as those provided in Attachments A and/or B.
- 3.1.5 States shall require instructor candidates to successfully complete a course(s) and demonstrate teaching and learning techniques, such as outlined in *Attachment C Stages for Driver Education Instructor Preparation Program* Stage III The Teaching Task / Teaching and Learning Theories, that meet or exceed the content provided in the ANSTSE *Model Training Curriculum for The Teaching Task Instructor Preparation Program* (see Attachment D).

Note: This standard applies to traditional instructors of novice teen drivers. Additional instructor training is required to make appropriate accommodations for novice teen drivers with disabilities. (Refer to Attachment F).

**3.1.6** States shall require instructor candidates to demonstrate knowledge of administrative requirements, including but not limited to:

- a) comprehension of laws, regulations, rules, policies, and ethics addressing:
  - i. school, instructor, and student in-vehicle responsibilities;
  - ii. dual controls and restraint systems use;
  - iii. use of optional in-vehicle instructional equipment;
  - iv. use of driver education and training textbooks, workbooks and other resources;
  - v. assessment requirements;
  - vi. record keeping protocol;
  - vii. students' privacy per State and Federal requirements (e.g., FERPA);
  - viii. integrated, distributive, and concurrent learning;
  - ix. use of instructional technology;
  - x. class and facility requirements;
  - xi. mandatory reporting; and
  - xii. code of conduct.
- b) when to make appropriate referrals for novice teen drivers with disabilities (e.g., certified driver rehabilitation specialist or specialized instructor).
- 3.1.7 States shall require instructor candidates to complete practice teaching assignments during the instructor training course, including both classroom and BTW lessons. The instructor candidate must demonstrate how to:
  - a) utilize lesson plans for classroom and BTW instruction;
  - b) facilitate student learning towards positive habit development;
  - c) assess student performance;
  - d) apply risk assessment procedures and provide timely command and control inputs (e.g., verbal commands, steering assist and/or dual brake assist) for BTW instruction;
  - e) conduct synchronous and asynchronous instruction, if applicable; and
  - f) conduct simulation based, virtual/augmented reality, and driving range instruction, if applicable.

3.1.8 States shall require instructor candidates to teach classroom and/or BTW instruction to novice teen drivers with a qualified mentor (see Standards 3.3 and 3.4) while being supervised and evaluated, such as outlined in *Attachment C – Stages for Driver Education Instructor Preparation Program –* Stage IV Student Teaching.

- **3.1.9** States shall ensure a student teaching mentorship program provides instructor candidates with the knowledge of administrative requirements.
- 3.1.10 States shall require instructor candidates to pass exit assessment, such as outlined in *Attachment C – Stages for Driver Education Instructor Preparation Program –* Stage V Exit Assessments:
  - a) driver knowledge and skills; and
  - b) instructor knowledge and skills.

**3.2 Instructors** 

- **3.2.1** States shall require instructors to successfully complete approved continuing education and professional development.
- **3.2.2** States shall require the review of an instructor's driving record, as determined by the State.
- **3.2.3** States shall require instructors to pass criminal background check(s), as determined by the State.
- **3.2.4** States shall require instructors who are working with students with disabilities to obtain additional training.

Note: Refer to Attachment F.

3.2.5 States should require instructors who are working with students with disabilities to meet additional qualifications.

Note: Refer to Attachment F.

3.2.6 States should require instructor candidates to successfully complete supplemental courses/requirements (e.g., CPR, First Aid).

#### **3.3 Instructor Mentors**

- **3.3.1** States shall require instructor mentor candidates to meet the following prerequisites, including but not limited to:
  - a) satisfy all qualifications of an instructor contained in Sections 3.1 through 3.2, as well as State requirements for mentors;
  - b) documented experience teaching classroom and/or BTW driver education and training, as determined by the State; and
  - c) demonstrate comprehension of driver education and training curricula and State standards and/or requirements.

- 3.3.2 States shall require approved training for candidates to become instructor mentors, including but not limited to, completion of:
  - a) coursework designed to prepare them to be an instructor mentor, and
  - b) a mentorship with a qualified instructor mentor.
- 3.3.3 States shall require instructor mentors to:
  - a) meet the same ongoing training and requirements as instructors contained in Section 3.2;
  - b) utilize communication skills to establish quality professional relationships with instructor candidates to impart knowledge of ethical standards, instructional best practices, and leadership roles;
  - c) support instructor candidates to develop rapport with all students, their parents/guardians, and the community through reflective practice on issues of equity and diversity;
  - d) assist instructor candidates to further develop their knowledge of the curriculum and skills for instruction and assessment;
  - e) model best practices for the instructor candidate;
  - f) help instructor candidates to understand their professional licensure obligations and to pursue professional growth;
  - g) continually work on improving their mentoring and observational skills to improve their effectiveness; and
  - h) focus on their own professional growth and adhere to professional ethics/codes of conduct.

**3.4 Instructor Trainers** 

- **3.4.1** States shall require instructor trainer candidates to meet, at a minimum, the following prerequisites:
  - a) satisfy all qualifications of an instructor contained in Sections 3.1 through 3.2, as well as State requirements for instructor trainers;
  - b) documented experience teaching classroom and/or BTW driver education and training, as determined by the State;
  - c) demonstrate comprehension of driver education and training curricula and State standards and/or requirements;

- d) exhibits ability to work with adult learners; and
- e) exhibits leadership as a driver educator.
- 3.4.2 States shall require instructor trainer candidates to complete approved training, including but not limited to:
  - a) coursework designed to prepare them to be an instructor trainer;
  - b) practice teaching assignments; and
  - c) a mentorship with a qualified instructor trainer.

**3.4.3 States shall require instructor trainers to:** 

- a) complete ongoing professional development specific to instructor trainers;
- b) demonstrate and maintain knowledge, skills, and attitudes as applied to driver education and training practices;
- c) utilize various strategies to help instructor candidates learn and perform;
- d) apply best practices in teaching, learning, and assessment;
- e) promote cultural equity and multicultural education practices;
- f) apply appropriate, equitable, consistent, fair, just, and impartial methods of assessment;
- g) provide positive, constructive, and timely feedback;
- h) demonstrate and promote safe, lawful driving behavior;
- i) promote the benefits and proper use of instructional classroom technology;
- j) promote the benefits and proper use of vehicle safety features;
- k) adhere to professional ethics/codes of conduct; and
- 1) protect instructor candidates' privacy regarding State and Federal requirements (e.g., Family Educational Rights and Privacy Act (FERPA)).

#### 4.0 Coordination, Collaboration and Communication with Driver Licensing

The driver licensing authority, the driver education and training agency, law enforcement, and the judicial system must coordinate, collaborate, and communicate to ensure that individuals obtaining a driver license are trained and qualified to operate a motor vehicle on public roadways.

Completion of a State-approved driver education and training course is a fundamental component within a State's driver licensing process. States are encouraged to execute and enforce a comprehensive Graduated Driver Licensing (GDL) system (i.e., multi-stage driver licensing process) that incorporates driver education and training and parent/guardian involvement (see Section 5 Parent/Guardian Involvement). Administered and enforced by States, GDL is a system under which novice teen driver privileges are granted in phases to restrict beginners' initial experience behind-the-wheel to lower-risk situations. As experience is gained, the restrictions are gradually lifted, so novice teen drivers are more experienced and mature when they receive their full, unrestricted licenses. GDL systems with restrictions, have been proven to be a successful countermeasure in reducing novice teen driver crashes, injuries, and fatalities.<sup>20</sup>

This section provides standards for:

- Coordination, Collaboration, and Communication Among State Driver Licensing and Driver Education Agency/Agencies
- Requirements for Licensing
- Coordination, Collaboration, Communication and Education of Law Enforcement and Judiciary
- Driver License Testing
- Driver Education Testing for Licensure

Attachment related to this section:

• Attachment E – NHTSA Uniform Guidelines for State Highway Program – Highway Safety Program Guideline No. 4 – Driver Education

#### 4.1 Coordination, Collaboration, and Communication Among State Driver Licensing and Driver Education Agency/Agencies

4.1.1 States shall establish and execute a defined process to ensure coordination, collaboration, and communication among the State's driver licensing and driver education and training agency/agencies.

- 4.1.2 States shall ensure the State driver licensing and driver education and training agency/agencies meet regularly on an ongoing basis regarding driver education and training activities to, at a minimum:
  - a) share information and data;
  - b) plan, execute, and evaluate projects;

- c) ensure driver license testing and driver education and training practices complement each other and are not in conflict;
- d) identify and utilize potential partnerships and stakeholders to support activities; and
- e) review current and proposed legislation, rules, and regulations.
- 4.1.3 States shall ensure the driver licensing agency has an identified representative that participates in the State's interagency working group and the driver education and training advisory board or similar group.

### **4.2 Requirements for Licensing**

- 4.2.1 States shall adopt a comprehensive Graduated Driver Licensing (GDL) system (i.e., multi-stage driver licensing process), that includes driver education and training (which meets the NTDETAS), restrictions on high-risk driving situations, and sanctions for violating the system's provisions.
- 4.2.2 States shall require completion of an approved driver education and training course, that meets the NTDETAS, as an integral component of a GDL system (i.e., multi-stage driver licensing process).
- 4.2.3 States shall record or link completion of a driver education and training course to the individual's driver record.
- 4.2.4 States shall develop and employ a measurement and evaluation plan to determine the impact of the State's GDL system (i.e., multi-stage driver licensing process).
- 4.2.5 States shall develop an action team or task force to review, update, and improve the Graduated Driver Licensing (GDL) system (i.e., multi-stage driver licensing process) and changes to laws.
- 4.2.6 States should extend the GDL system (i.e., multi-stage driver licensing) requirements for those who do not successfully complete a State-approved driver education and training course.
- 4.2.7 States should require everyone seeking an initial driver license, regardless of age, to participate in the GDL system (i.e., multi-stage driver licensing), including the completion of driver education and training.

### 4.3 Coordination, Collaboration, Communication, and Education of Law Enforcement and Judiciary

4.3.1 States shall ensure the State's interagency working group and driver education and training advisory board or similar group includes law enforcement and judicial system liaisons/representatives as members. (See Standard 1.1.1 c)

- 4.3.2 State driver licensing and driver education and training agencies shall provide information and training, as needed, on the State's GDL system (i.e., multi-stage driver licensing process) requirements, restrictions, and sanctions to all parties responsible for enforcing and adjudicating driver laws.
- **4.3.3** States shall ensure restrictions and sanctions for noncompliance of the State's GDL system (i.e., multi-stage driver licensing process) requirements are developed, enforced, and recorded on the driver record.
- **4.3.4** States shall develop and employ a measurement and evaluation plan to determine the impact of the State's enforcement and sanctions of the GDL system (i.e., multi-stage driver licensing process).

### **4.4 Driver License Testing**

4.4.1 States shall have valid and reliable driver licensing knowledge and skills/road tests covering the knowledge and skills needed to demonstrate the ability to drive safely, once licensed.

Note: the American Association of Motor Vehicle Administrators (AAMVA) *Noncommercial Model Driver Testing System*<sup>21</sup> provides a good example of a testing model that has been demonstrated to be valid and reliable.

Note: For more information on developing valid and reliable knowledge and skills/road tests, refer to AAMVA's *Guidelines for Knowledge and Skills Test Development*<sup>22</sup>.

- 4.4.2 States shall ensure the State's licensing agency, in collaboration with the State interagency working group and advisory board, routinely reviews and updates the State's Driver Manual and testing requirements (i.e., every three years or as needed). See Standard 4.1.2 c.
- 4.4.3 States shall ensure all testing allows for reasonable accommodation and complies with Federal regulations (e.g., ADA and HIPAA regulations).

### 4.5 Testing for Licensure through Driver Education

- 4.5.1 States shall ensure knowledge and/or skills tests administered by driver education and training providers (e.g., third party) that qualify a student for a driver license meet or exceed the same requirements as the State driver license test(s).
- 4.5.2 States shall ensure driver education and training instructors who administer knowledge and/or skills tests (e.g., third party), that qualify a student for a driver license, meet or exceed the same training, certification, and compliance requirements as a State driver license examiner.

### **5.0 Parent/Guardian Involvement**

Parents/guardians play a vital role that supports and enhances driver education and training in the novice teen's learning to drive experience. Parents/guardians are responsible for providing driving practice, regulating the novice teen's driving exposure, serving as an effective driving coach, and assisting the novice teen throughout their learning to drive experience. Parent/guardian involvement shall be an integral component within the State's GDL system (i.e., multi-stage driver licensing process) and must be coordinated among the State agencies responsible for driver education and training and driver licensing.

This section provides standards for:

- Supervision
- Parent/Guardian Seminar
- Parent/Guardian Information and Resources

Resource on the ANSTSE website (www.anstse.info) related to this section:

• Core Elements of Driver Education Parent/Guardian Seminars<sup>23</sup>

### 5.1 Supervision

- 5.1.1 States shall encourage the parent/guardian to supervise their novice teen driver's learning to drive experience during all stages of the GDL system (e.g., supervised on-street practice driving, determining when their teen is ready to advance to the next stage of the GDL system).
- 5.1.2 States shall require the parent/guardian to supervise their novice teen driver during a learner permit period of 6 months or more.<sup>24</sup>
- **5.1.3** States shall require that the parent/guardian certifies the novice teen driver completes:
  - a) a minimum of 50 hours of supervised on-street practice driving (optimally 100 hours) distributed over the learner permit period, and

Note: The minimum of 50 hours of supervised practice driving should not be reduced by a novice teen driver's participation in driver education and training programs, nor should any other activity be considered a substitute.

- b) at least 10 hours of nighttime on-street practice driving as part of the minimum 50 hours.
- 5.1.4 States shall encourage parents/guardians/supervising driver to conduct supervised practice driving with their novice teen:
  - a) during most days of the week and various times of day;
  - b) that progresses from simple to more complex driving situations;

- c) is completed in a wide variety of traffic, roadway, and weather conditions;
- d) incorporates feedback from progress/final assessment reports provided by the driver education and training school/instructor(s); and
- e) in a vehicle with necessary modifications or adaptations, if applicable.
- 5.1.5 States shall require the parent/guardian to ensure the novice teen driver complies with intermediate license stage requirements and restrictions (e.g., passenger restrictions, limits on driving at night, use of electronic devices).<sup>24</sup>
- 5.1.6 States shall communicate to parents/guardians that the State's restrictions are considered minimums, and that parents/guardians are encouraged to add to or extend these restrictions, as appropriate.

### 5.2 Parent/Guardian Seminar

Note: Refer to ANSTSE Core Elements of Driver Education Parent/Guardian Seminars<sup>23</sup>.

**5.2.1** States shall require the parent/guardian of a novice teen driver to complete a parent/guardian seminar.

Note: This seminar does not count towards the required hours of driver education and training classroom instruction.

Note: Seminars may be delivered through a variety of channels (e.g., face-to-face, virtual, online).

Note: It is recommended that parents/guardians complete a minimum of two seminars (e.g., prior to and at the conclusion of the course).

# 5.2.2 States shall ensure that the content in parent/guardian seminars describes their responsibilities and opportunities to manage the novice teen driver's overall learning to drive experience to reduce the novice teen's risk.

5.2.3 States should ensure that parent/guardian seminars include content elements such as those contained in the ANSTSE *Core Elements of Driver Education Parent/Guardian Seminars*<sup>23</sup>.

### **5.3 Parent/Guardian Information and Resources**

Note: Refer to ANSTSE Core Elements of Driver Education Parent/Guardian Seminars<sup>23</sup>.

# **5.3.1** States shall have a centralized location for parents/guardians and providers to obtain current information and resources for the supervision of the novice teen's learning to drive experience.

5.3.2 States should have, within their centralized location, information and resources for parents/guardians including, but not limited to:

- a) the resources listed in ANSTSE's *Core Elements of Driver Education Parent/Guardian Seminars*<sup>23</sup>;
- b) any resources developed by the State;
- c) a list of State-approved driver education and training schools;
- d) a list of certified driver rehabilitation specialists, or specialized instructor, for evaluation and training assistance when deemed appropriate for students with disabilities;

Note: Refer to Attachment F

- e) information to support students with cognitive and/or physical challenges (e.g., contacting Certified Driver Rehabilitation Specialists or other specialized instructor for evaluation and/or specialized training, if applicable);
- f) lessons/resources for parents/guardians to conduct effective supervised practice driving; and
- g) tips on how to select a driver education and training course.

5.3.3 States should encourage course providers to distribute information and resources listed in 5.3.2 to parents/guardians.

### **Glossary and Acronyms**

A Glossary and list of acronyms are provided in this section. The glossary terms and acronyms are in alphabetical order. The Glossary provides commonly-accepted definitions and should be reviewed both prior to and during review of the NTDETAS. Referring to the Glossary will provide clear guidance regarding the intended meaning of specific terms. For each term, the section in which the term can be found, and the source of the definition is indicated. Sources can include:

- NTDETAS, meaning it originated from the original 2009 standards. •
- ANSTSE, meaning it was defined by the members of the association.
- An organization.
- A website.

Accommodate – an alteration of environment, curriculum format, or equipment that allows an individual with a disability to gain access to content and/or complete assigned tasks. (Sections 1 and 2)

Reference: www.Washington.edu

Active learning – an approach to instruction that involves actively engaging students with the course material through discussions, problem solving, case studies, role plays and other methods. (Section 2)

Reference: www.Queensu.ca

Administrative sanctions – a formal imposition of penalty, fine, revocation, suspension or other compulsory or restrictive action related to the conduct of a public or private provider used to provide incentives for obedience with rules and regulations. (Section 1) Reference: ANSTSE developed

Administrator – most senior governmental manager position involved in the program. (Section 1) Reference: Adapted from 2009 NTDETAS by ANSTSE

Asynchronous – not existing or happening at the same time. Allows the student to learn content on their own schedule, within a certain timeframe, usually through online instruction. (Section 2) Reference: Oxford dictionary and www.online.osu.edu

Assess / Assessment (sometimes referred to as evaluation or test) - the systematic process of documenting and using empirical data on knowledge, skill, attitudes, and beliefs to refine programs and improve student learning. (Sections 1, 2, 3) Reference: https://knilt.arcc.albany.edu

**Behind-the-wheel** (BTW) – in-vehicle instructional driving time during which the novice teen driver operates a vehicle and is guided by an instructor in the front passenger seat. (Sections 1-4) Reference: Adapted from 2009 NTDETAS by ANSTSE

**Blended** – a "mix" of traditional, virtual, and/or online learning. (Section 2) Reference: ANSTSE developed

**Blog** – as a noun, a website or a section of website used for expressing ideas and opinions of users in multiple modalities, often maintained by one leader. As a verb, maintaining or adding content to an ongoing asynchronous discussion housed at a target website. (Section 2) Reference: 2017 NTDETAS

**Certification** – to award a certificate to a person attesting to the completion of a course of study or the passing of a qualifying examination. (Sections 1, 2, 4) Reference: <u>www.tsfa.org</u>

**Certified Driver Rehabilitation Specialist** (CDRS) – an experienced practitioner in the field of driver rehabilitation who, through successful completion of a formal certification examination, has proven their capacity to provide services within the full spectrum of driver rehabilitation services. (Section 5) Reference: Association for Driver Rehabilitation Specialists (ADED) www.aded.net

Reference: Association for Driver Rehabilitation Specialists (ADED) www.aded.net

**Classroom content** – that part of the driver education program that imparts the knowledge, theory, principles, laws, rules, best practices, and related curriculum content through studentcentered activities, lecture, media, programmed instruction, independent study, and other effective techniques. (Section 3) Reference: 2009 NTDETAS

**Classroom setting** – the delivery of the theory portion of the curriculum is not limited to a traditional physical location but includes the services of a professional instructor/facilitator in a variety of physical, real-time, virtual, online, and video settings. (Section 2) Reference: Adapted from 2009 NTDETAS by ANSTSE

**Command and control** – providing verbal instruction or physically controlling the vehicle (e.g., steering assist and/or dual brake assist) to aid the novice teen driver while driving. (Section 3) Reference: ANSTSE developed

**Communication plan** – a document that proposes how to target audiences using marketing communication channels such as advertising, public relations, experiences or direct mail for example. It is concerned with deciding who to target, when, with, what message and how. (Section 1)

Reference: 2017 NTDETAS

**Concurrent** – the practice of conducting behind-the-wheel, classroom, and observation teaching methods where there is no significant break of instruction between the classroom, behind-the-wheel, and observation phases. (Sections 2, 3) Reference: Adapted from 2009 NTDETAS by ANSTSE **Confidential** – spoken, written, and acted upon in privacy. (Sections 1, 2) Reference: <u>www.dictionary.com</u>

**Consistent** – agreeing or accordant; compatible; not self-contradictory; constantly adhering to the same principles, course, form, etc. (Sections 2) Reference: <u>www.dictionary.com</u>

**Content** – the subject matter taught in driver education. (Sections 2, 3, 5) Reference: 2009 NTDETAS

**Continuing education** – education provided for adults after they have left the formal education system, consisting typically of short or part-time courses that brings participants up to date in a particular area of knowledge or skills. (Section 3) Reference: Oxford dictionary

**Course** – the program of study, under the guidance of a driver education instructor that, upon successful completion, results in a student having the basic knowledge, skills, and attitudes necessary to safely operate a motor vehicle within the highway transportation system. (Sections 1-5)

Reference: Adapted from 2017 NTDETAS by ANSTSE

**Cultural equity** – consistent and systematic fair, just, and impartial treatment of all individuals while teaching driver education. Course content should be related to all students' cultural context. (Sections 1, 3) Reference: National Association of Multicultural Education

**Curriculum** – the overall written program of instruction, including classroom, behind-thewheel, and observation instruction. Generally required to be approved by the State in which the program is delivered. (Sections 1, 2, 3) Reference: Adapted from 2009 NTDETAS by ANSTSE

**Disability/Disabilities** – any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities and interact with the world around them (e.g., participate in traditional driver's classroom education and/or behind-the-wheel training). (Sections (1-3 and 5) Reference: Centers for Disease Control and ADED https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html

**Distributive learning** – where the acquisition of knowledge and skills is spread over a longer period of days and weeks with fewer hours of instruction in a day, as opposed to fewer days and weeks, but more daily hours of instruction resulting in the same number of hours. (Sections 2, 3) Reference: 2009 NTDETAS

**Driver education and training** – to transfer knowledge, develop skills, and influence the attitudes and behaviors of the novice teen, so they can perform as a safe and competent driver, to

reduce risk-taking and improve safety decision-making, thereby minimizing their risk, and thus contributing to the reduction of crashes, fatalities, and injuries. (Sections 1-5) Reference: 2017 NTDETAS

**Driver (driving) record** – includes information about the driver, as well as their driving history, traffic violations, suspensions, tickets, mailing address, and other information. (Sections 1, 3 and 4)

Reference: AAMVA

**Driver rehabilitation specialist** (DRS) – a professional who plans, develops, coordinates, and implements driving services for individuals with disabilities. These professionals are typically allied health personnel, driving instructors and others who have specialized in this area and received continuing education in the field, but who have not obtained the certification offered by the Association for Driver Rehabilitation Specialists (ADED). (Sections 1, 2) Reference: ADED <u>www.aded.net</u>

**Driving range** – a defined roadway course closed to public traffic and allowing for the recreation of various basic driving scenarios. (Section 2) 2009 NTDETAS

**Evaluate** (evaluation) – the collection, analysis, and interpretation of information about a program or process to judge its effectiveness. (Sections 1, 3, 4) Reference: <u>http://www.icbl.hw.ac.uk/ltdi/implementing-it/eval.htm</u>

**Face-to-face** – when two or more people meet in person. (Sections 2, 5) Reference: 2017 NTDETAS

**Facilitate** – an instructor, either through instructor-led or instructor-monitored/supported courses, works with online learners to monitor progress, attendance and, at a minimum, uses asynchronous interaction (e.g., chats, blogs, emails, forums, message boards, podcasts) to provide training and assist in learner motivation. (Section 2) Reference: 2017 NTDETAS

**Graduated Driver Licensing (GDL)** – a comprehensive multi-stage driver licensing system which includes three stages of licensure: a learner's stage/permit, followed by an intermediate stage or provisional license, and then full privilege stage/license. The system places restrictions and sanctions on high-risk driving situations for novice drivers that specifically includes nighttime driving, number of passengers, zero-alcohol tolerance, portable electronic communication and entertainment devices, and required use of safety belts. The restrictions are gradually lifted as the novice driver successfully progresses through the stages of licensure. (Sections 1-5)

Reference: NHTSA Uniform Guidelines for State Highway Safety Programs Guideline No. 4 – Driver Education and <u>www.transportation.gov</u>.

**Higher order/critical thinking opportunities** – applying strategies for risk management and decision making (e.g., situational awareness, space management, problem solving, visual search) in a dynamic environment. (Section 2) Reference: Adapted from the 2017 NTDETAS by ANSTSE

**Hybrid course** – refer to "Blended course." (Section 2)

**Inclusive** – not excluding any individuals with a physical or mental disability by providing appropriate accommodations or referral at the State level. (Section 1) Reference: ANSTSE developed

**Informative Standards** – optional components which utilize descriptors such as "should" or "may." These standards generally support an overall larger standard and should be met if possible. (Introduction) Reference: 2017 NTDETAS

**In-vehicle** – consists of behind-the-wheel training and/or observation training time. (Section 3) Reference: 2017 NTDETAS

**Instructional hours** – means those hours students are provided with the opportunity to engage in educational activity planned by and under the direction of a teacher, exclusive of breaks and time spent for meals. (Section 2) Reference: 2017 NTDETAS

**Instructor/teacher** (driver educator) – the person who delivers the curriculum; includes certified or licensed classroom and behind-the-wheel instructors (also known as coach or facilitator). (Sections 1-5) Reference: 2017 NTDETAS

**Instructor candidate** – the person who is receiving training through teacher training courses to become an instructor/teacher. (Section 3) Reference: 2017 NTDETAS

**Instructor-led** – instructors lead traditional classroom, hybrid/blended or fully distance learning course (i.e., virtual classroom) and actively monitor, participate, and conduct face-to-face or synchronous instruction with learners. (Section 2) Reference: 2017 NTDETAS

**Instructor-monitored/supported** – instructors monitor the online course, each student's progress, and review and assess student submissions. Instructors are available to answer questions or concerns through asynchronous or synchronous methods throughout the course. (Section 2) Reference: 2017 NTDETAS **Instructor (teacher) preparation program** – a State-approved course of study, the completion of which signifies that an enrollee has met all the State's educational or training requirements for initial certification or licensure to teach in the State. (Section 3) Reference: <u>https://eric.ed.gov</u>

**Instructor trainer** – a qualified person offering instruction to qualify individuals as driver education and training instructors. Reference: <u>www.lawinsider.com/dictionary/instructor-trainer</u>

**Integrated** – classroom, behind-the-wheel, observation, simulation and range-based driver education shall be scheduled to include an alternating mix of instruction throughout the duration of the driver education course. (Sections 2, 3) Reference: 2017 NTDETAS

**Intermediate license** – the mid-phase, which limits unsupervised driving in high-risk situations (e.g., night driving, driving with teen passengers) in the multi-stage driver licensing process (e.g., provisional or second stage of GDL). (Section 5) Reference: adapted from Governor's Highway Safety Association (GHSA) <u>www.ghsa.org</u>

**Knowledge** – facts, information, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject. (Sections 1, 2, 3, 4) Reference: Oxford dictionary

**Laboratory phases** – the portion of the driver education program, under the direct guidance of an instructor that enables students to learn through practice driving experiences, either real or simulated. (Section 2) Reference: 2017 NTDETAS

**Learner permit** – the initial driving or instructional permit, which consists of supervised driving, in the multi-stage driver licensing process (e.g., first stage of GDL). (Section 5) Reference: Governor's Highway Safety Association (GHSA) <u>www.ghsa.org</u>

**Learning to drive experience** – a novice teen driver gaining knowledge and skill in operating a motor vehicle by practicing the activity with a parent, guardian or other licensed adult. (Section 5)

Reference: www.collinsdictionary.com

**Licensing** (for novice teen drivers) – formal permission from a governmental authority to operate a motor vehicle on public roadways. (Sections 2, 4, 5) Reference: 2009 NTDETAS

**Measure/measurement** – estimate or assess the extent, quality, value, or effect of something. (Section 4) Reference: Oxford languages **Mentor** – a knowledgeable, experienced, and trusted advisor to give guidance, direction, and support to instructors. (Sections 1, 3) Reference: Oxford dictionary

**Mentorship** – a structured, one-to-one relationship between an instructor and instructor candidate to increase knowledge and build skills toward accomplishing future goals and milestones. (Section 3) Reference: ANSTSE developed

**Monitoring** – observing and checking the progress or quality of (something) over a period of time. (Section 1) Reference: Oxford dictionary

**Multicultural education practices** – The ability to successfully teach students who come from a culture or cultures other than our own. It entails developing certain personal and interpersonal awareness and sensitivities, understanding certain bodies of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural teaching and culturally responsive teaching (Standards 1, 2, 3)

Reference: National Education Association (NEA) www.nea.org

Multi-stage driver licensing program/process – see definition of Graduated Driver Licensing.

**Multiple learning segments** – a system where combined segments 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/guardian conducts supervised driving for a specified time or amount, then the novice teen driver returns for the remaining classroom and/or behind-the-wheel instruction. (e.g., Michigan's two-stage model where the final six hours of classroom is provided at least 3 months after the first classroom segment). (Section 2)

Reference: Adapted from 2009 NTDETAS

**Noncommercial Model Driver Testing System** (NMDTS) – developed by AAMVA and establishes uniformity between jurisdictions for the testing of noncommercial operators and provides a base of core information for driver manuals and parent/guardian instruction guides. (Section 4)

Reference: American Association of Motor Vehicle Administrators (AAMVA) www.aamva.org

**Normative Standards** – mandatory components which utilize descriptors such as "shall," "must" or "will." To be in compliance the state must meet this standard in full. (Introduction) Reference: 2017 NTDETAS

**Novice teen driver** – any teen who falls under the State's GDL system (e.g., multi-stage driver licensing system. (Sections 1-5) Reference: 2009 NTDETAS

**Observation** – refers to the time during which a student is riding in the back seat of a dual control vehicle observing instructions of the driver education instructor and procedures and techniques of the student driver who is participating in behind-the-wheel instruction. (Section 2) Reference: Illinois State Board of Education <u>https://www.isbe.net/Documents/driver\_ed\_faq.pdf</u>

**Online** – a driver education program in which the classroom/theory portion is delivered via the Internet, asynchronously where the student learns on their own schedule (self-paced), within a certain timeframe without any real time instructor and can access course materials at any time. (Sections 2, 3, 5)

Reference: Adapted from 2009 NTDETAS by ANSTSE

**Online independent student learning** – independent, asynchronous student study utilizing software or an online program, which directly meets and helps achieve the goals and objectives of the driver education program. (Section 2) Reference: ANSTSE developed

**Parent/guardian** – a parent, guardian or other licensed adult responsible for overseeing a novice teen driver's learning-to-drive experience. (Sections 1, 2, 4, 5) Reference: 2009 NTDETAS

**Practice teaching assignment** – involves one or more instructor candidates teaching other instructor candidates during the teacher training course to gain experience teaching. (Section 3) Reference: ANSTSE developed

**Professional development** – the ongoing acquisition of knowledge, skills, and awareness of new or emerging issues by instructors, generally required as a condition of certification or license as an instructor by a State. (Section 3) Reference: 2009 NTDETAS

**Program** – the full scope of delivery and administration of novice teen driver education, including both classroom/theory and behind-the-wheel instruction and not just the curriculum utilized. (Sections 1-5) Reference: Adapted from 2017 NTDETAS by ANSTSE

**Provider** – the legal entity ("private" or "public") that offers a driver education program or parent/guardian seminar. (Section 1) Reference: 2017 NTDETAS

**Recertification** – to renew the certification of, especially certification given by a licensing board. (Section 1) Reference: <u>www.thefreedictionary.com</u> **Rehabilitation Act** – the Federal legislation that authorizes a variety of training and service discretionary grants administered by the Rehabilitation Services Administration. The Act also includes a variety of provisions focused on rights, advocacy, and protections for individuals with disabilities. (Section 2) Reference: www.ada.gov

**Reliable** – an index of how consistently a test measures something. For example, if a knowledge test is reliable, a person taking the test twice would be expected to get a similar score both times. (Section 4)

Reference: <u>www.aamva.org</u>

**Report** – to give or render a formal account or statement of. (Sections 1, 5) Reference: 2009 NTDETAS

**Simulation** (driving simulation) – a computer-controlled environment that presents aspects of the driving experience that are representational of real-world driving in a driving simulator. Driving simulators allow objective measurements of drivers' responses to driving tasks, different road and weather conditions, and programmed traffic events. In interactive simulators, the driver's accelerator, brake, and steering responses influence subsequent events within the driving scenario which makes them practical and efficient for basic vehicle-control training. Simulators also allow trainers to expose learner drivers to driving challenges and hazards that are too difficult or too dangerous to reproduce during an on-road training lesson. (Sections 2, 3) Reference: Pierro Hirsch, Ph.D.

**Skill** – the ability, coming from one's knowledge, practice, aptitude, etc., to do something well; competent excellence in performance. (Sections 2, 3, 4) www.dictionary.com

**Specialized instructor** – a driver education professional that provides driver training to special populations. The instructor has completed specific training and education necessary to effectively train populations that may include but are not limited to: new or seasoned drivers with physical disabilities requiring adaptive equipment to drive, drivers with cognitive or perceptual difficulties, drivers with autism spectrum disorder, older drivers, drivers with anxiety disorder, and drivers with low vision.

Reference: Association for Driver Rehabilitation Specialists (ADED) www.aded.net/

**Stakeholder** – an agency, organization or individual who has a vested interest in driver education and training (e.g., State's licensing agency, law enforcement, highway safety office, driver education providers, instructors, instructor trainers, parents/guardians, teens, research institutions, curriculum developers, professional associations). (Section 1) Reference: ANSTSE developed

**Standard** – a written definition, program description, limit or rule, approved and monitored for compliance by an authoritative agency, professional or recognized body as a minimum acceptable benchmark. (Sections 1, 4) Reference: 2017 NTDETAS

**Standardized** – to bring to or make established standard size, weight, quality, strength, or the like. (Sections 1, 2) Reference: <u>www.dictionary.com</u>

**Student teaching** – a temporary period of teaching by an instructor candidate, under supervision by an instructor or mentor. (Section 3) Reference: ANSTSE developed

**Substitution//Substitution Ratio** – the number of hours that can be used to substitute simulation, virtual/augmented reality, and driving range instruction for BTW instruction. (Section 2) Reference: ANSTSE developed

**Synchronous** – refers to a setting in which the instructor and student(s) participate in the instruction at the same time usually through virtual instruction. (Sections 2, 3) Reference: 2017 NTDETAS

**Teaching and learning theories** – conceptual frameworks in which knowledge is processed and retained during learning. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding is acquired or changed, and knowledge and skills retained. (Section 3) Reference: www.medium.com

**Theory** – while "theory" specifically refers to the general principles of the body of knowledge related to driving, including the ideal set of facts, principles and circumstances for driving, it is sometimes used as a substitute for "classroom" when referring to driver education - as in "...the classroom or theory portion of driver education." (Sections 2, 3) Reference: 2017 NTDETAS

**Underserved** – populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. (Section 1) Reference: www.whitehouse.gov

**Valid** – an index of how well a test measures what it is supposed to be measuring. Thus, the validity of a driver licensing test is a measure of how well the test indicates that the applicant knows how to be a responsible driver. (Sections 3, 4) www.aamva.org

**Virtual** – classroom instruction delivered via a video conferencing platform, delivered synchronously with a live instructor in real-time allowing for discussion and evaluation. (Sections 2, 3, 5) Reference: ANSTSE developed **Virtual/augmented reality** – the computer-generated simulation of a three-dimensional image or environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors. Can be used for drivers to safely practice traffic rules, hazard awareness, and general driving behavior. Reference: Oxford languages

### Acronyms

Actonyms		
AAA	American Automobile Association	
AAMVA	American Association of Motor Vehicle Administrators	
ADA	Americans with Disabilities Act	
ADED	Association for Driver Rehabilitation Specialists	
ADS	Adult Driver Services	
ADTSEA	American Driver and Traffic Safety Education Association	
ANSTSE	Association of National Stakeholders in Traffic Safety Education	
BMV	Bureau of Motor Vehicles	
BS	Bachelor of Science	
BTW	Behind-the-wheel	
CAE	Certified Association Executive	
CBIS	Certified Brain Injury Specialist	
CCRP	Certified Clinical Research Professional	
CDI	Clinical Documentation Integrity	
CDRS	Certified Driver Rehabilitation Specialist	
CHOP	Children's Hospital of Philadelphia	
COOP	Continuity of Operations Plan	
CPR	Cardiopulmonary resuscitation	
DE	Driver Education	
DETA	Driver Education and Training Administrators	
DOE	Department of Education	
DOS	Department of State	
DOT	Department of Transportation	
DMV	Department of Motor Vehicles	
DPI	Department of Public Instruction	
DRP	Driver Rehabilitation Professional	
DRS	Driver Rehabilitation Specialist	
DSAA	Driving School Association of the Americas	
FERPA	Family Educational Rights and Privacy Act	
GDL	Graduated Driver Licensing	
GHSA	Governors Highway Safety Association	
HDESD	High Desert Education Service District	
HIPAA	Health Insurance Portability and Accountability Act	
IASE	Iowa Association of Safety Education	
KDSEA	Kansas Driver Safety Education Association	
LDI	Leadership Development Institute	
MBA	Master of Business Administration	
MDTSEA	Minnesota Driver and Traffic Safety Education Association	
MODSEA	Missouri Driver Safety Education Association	

MPH	Master of Public Health
MS	Master of Science
MVA	Motor Vehicle Administrators
NHTSA	National Highway Traffic Safety Administration
NMDTS	Noncommercial Model Driver Testing System
NSSP	National Student Safety Program
NTDETAS	Novice Teen Driver Education and Training Administrative Standards
OTR/L	Occupational Therapist, Registered, Licensed
PDF	Portable Document Format
PMP	Project Management Professional
SME	Subject Matter Expert
SO	Sheriff's Office
TIRF	Traffic Injury Research Foundation
TRB	Transportation Research Board
TSDC	Transportation Secure Data Center
UL	Underwriters Laboratories
WTSEA	Washington Traffic Safety Education Association

### History

The first edition of the Novice Teen Driver Education and Training Administrative Standards (NTDETAS) was developed in 2009 by a Working Group of volunteers who had a vested interest in driver education. The group consisted of representatives from within the driver education professional community with support from the National Highway Traffic Safety Administration (NHTSA). The primary purpose in developing the first edition was to define the future of driver education and help improve the delivery of driver education nationally. The Working Group sought feedback and input from the larger driver education community and conducted a conference for that purpose in Phoenix, Arizona.

In 2010, following the release of the initial NTDETAS, an association of major stakeholders was created to maintain and, when necessary, update the Standards.

Since the initial release of the NTDETAS, ANSTSE has served as the primary gatekeeper for the NTDETAS in the following capacity:

- Developed a maintenance system for identifying evolving areas of interest and in keeping the Standards current (2012).
- Created a corresponding Strategic Plan to assure strategic widespread adoption of the Standards throughout the U.S. (2012).
- Developed, online delivery standards found in Section 2: Education and Training of this national standards document, with the assistance from Highway Safety Services, LLC (HSS) and the Traffic Injury Research Foundation (TIRF), (2013).
- Developed instructor training standards and model training materials with the assistance of an expert working group known as the Teacher Training Working Group. These instructor training standards and a description of the materials can be found in Section 3: Instructor, Mentor, and Instructor Trainer Qualifications and Attachments C-D (2013).
- Incorporated classroom and behind-the-wheel delivery standards, online delivery standards, instructor training standards and model training materials, as well as a revision to the entire NTDETAS (2017).
- Introduced a Community of Practice (CoP) process to obtain expert input from over 70 stakeholders and subject matter experts from throughout the U.S. to revise and substantiate all included Standards (2022).
- Convened five working groups, one group for each of the five NTDETAS sections, that met through regular web meetings to share knowledge, expertise, and research to support the latest revisions of the NTDETAS (2022).
- Developed standards on risk/emergency preparedness, virtual classroom training, prerequisites, training and, requirements for candidate instructor trainers and mentors, driver education testing for licensure, and increasing access to parent/guardian involvement (2022).

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# Novice Teen Driver Education Curriculum Standards





## Classroom and In-Car Standards for Segment I and Segment II

2023

Novice Teen Driver Education and Training Administrative Standards

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# Segment I

## **Classroom and In-Car**

### American Driver and Traffic Safety Education Association National Curriculum Standards Introduction

Motor vehicle crashes are one of the leading causes of death for teenagers. Over one-half of these fatalities occur when the teenager is driving. Inexperience and immaturity are the leading factors that contribute to the over-representation of teenagers in traffic crashes. Driving is a complex task and takes time to learn. There is no simple solution: in many cases, crashes are not caused by lack of knowledge of basic traffic laws, or the lack of basic vehicle handling skills; instead, the issue is more complex. The problem appears to be largely a function of the developmental characteristics of youth: taking unnecessary risks, lack of respect for mortality, and the influence of peer pressure and environment. Novice drivers have limited experience, questionable driver attitudes, distorted risk acceptance, and a lack of judgment in critical situations. Ultimately, the consequence is the increased probability of unsafe driving behaviors that can result in a traffic crash with injuries or death to the driver and/or the passenger(s) in the motor vehicle and others around them.

These driver education content standards have been developed with the primary goal of providing a foundation for driver education programs and represent the goals by defining what should be learned. The standards are not curriculum. Curriculum involves lesson plans, textbooks, assignments, classroom activities and assessments; curriculum must be aligned to the standards to ensure student access to content which can help to reduce the crash involvement of novice teen drivers.

The standards will not provide classroom materials but shall guide the state's development of the curriculum or the "how" of teaching. The standards identify the critical content knowledge and skills that shall be taught in driver education courses to improve overall quality. Further, the standards ensure alignment of instruction to formative and summative evaluation. Therefore, these content standards - the "what" of driver education - outline expectations for curriculum development.

In 1993, the National Highway Traffic Safety Administration (NHTSA) convened a panel of national experts in traffic safety to identify research for training programs designed to reduce young driver risk taking and to heighten the decision-making skills. In 1994, Congress requested that NHTSA review novice driver education and recommend procedures for improving the training of drivers. The report documented NHTSA efforts; discussed why novice driver education may not be as effective as it had promised; documented the arguments for an improved program within the graduated licensing system; and identified four areas for restructuring novice driver education as an integral part of the licensing system.

In 1999, to determine the needs of a comprehensive instructional program, a document review resulted in a lifetime learning program outline. Three specific training periods were identified: pre-licensing, graduated licensing, and continuing licensing. Pre-licensing includes traffic safety education in the school, home, and public information areas. This phase also includes driver education and training efforts in the public and private sectors designed to prepare a driver for licensing. Graduated licensing includes parent training and driver education and training efforts by the public and private sectors that move beyond the pre-licensing efforts. Continuing licensing includes required, personal, and specialized training imposed by the court system, business, government, and the insurance industry to qualify for continued or additional licensing requirements or discounts.

In 2009, with assistance from NHTSA, the Novice Teen Driver Education and Training Administrative Standards (NTDETAS) were developed by representatives from the driver education professional community to define the future of driver education and to assist in improving the delivery of driver education programs nationally.

In 2017, a revision of the NTDETAS added standards for classroom, behind-the-wheel, and online deliveries as well as teacher training standards and materials. The 2017 revision included additional standards for advanced driver-assistance system (ADAS) safety features.

In 2022, the ADTSEA curriculum standards were revised through a working group to include updates to vehicle technologies, micro-mobility, drugged driving, sharing the road with motorcyclists, pedestrians, and bicyclists and students with disabilities.

A new section on advanced driver-assistance system (ADAS) safety features was added to outline what to instruct to students about the use of safety features, the safety benefits, concerns, abilities and limitations, and how to use ADAS for the safety of the vehicle occupants and other road users of the transportation system. The American Driver and Traffic Safety Education Association (ADTSEA) 2023 curriculum standards are referenced in the NTDETAS 2023 Edition as *Attachment A*.

Since the role of the driver educator is not limited to pre-licensing efforts in the public and private sector, it will need to be expanded to provide services for lifetime learning components. ADTSEA will continue to play a role in identifying the specific needs to accomplish the task of preparing a novice driver. The ADTSEA Curriculum Standards Working Group will regularly review the curriculum standards when needed as new issues are identified and new safety features become available.

### **Classroom Performances**

### Goals

A novice driver is a person who is able to:

- Demonstrate a working knowledge of rules, regulations and procedures of operating an automobile;
- Use visual search skills to obtain correct information and make managed-risk decisions for effective speed and position adjustments;
- Interact with other users within the Highway Transportation System by adjusting speed, space, and communications to avoid conflicts and reduce risk;
- Demonstrate balanced vehicle movement through steering, braking, and accelerating in a precise and timely manner throughout a variety of adverse conditions;
- Recognize vehicle safety features and explain the benefits of vehicle warning and assistance systems.
- Confirm the need to protect oneself and others through using active and passive vehicle occupant protection systems;
- Display knowledge of responsible actions in regard to physical and psychological conditions affecting driver performance; and
- Extend supervised practice with licensed parent or guardian to develop precision in the use of skills, processes, habits and responsibilities.

Skill evaluation for each driver will indicate progression for:

- Positioning a vehicle:
  - ✓ Based on visual referencing skills, dividing attention, space management,
- Procedures and sequencing for vehicle operational skill:
  - ✓ Based on pre-drive checks, driver readiness procedures, vehicle control skills, vehicle maneuvering, vehicle position and/or speed selection, and vehicle balance.
- Processing traffic and vehicle information into appropriate speed and position selection:
  - ✓ Based on visual search skills, dividing attention, and space management as measured by vehicle speed, roadway position, driver commentary, and appropriate communication.
- Precision movements for maintaining vehicle control and balance in expected and unexpected situations:
  - ✓ Based on vehicle speed control, dividing attention, vehicle balance, collision avoidance, response to mechanical failures, and traction loss prevention, detection, and control.
- Extending supervised practice with licensed parent or guardian:
  - ✓ Based on delivery of parent guide and completion of Program Skills Log.

### **Overview of Classroom Standards for Novice Driver Education**

### The student will participate in the state approved driver education 45-hour classroom program comprised of 22.5 sessions of 120-minute training segments.

### C 1.0 Classroom Standard One: Preparing to Operate a Vehicle

The student will:

- 1.1 become aware of program goals through a student/parent orientation.
- 1.2 recognize and comply with the rules of the road based national, state and local requirements.
- 1.3 recognize and illustrate vehicle operating space needed for managed-risk operation.
- 1.4 understand and practice processes and procedures for preparing to drive a vehicle. This includes being aware of and knowing how to utilize current vehicle safety features.
- 1.5 describe the value of occupant protection as a crash prevention and loss prevention tool for managedrisk driver performance
- 1.6 identify and practice a procedure for starting a vehicle (push starting the ignition or starting the engine).
- 1.7 identify and practice a procedure for securing a vehicle.
- 1.8 attend the student/parent debriefing at the conclusion of the course and complete the requirements of GDL.

### C 2.0 Classroom Standard Two: Understanding Vision and Vehicle Controls

The student will:

- 2.1 explain and apply basic concepts related to vision and perception to operate a vehicle.
- 2.2 explain and apply basic motion control techniques needed to operate a vehicle while minimizing weight transfer.
- 2.3 explain and apply the four basic techniques related to steering control needed to operate a vehicle.
- 2.4 identify and practice use of communication techniques, courtesy and respect in regard to other roadway users.
- 2.5 identify and practice methods for stopping a vehicle.
- 2.6 identify and develop vehicle reference points to know where the vehicle is positioned to the roadway.

### C 3.0 Classroom Standard Three: Introducing Traffic Entry Skills

The student will:

- 3.1 recognize, understand, determine meaning, and relate roadway conditions, signs, signals, and pavement markings to make managed-risk driving decisions.
- 3.2 understand procedures and processes for basic vehicle maneuvering tasks.

#### C 4.0 Classroom Standard Four: Introducing Intersection Skills and Negotiating Curves and Hills The student will:

- 4.1. discover how visual skills and mental perception lead to managed-risk driving decisions.
- 4.2. select, maintain, and adjust speed to reduce risk of collision in compliance with rules of the road.

### C 5.0 Classroom Standard Five: Space Management and Vehicle Control Skills in Moderate Risk Environments

The student will:

- 5.1. review and apply the principles of a space management system (i.e., SEE) to managed-risk vehicle operation making appropriate communication, speed, and lane position adjustments.
- 5.2. demonstrate and practice basic vehicle maneuvers for managed-risk operation and identify and respond to divided attention tasks.
- 5.3. identify procedures and practice techniques for managed-risk lane changes in a variety of lane change situations.
- 5.4. identify procedures and practice techniques for managed-risk perpendicular, angle, and parallel parking.
- 5.5. identify procedures and practice techniques for reduced-risk speed management.

### C 6.0 Classroom Standard Six: Developing Traffic Flow and Space Management Skills at Speeds Below 55 m.p.h.

The student will recognize and respond to:

- 6.1. roadway and traffic flow situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.2. space management situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.3. intersection entry situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.4. curve entry/apex/exit situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.5. planned passing situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

### C 7.0 Classroom Standard Seven: Developing Traffic Flow and Space Management Skills at Highway Speeds.

The student will recognize and respond to:

- 7.1. roadway and traffic flow situations on limited access roadways and roadways without limited access at maximum highway speeds.
- 7.2. space management situations on limited access roadways and roadways without limited access at maximum highway speeds.
- 7.3. merging, speed control, lane selection, and exiting situations on limited access roadways at maximum highway speeds.
- 7.4. gap selection, communication, speed control, and lane selection during passing situations on limited access roadways at maximum highway speeds.

### C 8.0 Classroom Standard Eight: Factors Affecting Driver Performance

The student will:

- 8.1. identify the high-risk effects of alcohol, marijuana, and other drugs, including prescription drugs on personality and driver performance.
- 8.2. recognize legal responsibility to not use alcohol, marijuana and other drugs that affect ability to operate a vehicle safely and develop strategies for alternative means of safe transportation.
- 8.3. understand the need for driver fitness to aid managed-risk driver performance and recognize that external and internal vehicle distractions, fatigue, and aggression may result in injury and physical damage crashes.
- 8.4. understand the impact of temporary impairments and long-term disabilities and the strategies to compensate and enhance for managed-risk driver performance.
- 8.5. identify risk factors affecting other drivers' performance and describe low-risk responses.

### C 9.0 Classroom Standard Nine: Managing Adverse Conditions

The student will:

- 9.1. recognize how adverse weather conditions can impact visibility and traction; and respond by adjusting speed to meet the ability to steer and stop within the limits of the conditions.
- 9.2. recognize how adverse weather conditions create visibility and traction problems and the effect on space management skills in regard to speed and position adjustments.
- 9.3. recognize how night driving creates a visibility problem and how this affects space management in regard to speed and position adjustments.

### C 10.0 Classroom Standard Ten: Other Roadway Users

The student will:

- 10.1 describe the characteristics and limitations of other motorized vehicles that may have different weight, speed, and visibility problems and respond with appropriate space management principles.
- 10.2 describe the characteristics and limitations of small, lightweight motorized and non-motorized vehicles and pedestrians that may have different speed and visibility problems and respond with appropriate space management principles.
- 10.3 describe the characteristics and limitations of tracked vehicles (trains and trolleys) that may have different weight, speed, and visibility problems and respond with appropriate space management principles.

#### C 11.0 Classroom Standard Eleven: Responding to Emergencies, Vehicle Malfunctions and Crashes The student will:

- 11.1. recognize and respond to vehicle malfunctions in a managed-risk manner; understand vehicle braking and safety features; and utilize proper braking techniques.
- 11.2. understand and relate how the roadway system is managed by police and state agencies to help deal with emergencies and vehicle malfunctions.
- 11.3. recognize the responsibilities for attending to a crash scene situation.

### C 12.0 Classroom Standard Twelve: Understanding Advanced Driver-Assistance Systems (ADAS) Safety Features

The student will:

- 12.1 identify vehicle safety technology
- 12.2 describe advanced driver-assistance systems (ADAS), including the benefits and concerns that enhance the safety of the driver and other users of the highway transportation system.
- 12.3 identify safety features within the categories of advanced driver-assistance system safety features.
- 12.4 identify the performance abilities and limitations of current safety features.
- 12.5 understand how to use safety features safely and effectively.

### C 13.0 Classroom Standard Thirteen: Making Informed Consumer Choices

The student will:

- 13.1. perform map reading and trip planning exercises using current and emerging technology that lead to an in-car family trip activity.
- 13.2. recognize problems consumers confront when making wise choices in purchasing insurance or an automobile.
- 13.3. describe future operator responsibilities in regard to licensing.
- 13.4. identify operator responsibilities in regard to traffic stops.
- 13.5. identify techniques for safely towing a boat or trailer or driving a special vehicle.
- 13.6. describe the impact vehicles have on the environment and develop strategies to reduce the carbon footprint.

### **Overview of In-car Standards for Novice Driver Education**

While participating in the state approved driver education 10 hour in-car training program and 12 hours observation comprised of not less than 20 sessions of 30-minute training segments, the participating student will demonstrate proficiency of the following tasks in 20 planned instructional routes.

#### IC 1.0. In-car Standard One: Preparing to Operate a Vehicle.

- **1.1 Preparations to Operate Vehicle.** The student will recognize the visible space around the vehicle, the necessity of making routine vehicle checks and adjustments prior to and after entering the vehicle, identify the location of alert and warning symbol lights, identify, and understand advanced driver-assistance system safety features, understand the operation of vehicle control and safety devices, and discover vehicle balance concepts when braking, accelerating, and steering.
- **1.2 Judgment of Vehicle to Roadway Position.** The student will recognize and analyze the standard and personal vehicle guides or reference points relationship to roadway position and vehicle placement.

#### IC 2.0. In-car Standard Two: Introducing Traffic Entry and Intersection Approach Skills.

The student will utilize critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments. Topics include:

- 2.1. Visualization of Intended Travel Path
- 2.2 Searching Intended Travel Path
- IC. 3.0. In-car Standard Three: Developing Visual and Mental Perception for Vehicle Control Tasks. The student will utilize critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk, low risk, moderate risk, and complex risk environments including basic vehicle control, space management, and apply the state vehicle law and rules of the road. Topics include:
  - 3.1 Speed Control
  - 3.2 Lane Position Selection
  - **3.3 Rear Zone Searching and Control**
  - **3.4** Following Time and Space
  - **3.5** Communication and Courtesy
  - 3.6 Sequential Steps to Problem-Solving (i.e., SEE)
  - **3.7** Practice Commentary

### IC. 4.0. In-car Standard Four: Responding to Emergency Situations.

- **4.1 Divide Focal and Mental Attention Between Intended Target, Travel Path, and Other Tasks.** The student will utilize critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments.
- **4.2** Identify, Assess and Respond to Vehicle Emergencies. The student will describe appropriate ways to prevent having a vehicle emergency and identify, assess, and respond to vehicle emergencies, including engine failure, brake failure and tire pressure failure.
- **4.3 Identify, Assess and Respond to Environmental Conditions.** The student will describe appropriate ways to prevent having an environmental emergency and identify, assess, and respond to environmental conditions, including traction loss, vehicle tires dropping off the pavement, line of sight loss situations and loss of path travel situations.

### IC. 5.0. In-car Standard Five: Assessment of Driver Performance.

- **5.1. Driver Assessment.** The student enrolled in a certified driver education program will be able to successfully demonstrate the key core behavioral patterns while performing the recommended procedures on a designated assessment route.
- **5.2.** Assessment of Vehicle Safety Technology. The student enrolled in a certified driver education program will be able to properly use and understand available vehicle safety technology.

### **Relationship between Classroom and In-Car Standards**

The following table describes how the classroom standards correlate with the in-car standards.

Classroom Standard	In-Car Standard
<ul> <li>C 1.0 Classroom Standard One: Preparing To Operate a Vehicle</li> <li>C 2.0 Classroom Standard Two: Understanding Vehicle Controls</li> </ul>	IC. 1.0 In-car Standard One: Preparing to Operate a Vehicle 1.1 Preparations to Operate Vehicle 1.2 Judgment of Vehicle to Roadway Position
<ul> <li>C 3.0 Classroom Standard Three: Introducing Traffic Entry Skills</li> <li>C 4.0 Classroom Standard Four: Introducing Intersection Skills and Negotiating Curves and Hills</li> </ul>	<ul> <li>IC. 2.0 In-car Standard Two: Introducing Traffic Entry and Intersection Approach Skills</li> <li>2.1. Visualization of Intended Travel Path</li> <li>2.2 Searching Intended Travel Path</li> </ul>
<ul> <li>C 5.0 Classroom Standard Five: Space Management and Vehicle Control Skills in Moderate Risk Environments</li> <li>C 6.0 Classroom Standard Six: Developing Traffic Flow and Space Management Skills at Speeds Below 55 m.p.h.</li> <li>C 7.0 Classroom Standard Seven: Developing Traffic Flow and Space Management Skills at Maximum Highway Speeds</li> <li>C 10.0 Classroom Standard Ten: Other Roadway Users</li> </ul>	<ul> <li>IC. 3.0 In-car Standard Three: Developing Visual and Mental Perception for Vehicle Control Tasks</li> <li>3.1 Speed Control</li> <li>3.2 Lane Position Selection</li> <li>3.3 Rear Zone Searching and Control</li> <li>3.4 Following Time and Space</li> <li>3.4 Communication and Courtesy</li> <li>3.5 Using Three Steps to Problem-Solving (i.e., SEE)</li> </ul>
C 8.0 Classroom Standard Eight: Factors Affecting Driver Performance	Not covered in-car
<ul> <li>C 9.0 Classroom Standard Nine: Managing Adverse Conditions</li> <li>C 11.0 Classroom Standard Eleven: Responding to Emergencies, Vehicle Malfunctions and Crashes</li> </ul>	<ul> <li>IC. 4.0 In-car Standard Four: Responding to Emergency Situations</li> <li>4.1 Divide Focal and Mental Attention Between</li> <li>4.2 Identify, Assess and Respond to Vehicle Emergencies</li> <li>4.3 Identify, Assess and Respond to Environmental Conditions</li> </ul>
C 12.0 Classroom Standard Twelve: Understanding Advanced Driver-Assistance Systems (ADAS) Safety Features	IC 5.0 In-car Standard Five: Assessment of Driver Performance 5.2. Assessment of ADAS Safety Features
C 13.0 Classroom Standard Thirteen: Making Informed Consumer Choices	Not covered in-car

### Essential Knowledge and Skills for Driver and Traffic Safety Education

### Driver and Traffic Safety Education: Classroom

- (A) General Requirements. Driver education is generally a required prerequisite to qualify for a driver permit between 14 years 6 months and before age 18 dependent on state licensing requirements.
- (B) Introduction. State regulated driver and traffic safety education provides the foundation for students, assisted by parents/mentors, to begin the lifelong learning process of managed risk driving practices. Students acquire essential knowledge, skills, and experiences to perform managed risk driving in varying traffic environments. Satisfactory completion of the driver and traffic safety education course prepares the student to continue the graduated driver licensing process.
- (C) **Responsibilities.** Teachers manage student efforts to meet or exceed minimum competency standards through a classroom instruction that includes student-centered activities, modeling, knowledge assessment, skill assessment, guided observation, and parental involvement. Concurrent and integrated operation of classroom and in-car instruction is required for student knowledge and skill development.

### (D) Classroom Knowledge and Skills Standards.

### C 1.0 Classroom Standard One: Preparing to Operate a Vehicle

The student will:

- 1.1 become aware of program goals through a student/parent orientation.
- 1.2 recognize and comply with the rules of the road based on national, state, and local requirements.
- 1.3 recognize and illustrate vehicle operating space needed for managed-risk operation.
- 1.4 understand and practice processes and procedures for preparing to drive a vehicle. This includes being aware of and knowing how to utilize vehicle safety technology.
- 1.5 describe the value of occupant protection as a crash prevention and loss prevention tool for managed-risk driver performance.
- 1.6 identify and practice a procedure for starting a vehicle.
- 1.7 identify and practice a procedure for securing a vehicle.
- 1.8 attend the student/parent debriefing at the conclusion of the course and complete the requirements of GDL.

### This standard relates to Standard IC 1.0.

The following details explain the content standards listed above.

### C 1.1 Student will become aware of program goals through a student/parent orientation.

- 1.1.1 Make introductions with instructor
- 1.1.2 Understand purpose of orientation session
- 1.1.3 Understand how the driver education program will be conducted
- 1.1.4 Identify the Graduated Driver Licensing (GDL) requirements and responsibilities
- 1.1.5 Complete course registration forms
- 1.1.6 Understand course requirements, policy, rules, and documentation for successful completion
- 1.1.7 Identify student classroom rules
- 1.1.8 Identify student in-car rules
- 1.1.9 Identify in-car driving plan and routes

- 1.1.10 Understand driving with temporary impairment and permanent disabilities.
  - a. Use of controlled substances (illegal and legal drugs that are controlled by the government and are more likely to be abused by individuals)
  - b. Use of prescription and over the counter medicines
- 1.1.11 Identify program, student, parent and teacher partnership and responsibilities.
- 1.1.12 Identify the need for maintaining communications
- 1.1.13 Identify injury risk for teens.
- 1.1.14 Identify managed risk driving goals.

### C 1.2 Student will recognize and comply with the rules of the road based on state and local requirements.

- 1.2.1 Signs, signals, and markings
- 1.2.2 Legal stops and restricted speeds
- 1.2.3 Pedestrian and bicyclist rights and duties
- 1.2.4 Safety responsibility law
- 1.2.5 Speed regulations
- 1.2.6 Laws related to impaired driving
- 1.2.7 Driver handbook references

### C 1.3 Student will recognize and illustrate vehicle operating space needed for managed-risk operation.

- 1.3.1 Identify visual limitations to the front, rear and sides of the vehicle
- 1.3.2 Identify the length and width of the vehicle's blind zones
- 1.3.3 Identify size of vehicle tire contact patches
- 1.3.4 Adjust rear and side view mirror settings
  - a. Identify traditional mirror settings used for some vehicles
  - b. Identify blind zones and the use of enhanced mirror settings

### C 1.4 Student will understand and practice processes and procedures for preparing to drive a vehicle.

- 1.4.1 Understand mental and physical well-being
- 1.4.2 Manage emotions
- 1.4.3 Protect others by using provided safety equipment
- 1.4.4 Pre-entry checks
  - a. Approach vehicle with key/key fob and be alert for other pedestrians and drivers
  - b. Check outside and inside the vehicle prior to entry for a variety of concerns (e.g., broken glass, fluid leaks, objects, children, pets, snow build up, tires)
- 1.4.5 Lock doors after entry
- 1.4.6 Make vehicle adjustments
  - a. Head restraints
  - b. Seat
  - c. Rear and side view mirrors
  - d. Safety restraints
  - e. Steering wheel
  - f. Pedals
  - g. Adaptive systems (e.g., steering mechanism or hand controls), if necessary
- 1.4.7 Understand gauges, electronics, and accessories
- 1.4.8 Alert and warning symbols and locations
- 1.4.9 Vehicle control devices

- 1.4.10 Safety, communication, comfort, and convenience devices
- 1.4.11 Alerts to vehicle safety technology system malfunctions
- 1.4.12 Worn or dirty sensors/devices
- 1.4.13 Purpose and use of vehicle's owner's manual
- 1.4.14 Routine vehicle checks
- 1.4.15 Tire safety
  - a. Tire pressure
  - b. Tread depth
  - c. Tire wear and damage

## C 1.5 Student will describe the value of occupant protection as a crash prevention and loss prevention tool for managed-risk driver performance.

- 1.5.1 Occupant protection knowledge
  - a. Active restraints
  - b. Passive restraints
  - c. Active passive integration
  - d. Frontal crash protection
  - e. Side impact protection
  - f. Rear impact protection
- 1.5.2 Occupant protection use and misuse
  - a. Myths
  - b. Lap belt adjustments
  - c. Shoulder restraint adjustments
  - d. Legal requirements
- 1.5.3 Protecting children
  - a. Age and seat requirements
  - b. Weight and seat requirements
  - c. Proper seat placement
  - d. Legal requirements
- 1.5.4 Vehicle control
  - a. Safety belt adjustments
  - b. Airbag and steering control
  - c. Active passive integration assist (APIA)
  - d. Front impact
  - e. Side impact
  - f. Rear impact

#### C 1.6 Student will identify and practice the procedures for starting a vehicle

- 1.6.1 Check and ensure that the parking brake is set
- 1.6.2 Press the brake
- 1.6.3 Select appropriate gear for starting vehicle
- 1.6.4 Recognize alert lights and symbols for safety accessories
- 1.6.5 Operate ignition starting device
- 1.6.6 Select and operate appropriate vehicle accessories
- 1.6.7 Recognize warning lights and symbols for engine or system accessories

## C 1.7 Student will attend the student/parent debriefing at the conclusion of the course and continue meeting the requirements of the GDL.

- 1.7.1 Review program driver skill log requirements
- 1.7.2 Evaluation of destination driving route
- 1.7.3 Review licensing requirements
- 1.7.4 Student responsibilities
- 1.7.5 Media advertising
- 1.7.6 Use of natural resources
- 1.7.7 Parent responsibilities
- 1.7.8 Making safe vehicle choices

### C 2.0 Classroom Standard Two: Understanding Vision and Vehicle Controls

The student will:

- 2.1 explain and apply basic concepts related to vision and perception to operate a vehicle.
- 2.2 explain and apply basic motion control techniques needed to operate a vehicle while minimizing the amount and rate of weight transfer.
- 2.3 explain and apply the four basic techniques related to steering control needed to operate a vehicle.
- 2.4 identify and practice use of communication techniques, courtesy and respect in regard to other roadway users.
- 2.5 identify and practice methods for stopping a vehicle.
- 2.6 identify and develop vehicle reference points to know where the vehicle is positioned to the roadway.

This standard relates to Standard IC 1.0.

- C 2.1 Student will explain and apply basic concepts related to vision and perception to operate a vehicle.
  - 2.1.1 Identify vision and mental perception requirements:
    - a. Three basic visual fields (central, fringe or focal, peripheral) and how they are used in the driving task
    - b. Compare visual skills to mental perception
    - c. Techniques to improve visual skills
    - d. Techniques to improve mental perception of traffic events
    - e. Overcoming visual deficiencies
  - 2.1.2 identify open space prior to moving from brake to accelerator
  - 2.1.3 Identify visual target
  - 2.1.4 Follow path of travel to target
  - 2.1.5 Reference vehicle to path of travel
  - 2.1.6 Maintain an open line of sight 20-30 seconds ahead
  - 2.1.7 Develop searching skills based on dividing visual and mental attention between two or more tasks

## C 2.2 Student will explain and apply basic braking and acceleration control techniques needed to operate a vehicle while controlling weight transfer.

- 2.2.1 Recognize how speed affects vehicle direction
- 2.2.2 Place the vehicle into motion smoothly
  - a. Changing vehicle load—side to side (vehicle roll)
    - i. Steering movements
    - ii. Brake and steering combinations
  - b. Changing vehicle load—front to rear (vehicle pitch)
    - i. Releasing brake suddenly
    - ii. Covering brake downhill
    - iii. Light accelerator pressure
    - iv. Progressive accelerator pressure
    - v. Thrust accelerator pressure
    - vi. Excessive acceleration
  - c. Changing vehicle load—rear to front (vehicle pitch)
    - i. Releasing accelerator
    - ii. Controlled braking (Squeeze on)
    - iii. Threshold braking (Firm pressure prior to lockup)
    - iv. Trailing brake (Squeeze off)
    - v. Excessive deceleration affects weight
  - d. Changing vehicle load—pivot around center of gravity (vehicle yaw)
    - i. Sudden braking inputs create traction loss
    - ii. Sudden acceleration inputs create traction loss
    - iii. Sudden steering inputs create traction loss
- 2.2.3 Identify how safety belts maintain seating position and keep the driver in-contact with the steering wheel
- 2.2.4 Identify how the dead pedal allows driver to feel roll, pitch, and yaw characteristics

## C 2.3 Student will explain and apply the four basic techniques related to steering control needed to operate a vehicle.

- 2.3.1 Hand-to-hand steering (Push/Pull)
  - a. Hand position (9-3, 8-4)
  - b. Precision maneuvers
  - c. Steering through curves
  - d. Intersection turning
  - e. Lane change
- 2.3.2 Hand-over-hand steering
  - a. Hand position (9-3, 8-4)
  - b. Left or right side of wheel used
  - c. Speed under 15 mph
  - d. Tight turning efforts (alley way, parking lots, etc.)
  - e. Perpendicular and parallel parking
- 2.3.3 Evasive steering
  - a. Hand position (9-3)
  - b. Maximum steering inputs are 180 degrees
    - i. Input to move front of vehicle
    - ii. Input to move rear of vehicle
    - iii. Input to center vehicle in lane

- 2.3.4 One-hand steering
  - a. Hand Position (12)
    - i. Backing vehicle
    - ii. Hand moves in direction of intended vehicle movement
  - b. Hand Position (6)
    - i. Backing vehicle
    - ii. Hand moves in direction of intended trailer movement
  - c. Hand Position (9 or 3, 8 or 4)
    - i. Using vehicle controls with right or left hand
    - ii. Using gear shifting device with right hand

## C 2.4 Student will identify and practice use of communication techniques, courtesy and respect in regard to other roadway users.

2.4.1 Identify Technique

- a. Use of turn signal before turning right or left
- b. Use of turn signal or lane change device to move to another lateral position
- c. Use of headlights on at all times to increase visibility to others
- d. Use of horn to make others aware of your presence
- e. Tap of brake lights to warn rear traffic of a slowdown or stop in the traffic flow
- f. Use of vehicle speed and position to communicate the driver's upcoming action
- g. Use of hazard lights to warn drivers of a danger ahead
- 2.4.2 Identify Timing
  - a. Engage turn signal for a minimum of five seconds prior to moving to provide time for the communication to be sent, received, and acted upon
  - b. Communicate early for control of a safe path of travel
- 2.4.3 Identify Upcoming Action
  - a. Identify that messages are acknowledged by others

#### C 2.5 Student will identify and practice methods for stopping a vehicle.

- 2.5.1 Search effectively ahead of the vehicle to determine braking needs
- 2.5.2 Check rear zone/space prior to braking
- 2.5.3 Use controlled braking efficiently with heel of foot on floorboard
- 2.5.4 Apply a firm squeezing braking force at the beginning of the braking process
- 2.5.5 Bring the vehicle to a smooth stop
- 2.5.6 Recognize that braking action affects vehicle body pitch toward the front
- 2.5.7 Utilize trail braking during last two seconds of braking to ease pitch of vehicle
- 2.5.8 Check the rear zone/space before, during and after braking actions
- 2.5.9 Effective use of ABS braking and other vehicle safety technologies.

#### C 2.6 Student will identify and practice a procedure for securing a vehicle.

- 2.6.1 Stop the vehicle in a safe and legal location and press on the brake.
- 2.6.2 Set parking brake as required by state statute and owner's manual.
- 2.6.3 Shift into appropriate gear before releasing brake.
- 2.6.4 Turn off appropriate accessories prior to turning off vehicle.
- 2.6.5 Check the rear seat for children or pets.
- 2.6.6 Use a technique such as the Dutch Reach to prevent opening a door into the path of an approaching road user.
- 2.6.7 Lock doors and/or secure available alarm system.

## C 2.7 Student will identify and develop vehicle reference points to know where the vehicle is positioned to the roadway.

- 2.7.1 Use Reference Points to Identify Lane Positions
  - a. Center of lane or lane position 1
  - b. Left side of lane or lane position 2
  - c. Right side of lane or lane position 3
- 2.7.2 Identify Right Side Vehicle References
  - a. Determine when the vehicle is positioned within 3-6 inches of the curb or a lane line (right side of lane or lane position 3)
  - b. Determine when the vehicle is positioned within 2-3 feet of the curb or a lane line (center or lane position 1)
- 2.7.3 Identify Left Side Vehicle References
  - a. Determine when the vehicle is positioned within 3-6 inches of the curb or a lane line (left side of lane or lane position 2)
  - b. Determine when the vehicle is positioned within 2-3 feet of the curb or a lane line (center or lane position 1)
- 2.7.4 Identify Front Vehicle References
  - a. Determine when the front bumper is positioned even with the stop line or curb edge
- 2.7.5 Identify Rear Vehicle References
  - a. Determine when the rear bumper is positioned even with a line
- 2.7.6 Identify Front Turning Point of Vehicle
  - a. Determine where the front is positioned for turning left
  - b. Determine where the front is positioned for turning right
- 2.7.7 Identify Rear Turning Point of Vehicle
  - a. Determine where the rear is positioned for backing left
  - b. Determine where the rear is positioned for backing right
- 2.7.8 Visualization of Intended Travel Path
  - a. Identify Target
    - i. Identify a stationary object or area that appears in the center and at the end of your intended travel path
  - b. Identify Target Area
    - i. Identify the traffic problems and elements in and near the target area
    - ii. Locate your target area, evaluate the line of sight or path of travel conditions and determine best approach speed and lane position
  - c. Identify Targeting Path
    - i. Evaluate the target area, while developing an image of your targeting path
    - ii. Identify elements that can change or modify the intended travel path
    - iii. Determine risks associated with maintaining the intended path of travel
- 2.7.9 Rules of the Road
  - a. Yield right of way
  - b. Intersection
    - i. Approach
    - ii. Where to stop

## C 3.0 Classroom Standard Three: Introducing Traffic Entry Skills

The student will:

- 3.1. recognize, understand, determine meaning, and relate roadway conditions, signs, signals, and pavement markings to make managed-risk driving decisions.
- 3.2. understand procedures and processes for basic vehicle maneuvering tasks.

#### This standard relates to Standard IC 2.0.

- C 3.1 Student will recognize, understand, determine meaning, and relate roadway conditions, signs, signals, and pavement markings to make managed-risk driving decisions. (For a complete listing of all signs, signals, pavement markings refer to your state's motor vehicle code.)
  - 3.1.1 Identify roadway characteristics
    - a. Recognize intersection types
      - i. Uncontrolled
      - ii. Controlled by sign or signal
      - iii. Crossroad with through road
      - iv. Crossroad without through road
      - v. Highway-rail grade crossing
      - vi. T- and Y-style
      - vii. Traffic circle/round-about
    - b. Recognize traffic calming devices
    - c. Recognize surface conditions
    - d. Recognize slope and grade
    - e. Recognize traction (adhesion/grip) potential
    - f. Recognize highway conditions
      - i. Roadway
      - ii. Shoulder
      - iii. Off-road areas
    - g. Recognize lane controls
  - 3.1.2 Identify signs, signals, and pavement markings
    - a. Recognize Meaning
      - i. Shapes
      - ii. Color
      - iii. Symbols
      - iv. Legend/message
    - b. Recognize locations
    - c. Recognize legal controls
      - i. Stop
      - ii. Yield
      - iii. Traffic Flow
      - iv. Regulations
  - 3.1.3 Identify pavement markings/symbols
    - a. Recognize meaning
      - i. Color
        - Yellow

- White
- Red
- Blue

#### Green ii. Pavement Markings

- Dashed
- Solid
- Striped
- Curb markings
- 3.1.4 Recognize location
  - a. Recognize legal controls
    - i. Passing
    - ii. Crosswalk
    - iii. Lane storage
    - iv. Turn position

#### C 3.2 Student will understand procedures and processes for basic vehicle maneuvering tasks.

- 3.2.1 Identify and apply procedural steps
  - a. Intersection approach
    - i. See and respond to open/closed space/zones
    - ii. Check and respond to rear space/zone conditions
    - iii. Establish and maintain proper lane usage and speed control
    - iv. Search left, front, and right spaces/zones for line of sight or path of travel changes
    - v. Find open spaces/zones before entering
    - vi. Use legal, safety stop and staggered when applicable
    - vii. See condition of a traffic signal
    - viii. Adjust speed to arrive at a green light
      - See closed front space/zone
      - Adjust speed to reduce closure rate and to arrive in an open space/zone
      - Adjust speed to have at least one open side space/zone
  - b. Moving forward
  - c. Precision left turns
  - d. Precision right turns
  - e. Moving to/from the curb
  - f. Backing
    - i. Straight
    - ii. Around corner
  - g. Lane change
- 3.2.2 Identify and apply driver information processing
  - a. Understand vision and mental perception requirements
    - b. Estimate time needed to cross, turn left, or turn right
    - c. Critical thinking, decision making, and problem solving
- 3.2.3 Introduction of the sequential steps for problem solving (i.e., SEE)
  - a. Understand conditions for searching
    - i. Changes to path of travel
    - ii. Changes to the line of sight
    - iii. Changes in road surface and condition
  - b. Understand situations for evaluating
    - i. Alternative paths of travel

- ii. Appropriate position
- iii. Appropriate speed
- iv. Appropriate communication
- c. Understand skills needed to execute decisions
  - i. Speed changes
  - ii. Position changes
  - iii. Communication needs
- 3.2.4 Describe rules of the road
  - a. Identify yielding right of way
  - b. Identify signal use
  - c. Lane position rules at intersections
  - d. Intersection rules
  - e. Signs, signals, and markings rules
  - f. Backing rules

### C 4.0 Classroom Standard Four: Introducing Intersection Skills and Negotiating Curves and Hills

The student will:

- 4.1. discover how visual skills and mental perception lead to making managed-risk driving decisions.
- 4.2. select, maintain, and adjust speed to reduce risk of collision in compliance with rules of the road.

#### This standard relates to Standard IC 2.0.

- C 4.1 Student will discover how visual skills and mental perception lead to making managed-risk driving decisions.
  - 4.1.1 Recognize need to divide focal vision and mental attention between intended target, travel path and other tasks
    - a. Move focal vision from target area to another location and back to target area
    - b. Move focal vision within  $\frac{1}{2}$  second time frames
    - c. Use active searching to allow brain to perceive information
  - 4.1.2 Identify target area searching
    - a. Search to target area, evaluate the conditions and determine entry speed and position
    - b. Search for line of sight or path of travel changes affecting approach to target area
    - c. Approach target area, while continually re-evaluating risks in the immediate 4-8 second travel path
    - d. Approach the target area, search for a new target area and new travel path
  - 4.1.3 Know how to judge space in seconds
    - a. Search 20-30 seconds ahead to identify potential problems
    - b. Visualize the space the vehicle will occupy at least 12-15 seconds ahead
    - c. Search 8-12 seconds ahead to identify an alternate path of travel
    - d. Continually evaluate the 4-8 second immediate path
    - e. Speed and/or lane position adjustments may be required when the target area cannot be seen
  - 4.1.4 Identify changes to line of sight or path of travel
    - a. Evaluate modification in the ability to see or maintain a travel path

- b. Identify when line of sight or path of travel change are recognized, the need to evaluate other zones/spaces for speed and lane adjustments
- 4.1.5 Identify open, closed or changing zones/spaces
  - a. Identify the intended travel path for open, closed or changing conditions
  - b. Evaluate open, closed or changing conditions for speed and position adjustments
- 4.1.6 Search intersections
  - a. Search for open zones/space to the left, front and right, when approaching an intersection including highway-rail grade crossings
  - b. Evaluate closed or changing zones/spaces and make necessary speed and/or lane position adjustments, when approaching an intersection
  - c. Search for open zones/spaces to the left, front and right, before entering an intersection
- 4.1.7 Search into curves and over hills
  - a. Search the line of sight and path of travel through the curve or over the hill crest for closed or changing conditions
  - b. Evaluate the line of sight or path of travel for appropriate speed and position adjustments, before entering a curve or a hill crest

## C 4.2 Student will select, maintain, and adjust speed to reduce risk of collision in compliance with rules of the road.

- 4.2.1 Select safe speed
  - a. Determine travel speed based upon driver, vehicle, legal, roadway, and environmental limitations
  - b. Determine speed adjustment needed for managed risk
  - c. Since states have set different speed limits for residential, rural, urban, and interstate roads, it is important to adjust your speed to posted speed limits, the type of roadway, and roadway conditions.
  - d. Check gauges, mirrors, and evaluate line of sight or path of travel conditions
- 4.2.2 Recognize changes in line of sight or path of travel
  - a. Avoid using acceleration into a closed or changing zone/space
  - b. Recognize a closed zone/space (such as a red light or stopped traffic), adjust speed to arrive at an open zone/space
  - c. When ability to see a line of sight or path of travel is reduced, adjust speed to maintain or establish an open zone/space

### C 5.0 Classroom Standard Five: Space Management and Vehicle Control Skills in Moderate Risk Environments

The student will:

- 5.1. review and apply the principles of a space management system (i.e., SEE) to managed-risk vehicle operation making appropriate communication, speed, and lane position adjustments.
- 5.2. demonstrate and practice basic vehicle maneuvers for managed-risk operation and identify and respond to divided attention tasks.
- 5.3. identify procedures and practice techniques for managed-risk lane changes in a variety of lane change situations.
- 5.4. identify procedures and practice techniques for managed-risk perpendicular, angle and parallel parking.
- 5.5. identify procedures and practice techniques for reduced-risk speed management.

### This standard relates to Standard IC 3.0. The following details explain the content standards listed above.

- C 5.1 Student will review and apply the principles of a sequential steps for problem solving (i.e., SEE) to managed-risk vehicle operation making appropriate communication, speed and lane position adjustments.
  - 5.1.1 Divide attention between path of travel and other tasks
  - 5.1.2 Use an orderly visual search process
  - 5.1.3 Control of space to front
  - 5.1.4 Use rear and side view mirrors effectively
  - 5.1.5 Maintain separation to sides and rear
  - 5.1.6 Communicate presence/intentions
  - 5.1.7 Manage intersections effectively
  - 5.1.8 Practice commentary response
    - a. Identify speed and position adjustment development
    - b. Identify reference points for maneuvers
    - c. Identify rear space/zone view conditions
  - 5.1.9 Identify blind zones for different vehicles

#### C 5.2 Student will demonstrate and practice basic vehicle maneuvers for managed-risk operation.

- 5.2.1 Identify divided attention tasks
- 5.2.2 Identify intersection maneuvers
- 5.2.3 Identify procedures for backing in a straight line
- 5.2.4 Identify procedures for backing around a corner
- 5.2.5 Determine lowest risk turn around options
  - a. Identify space management considerations
    - i. Communication
    - ii. Procedures
    - iii. Position to curb
    - iv. Speed control
    - v. Steering control
    - vi. Vision control
    - b. Identify when it is safer to go around the block

- c. Identify safe behaviors for turning around in a parking lot
- d. Identify procedures for a turnabout with entry into a roadway, alley or driveway on the left or by backing around a corner to the right
- e. Identify procedures for a U-turn
- f. Identify procedures for a three-point (on-street) turnabout in a low-risk roadway environment
- g. Identify procedures for turning around in a cul-de-sac, round-about or circular drive turnabout

## C 5.3 Student will identify procedures and practice techniques for making managed-risk lane changes in a variety of lane change situations.

- 5.3.1 Identify space management requirements
  - a. Determine the need for a lane change
  - b. Identify divided attention conditions
  - c. Identify communication techniques
  - d. Determine speed and lane position adjustments
- 5.3.2 Identify procedures and practice lane change techniques
  - a. Evaluate space/zones and side view mirror blind zones
  - b. Move to the left side of lane for left lane change
  - c. Move to right side of lane for right lane change
  - d. Signal
  - e. Check blind zones
  - f. Decide best lane position for conditions
- 5.3.3 Lane Position
- 5.3.4 Speed control
- 5.3.5 Steering control
- 5.3.6 Identify vehicle blind zones and truck no zones

## C 5.4 Student will identify procedures and practice techniques for making managed-risk perpendicular, angle, and parallel parking.

- 5.4.1 Entering a parking space
  - a. Space management applications
  - b. Dividing attention between tasks
  - c. Communication
  - d. Identify procedures and practice parking techniques
    - i. Positioning/reference points
    - ii. Vision control
    - iii. Speed control
    - iv. Steering control
    - v. Forward
    - vi. Reverse
- 5.4.2 Exiting a parking space
  - a. Space management applications
  - b. Dividing attention between tasks
  - c. Communication
  - d. Identify procedures and practice parking techniques
    - i. Positioning/Reference Points
    - ii. Vision control

- iii. Speed control
- iv. Steering control
- v. Forward
- vi. Reverse

## C 5.5 Student will identify procedures and practice techniques for reduced-risk speed and space management.

- 5.5.1 Visibility
- 5.5.2 Dividing attention
- 5.5.3 Traffic controls
- 5.5.4 Driver condition
- 5.5.5 Road condition
- 5.5.6 Vehicle condition
- 5.5.7 Space to front/rear and to the sides
- 5.5.8 Other roadway users
- 5.5.9 Traffic flow
- 5.5.10 Vehicle dynamics
- 5.5.11 Speed differentials

# C 6.0 Classroom Standard Six: Developing Traffic Flow and Space Management Skills at Speeds Below 55 m.p.h.

The student will recognize and respond to:

- 6.1. roadway and traffic flow situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.2. space management situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.3. intersection entry situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.4. curve entry/apex/exit situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.
- 6.5. planned passing situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

*This standard relates to Standard IC 3.0. The following details explain the content standards listed above.* 

## C 6.1 Student will identify and comply with roadway and traffic flow situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

- 6.1.1 Dividing attention between tasks
- 6.1.2 Sharing the roadway with motorized and non-motorized users
- 6.1.3 Following and being followed
- 6.1.4 Entering and exiting curves
- 6.1.5 Traffic flow to each side of vehicle
- 6.1.6 Multiple use and reversible lanes
- 6.1.7 Oncoming traffic gap selection
- 6.1.8 Crossing traffic gap selection

- 6.1.9 Multiple lane passing
- 6.1.10 Vehicle blind zones and truck no zones

## C 6.2 Student will identify and comply with space management situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

- 6.2.1 Identify techniques to control space around the vehicle
- 6.2.2 Understand the need to divide attention between tasks
- 6.2.3 Identify appropriate mirror use
- 6.2.4 Recognize vehicle blind zones and truck no zones
- 6.2.5 Maintain separation to sides and rear
- 6.2.6 Communicate presence/intentions
- 6.2.7 Describe multiple lane use and reversible lanes
- 6.2.8 Describe procedures for approaching and exiting a curve
- 6.2.9 Perform commentary responses
  - a. Speed and position changes development
  - b. Rear space/zone response development

## C 6.3 Student will identify and comply with intersection entry situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

- 6.3.1 Space management applications
- 6.3.2 Dividing attention between tasks
- 6.3.3 Unique signs, signals, and markings
- 6.3.4 Communication
- 6.3.5 Types of intersections
- 6.3.6 Level of traffic flow congestion
- 6.3.7 Estimate time needed to cross, turn right, or turn left
- 6.3.8 Identify number of usable lanes
- 6.3.9 Procedures
- 6.3.10 Lane position
- 6.3.11 Speed control
- 6.3.12 Steering control

## C 6.4 Student will identify and comply with curve entry/apex/exit situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

- 6.4.1 Space management applications
- 6.4.2 Dividing attention between tasks
- 6.4.3 Communication
- 6.4.4 Unique signs, signals, and markings
- 6.4.5 Procedures
- 6.4.6 Lane position
- 6.4.7 Speed control
- 6.4.8 Steering control

## C 6.5 Student will identify and comply with planned passing situations on limited access roadways and roadways without limited access at speeds up to 55 m.p.h.

- 6.5.1 Space management applications
- 6.5.2 Dividing attention between tasks
- 6.5.3 Communication

- 6.5.4 Procedures
- 6.5.5 Lane position
- 6.5.6 Speed control
- 6.5.7 Steering control
- 6.5.8 Stopping distance
- 6.5.9 Abort considerations
- 6.5.10 Passing/being passed

### C 7.0 Classroom Standard Seven: Dealing with Complex Environments at Highwav Speeds

The student will recognize and respond to:

- 7.1. roadway and traffic flow situations on limited access roadways and roadways without limited access at maximum highway speeds.
- 7.2. space management situations on limited access roadways and roadways without limited access at maximum highway speeds.
- 7.3. merging, speed control, lane selection, and exiting situations on limited access roadways at maximum highway speeds.
- 7.4. gap selection, communication, speed control, and lane selection during passing situations on limited access roadways at maximum highway speeds.

#### This standard relates to Standard IC 3.0.

The following details explain the content standards listed above.

## C 7.1 Student will identify and comply with roadway and traffic flow situations on limited access roadways and roadways without limited access at maximum highway speeds.

- 7.1.1 Non-motorized highway restrictions
- 7.1.2 Sharing the roadway with motorized and non-motorized users
- 7.1.3 Divided attention tasks
- 7.1.4 Vehicle size and movement
- 7.1.5 Following and being followed
- 7.1.6 Approach to curves
  - a. See curve in target area
  - b. Check all zones for options
  - c. Establish effective speed control
  - d. Left curve approach
  - e. Right curve approach
- 7.1.7 Entering and exiting limited access highways
  - a. Unique signs, signals, and markings
  - b. Communication
  - c. Types of interchanges
  - d. Level of traffic flow congestion
  - e. Identify number of usable lanes
- 7.1.8 Multiple use and reversible lanes
- 7.1.9 Traffic flow to each side of vehicle
- 7.1.10 Vehicle blind zones and truck no zones
- 7.1.11 Oncoming traffic gap selection
  - a. Crossing traffic gap selection
  - b. Two-lane and multi-lane passing

## C 7.2 Student will identify and comply with space management situations on limited access roadways and roadways without limited access at maximum highway speeds.

- 7.2.1 Control of space around vehicle
- 7.2.2 Dividing attention tasks
- 7.2.3 Appropriate mirror use
- 7.2.4 Vehicle blind zones and truck no zones
- 7.2.5 Maintain separation to sides and rear
- 7.2.6 Communicating presence/intentions
- 7.2.7 Effective management of merge/exit maneuvers
- 7.2.8 Commentary responses
  - a. Speed and position adjustment assessment
  - b. Rear space/zone observance assessment
- 7.2.9 Rules of the Road
  - a. Merging rules
  - b. Passing rules
  - c. Use of traffic flow control devices
  - d. Flashers
  - e. Vehicle lights
  - f. Towing
  - g. Emergency vehicles, including move-over laws

## C 7.3 Student will identify and comply with merging, speed control, lane selection, and exiting situations on limited access roadways at maximum highway speeds.

- 7.3.1 Communication
- 7.3.2 Space management
- 7.3.3 Dividing attention tasks
- 7.3.4 Gap selection
- 7.3.5 Vehicle blind zones and truck no zones
- 7.3.6 Closure of space
- 7.3.7 Speed control
  - a. Managing speed on entrance ramp for maximum searching time and options
  - b. Effective speed on acceleration lane
  - c. Exiting
    - i. Plan ahead
    - ii. Test brakes
    - iii. Flat curves
- 7.3.8 Lane selection and position

## C 7.4 Student will identify and comply with gap selection, communication, speed control, and lane selection during passing situations on limited access roadways at maximum highway speeds.

- 7.4.1 Procedures
- 7.4.2 Limited access highway advantages/disadvantages
- 7.4.3 Passing/overtaking on right side of vehicles
- 7.4.4 Space management
- 7.4.5 Divided attention tasks
  - a. Identify tailgater problems for speed and lane position adjustments
  - b. Evaluate gain versus risk prior to attempting passing maneuver
  - c. Check all zones for line of sight and/or path of travel conditions
- 7.4.6 Vehicle blind zones and truck no zones

- 7.4.7 Communication
- 7.4.8 Speed control
- 7.4.9 Steering control
- 7.4.10 Stopping ability limited
- 7.4.11 Abort considerations
- 7.4.12 Passing/being passed considerations

## C 8.0 Classroom Standard Eight: Factors Affecting Driver Performance

The student will:

- 8.1. identify the high-risk effects of alcohol, marijuana, and other drugs, including prescription drugs on personality and driver performance.
- 8.2. recognize legal responsibility to not use alcohol, marijuana and other drugs that affect the ability to operate a vehicle safely and develop strategies for alternative means of safe transportation.
- 8.3. understand the need for driver fitness to aid managed-risk driver performance and recognize that external and internal vehicle distractions, fatigue, and aggression that can cause inattention to task and may result in injury and physical damage crashes.
- 8.4. understand the impact of temporary impairments and long-term disabilities and the strategies to compensate and enhance for managed-risk driver performance.
- 8.5. identify risk factors affecting other driver's performance and describe low risk responses.

- C 8.1 Student will identify the high-risk effects of alcohol, marijuana and other drugs, including prescription drugs on personality and driver performance.
  - 8.1.1 Recognizing alcohol, marijuana, and other drugs, including prescription drugs effect on teens
  - 8.1.2 Teen risk factors for alcohol, marijuana, and other drugs, including prescription drug use/abuse
  - 8.1.3 Limiting risk of driving/riding with others that are intoxicated
  - 8.1.4 The effect of alcohol, marijuana, and other drugs, including prescription drugs on driver performance
  - 8.1.5 Advertisement/peer pressure to use alcohol, marijuana, and other drugs
  - 8.1.6 Alcohol, marijuana, and other drug use/abuse rules and regulations
    - a. Laws concerning alcohol, marijuana, and other drug abuse
    - b. Zero tolerance rules and regulations
    - c. Penalties associated with alcohol, marijuana, and other drug abuse
- C 8.2 Student will recognize legal responsibility to not use alcohol, marijuana and other drugs that affect the ability to operate a vehicle safely and develop strategies for alternative means of safe transportation.
  - 8.2.1 Refusal skills
  - 8.2.2 Peer intervention skills
  - 8.2.3 Community resources/health agencies
  - 8.2.4 Parental support
- C 8.3 Student will explain the need for driver fitness to aid managed-risk driver performance and recognize that external and internal vehicle distractions, fatigue, and aggression may result in injury and physical damage crashes.
  - 8.3.1 Driver distractions

- a. Definitions/types
  - i. Physical
  - ii. Mental
  - iii.Visual
  - iv. Auditory
- b. Effect on new drivers
- c. Outside vehicle distractions
- d. Inside vehicle distractions, including vehicle technology
- 8.3.2 Dividing attention
  - a. Vision needs
  - b. Mental awareness
- 8.3.4 Fatigue and sleep disorders
- 8.3.5 Driver aggression and response
- 8.3.6 Driver motivation

## C 8.4 Student will describe the impact of temporary impairments and long-term disabilities and the strategies to compensate and enhance for managed-risk driver performance.

- 8.4.1 Temporary impairments (i.e., sprains, fractured bones, acute illness, etc.)
- 8.4.2 Long term disabilities (i.e., paralysis, missing limbs, chronic illness, mental disabilities, etc.)

## C 8.5 Student will identify risk factors affecting other driver's performance and describe low risk responses.

- 8.5.1 Identify risk factors
- 8.5.2 Low risk responses

## C 9.0 Classroom Standard Nine: Managing Adverse Conditions

The student will:

- 9.1. recognize how adverse weather conditions can impact visibility and traction; and respond by adjusting speed to meet the ability to steer and stop within the limits of the conditions.
- 9.2. recognize how adverse weather conditions create visibility and traction problems and the effect on space management skills in regard to speed and position adjustments.
- 9.3. recognize how night driving creates a visibility problem and how this affects space management in regard to speed and position adjustments.

#### This standard relates to Standard IC 4.0.

- C 9.1 Student will recognize how adverse weather conditions can impact visibility and traction; and respond by adjusting speed to meet the driver's ability to change direction and/or speed within the limits of road conditions.
  - 9.1.1 Identify types of weather conditions
    - a. Understand what can go wrong
    - b. Prevention techniques
    - c. Types of adverse conditions
    - d. Vehicle control

- e. Technology concerns (e.g., cruise control, lane keeping assist)
- 9.1.2 visibility conditions
  - a. Understand what can go wrong
  - b. Prevention techniques
  - c. Types of adverse conditions
  - d. Vehicle control
- 9.1.3 traction conditions.
  - a. Understand what can go wrong
  - b. Prevention techniques
  - c. Understeer
  - d. Oversteer
  - e. Vehicle control
- 9.1.4 Traffic flow situations under limited conditions of visibility/traction.
- 9.1.5 Intersection management under limited conditions of visibility/traction.
  - a. Traffic flow to each side of vehicle
  - b. Oncoming traffic gap selection
  - c. Crossing traffic gap selection
- 9.1.6 Multiple-lane choices and usage under limiting conditions
- 9.1.7 Responding to non-motorized highway users
- C 9.2 Student will recognize how adverse weather conditions creates visibility and traction problems and the effect on space management skills in regard to speed and position adjustments.
  - 9.2.1 Control of space around vehicle
  - 9.2.2 Dividing attention tasks
  - 9.2.3 Appropriate mirror use
  - 9.2.4 Maintain separation to sides and rear
  - 9.2.5 Communicating presence/intentions
  - 9.2.6 Effective management of limited visibility/traction
  - 9.2.7 SEE commentary assessment
  - 9.2.8 Rules of the Road
    - a. Maintaining visibility laws
    - b. Occupant protection laws
    - c. Use of electronic devices
    - d. Emergency flasher usage
    - e. Headlight usage
- C 9.3 Student will recognize how night driving creates a visibility problem and how this affects space management in regard to speed and position adjustments.
  - 9.3.1 Understand what can go wrong
  - 9.3.2 Prevention techniques
  - 9.3.3 Vehicle control
  - 9.3.4 Technology concerns (e.g., cruise control)

### C 10.0 Classroom Standard Ten: Other Roadway Users

The student will:

- 10.1. describe the characteristics and limitations of other motorized vehicles that may have different weight, speed, and visibility problems and respond with appropriate space management principles.
- 10.2. describe the characteristics and limitations of small, lightweight motorized and non-motorized vehicles and pedestrians that may have different speed and visibility problems and respond with appropriate space management principles.
- 10.3. describe the characteristics and limitations of track-based vehicles (trains and trolleys) that may have different weight, speed, and visibility problems and respond with appropriate space management principles.

#### This standard relates to Standard IC 3.0.

- C 10.1 Student will describe the characteristics and limitations of other motorized vehicles that may have different weight, speed, and visibility and respond with appropriate space management principles.
  - 10.1.1 Heavy commercial vehicles
    - a. Vehicles dedicated to commercial use
    - b. Trailer combinations- single, double, triple
    - c. Visibility
    - d. Passing
    - e. Wind blast
    - f. Space needs when turning
    - g. Passenger vehicle interaction
    - h. Hazardous materials vehicle interaction
  - 10.1.2 Commercial and non-commercial passenger vehicles
    - a. School bus
    - b. Multi-purpose activity bus
    - c. Transit bus
    - d. Motorcoach
    - e. Shuttle bus
    - f. Autonomous passenger vehicles
  - 10.1.3 Vehicle and trailer combination
    - a. Passing issues
    - b. Wind blast issues
    - c. Space needs when turning
    - d. Visibility issues
  - 10.1.4 Delivery vans and trucks and large autonomous delivery vehicles on the roadway
  - 10.1.5 Motorcycles and mopeds
    - a. Awareness
      - i. Searching for and identifying
      - ii. Awareness of visibility limitations
      - iii. Lane position
      - iv. Space management
      - v. Following distance
      - vi. Humanize motorcycle and moped riders
    - b. Unique characteristics

- 10.1.5.b.1 Profile, size and maneuverability
- 10.1.5.b.2 Speed
- 10.1.6 Motorcycle and moped limitations Construction vehicles and work zones
- 10.1.7 Emergency vehicles
- 10.1.8 Farm equipment
- 10.1.9 Funeral processions
- 10.1.10 Snowmobiles and ATV units
  - a. Speed issues
  - b. Different travel speeds
  - c. Maintaining momentum on hills
  - d. Acceleration/deceleration
- C 10.2 Student will describe the characteristics and limitations of small, lightweight motorized and non-motorized vehicles and pedestrians that may have different speed, and visibility problems and respond with appropriate space management principles.
  - 10.2.1 Small, lightweight motorized and non-motorized vehicles and pedestrians
    - a. Pedestrians (e.g., visually impaired, disabled, led by service dogs, children)
    - b. Pedal cyclists, bicyclists, and cargo bicyclists (electric and self-propelled)
    - c. Personalized transport (e.g., skates, skateboards, horses, hoverboards, scooters, twowheeled personal transporter, wheelchairs)
    - d. Horse drawn equipment
    - e. Animals
    - f. Small autonomous delivery vehicles, which ride on the sidewalk or along the roadway
  - 10.2.2 Legal right to interact with vehicles
    - a. Sometimes mimic vehicles
    - b. Sometimes mimic pedestrians
  - 10.2.3 Driver response
    - a. Space management
    - b. Speed
- C 10.3 Student will describe the characteristics and limitations of tracked vehicles (trains and trolleys) that may have different weight, speed, and visibility problems and respond with appropriate space management principles.
  - 10.3.1 Freight trains
  - 10.3.2 High speed passenger trains
  - 10.3.3 Electric/cable cars
  - 10.3.4 Light rail
  - 10.3.5 Trolley cars

## C 11.0 Classroom Standard Eleven: Responding to Emergencies, Vehicle Malfunctions and Crashes

The student will:

- 11.1. recognize and respond to vehicle malfunctions in a managed-risk manner, understand vehicle braking and technology systems and utilize proper braking techniques.
- 11.2. understand and relate how the roadway system is managed by police and state agencies to assist with emergencies, crashes and vehicle malfunctions.
- 11.3. recognize the responsibilities for attending to a crash scene situation.

#### This standard relates to Standard IC 4.0.

The following details explain the content standards listed above.

- C 11.1 Student will recognize and respond to vehicle malfunctions in a managed-risk manner, understand vehicle braking and technology systems and utilize proper braking techniques.
  - 11.1.1 Dashboard electronic malfunctions
    - a. Alert lights and symbols
    - b. Warning lights and symbols
  - 11.1.2 Engine, fuel, and ignition system malfunctions
  - 11.1.3 Lights and signal malfunctions
  - 11.1.4 Steering and suspension malfunctions
    - a. Power steering
    - b. Off-road recovery
    - c. Understeer/oversteer recognition and correction
    - d. Intelligent stability and handling systems (ISHS, ESP, ESC)
  - 11.1.5 Tires, traction loss recognition and control
    - a. Blowouts
    - b. Understeer/oversteer recognition and correction
    - c. Intelligent stability and handling systems (ISHS, ESP, ESC)
  - 11.1.6 Braking system malfunctions
    - a. Antilock braking systems (ABS)
    - b. Understeer/oversteer recognition and correction
    - c. Intelligent stability and handling systems (ISHS, ESP, ESC)
  - 11.1.7 Active passive integrated approach (APIA) systems
  - 11.1.8 Vehicle load and weight distribution
    - a. Effect on weight transfer
    - b. Forces of impact
    - c. Traction, gravity, inertia, momentum
    - d. Tire condition/air pressure
    - e. ABS (two-wheel/four-wheel)
  - 11.1.9 Intelligent stability and handling systems (ISHS, ESP, ESC)

## C 11.2 Student will explain how the roadway system is managed by police and state agencies to help assist with emergencies, crashes and vehicle malfunctions.

- 11.2.1 Law enforcement agencies
  - a. State enforcement agencies
  - b. County enforcement agencies

- c. Local enforcement agencies
- 11.2.2 Emergency response agencies
  - a. Getting help
  - b. Types of emergency response
- 11.2.3 Rules of Road
  - a. Financial responsibility
  - b. Move over law

#### C 11.3 Student will recognize the responsibilities for attending to a crash scene.

- 11.3.1 Responsibilities at a crash scene
- 11.3.2 Getting help
- 11.3.3 Reporting crashes

### C 12.0 Classroom Standard Twelve: Understanding Advanced Driver-Assistance Systems (ADAS) Safety Features

The student will:

- 12.1 describe advanced driver-assistance systems (ADAS), including the benefits and concerns.
- 12.2 identify the categories of advanced driver-assistance systems and their respective safety features.
- 12.3 know how to use ADAS safety features safely and effectively.
- 12.4 identify the limitations of current ADAS safety features.

The following details explain the content standards listed above.

#### C 12.1 Student will describe ADAS, including the benefits and concerns.

12.1.1 ADAS

a. What it is

- i. Systems using a variety of sensors, software technology and safety features working together to reduce crashes are known
- b. What it does
  - i. Employ on-board sensors and software technology that sense and monitor conditions inside and outside the vehicle to identify potential risk situations.
- c. Who is responsible?
  - i. The driver is completely responsible for the safe and effective use of ADAS
  - ii. If a crash occurs or the safety feature is used improperly the driver is legally responsible and not the manufacturer.
- 12.1.2 Potential benefits
  - a. Reduction of crashes, injuries, and fatalities.
  - b. Reduction of human error.
  - c. Improved warning/reaction/response times.
  - d. Reduced driver fatigue and distractions by sensing or warning the driver (only certain technologies).
  - e. Smoother traffic flow.
  - f. More efficient transportation, leading to lower fuel/energy use and fewer harmful emissions/smaller carbon footprint.

- 12.1.3 Potential concerns
  - a. Drivers changing their behavior based on technologies.
  - b. Perceived performance misconceptions and expectations (e.g., driving faster, following more closely, braking later, cornering more aggressively).
  - c. Unfamiliar with how to use vehicle safety technologies.
  - d. Eliminate the potential benefit by turning off vehicle safety technologies.
  - e. The driver may initially be overwhelmed by warnings, alerts and information.
  - f. Become complacent and therefore ignore or disregard a warning.
- C 12.2 Student will identify the categories of ADAS and their respective safety features. Note: Refer to Appendix A ADAS Safety Features for a full list of safety features and those that are the most important to cover. Refer to <u>*Clearing the Confusion: Common*</u> <u>Naming for Advanced Driver Assistance Systems</u> for a list of categories and examples.

The categories include:

- 12.2.1 Warnings
- 12.2.2 Intervention
- 12.2.3 Assistance
- 12.2.4 Parking assistance
- 12.2.5 Other driver assistance features

#### C 12.3 Student will describe how to use ADAS safety features safely and effectively.

- 12.3.1 Read the vehicle owner's manual and know the safety features for every vehicle owned and driven.
- 12.3.2 Know how the safety features function before driving.
- 12.3.3 Remain engaged in the driving task, the driver may become distracted or inattentive and pay less attention.
- 12.3.4 Keep safety features on unless environmental conditions warrant turning them off (e.g., advanced cruise control during adverse weather).
  - 12.3.5 Keep sensors and software technology clean and in working condition.
- 12.3.5 Stay up to date on vehicle safety features because of ongoing testing and improvements.

#### C 12.4 Student will identify the limitations of current ADAS safety features.

- 12.4.1 Limitations due to environmental factors or roadway conditions (e.g., nighttime, line of sight, turns, curves, adverse weather, dirty sensors, pavement markings).
- 12.4.2 Limitations inherent in the safety features (e.g., sensor performance, design, intended purpose).

## C 13.0 Classroom Standard Thirteen: Making Informed Consumer Choices

The student will:

- 13.1 perform map reading and trip planning exercises using current and emerging technology that lead to an in-car family trip activity.
- 13.2 recognize problems consumers confront when making wise choices in purchasing insurance or an automobile.
- 13.3 describe future operator responsibilities in regard to licensing.
- 13.4 identify operator responsibilities in regard to traffic stops.
- 13.5 identify techniques for safely towing a trailer.
- 13.6 describe the impact vehicles have on the environment and develop strategies to reduce the carbon footprint.

- C 13.1 Student will perform map reading and trip planning exercises using current and emerging technology that leads to an in-car family trip activity.
  - 13.1.1 Map reading
    - a. Paper formats (e.g., foldable, atlas)
    - b. Digital and GPS formats
    - c. Online map formats
  - 13.1.2 Destination driving exercise
    - a. Plan an in-car family trip driving route
- C 13.2 Student will recognize problems consumers confront when making informed choices in purchasing insurance or an automobile.
  - 13.2.1 Insurance
    - a. Types
    - b. Needs
    - c. Safety and financial responsibility (see state law)
  - 13.2.2 Purchasing vehicles
    - a. New vehicle costs
    - b. Used vehicle costs
    - c. Vehicle selection
- C 13.3 Student will describe operator responsibilities in regard to licensing and registration.
  - 13.3.1 Licensing/registration laws
    - a. Driver
    - b. Vehicle
- C 13.4 Student will identify operator and passenger responsibilities in regard to traffic stops.
  - 13.4.1 Operator responsibilities
  - 13.4.2 Passenger responsibilities

#### C 13.5 Student will identify techniques for safely towing a trailer.

- 13.5.1 Towing a trailer
  - a. Skills required for safely towing a trailer
  - b. Techniques required to back a trailer successfully
  - c. Basic equipment needed
  - d. Connecting a trailer to a vehicle
  - e. Loading a trailer

## C 13.6 Student will describe the impact vehicles have on the environment and develop strategies to reduce the carbon footprint.

- 13.6.1 Fuel-efficient vehicles
- 13.6.2 Fuel-saving driving habits
  - a. Keep track of your gas mileage
  - b. Control your speed
  - c. Warm the engine
  - d. Lighten the load
  - e. Reduce idling
  - f. Reduce drag
- 13.6.3 Alternative fuels
- 13.6.4 Recycling
  - a. Motor oil
  - b. Used cars and parts
  - c. Batteries
  - d. Tires

#### C 13.7 Student will understand the impact aftermarket/ retrofitted auto parts have on the vehicle.

- 13.7.1 Safety and crashworthiness
- 13.7.2 Reliability
- 13.7.3 Comfort
- 13.7.4 Control and responsiveness to driver input
- 13.7.5 Traction
- 13.7.6 Visibility both negative and positive (e.g., adding supplemental mirrors or upgraded headlight bulbs)
- 13.7.7 Effects on warranties

#### Essential Knowledge and Skills for Driver and Traffic Safety Education

#### Driver and Traffic Safety Education: In-car Skills

- (E) General Requirements. Driver education in-car instruction is generally a required prerequisite to qualify for a driver permit between 14 years 6 months and before age 18 dependent on state licensing requirements.
- (F) Introduction. State regulated driver and traffic safety education provides the foundation for students, assisted by parents/mentors, to begin the lifelong learning process of managed risk driving practices. Students acquire essential knowledge, skills, and experiences to perform managed risk driving in varying traffic environments. Satisfactory completion of the driver and traffic safety education course qualifies the student to continue the graduated driver licensing process.
- (G) **Responsibilities.** Teachers assist and guide students to meet or exceed minimum competency standards through incar instruction that includes modeling, knowledge assessment, skill assessment, guided observation, and parental involvement. Concurrent and integrated operation of classroom and in-car instruction is required for student knowledge and skill development.

#### (H) In-car knowledge and skills standards.

#### IC 1.0 In-car Standard One: Preparing to Operate a Vehicle

- **1.1 Preparations to Operate Vehicle.** The student will recognize the visible space around the vehicle, the necessity of making routine vehicle checks and adjustments prior to and after entering the vehicle, identifies the location of alert and warning symbol lights, identifies, and understands advanced driverassistance system safety features, understands the operation of vehicle control and safety devices, and is aware of vehicle weight concepts when braking, accelerating, and steering.
- **1.2 Judgment of Vehicle to Roadway Position.** The student will recognize and analyze the standard and personal vehicle guides or reference points relationship to roadway position and vehicle placement.

*This standard relates to Standard C 1.0 and C 2.0. The following details explain the content standards listed above.* 

**IC 1.1 Preparations to Operate Vehicle.** The student will recognize the visible space around the vehicle, the necessity of making routine vehicle checks and adjustments prior to and after entering the vehicle, identifies the location of alert and warning symbol lights, understands the operation of vehicle control and safety devices, and is aware of vehicle weight concepts when braking, accelerating, and steering.

#### **1.1.1 Vehicle Operating Space**. The student will:

- a. Identify the visual limitation to the front of the vehicle;
- b. Identify the visual limitation to the rear of the vehicle;
- c. Identify the visual limitation to the right side of the vehicle;
- d. Identify the visual limitation to the left side of the vehicle;
- e. Measure the length and width of the vehicle;
- f. Draw and measure the size of the vehicle tire patches;
- g. Demonstrate the limited visual view in the rear-view mirror;
- h. Demonstrate the traditional mirror view settings for the rear and side view mirrors; and
- i. Demonstrate and apply the enhanced mirror settings for the rear and side view mirrors.

#### **1.1.2 Getting Ready to Drive.** The student will:

- a. Prepare physically and mentally to use vehicle;
- b. Approach the vehicle with awareness;
- c. Check outside and inside of vehicle before opening the door;
- d. Lock doors;
- e. Adjust head restraints, seat position, mirrors, safety restraints, steering wheel position;
- f. Check all occupants for safety belt use; and
- g. Be able to demonstrate effective meaning and usage of all gauges.

#### **1.1.3 Starting the Vehicle.** The student will:

- a. Place or check that parking brake is in set position, as required by state statute and owner's manual;
- b. Select proper gear for starting;
- c. Secure brake;
- d. Recognize alert lights for safety accessories;
- e. Demonstrate proper use of ignition starting device;
- f. Demonstrate ability to select and use appropriate accessories;
- g. Give an example of a warning light for engine or system accessories;
- h. Make appropriate gear selection for movement; and
- i. Put headlights on day and night.

#### **1.1.4 Placing Vehicle in Motion.** The student will:

- a. Visually identify open space to enter before moving from brake to accelerator;
- b. Communicate to other users;
- c. Place the vehicle into motion smoothly; and
- d. Recognize that too much acceleration affects vehicle body pitch toward the rear.

#### 1.1.5 Stopping Vehicle in Motion. The student will:

- a. Search effectively ahead of the vehicle to determine braking needs;
- b. Use controlled braking efficiently with heel of foot on floorboard;
- c. Check rear zone/space prior to braking;
- d. Apply a firm squeezing braking force at the beginning of the braking process;
- e. Bring the vehicle to a smooth stop by squeezing off brake;
- f. Recognize that too much braking action affects vehicle body pitch toward the front;
- g. Ease pressure off brake during last two seconds of braking to ease pitch of vehicle;
- h. Check the rear zone/space before, during and after braking actions; and
- i. Demonstrate effective use of maximum ABS braking.

#### **1.1.6 Steering.** The student will:

- a. Turn head and visually target in the direction of intended path of travel prior to turning;
- b. Use a target, sightline and path of travel to determine steering entry and return;
- c. Use a balanced hand position on the wheel (9-3 or 8-4);
- d. Recognize that too much speed and steering affects vehicle body roll toward the opposite side of vehicle;
- e. Use the hand-over-hand or hand-to-hand (turning), hand-to-hand (curvatures), one hand (reverse), or evasive action (avoidance) methods effectively; and
- f. Visually check the rear-view mirror, side view mirrors and mirror blind-zone areas.

#### **1.1.7 Securing the Vehicle.** The student will:

- a. Stop the vehicle in a safe and legal position;
- b. Set the parking brake as required by state statute and owner's manual;
- c. Shift into appropriate gear before releasing brake;
- d. Turn off appropriate accessories prior to turning off the vehicle;
- e. Visually check traffic flow before opening door; and
- f. Lock doors and/or secure any alarm system.

**IC 1.2. Judgment of Vehicle to Roadway Position.** The student recognizes and analyzes the standard and personal vehicle guides or reference points relationship to roadway position and vehicle placement.

- **1.2.1 Right Side of Vehicle.** The student will:
  - a. Determine when the vehicle is positioned within 3-6 inches of the curb or a lane line;
  - b. Determine when the vehicle is positioned within 2-3 feet of the curb or a lane line; and
  - c. Determine when the vehicle is positioned within 5-8 feet of the curb or a lane line.
- 1.2.2 Left Side of Vehicle. The student will:
  - a. Determine when the vehicle is positioned within 3-6 inches of the curb or a lane line;
  - b. Determine when the vehicle is positioned within 2-3 feet of the curb or a lane line; and
  - c. Determine when the vehicle is positioned within 5-8 feet of the curb or a lane line.
- **1.2.3 Front of Vehicle.** The student will:
  - a. Determine when the front bumper is positioned even with the stop line or curb line.
- **1.2.4 Rear of Vehicle.** The student will:
  - a. Determine when the rear bumper is positioned even with a line.
- **1.2.5 Front Turning Point of Vehicle.** The student will:
  - a. Determine where on the road the front is positioned for turning left; and
  - b. Determine where on the road the front is positioned for turning right.
- **1.2.6 Rear Turning Point of Vehicle.** The student will:
  - a. Determine where on the road the rear is positioned for backing left; and
  - b. Determine where on the road the rear is positioned for backing right.
- **1.2.7** Application of Principles. The student will:
  - a. Demonstrate vehicle placement within typical lane positions; and
  - b. Demonstrate vehicle placement within the lane when backing and turning.

## IC 2.0 In-car Standard Two: Introducing Traffic Entry and Intersection Approach Skills

The student will utilize critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments. Topics include:

#### 2.1 Visualization of Intended Travel Path

#### 2.2. Searching Intended Travel Path

*This standard relates to Standard C 3.0 and C 4.0. The following details explain the content standards listed above.* 

**IC. 2.1. Visualization of Intended Travel Path.** The student utilizes critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments.

- **2.1.1 Target.** The student will:
  - a. Identify a stationary object or area that appears in the center and at the end of your intended path of travel.
- 2.1.2 Target Area. The student will:
  - a. Locate the target area and evaluate the line of sight or path of travel conditions
  - b. Identify the traffic problems and elements in and near the target area; and determine best approach speed and lane position.
- 2.1.3 Targeting Path. The student will:
  - a. Evaluate the target area, while developing an image of the intended targeting path;
  - b. Identify elements that can change or modify the intended travel path; and
  - c. Determine risks associated with maintaining the intended path of travel.
- **IC. 2.2 Searching Intended Travel Path.** The student utilizes critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments.
  - 2.2.1 Divide Focal and Mental Attention Between Intended Target, Travel Path, and Other Tasks. The student will:
    - a. Move focal vision from target area to another location and back to target area;
    - b. Move focal vision within <sup>1</sup>/<sub>2</sub> second time frames; and
    - c. Use active searching to allow the brain to perceive information.
  - 2.2.2 Target Area to Searching Areas. The student will:
    - a. Search to the target area to evaluate its conditions and determine entry speed and position
    - b. Search for line of sight or path of travel changes affecting the approach to the target area
    - c. Approach the target area, while continually re-evaluating risks in the immediate 4-8 second travel path
    - d. As you approach the target area, search for your new target area and new travel path

#### 2.2.3 Know How to Judge Space in Seconds. The student will:

- a. Search 20-30 seconds ahead to identify potential problems;
- b. Visualize the space the vehicle will occupy at least 12-15 seconds ahead;
- c. Search 8-12 seconds ahead to identify an alternate path of travel;
- d. Continually evaluate the 4-8 second immediate path; and
- e. Make speed and/or lane position adjustments when the search areas cannot be maintained

#### 2.2.4 Detect Changes to Line of Sight or Path of Travel. The student will:

- a. Evaluate modification in the ability to see or maintain a travel path; and
- b. Recognize a line of sight or path of travel change, then evaluate other zones/spaces for speed and lane adjustments

#### 2.2.5 Identify Open, Closed or Changing Zones/Spaces. The student will:

- a. Identify the intended travel path for open, closed or changing conditions; and
- b. Evaluate open, closed or changing conditions for speed and position adjustments.

#### **2.2.6 Searching Intersections.** The student will:

- a. Search for open zones/space to the left, front and right, when approaching an intersection (every intersection is a zone change);
- b. Evaluate closed or changing zones/spaces and make necessary speed and/or lane position adjustments, when approaching an intersection; and
- c. Search for open zones/spaces to the left, front and right, before entering an intersection.

#### 2.2.7 Searching Into Curves and Over Hill Crest. The student will:

- a. Search the line of sight and path of travel through the curve or over the hill crest for possible closed or changing status of your path of travel, when the target area is a curve or a hill crest; and
- b. Evaluate the line of sight, path of travel for appropriate speed and position adjustments, before entering a curve or a hill crest.

## IC 3.0 In-car Standard Three: Developing Visual and Mental Perception for Vehicle Control Tasks

The student will utilize critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk, low risk, moderate risk, and complex risk environments including basic vehicle control, space management, and apply the state vehicle law and rules of the road. Topics include:

- 3.1 Speed Control
- 3.2 Lane Position Selection
- **3.3 Rear Zone Searching and Control**
- **3.4** Following Time and Space
- **3.5** Communication and Courtesy
- 3.6 Using Three Steps to Problem-Solving (i.e., SEE)
- 3.7 Use a Practice Commentary

*This standard relates to Standard C 5.0, C 6.0, C 7.0 and C 10.0. The following details explain the content standards listed above.* 

#### IC. 3.1 Speed Control.

- **3.1.1 Divide Focal and Mental Attention Between Intended Target, Travel Path, and Other Tasks.** The student will:
  - a. Move focal vision from target area to another location and back to target area;
  - b. Move focal vision within  $\frac{1}{2}$  second time frames;
  - c. Use active searching to allow brain to perceive information.
- 3.1.2 Selection for Ongoing Conditions. The student will:
  - a. Select travel speeds based upon driver, vehicle, legal, roadway, and environmental limitations;
  - b. Make speed adjustments based on driver processing information, and limitations.

#### 3.1.3 After Seeing Changes in Line of Sight or Path of Travel. The student will:

- a. Recognize a closed zone/space (a red light or stopped traffic), adjust speed to arrive as the zone/space opens;
- b. Avoid using acceleration into a closed or changing zone/space;
- c. Adjust speed to maintain or establish an open zone/space when your ability to see a line of sight or path of travel is reduced.

#### 3.1.4 After Seeing a Speed Limit Sign. The student will:

- a. Check speedometer, mirrors, and evaluate line of sight or path of travel conditions; and
- b. Adjust speed to meet driver, vehicle, legal, roadway, and environmental limitations.
- 3.1.5 Speed Control While Approaching Curves and Hills. The student will:
  - a. Establish appropriate speed on approach;
  - b. Establish appropriate speed on apex; and
  - c. Establish appropriate speed on exit.

#### IC. 3.2 Lane Position Selection.

- **3.2.1 Divide Focal and Mental Attention Between Intended Target, Travel Path and Other Tasks.** The student will:
  - a. Move focal vision from target area to another location and back to the target area;
  - b. Move focal vision within  $\frac{1}{2}$  second time frames; and
  - c. Use active searching to allow brain to perceive information.

- **3.2.2 Lane Position.** The student will:
  - a. Select the appropriate lane for space management, legal requirements, and destination.
- 3.2.3 Lane position usage while driving straight ahead. The student will:
  - a. Select a lane position to give best separation from closed or changing zones/space; and
  - b. Demonstrate ability to place vehicle in appropriate lane position.
- 3.2.4 Lane position usage while parking. The student will:
  - a. Select a lane position to give best separation from closed or changing zones/space; and
  - b. Demonstrate ability to place vehicle in appropriate lane position.
- **3.2.4 Lane position usage while turning around.** The student will:
  - a. Select a lane position to give best separation from closed or changing zones/space; and
  - b. Demonstrate ability to place vehicle in appropriate lane position.
- 3.2.5 Lane position usage while approaching curves and hill crests. The student will:
  - a. Establish the appropriate lane position on approach;
  - b. Establish the appropriate lane position in apex of a curve; and
  - c. Establish the appropriate lane position on exiting.

### IC. 3.3 Rear Zone Searching and Control.

- **3.3.1 Divide Focal and Mental Attention Between Intended Target, Travel Path and Other Tasks.** The student will:
  - a. Move focal vision from target area to another location and back to target area;
  - b. Move focal vision within  $\frac{1}{2}$  second time frames; and
  - c. Use active searching to allow brain to perceive information.

### 3.3.2 Inside Rearview Mirror Usage. The student will:

- a. Search to the rear after seeing a change to your line of sight or path of travel;
- b. Search to the rear before and after making a turn or a stop;
- c. Search to the rear before and after making speed adjustment;
- d. Search to the rear before and after making lane position adjustment; and
- e. Search to the rear before and after making a lane change.

### 3.3.3 Outside Side View Mirrors and Mirror Blind Zone Checks. The student will:

- a. Check the side view mirror before adjusting a lane position in that direction;
- b. Visually check mirror blind zone after side view mirror use, before moving the steering wheel.
- c. Check the side view mirror before adjusting a lane position in that direction.

### 3.3.4 Evaluate Condition to the Rear. The student will:

- a. Determine if the rear zone/space is an open, closed, or changing condition; and
- b. Determine the appropriate speed or lane adjustment needed when a tailgater is closing or changing the rear zone/space.

### IC. 3.4 Following Time and Space.

- **3.4.1 Divide Focal and Mental Attention Between Intended Target, Travel Path and Other Tasks.** The student will:
  - a. Move focal vision from target area to another location and back to target area;
  - b. Move focal vision within  $\frac{1}{2}$  second time frames; and
  - c. Use active searching to allow brain to perceive information.
- 3.4.2 Closure Rate on Approach. The student will:
  - a. Approach the vehicle in front gradually, avoiding a fast closure rate.
- 3.4.3 Moving at Same Speed Maintaining Four Second Interval. The student will:
  - a. Work to maintain four seconds of time and space when following another vehicle,

- b. Adjust speed or lane position if four seconds of time is difficult to maintain.
- 3.4.4 When Stopping Behind Vehicles. The student will:
  - a. When stopped behind a vehicle, be able to see the rear tires touching the pavement ahead
  - b. When stopped behind a vehicle without visibility to the rear, be able to see the driver ahead in their side view mirror (no-zone).

### 3.4.5 Delay Start Before Moving. The student will:

a. Delay forward movement for two seconds to open the front zone/space after the vehicle in front begins to move.

### IC. 3.5 Communication and Courtesy.

- **3.5.1 Technique.** The student will:
  - a. Use turn signal before turning right or left;
  - b. Use lane change device rather than turn signal appropriate for moving to another lateral position;
  - c. Use headlights on at all times to increase visibility;
  - d. Use horn to make others aware of your presence;
  - e. Tap brake lights to warn rear traffic of a slowdown or stop in the traffic flow; and
  - f. Use vehicle speed and position could communicate the driver's intention.
- **3.5.2 Timing**. The student will:
  - a. Put turn signal on at least five seconds prior to moving since communication requires time to be sent, received and acted upon (see state law)
  - b. Communicate early so that your safe path of travel can best be controlled.

#### **3.5.3 Commitment**. The student will:

a. Make sure messages are acknowledged by others.

### IC. 3.6 Using Three Steps to Problem-Solving (i.e., SEE).

**3.6.1** Search for a change to your line of sight and/or to your path of travel. The student will:

- a. Search for restrictions to your intended path of travel
- **3.6.2 Evaluate your other zones/spaces for risk**. The student will:
  - a. Search related zones;
  - b. Look for alternate path of travel; and
  - c. Evaluate all information before executing.
- **3.6.3 Execute an Adjustment**. The student will:
  - a. Select and apply the best
    - i. Speed control;
    - ii. Lane position; and
    - iii. Communication for the conditions.

### IC. 3.7 Use a Practice Commentary. The student will:

- 3.7.1 State the zone condition, look for line of sight or path of travel zone/space changes;
- 3.7.2 State the actions you will take in terms of speed, lane position and communication;
- 3.7.3 Develop the process for brief periods of time as a rear seat occupant/observer; and
- 3.7.4 Repeat the process for brief periods of time for the driver.

## IC 4.0 In-car Standard Four: Responding to Emergency Situations

- **4.1 Divide Focal and Mental Attention Between Intended Target, Travel Path, and Other Tasks.** The student will utilize critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments.
- **4.2 Identify, Assess and Respond to Vehicle Emergencies.** The student will describe appropriate ways to prevent having a vehicle emergency and identify, assess, and respond to vehicle emergencies, including engine failure, brake failure and tire pressure failure.
- **4.3 Identify, Assess and Respond to Environmental Conditions.** The student will describe appropriate ways to prevent having an environmental emergency and identify, assess, and respond to environmental conditions, including traction loss, vehicle tires dropping off the pavement, line of sight loss situations and loss of path travel situations.

This standard relates to Standard C 9.0 and C 11.0.

The following details explain the content standards listed above.

#### IC. 4.1 Divide Focal and Mental Attention Between Intended Target, Travel Path, and Other Tasks.

The student utilizes critical thinking, decision-making, and problem-solving skills to operate the vehicle and perform basic maneuvers in controlled risk environments. The student will:

- a. Move focal vision from target area to another location and back to target area;
- b. Move focal vision within <sup>1</sup>/<sub>2</sub> second time frames; and
- c. Use active searching to allow brain to perceive information.

#### IC. 4.2 Identify and respond to vehicles emergencies. The student will:

- a. Describe appropriate ways to prevent having a vehicle emergency.
- b. Identify, assess, and respond to engine failure.
- c. Identify, assess, and respond to brake failure.
- d. Identify, assess, and respond to tire failure.

#### IC. 4.3 Identify and respond to environmental conditions. The student will:

- a. Describe appropriate ways to prevent having an environmental emergency.
- b. Identify, assess, and respond to traction loss.
- c. Identify, assess, and respond to vehicle tires dropping off the pavement.
- d. Identify, assess, and respond to loss of line-of-sight situations.
- e. Identify, assess, and respond to loss of path of travel situations.

## IC 5.0 In-car Standard Five: Assessment of Driver Performance

- **5.1. Driver Assessment.** The student enrolled in a certified driver education program will be able to successfully demonstrate the key core behavioral patterns while performing the recommended procedures on a designated assessment route.
- **5.2.** Assessment of Vehicle Safety Technology. The student enrolled in a certified driver education program will be able to properly use and understand available vehicle safety technology.

This standard relates to Standard C 1.0 - C 7.0 and C 9.0 - C 11.0. - 12.0

The following details explain the content standards listed above.

- **IC. 5.1** The student enrolled in a certified driver education program will be able to successfully demonstrate the key core behavioral patterns while performing the following procedures.
  - 5.1.1 Divide Focal and Mental Attention Between Intended Target, Travel Path and Other Tasks. The student will:
    - a. Move focal vision from target area to another location and back to target area;
    - b. Move focal vision within <sup>1</sup>/<sub>2</sub> second time frames; and
    - c. Use active searching to allow brain to perceive information.
  - **5.1.2 Precision Turns**. The student will:
    - a. Demonstrate and explain a proper side position;
    - b. Demonstrate and explain the forward position;
    - c. Search intersections left, front, and right to ascertain open zones/spaces; and
    - d. Look into the turn before turning the steering wheel.
  - 5.1.3 Approach to Intersections. The student will:
    - a. See and respond to open/closed zones;
    - b. Check and respond to rear zone conditions;
    - c. Establish and maintain proper lane usage and speed control;
    - d. Search left, front, and right zones for changes, get open zones before entering; and
    - e. Demonstrate and use legal, safety stop, and staggered when applicable.

#### 5.1.4 Timing Arrival for Open Zone. The student will:

- a. See condition of traffic light; adjust speed to arrive at a green light;
- b. See closed front zone; adjust speed to reduce closure rate and to arrive in an open zone; and
- c. Adjust speed to have at least one open side zone.
- 5.1.5 **Precision Lane Change**. The student will:
  - a. Evaluate zones and mirror blind spots;
  - b. Move to lane position 2, the left side of lane for left lane change;
  - c. Move to lane position 3, the right side of lane for right lane change;
  - d. Make final mirror check and final blind spot check;
  - e. Enter new lane in lane position 2 or lane position 3;
  - f. Decide on best lane position for conditions; and
  - g. Evaluate rear zones

#### **5.1.6** Approach to Hill Crest and Curves. The student will:

- a. See hill or curve in target area;
- b. Check all zones for options;

- c. Establish effective speed control;
- d. Best lane position for approaching the hill crest
- e. Select best lane position for left curve approach, lane position 3 if right zone is open, apex lane position 1, exit lane position 1; and
- f. Select best lane position for right curve approach, lane position 2 if left zone is open, apex lane position 3, exit lane position 1.

### 5.1.7 Passing/Being Passed. The student will:

- a. Identify tailgater problems for speed and lane position adjustments;
- b. Evaluate gain versus risk prior to attempting passing maneuver;
- c. Check all zones for conditions; and
- d. Control speed and lane position.

#### 5.1.8 Getting On/Off Limited Access Highways. The student will:

- a. Adjusting speed on entrance ramp for maximum searching time and options;
- b. Evaluate gap to enter;
- c. Effective speed on acceleration lane; and
- d. Getting off: plan ahead, test brakes.

### **5.1.9 Backing Techniques.** The student will:

- a. Effective searching prior to and while backing;
- b. Effective use of brake for speed control; and
- c. Effective steering technique.

### 5.1.10 Parking Techniques. The student will:

- a. Establish side position;
- b. Demonstrate proper forward position;
- c. Use minimum space to go forward;
- d. Evaluate alignment to space;
- e. Back to pivot point, turn wheel;
- f. Visually target center of vehicle or space to the rear; and
- g. Straighten tires, demonstrate rear limitation reference.

### **5.1.11 Turnabout Techniques**. The student will:

- a. Establish side position;
- b. Demonstrate proper forward position;
- c. Use minimum space to go forward;
- d. Evaluate alignment to space;
- e. Back to pivot point, turn wheel;
- f. Visually target center of vehicle or space to the rear; and
- g. Straighten tires, demonstrate rear limitation reference.

### 5.1.12 Responding to Emergency Situations. The student will:

- a. Use vision control, motion control, and steering control sequences;
- b. Recognize and respond to adverse conditions that change vehicle traction;
- c. Recognize front wheel traction loss;
- d. Recognize rear wheel traction loss;
- e. Demonstrate appropriate controlled brake, trail brake, threshold brake, and antilock brake use; and
- f. Recognize and respond to vehicle mechanical failures.
- **IC. 5.2** The student enrolled in a certified driver education program will be able to properly use and understand available vehicle safety technology.

# Segment II

# **Classroom and In-Car**

This material represents the best practices developed by the ADTSEA Curriculum Standards Committee. These standards will be reflected in future curriculum materials supported, sponsored and approved by this professional organization representing traffic safety instructors across North America.

The role of the driver educator is not limited to pre-licensing efforts in the public and private sector. This role will need to be expanded to provide services for lifetime learning components. ADTSEA will play a role in helping to identify the specific needs to accomplish the task of preparing a novice driver within the recommended graduated licensing guidelines.

## **Classroom Performances Concurrent with Segment I**

#### Goals

A novice driver is a person who is able to:

- Demonstrate a working knowledge of rules, regulations and procedures of operating an automobile;
- Use visual search skills to obtain correct information and make reduced-risk decisions for effective speed and position adjustments;
- Interact with other users within the Highway Transportation System by adjusting speed, space, and communications to avoid conflicts and reduce risk;
- Demonstrate balanced vehicle movement through steering, braking, and accelerating in a precise and timely manner throughout a variety of adverse conditions;
- Recognize vehicle technology systems and explain the benefits of vehicle warning and assistance systems.
- Confirm the need to protect oneself and others through using active and passive vehicle occupant protection systems;
- Display knowledge of responsible actions in regard to physical and psychological conditions affecting driver performance; and
- Extend supervised practice with licensed parent or guardian to develop precision in the use of skills, processes, habits and responsibilities.

Skill evaluation for each driver should indicate progression for:

- Positioning a vehicle:
- ✓ Based on visual referencing skills, dividing attention, space management,
- Procedures and sequencing for vehicle operational skill:
  - ✓ Based on pre-drive checks, driver readiness procedures, vehicle control skills, vehicle maneuvering, vehicle position and/or speed selection, and vehicle weight.
- Processing traffic and vehicle information into appropriate speed and position selection:
  - ✓ Based on visual search skills, dividing attention, and space management as measured by vehicle speed, roadway position, driver commentary, and appropriate communication.
- Precision movements for maintaining vehicle control and balance in expected and unexpected situations:
  - ✓ Based on vehicle speed control, dividing attention, vehicle balance, collision avoidance, response to mechanical failures, and traction loss prevention, detection, and control.
- Extend supervised practice with licensed parent or guardian:
  - ✓ Based on delivery of parent guide and completion of Program Skills Log.

**Overview of Novice Driver Preparation Segment II Classroom Standards** 

While participating in the state approved driver education 8-hour Segment II classroom program comprised of not less than 8 sessions of 60-minute training segments, the participating student should:

- C.II. 1.0. Mental and Risk Perceptual Awareness. The student:
  - develops an understanding of the effects of negative reinforcement on driving behavior,
  - recognizes the role of driver fitness, mental preparedness, and the effects of alcohol and other drugs, and
  - develops essential knowledge and skills for reduced-risk performances in preventing and avoiding collision threats.
- **C.II. 2.0. Driver Fitness Tasks.** The student recognizes the role of driver fitness, mental preparedness, and the effects of alcohol, marijuana, and other drugs on reduced-risk driver performances.
- **C.II. 3.0. Avoiding Collision Threats.** The student develops essential knowledge and skills for reduced-risk performances in preventing and avoiding collision threats.

The student is expected to relate to effects of momentum, gravity, and inertia in personal driving situations, list and identify the purpose of vehicle safety technology for reducing the collision effects of driver error and relate the concepts of vehicle understeer and vehicle oversteer to traction loss.

#### **Overview of Novice Driver Preparation Segment II In-car Standards**

While participating in the state approved driver education two-hour segment II in-car training program comprised of not less than 4 sessions of 30-minute training segments, the participating student should demonstrate proficiency of the personal driving system and strategies in 4 planned assessment routes.

- **IC.II. 1.0. Commentary Driving Assessment.** The student is expected to use a driving system to search for changes to path of travel and line of sight, identify high risk situations, evaluate methods to reduce driver risk in identified situations, evaluate divided attention tasks needed, explain consequences associated driver behaviors and collision factors, and execute appropriate speed and position adjustments accompanied by appropriate communication
- **IC.II. 2.0 SEE System Training.** The student is expected to use a driving system to search for changes to path of travel and line of sight, identify high risk situations, evaluate methods to reduce driver risk in identified situations, evaluate divided attention tasks needed, explain consequences associated driver behaviors and collision factors, and execute appropriate speed and position adjustments accompanied by appropriate communication.
- **IC.II. 3.0 Commentary Space Management Assessment.** The student is expected to use a driving system to identify restrictions to the path of travel, identify restrictions to the line of sight, and execute appropriate speed and position adjustments, while checking space to the rear.
- IC.II. 4.0 Advanced Collision Avoidance Actions (Off-Road Application). The student is expected to identify steering actions used to avoid collisions and minimize impact, identify speed control techniques used to avoid collisions and minimize impact, and identify driver strategies related to using vehicle safety technologies effectively.

The student is expected to relate to effects of momentum, gravity, and inertia in personal driving situations, list and identify the purpose of vehicle safety technology for reducing the collision effects of driver error and relate the concepts of vehicle understeer and vehicle oversteer to traction loss.

#### Essential Knowledge and Skills for Driver and Traffic Safety Education

#### Driver and Traffic Safety Education: Classroom and In-Car Segment II

**General Requirements.** This course is a required prerequisite to obtain a Selected State Driver License at ages between 16 years and before age 18.

**Introduction**. Selected state driver and traffic safety education provides the foundation for students, assisted by parents/mentors, to continue the lifelong learning process of reduced risk driving practices, keeping mentally and physically fit, while acquiring essential knowledge, skills, and experiences to understand and perform reduced risk driving in varying traffic environments.

**Responsibilities.** Teachers will help students meet or exceed minimum competency standards through a combination of classroom and in-car instruction that includes modeling, knowledge assessment, skill assessment, guided observation, and support continued parental involvement.

#### Classroom Segment II knowledge and skills standards.

## Segment II - C 1.0 Classroom Standard One: Mental and Perceptual

The student understands of the effects of negative reinforcement on driving behavior. The student recognizes the role of driver fitness, mental preparedness, and the effects of alcohol, marijuana, and other drugs. The student develops essential knowledge and skills for reduced-risk performances in preventing and avoiding collision threats. NOTE: Subsequent to successful enrollment in the local driver and traffic safety education course, the student is eligible to start the unrestricted licensing portion of the graduated driver licensing process.

#### C.II. 1.0. Mental and Perceptual Awareness

- 1.1 Dealing with Negative Reinforcement: The student is expected to:
  - ✓ identify the effects of media on driver risk-taking.
  - $\checkmark$  relate how peers have affected their driver performance.
  - $\checkmark$  identify other driver behaviors that reinforce poor driving performances.

#### 1.2 Developing Risk Awareness: The student is expected to:

- ✓ identify high risk situations.
- $\checkmark$  identify methods to reduce driver risk in identified situations.
- $\checkmark$  identify consequences associated driver behaviors and collision factors.

#### 1.3 Making Effective Decisions: The student is expected to:

- $\checkmark$  identify driver errors contributing to collisions.
- ✓ identify consequences associated high-risk driver behavior and vehicle operation.
- $\checkmark$  identify driver actions to reduce severity of or avoid a collision.

- 1.4 Using a Space Management System: The student is expected to:
  - $\checkmark$  identify three steps of the space management system employed.
  - ✓ relate how searching skills are developed for reduced-risk performance.
  - ✓ relate how evaluation skills are developed for reduced-risk performance.
  - $\checkmark$  explain how to execute speed and position adjustments with effective communication.
  - $\checkmark$  develop a plan to work with No-zone concepts.

# Segment II - C 2.0 Classroom Standard Two: Driver Fitness Tasks

The student recognizes the role of driver fitness, mental preparedness, and the effects of alcohol, marijuana, and other drugs on reduced-risk driver performances.

#### C.II. 2.0. Driver Fitness Tasks

- 2.1 Fatigue Factors: The student is expected to:
  - ✓ identify factors that may lead to driver fatigue.
  - $\checkmark$  relate fatigue to risk awareness and effective decision-making.
  - $\checkmark$  relate fatigue to other driver physical limitations.
- 2.2 Role of Emotions: The student is expected to:
  - $\checkmark$  identify emotions which may affect driving performance
  - ✓ relate emotional factors to driving performance
  - recognize how emotions may play a role in preventing/deterring the driver's attention from the task.
- 2.3 Distracted Driving
  - $\checkmark$  identify driver distractions as a vision and mental problem
  - $\checkmark$  identify factors inside the vehicle that can cause distractions
  - $\checkmark$  identify factors outside the vehicle that can cause distractions
  - $\checkmark$  identify personal factors that can cause distractions
  - $\checkmark$  deal with distractions by;
    - Move focal vision from travel path to another location and back to travel path.
    - Move focal vision within <sup>1</sup>/<sub>2</sub> second time frames.
    - Share attention more than one time to allow brain to perceive information.
- 2.4 Aggressive Driving Factors: The student is expected to:
  - $\checkmark$  identify factors that may lead to road rage.
  - $\checkmark$  relate emotions to other driver emotional limitations.
  - $\checkmark$  relate emotions to risk awareness and effective decision-making.
- 2.5 Substance Abuse Factors: The student is expected to:
  - $\checkmark$  recognize the impact of zero tolerance laws.
  - ✓ relate youthful alcohol collision risk involvement to adult alcohol collision risk involvement.
  - ✓ identify the impact of blood alcohol concentrations (BAC) of less than .08% to .10% on driver risk awareness and decision-making.
  - $\checkmark$  relate the psychological effects of alcohol on driving task.
  - $\checkmark$  relate the physiological effects of alcohol on the driving task.
  - $\checkmark$  develop a plan to avoid alcohol and other drug related driving

# Segment II - C 3.0 Classroom Standard Three: Avoiding Collision Threats

The student develops essential knowledge and skills for reduced-risk performances in preventing and avoiding collision threats.

#### C.II. 3.0 Avoiding Collision Threats

- 3.1 Driver Actions: The student is expected to:
  - ✓ identify space management practices which may reduce risk and allow time for decisionmaking.
  - ✓ identify steering actions used to avoid collisions and minimize impact.
  - $\checkmark$  identify speed control techniques used to avoid collisions and minimize impact.
  - $\checkmark$  identify driver strategies related to using vehicle safety technologies effectively.
- 3.2 Knowing the Vehicle: The student is expected to:
  - $\checkmark$  relate vehicle limitations associated with different vehicle types.
  - $\checkmark$  relate how tire pressures and traction affect vehicle control.
  - $\checkmark$  relate how a vehicle is designed to fit the style of use.
  - $\checkmark$  relate how crash test results can influence purchase and driver performances.
- 3.3 Vehicle Actions: The student is expected to:
  - $\checkmark$  relate to effects of momentum, gravity, and inertia in personal driving situations.
  - ✓ list and identify the purpose of vehicle safety technology for reducing the collision effects of driver error.
  - $\checkmark$  relate the concepts of vehicle understeer and vehicle oversteer to traction loss.
- 3.4 Environmental Factors: The student is expected to:
  - ✓ identify weather related conditions which lead to a need for greater risk awareness and better decision-making.
  - ✓ identify distracting situations which lead to a need for greater risk awareness and better decision-making.

#### Segment II In-car knowledge and skills.

#### Segment II In-car training.

The student develops an understanding of the effects of negative reinforcement on driving behavior. The student recognizes the role of driver fitness, mental preparedness, and the effects of alcohol and other drugs. The student develops essential knowledge and skills for reduced-risk performances in preventing and avoiding collision threats. NOTE: Subsequent to successful enrollment in the local driver and traffic safety education course, the student is eligible to start the unrestricted licensing portion of the graduated driver licensing process.

# Segment II - IC 1.0 In-Car Standard One: Commentary Driving Assessment

#### IC.II 1.0 Commentary Driving Assessment. The student is expected to:

- $\checkmark$  search for changes to path of travel and line of sight
- $\checkmark$  identify high risk situations
- $\checkmark$  evaluate methods to reduce driver risk in identified situations.
- ✓ evaluate divided attention tasks needed
- ✓ explain consequences associated driver behaviors and collision factors
- ✓ execute appropriate speed and position adjustments accompanied by appropriate communication

#### Segment II - IC 2.0 In-Car Standard Two: SEE System Training

#### IC.II 2.0 SEE System Training. The student is expected to:

- $\checkmark$  search for changes to path of travel and line of sight
- ✓ identify high risk situations
- $\checkmark$  evaluate methods to reduce driver risk in identified situations.
- ✓ evaluate divided attention tasks needed
- ✓ explain consequences associated driver behaviors and collision factors
- execute appropriate speed and position adjustments accompanied by appropriate communication

## Segment II - IC 3.0 In-Car Standard Three: Commentary Space Management Assessment

#### IC.II 3.0 Commentary Space Management Assessment. The student is expected to:

- $\checkmark$  identify restrictions to the path of travel
- $\checkmark$  identify restrictions to the line of sight
- $\checkmark$  execute appropriate speed and position adjustments, while checking space to the rear

# Segment II - IC 4.0 In-Car Standard Four: Advanced Collision Avoidance Actions (Off-Road Application)

#### IC.II. 4.0 Advanced Collision Avoidance Actions (Off-Road Application).

- **4.1. Driver Actions.** The student is expected to:
  - $\checkmark$  identify steering actions used to avoid collisions and minimize impact
  - ✓ identify speed control techniques used to avoid collisions and minimize impact
  - ✓ identify driver strategies related to using vehicle safety technologies effectively
- 4.2. Vehicle Actions. The student is expected to:
  - $\checkmark$  relate to effects of momentum, gravity, and inertia in personal driving situations
  - ✓ list and identify the purpose of vehicle safety technology for reducing the collision effects of driver error
  - $\checkmark$  relate the concepts of vehicle understeer and vehicle oversteer to traction loss

#### Scope and Sequence of Activities:

Seg. II Period One	VIS. 11.0	C. II. 1.0	
		C. II. 1.0	IC. II. 1.0
	VIS. 12.0	C. II. 1.0	
		C. II. 2.0	IC. II. 2.0
	VIS. 13.0	C. II. 2.0	
Seg. II Period Two		C. II. 2.0	IC. II. 3.0
	VIS. 14.0	C. II. 3.0	
		C. II. 3.0	IC. II. 4.0
			IC. II. 4.0

#### Appendix A: Advanced Driver-Assistance System (ADAS) Safety Features

The following provides a list of ADAS safety features. This is not a comprehensive list but contains the most common ADAS safety features to date.

\*Indicates a safety feature which is most important to cover in the curriculum.

Ongoing Safety Features

- All-wheel drive
- Antilock brakes (ABS)
- Electronic stability control (ESC)\*
- Traction control\*

Vehicle Warning System Safety Features

- Backup or rearview cameras\*
- Backup warning\*
- Bicycle detection
- Blind spot warning\*
- Curve speed warning
- Drowsiness alert
- Forward collision warning\*
- High speed alert
- Lane departure warning\*
- Obstacle detection
- Parking collision warning
- Pedestrian detection
- Rear cross traffic warning
- Side view camera
- Surround view camera
- Temperature warning
- Tire pressure monitoring system

Vehicle Assistance System Safety Features

- Active driving assistance
- Active parking assistance
- Active and passive safety systems (active head restraints, advanced airbags and safety belt pretensions)
- Adaptive cruise control\*
- Adaptive headlights
- Automatic emergency braking\*
- Automatic emergency steering\*
- Hill descent assist
- Hill start assist
- Lane keeping assistance\*
- Left turn crash avoidance
- Remote parking assistance

- Reverse automatic emergency braking\*
- Self-dimming headlights
- Telematics (connected services)
- Traffic jam and queuing assist
- Trailer assistance
- Vehicle to infrastructure communication
- Vehicle to vehicle communication

Vehicle Convenience System Safety Features

- Active window/windshield display
- Automatic high beams
- Biometric car access
- Hands-free vehicle door open
- Head-up display
- Keyless entry/start
- Navigation systems and alerts
- Night vision
- Remote vehicle shutdown/start
- Self-parking vehicles
- Three-dimensional gestures
- Voice recognition

#### OR by Categories Recommended by AAA, NSC, CR, JD Power, SAE

Collision Warning

- Blind spot warning\*
- Forward collision warning\*
- Lane departure warning\*
- Parking collision warning
- Rear cross traffic warning

Collision Intervention

- Automatic emergency braking\*
- Automatic emergency steering\*
- Reverse automatic emergency braking\*

Driving Control Assistance

- Active driving assistance
- Adaptive cruise control\*
- Lane keeping assistance\*

#### Parking Assistance

- Backup or rearview cameras\*
- Surround view camera
- Active parking assistance
- Remote parking assistance

• Trailer assistance

Other Driver Assistance Systems

- Automatic high beams
- Driver monitoring
- Head-up display
- Night vision

Attachment B – DSAA Curriculum Content Standards

# Driving School Association of the Americas Beginner Driver Education and Training Curriculum Content Standards



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# **Table of Contents**

#### 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

#### CURRICULUM CONTENT STANDARDS REVISION 2017/2022

The revision of the DSAA Curriculum Content Standards was an activity in the DSAA FY 2016 /and 2021Technical 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 DSAA members directly involved in the 2016 revision were Sharon Fife, Jim Mihalovich, Dave Muma, Nina Jo Saint, and John Svensson.

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 2017 revision.

A Phase 2 Driver Education Program was also added to the standards as well as a glossary of terms. 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 visit the DSAA website at https://dsaa.org/ Docs or contact the DSAA Communication Office.

In 2022, DSAA Curriculum Content Standards, a working group revised the DSAA Curriculum Content Standards to ensure inclusion of the following topics: vehicle safety technologies, micro-mobility, Move Over Law, drugged driving (e.g., marijuana, prescribed, illegal), sharing the road with motorcyclists, distractions, pedestrians, bicyclists, traffic stops, space management system, speed (under 55 mph and over55 mph), street racing, cultural equity and revised the standards for students with disabilities.

#### **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 DSSA's hope that these 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.

#### **CULTURAL EQUITY**

There is a national, state, and local concern about highway safety and the reduction in the number of traffic crashes, fatalities and injuries at a time when drivers across the United States are increasingly becoming more diverse. A Culturally Competent Highway Safety Program is defined as a highway safety program that embodies a culturally competent/relevant framework that integrates multicultural education while using a state's demographic information to address reduction in traffic crashes, fatalities and injuries.

To combat the crashes, fatalities, and injuries, a Culturally Equitable Driver Education and Training program integrates principles of multicultural education and culturally responsive teaching while using a State's demographic information to address reduction in traffic crashes, fatalities and injuries for all regardless of culture, ethnicity, race, language, age, gender, sexual orientation, ability, social class, belief system, economic status, environment, digital literacy or disability<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>Larke, P.J. & Saint, N.J. (In Press) Culturally Competent Highway Safety Program (CCHSP): A Definition. ADTSEA/NHTSA Project.

#### CURRICULUM CONTENT STANDARDS OVERVIEW

#### Phase 1 Classroom

- **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 safely 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 Driver Attention/Visual Skills.** 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 and Vehicle Malfunctions.** 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.

#### **Phase 1 In-Vehicle Instruction**

#### Phase 2 Classroom and In-Vehicle Instruction

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

# Phase 1 Classroom Instruction

# **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.
  - 1.1 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 including appropriate practice in the vehicle.
    - 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. Identify the processes and procedures for preparing to drive a vehicle. This includes being aware of and knowing how to utilize current vehicle safety technology;
      - D. 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, street racing and distracted driving;
      - E. 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;
      - F. Explain the jurisdictional-specific laws concerning blind spot driving, the ability to stop a vehicle on roadway various conditions, use of vehicle lights, and entering, traveling on, and exiting a freeway;

- G. 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;
- H. Describe the jurisdictional-specific procedures for handling a common driving
- I. challenges such as vehicle breakdown, a vehicle in a skid, brake failure, running off pavement, blowout, driving down a steep hill and winter driving;
- J. Explain how to demonstrate proper and safe responses to the rules of the road;
- K. Understand drivers' obligations and accountability to drive safely and responsibly;
- L. Recognize the consequences of disobeying traffic laws and regulations; and
- M. 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 including micro-mobility vehicles.
- 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;
  - 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 and micro-mobility vehicles;
  - 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, micro-mobility vehicles 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 occupant restraints 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 to avoid being poisoned by carbon monoxide.

# 2.0 VEHICLE COMPONENTS

2.0 Vehicle Components. To develop knowledge, appreciation, and skills related to the vehicle and its basic components and safely 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 seating adjustments, 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, traction control devices and current vehicle safety technology;
    - B. Identify and explain the functions of the vehicle control devices including steering wheel, accelerator, brake, clutch, dead pedal, gear selector, parking brake and adaptive systems (e.g., steering mechanism or hand controls);
    - C. Explain the difference between automatic and manual transmissions;
    - D. Identify the gear shift lever for an automatic and manual transmission;
    - E. Identify the accelerator, brake, and clutch operations for an automatic and manual transmissions;
    - F. Understand the vehicle starting tasks;
    - G. Demonstrate proper use and importance of each vehicle component including being aware of and knowing how to utilize current vehicle safety technology.; 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 occupant restraints 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 so that they are not left inside the vehicle;
  - C. Visually check traffic flow, looking over your shoulder, before opening the door by reaching across for the handle with the far hand; and
  - D. Explain how to 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. Explain 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 the vehicle controls to move forward, park (basic parking and pull to/from curb), change directions, turn, back, entering the roadway, lane changes, yield the right-of-way in low risk free of traffic environment;
    - D. Recognize steering techniques (i.e., hand over hand vs. push/pull or shuffle technique), and
    - E. Identify how to manage simple intersections.
  - 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/weight transfer in vehicle handling;
    - B. Explain the effect of the following on the vehicle's balanced weight/weight transfer, 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, curves, hills, 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/weight transfer; and
    - G. Explain how to demonstrate caution in maintaining the vehicle's balanced weight/weight transfer in compensating for different driving conditions.

- 3.1.4 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.

# **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 and importance 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. Discuss adult decision making versus teen decision making including teen brain development;
      - 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. Explain the importance of proper driving behavior (i.e., calm, cool, collected);
      - D. List personal driving values, beliefs and motives;
      - E. Explain how values, beliefs, and motives influence driving attitudes and behaviors;
      - F. Explain how motives influence driving;
      - G. Explain how motive may change under different circumstances;
      - H. Recognize impaired driving (i.e., bright lights on when unnecessary, lack of headlights at night, swerving, unusual posture at the wheel, etc.);
      - I. Identify personal motivators and describe how each could positively and/or negatively influence personal driving attitudes and behaviors;
      - J. 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;
      - K. 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;

- L. Explain how positive driving attitudes and behaviors can overcoming negative motives and result in safe and responsible driving behaviors such as driving courteously and cooperatively; and
- M. 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, drugged driving (e.g.: marijuana, prescribed, illegal) 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; Explain the effects of impairment on driving; and
  - G. 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 driver.

- 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.

# **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 decisions including sharing the road in a safe and considerate manner, respecting other road-users, understanding other road-users'needs;
    - C. Recognize how to sharing the road safely with school buses, city buses, commercial vehicles, bicyclist, pedestrians, trains, motorcyclist, animal-drawn vehicles, funeral precessions, micro-mobility vehicles, farm equipment, animals;
    - D. Explain how to interact safely in traffic situations including yielding the rightof-way, stopping, space management, following distances, passing, changing lanes, and merging;
    - E. Explain the benefits of cooperative and courteous driving on all types of roadways; and
    - F. 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.

# 6.0 DRIVER ATTENTION/VISUAL SKILLS

- 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.

# 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 the 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 including unique driving situations (i.e., roundabouts,

freeway underpass U-turns, intersections where you are forced to make a Uturn instead of a left turn, moves left turn vehicles to the left most side of the roadway, etc. if available);

- 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. Recognize the purpose for trip/route planning and the procedures for trip/route planning including recognition of work zone and construction areas.
- 7.1.5 To safely and responsible 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 except;
  - F. Describe safe time margins;
  - G. Explain the risk of street racing to know to avoid street racing (e.g.: dirt bikes/quads, stunts); and
  - H. Describe the most common crash situations.

# 8.0 VEHICLE MAINTENANCE/MALFUNCTIONS

- 8.0 Vehicle Maintenance and Vehicle Malfunctions. To develop knowledge, appreciation, and skills related to vehicle maintenance and managing vehicle malfunctions 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 including information on vehicle safety technology;
      - 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.

# 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. Explain different adverse driving conditions including the use of vehicle safety technologies;
      - B. Demonstrate consistently caution in driving behavior to compensate for different conditions;
      - C. Explain evasive maneuvers and how to apply then to avoid crashing;
      - D. Describe appropriate situations to apply evasive maneuvers to avoid crashing; and
      - E. 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 during a traffic stop (when stopped or detained by a law enforcement 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.
    - 9.1.4 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.
- 9.1.5 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 including the use of vehicle safety technologies; 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.

# **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 roadusers 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 user's 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.

### **11.0 UNDERSTANDING VEHICLE SAFETY TECHNOLOGY SYSTEMS**

11.0 Vehicle Technology Systems. To develop knowledge, appreciation, and skills related to the benefits and concerns of vehicle safety technologies that enhance the safety of the driver and users of the highway transportation system (listed in Appendix A) that contributing to safe, responsible, and incident-free driving.

#### 11.1 Classroom Instruction

- 11.1.1 To safely and responsibly understand the potential benefits of vehicle safety technologies, the student should be able to:
  - A. Recognize the potential benefits of crash reduction, injuries and fatalities;
  - B. Understand the potential benefit of reduction in human error;
  - C. Recognize the potential benefits of improved warning, reaction and response times;
  - D. Know the potential benefits of reduced driver fatigue and distractions by sensing or warning the driver (only in certain technologies);
  - E. Understand the potential benefit of smoother traffic flow; and
  - F. Recognize the potential benefit of more efficient transportation that leads to lower fuel use and fewer harmful emissions/smaller carbon footprint.
- 11.1.2 To safely and responsibly understand the potential concerns of vehicle safety technologies, the student should be able to:
  - A. Recognize the potential concern of drivers changing their behavior bases on technology;
  - B. Understand the potential concern of perceived performance misconceptions (e.g., driving faster, following more closely, braking later, cornering more aggressively);
  - C. Recognize the potential concern of unfamiliar with how to use vehicle safety technologies;
  - D. Know the potential concern of eliminating the potential benefit by turning off vehicle safety technologies;
  - E. Understand the potential concern of the driver initially being overwhelmed by warnings, alerts and information; and
  - F. Recognize the potential concern of becoming complacent and therefore ignoring or disregarding a warning.
- 11.1.3 To safely and responsible identify safety features within the vehicle safety technology categories the student should be able to refer to Appendix and Clearing the Confusion: Recommended Common Naming for Advanced Driver Assistance Technologies for a list of categories and examples.

- 11.1.4 To safely and responsibly identify the limitations of current vehicle safety technologies, the student should be able to:
  - A. Recognize the limitations due to environmental factors or roadway conditions (e.g., nighttime, line of sight, turns, curves, adverse weather, dirty sensors, pavement markings); and
  - B. Understand the limitations inherent in the technologies (e.g., sensor performance, design, intended purpose).
- 11.1.5 To safely and responsible describe how to use vehicle technologies safely and effectively, the student should be able to:
  - A. Understand that if a crash occurs or the technology is used improperly the driver is legally responsible and not the vehicle technology;
  - B. Recognize that the driver must remain engaged in the driving task, the driver may become distracted or inattentive and pay less attention;
  - C. Know to read the vehicle owner's manual for every vehicle available and know the technologies installed on different vehicles driven;
  - D. Understand to keep safety features on unless environmental conditions warrant turning them off (e.g., advanced cruise control during adverse weather);
  - E. Understand how the technologies function before driving;
  - F. Keep sensors clean and in working condition; and
  - G. Stay up to date on vehicle safety technologies because of ongoing testing and improvements.

# Phase 1 In-Vehicle Instruction

#### 2.2 In-Vehicle Behind the Wheel Instruction Parking Lot or Low-Risk Environment.

- 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 seating controls, control devices/instruments and warning indicators, visibility devices, safety devices, comfort devices, anti-theft devices, communication devices, traction control devices and current vehicle safety technology;
  - B. Perform vehicle starting tasks;
  - C. Identify the gear shift lever for an automatic or manual transmission; and
  - D. Identify the accelerator, brake, and clutch 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 seating adjustments, 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 students 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.

- 3.2 In-Vehicle Behind the Wheel Instruction in Low-Risk Environment or Residential Area
  - 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 seating position, 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 move forward, park (basic parking and pull to/from curb), change directions, turn, back, entering the roadway, lane changes, yield the right-of-way in low risk free of traffic environment;
    - D. Practice proper steering techniques; and
    - E. Practice pivoting back and forth from the accelerator to brake.
  - 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/weight transfer, the student should be able to:
    - A. Maintain the vehicle's balanced weight/weight transfer 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. Recognize the effects of road surfaces on stopping; seasonal changes and road surfaces, and tire types and conditions;
    - C. Use the appropriate brake, accelerator, and steering applications; and
    - D. Maintain the vehicle's balanced weight/weight transfer 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.

- 3.2.5 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.
- 3.3 In-Vehicle Observation in Low-Risk Environment or Residential Area (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; and
    - C. Observe and use the vehicle controls to move forward, park (basic parking and pull to/from curb), change directions, turn, back, entering the roadway, lane changes, yield the right-of-way in low risk free of traffic environment.
  - 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/weight transfer, the student should be able to:
    - A. Observe maintaining the vehicle's balanced weight/weight transfer 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 maintaining the vehicle's balanced weight/weight transfer 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.
- 3.3.5 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.

- 4.2 In-Vehicle Behind the Wheel Instruction in Low to Moderate Risk Environment.
  - 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; and
    - 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; and
    - B. Use appropriate strategies to avoid driving fatigue.
  - 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 in Low to Moderate Risk Environment (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.
  - 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.

- 5.2 In-Vehicle Behind the Wheel Instruction in Moderate Risk Environment with Complex Intersections.
  - 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, animal-drawn vehicles, micro-mobility vehicles and cooperative freeway driving; and
    - 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 in Moderate Risk Environment with Complex Intersections (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; and
    - 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 roadusers in a variety of driving situations.

- 6.2 In-Vehicle Behind the Wheel Instruction in Moderate Risk Environments with Complex Intersections, and Urban Environments.
  - 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 while performing traveling the roadway, simple and complex turns; lane changes, crossing intersections in traffic; and
    - B. Identify communication techniques used by other road users to obtain a driver's attention.
  - 6.2.2 To safely and responsibly perform visual tracking as it relates to vehicle control, the student should be able to:
    - A. Use visual tracking while performing traveling the roadway, simple and complex turns; lane changes, crossing intersections in traffic;
    - 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:
    - A. Recognize different driving environments;
    - B. Identify the different driving conditions and characteristics including speed limits, and right of way situations inherent to each driving environment;
    - C. Adjust driver attention for the different driving environments and road conditions; and
    - D. 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 in Moderate Risk Environments with Complex Intersections, and Urban Environments (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.

- 7.2 In-Vehicle Behind the Wheel Instruction in Complex Environment with Complex Intersections and Urban Environments.
  - 7.2.1 To safely and responsibly use visual observation skills, the student should be able to:
    - A. Use proper observation skills while performing on two-way, four-way, one-way roadways;
    - B. Use proper observation skills while performing traveling the roadways, simple and complex turns; lane changes, crossing intersections in traffic;
    - 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;
    - E. Demonstrate potential hazard detection by means of visual scanning; and
    - F. Identify how visual search patterns help a driver gather information in the driving environment including unique driving situations (i.e., roundabouts, freeway underpass U-turns, intersections where you are forced to make a U-turn instead of a left turn, moves left turn vehicles to the left most side of the roadway, etc. if available).
  - 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 roadusers, 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 accurate risk situation of entering the driving population, the student should be able to:
  - A. Recognize risk accurately;
  - B. Anticipate the actions of other road-users;
  - C. React timely and effectively in risk situations;
  - C. Use proactive driver's action; and
  - D. Use safe time and margins.
- 7.3 In-Vehicle Observation Complex Environment with Complex Intersections and Urban Environments (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;
  - C. Observe the timely and effective reaction to risk situations.
  - C. Observe proactive driver's action; and
  - D. Observe the use of safe time and margins.

8.2 In-Vehicle Behind the Wheel Instruction in Complex Environment with Higher Speeds.

- 8.2.1 To safely and responsibly drive in different driving environments, the student should be able to:
  - A. Perform driving maneuvers on freeway and expressways; and
  - B. Perform driving maneuvers on rural roadways.

8.3 In-Vehicle Observation in Complex Environment with Higher Speeds (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 on freeway and expressways; and
  - B. Observe the performance of driving maneuvers on rural roadways.

#### 9.2 In-Vehicle Behind the Wheel Instruction in a Low-Risk Environment

- 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 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 in a Low-Risk Environment (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 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.

10.2 In-Vehicle Behind the Wheel Instruction in Simple and Complex Intersections.

- 10.2.1 To safely and responsibly perform driving maneuvers for fuel efficient driving, the student should be able to:
  - A. Demonstrate planning ahead to reduce start and stop driving;
  - B. Perform driving behaviors to increase fuel efficiency, efficient routes and provide economic benefits; and
  - C. Demonstrate how being environmentally conscious contributes to driving safety.
- 10.2.2 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.
- 10.3 In-Vehicle Observation in Simple and Complex Intersections (If required in your jurisdiction).
  - 10.3.1 To safely and responsibly perform driving maneuvers for fuel efficient driving, the student should be able to:
    - A. Demonstrate planning ahead to reduce start and stop driving;
    - B. Perform driving behaviors to increase fuel efficiency, efficient routes and provide economic benefits; and
    - C. Demonstrate how being environmentally conscious contributes to driving safety.
  - 10.3.2 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.

- 11.2 In-Vehicle Behind the Wheel Instruction Vehicle Safety Technologies.
  - 11.2.1 To safely and responsibly to develop knowledge, appreciation, and skills related to the benefits and concerns of vehicle safety technologies that enhance the safety of the driver and users of the highway transportation system (listed in Appendix A) that contributing to safe, responsible, and incident-free driving the student should be able to recognize the use of vehicle safety technologies.
  - 11.2.2 To safely and responsibly identify safety features within the vehicle safety technology including abilities, limitations and how to use vehicle safety technologies safely and effectively.
- 11.3 In-Vehicle Observation Vehicle Safety Technologies (If required in your jurisdiction).
  - 11.2.1 To safely and responsibly to develop knowledge, appreciation, and skills related to the benefits and concerns of vehicle safety technologies that enhance the safety of the driver and users of the highway transportation system (listed in Appendix A) that contributing to safe, responsible, and incident-free driving the student should be able to recognize the use of vehicle safety technologies.
  - 11.2.2 To safely and responsibly identify safety features within the vehicle safety technology including abilities, limitations and how to use vehicle safety technologies safely and effectively.

## Phase 2

#### **1.0 RISK MANAGEMENT**

- 1.0 Risk Management. To safely and responsibly reduce driving risk and how it contributes to safe, responsible, and incident-free driving.
  - 1.1 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 'overrepresentation in crashes, injuries, and fatalities including those involving speed, alcohol, drugged driving (e.g., marijuana, prescribed, illegal), and 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, micro-mobility vehicle, 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 – A foot-operated pedal is suspended from the firewall on the right side of the driver's position or hand operated. Speed is controlled by adjusting pressure on the pedal or hand control. The driver regulates speed by how much pressure is applied to the accelerator. 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.

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/Spot – 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 – 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 – In a manual transmission vehicle the device that enables a driver to shift gears.

Collision/Crash/Crashes/Crashing – 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 Distraction — is anything that diverts the driver's attention from the primary tasks of navigating the vehicle and responding to critical events. A distraction is anything that takes your eyes off the road (visual distraction), your mind off the road (cognitive distraction), or your hands off the wheel (manual distraction). So, when you think about tasks that can be a driving distraction, you

can see that they often fit into more than one category: eating is visual and manual, whereas using a navigation system is all three.

Driver 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, drugs, 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.

Drugged Driving — An offense for which a driver can be charged while driving while under the influence of a drugs (prescribed medication or illegal drugs) etc.

#### - 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, objects in the way of vehicle movement and worn or dirty vehicle safety technology sensors.

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.

 $Field \ of \ Vision \ - Focus/fovial \ vision, \ central \ vision, \ and \ peripheral \ vision.$ 

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.

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 transmission 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.

#### Marijuana —

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.

Micro-Mobility Vehicles — a term that includes human-powered modes such as bikes, kickscooters, recumbent-bikes, cargo-bikes, tricycles, and quadricycles. Micro-mobility includes electric (PLEV) modes; e-scooters, e-bikes, pedal-assist and electric pedacycle, Segways, and ecargo bikes.

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.

#### - 0 -

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 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 the rear seat for children or pets, 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 nation's 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, micro-mobility vehicles, 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.

Street Racing — an unsanctioned and illegal form of auto racing that occurs on a public road (e.g.: dirt bikes/quads, stunts).

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 lost 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 Stop - when pulled over by law enforcement for a possible/actual traffic violation or law enforcement detainment to investigate a crime.

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 license/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 vehicles 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 vehicles 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 Safety Technology — designed to warn you if you are at risk of an impending crash, while others are designed to take action to avoid a crash.

Space - The space a vehicle occupies on or off the roadway in the Highway

Transportation System.

Vehicle Technology Systems - List included in Appendix A.

Venerable Road Users – Persons that are at greater risk than vehicle occupants which include pedestrians including a runner, physically disabled person, child skater, micro-mobility vehicle, 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 – he 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 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/Yielding – To allow another vehicle or roadway user rite 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 Safety Technology

The following provides a list of vehicle safety technologies. This is not a comprehensive list but contains the most common vehicle safety technologies to date.

\*Indicates a vehicle safety technology which is most important to cover in the curriculum.

#### **Ongoing Vehicle Technologies**

- All-wheel drive
- Antilock brakes (ABS)
- Electronic stability control (ESC)\*
- Traction control\*

#### Vehicle Warning System Technologies

- Backup or rearview cameras\*
- Backup warning\*
- Bicycle detection
- Blind spot warning\*
- Curve speed warning
- Drowsiness alert
- Forward collision warning\*
- High speed alert
- Lane departure warning\*
- Obstacle detection
- Parking collision warning
- Pedestrian detection
- Rear cross traffic warning
- Side view camera
- Surround view camera
- Temperature warning
- Tire pressure monitoring system

#### Vehicle Assistance System Technologies

- Active driving assistance
- Active parking assistance
- Active and passive safety systems (active head restraints, advanced airbags and safety belt pretensions)
- Adaptive cruise control\*
- Adaptive headlights
- Automatic emergency braking\*
- Automatic emergency steering\*
- Hill descent assist

- Hill start assist
- Lane keeping assistance\*
- Left turn crash avoidance
- Remote parking assistance
- Reverse automatic emergency braking\*
- Self-dimming headlights
- Telematics (connected services)
- Traffic jam and queuing assist
- Trailer assistance
- Vehicle to infrastructure communication
- Vehicle to vehicle communication

#### Vehicle Convenience System Technologies

- Active window/windshield display
- Automatic high beams
- Biometric car access
- Hands-free vehicle door open
- Head-up display
- Keyless entry/start
- Navigation systems and alerts
- Night vision
- Remote vehicle shutdown/start
- Self-parking vehicles
- Three-dimensional gestures
- Voice recognition

#### Attachment C – Stages for Driver Education Instructor Preparation Program

(for all phases of instructor training)

#### **Introduction**

This document, which was developed by the Association of National Stakeholders in Traffic Safety Education (ANSTSE) – Teacher Training Working Group (TTWG) outlines the stages essential for States and/or programs to successfully train driver education instructors to deliver all segments of the driver education program that meet the Novice Teen Driver Education and Training Administrative Standards (NTDETAS). Each Stage is a critical component within the "System." Altering or omitting a Stage within the "System" will drastically affect the quality of driver education instructors trained. Many of the Stages require course development by the State or program. ANSTSE has developed training resources to assist in conducting Stage III: The Teaching Task (see Attachment D). See NTDETAS Section 3 Instructor, Mentor, and Instructor Trainer Qualifications for specific Standards.

#### **Required Stages for Qualifications**

Classroom Only Instructors		BTW Only Instructors	
i.	Stage I	i.	Stage I
ii.	Stage II	ii.	Stage II
iii.	Stage III Parts I and II	iii.	Stage III Parts I and III
iv.	Stage IV (optional but	iv.	Stage IV (optional but
	recommended)		recommended)
v.	Stage V	v.	Stage V
Both Classroom and BTW Instructor			
All Stages are required except for Stage IV which is optional but recommended.			

The Five-Stages for training driver education instructors are:

#### I. Entry-Level Assessments

Purpose: Conducted to determine if the instructor candidate has a minimum level of knowledge and skills to enter the Instructor Preparation Program. The Entry Assessments are a prerequisite to Stage II: Foundations of Novice Driver Education (The Driving Task) (the entry assessments may be conducted following Stage II).

- a. Entry-level driver knowledge assessment of the instructor candidate
- b. Entry-level driving skills assessment of the instructor candidate

Estimated Time: 1 hour to administer the knowledge assessment to all instructor candidates and up to 1 hour per candidate to administer the driving assessment.

# II. Foundations of Novice Driver Education (The Driving Task – formalized foundations class)

Purpose: Provided the instructor candidate has passed the Entry Assessments in Stage I, the State or program shall deliver the state approved driver education curricula in a formalized foundation class, established by the State or program, covering the entire driver education program classroom and BTW course content with instructor candidates.

The State or program should utilize the standards established in the NTDETAS Section 3 Instructor, Mentor, and Instructor Trainer Qualifications.

- a. The state's driver education program [approved driver education curricula]
  - i. Covers A-Z of the driving task [approved driver education curricula]
  - ii. All phases of instruction (e.g., classroom and BTW)
  - iii. Meets ADTSEA and/or DSAA Content Standards identified in the NTDETAS (Attachments A and B).
- b. Formal course of instruction
  - i. classroom
  - ii. BTW
  - iii. online
  - iv. hybrid
- c. Delivery Method meets Section 3 Instructor, Mentor, and Instructor Trainer Qualifications and use an approved driver education curriculum.
  - i. Additional requirements set by the state agency.
- d. Critical Content of the Curriculum Each candidate should practice the critical content/skills during on-street activities.

Estimated Time: Determined by the length of the driver education curriculum for both classroom and BTW.

## III. The Teaching Task / Teaching and Learning Theories (formalized foundations class)

Purpose: Provided the instructor candidate has successfully completed Stage II: Foundations for Novice Driver Education (required) the State or program shall deliver the course content for The Teaching Task / Teaching and Learning Theories utilizing the standards established in the NTDETAS Section 3 Instructor, Mentor, and Instructor Trainer Qualifications (Attachment D).

This stage is designed to provide the necessary knowledge and skills for delivering classroom and behind-the-wheel instruction. Instructor candidates must be able to effectively deliver the course content covered in Stage II: Foundations of Novice Driver Education (The Driving Task) [approved driver education curricula].

The State or program is encouraged to utilize the Teaching Task / Teaching and Learning Theories training materials developed by ANSTSE as identified in the NTDETAS (see Attachment D - ANSTSE Table of Contents of the Model Training Materials for the Teaching Task).

- a. The ANSTSE NTDETAS Driver Education Teaching Task Model Training Materials includes the following components:
  - i. Part I Fundamental Concepts of Teaching and Learning
  - ii. Part II Teaching and Learning Theories for Classroom
  - iii. Part III Teaching and Learning Theories for BTW

- b. Formal course of instruction covering Instructional Theories (classroom and BTW)
  - iv. classroom
    - v. online
  - vi. hybrid
- c. Delivery Method –Section 3 Instructor Qualifications and ANSTSE developed Model Curriculum.
  - vii. Times within the model lesson plans are suggested minimums.
  - viii. Additional requirements set by the state agency / approved provider.
- d. Practice Teaching Instructor candidates must successfully deliver a series of driver education classroom and BTW practice teaching assignments, from the State approved curricula.
  - i. Classroom practice teaching
  - ii. BTW practice teaching
  - iii. Classroom teen teaching (optional but highly recommended)
  - iv. BTW teen teaching (optional but highly recommended)
- e. Comprehensive knowledge test(s) for successful completion of the teaching and learning theories course of instruction.

Estimated Time for Stage III:

Part I – 14 hours instruction time

Part II – 21 hours instruction time

Part III – 35 hours instruction time

IV. Student Teaching Mentorship Program (optional but highly recommended)

Purpose: This stage involves student teaching or teaching with an experienced mentor; and an evaluation of the instructor candidate in real-world classroom and BTW instruction.

- a. All phases of instruction
- b. Additional requirements set by the state agency / approved provider.

Estimated Time: Determined by the student teaching program.

- V. Exit Assessments for successful completion of the instructor preparation program Purpose: The Exit Assessments are conducted upon successful completion of Stages I-IV to determine if the instructor candidate has the required level of knowledge and skills to teach the state approved driver education curricula. The Exit Assessments are required to determine if the instructor candidate has met the requirements for instructor qualification.
  - a. Exit driver knowledge and skills assessment of the instructor candidate
    - i. Debriefing
  - b. Exit instructor knowledge and skills assessment of the instructor candidate
    - i. Debriefing

Estimated Time: 1 hour to administer the knowledge assessment to all instructor candidates and up to 1 hour per candidate to administer the driving assessment.

Stage	Estimated Instructional Time
Stage I – Entry Assessments	Assessment time determined by the State/Program and number of instructor candidates
Stage II – Foundations of Novice Driver Education (The Driving Task/Formalized Foundations Class)	35 hours (inclusive of 6 hours of BTW)
Stage III – The Teaching Task	70 hours total
Part I – Fundamental Concepts	14 hours
Part II – Classroom	21 hours
Part III – BTW	35 hours (19 BTW hours, 16 classroom hours)
Stage IV – Student Teaching Mentorship Program	Student Teaching Mentorship Program time determined by the State/Program
Stage V – Exit Assessments	Assessment time determined by the State/Program and number of instructor candidates
Qualification Level	<b>Estimated Instructional Time (hours)</b>
Full Qualification – Both Classroom and BTW Instructor	105 hours
BTW Instructor Only	84 hours
Classroom Instructor Only	70 hours

#### **Summary of Estimated Instructional Time**

Notes: 1. Total suggested instruction times are minimums.

- 2. Instruction time does not include time to conduct entry and exit assessments and student teaching practicum.
- 3. Instruction time is based on a 3:1 student trainer ratio for Parts II and III.
- 4. States and programs are encouraged to require all three parts of the teaching task.

Attachment D – Table of Contents of the Model Training Materials for the Teaching Task



# 2017 Model Training Curriculum for the Teaching Task Instructor Preparation Program

- Part I Fundamental Concepts of Teaching and Learning
- Part II Teaching and Learning Theories for Classroom Course
- Part III Teaching and Learning Theories for Behind-the-Wheel Course



### **Instructor's Guide**

Developed By:

Highway Safety Services, LLC and the Teacher Training Working Group on behalf of the Association of National Stakeholders in Traffic Safety Education with the Cooperation of the National Highway Traffic Safety Administration



Developed by the Teacher Training Working Group. These materials are available for free download at <u>www.anstse.info</u>.

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# Uniform Guidelines for State Highway Safety Programs

March 2009

Highway Safety Program Guideline No. 4

## **Driver Education**

Each State, in cooperation with its political subdivisions and tribal governments, should develop and implement a comprehensive, culturally competent highway safety program, reflective of State demographics, to achieve a significant reduction in traffic crashes, fatalities and injuries on public roads. All programs should be data driven, and the highway safety program should include a driver education and training program designed to educate new drivers and provide remedial training for existing drivers. This guideline describes the components that the State driver education program should include and the minimum criteria that the program components should meet. Resources permitting, schools should also include traffic safety education for children and youth designed to engender knowledge of safe driving practices.

#### I. PROGRAM MANAGEMENT

Each State should have centralized program planning, implementation, and coordination to deliver comprehensive and uniform driver education that applies to both public and private programs. Evaluation should be used to revise existing programs, develop new programs, and determine progress and success. The State Highway Safety Office (SHSO) in collaboration and in cooperation with other State agencies involved in driver education, such as Transportation Departments, Motor Vehicle Departments, Licensing Departments, and Education Departments, should:

- Provide leadership, training, and technical assistance to public and private providers of driver education to ensure consistency and quality;
- Resources permitting, work with other relevant State agencies to identify staff resources to provide full- time oversight over driver education programs delivered within the State; and
- Evaluate the effectiveness of the State's driver education program.

#### II. LEGISLATION, REGULATION AND POLICY

Each State should enact and enforce laws and policies intended to reduce crashes caused by novice drivers. To enhance the effectiveness of driver education, States should:

- Enact Graduated Driver Licensing (GDL) laws that include three stages of licensure, and that place restrictions and sanctions on high-risk driving situations for novice drivers (i.e., nighttime driving restrictions, passenger restrictions, zero tolerance, portable electronic communication and entertainment devices restrictions, and required seat belt use);
- Ensure that the GDL restrictions and sanctions for GDL licensure are adapted for and applicable to motorcycle operators, and enforceable for motorcycle operators;
- Develop driver education standards and guidelines to which all driver education programs, whether public or private, must adhere to satisfy licensing requirements for novice drivers; and
- Ensure that completion of driver education programs will not reduce time required for novice drivers to proceed through a GDL system.

#### III. ENFORCEMENT PROGRAM

Components of a State driver education enforcement program should include:

- Visible and well-publicized law enforcement of the components of GDL and zero tolerance laws;
- Licensing sanctions for violations of these provisions;
- Evaluation of enforcement efforts to determine effectiveness;
- State agency oversight of driver education programs to ensure delivery of approved State curriculum; and
- Administrative or financial penalties for programs in noncompliance.

#### IV. DRIVER EDUCATION AND TRAINING PROGRAM

A driver education program should be available to novice drivers and all youths of licensing age and include the following criteria:

- The program is taught by instructors, public or private, certified by the State as qualified for these purposes; examples of such standards might include: minimum levels of education and continuing education, not being convicted of any felony or certain misdemeanor crimes, holding a valid driver license, and setting limits on numbers and types of driving violations.
- All vehicles used in public or commercial Behind the Wheel training have appropriate safety inspections and are equipped with, at a minimum, a safety brake accessible by the driver side passenger, a first aid kit, a fire extinguisher, an instructor rear view mirror and an eye check mirror for the instructor.

- It provides each student with practice driving and/or instruction in at least the following:
  - Basic driving techniques, including starting, stopping, turning, and basic interaction in controlled environments in light and moderate traffic;
  - Additional driving techniques, including balanced vehicle movement through steering, braking, and accelerating in a precise and timely manner;
  - Cognitive aspects of driving, including gap management, recognizing blockage and hazards, responding early and appropriately to hazards and potential hazards, signaling techniques, methods for speed management and effective visual searching, and decision-making and habit-development strategies;
  - Risk prevention techniques such as skid prevention;
  - Rules of the road and other State laws and local motor vehicle laws and ordinances;
  - Attitudinal awareness training that includes how attitudes can have an impact on driving behavior;
  - Peer pressure training including how vehicle operators and passengers can say no in unsafe peerpressure situations and how to utilize leadership skills in managing the driver and the passengers in a vehicle;
  - Vehicle technology and the benefit of braking, traction, intelligent handling, and stability systems;
  - Critical vehicle systems and sub-systems requiring preventive maintenance;
  - Vehicle and highway features (including different vehicle and roadway conditions) that:
    - Aid the driver in avoiding crashes;
    - Protect the driver and passengers in crashes; and
    - Maximize the care of the injured.
  - Signs, signals, and highway markings and highway design features that require understanding for safe operation of motor vehicles;
  - o Differences in characteristics of urban and rural driving including safe use of modern expressways;
  - Safe Driving Practices, including making good driver decisions; use of occupant restraints; not driving under the influence; and dealing with fatigue, distractions, and aggressive drivers; and
  - Sharing the roadway with other users, especially pedestrians, bicycles, scooters, and motorcycles, who are more physically vulnerable to injury or death in the event of a crash. This should include techniques to increase awareness of motorcycles and other road users.

Each State should also ensure:

- That research and development programs include adequate research, development, and procurement of practice driving facilities, simulators, online teaching resources, and other similar teaching aids for both school and other driver training use;
- There is a program that engages parents and/or guardians in the driver education and GDL programs;
- There is a program for adult driver training and retraining; and
- Commercial driving schools are licensed and instructors are certified in accordance with applicable State laws, regulations or other criteria.

#### V. COMMUNICATION PROGRAM

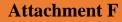
States should develop and implement communication strategies directed at supporting policy and program elements. The SHSO, in collaboration and cooperation with driver education and training and highway safety partners, should consider a statewide communications plan and campaign that:

- Informs the public, especially parents, about State GDL laws;
- Identifies audiences at particular risk and develops appropriate messages;
- Provides culturally competent materials;
- Informs parents/guardians and young drivers about the role of supervised driving and the State's GDL law;
- Informs novice drivers about underage drinking and zero tolerance laws (in effect in all 50 States and the District of Columbia), such as including information in manuals for new drivers and including a question about the topic on the written test for a learner's permit;
- Informs the public on the role of parental monitoring/involvement; and
- Informs the public about State guidelines and regulation of driver education.

#### VI. PROGRAM EVALUATION AND DATA

The SHSO, in collaboration and cooperation with the State agencies responsible for driver education and training, should develop a comprehensive evaluation program to measure progress toward established project goals and objectives and optimize the allocation of limited resources. The State should promote effective evaluation by:

- Supporting the analysis of police accident reports;
- Encouraging, supporting, and training localities in process, impact, and outcome evaluation of local programs;
- Evaluating the use of program resources and the effectiveness of existing countermeasures for the general public and high-risk populations; and
- Ensuring that evaluation results are used to identify problems, plan new programs, and improve existing programs.



Reference Guide Regarding Taxonomy Related to Driver Rehabilitation Specialists, Driver Education Services, and Specialized Driver Education Providers



Each State, in collaboration with the State Driver Licensing Agency (SDLA), driving school programs, and driver rehabilitation specialists, should create and execute public and consumer service campaigns to educate prospective drivers and their parents/guardians about the challenges of driving with specific medical conditions. These campaigns aim to raise awareness regarding the potential complexities and responsibilities involved in driving while managing certain health conditions.

It is important for consumers to be informed that in certain States, individuals with medical conditions or changes in mental or physical status are required to self-report this information to the SDLA and adhere to the State's recommended guidelines. Depending on the situation, obtaining medical clearance to drive may be necessary, and a comprehensive driver evaluation conducted by a driver rehabilitation specialist might be requested.

By providing accurate information through these campaigns, potential drivers and their parents/caregivers can make informed decisions and take appropriate steps to ensure that they are receiving services most appropriate to their needs.

The spectrum of driver services available to the public are distinguished by the delivery of service, type of providers, credentials required, and services offered<sup>1</sup>. Traditional driver education programs are considered community-based services with the goal of enhancing skills for healthy drivers. Whereas driver rehabilitation programs are considered specialized evaluation and training services for the purposes of serving those with disabilities or medically at risk.

Driver rehabilitation programs encompass specialized evaluation and training provided by professionals with advanced training and credentials, such as Driver Rehabilitation Professionals (DRP), Certified Driver Rehabilitation Specialists (CDRS), and occupational therapists with Specialty Certification in Driving & Community Mobility (SCDCM). These experts possess knowledge and expertise in medical conditions and their implications for driving.

The primary role of driver rehabilitation providers is to assess various factors that can affect driving performance, including cognitive, visual, perceptual, behavioral, and physical limitations. They integrate clinical findings with on-road performance to gain a comprehensive understanding of an individual's driving abilities and fitness to drive, including potential for learning.

Furthermore, driver rehabilitation specialists collaborate with clients and parents/guardians to address the student's specific needs. They assist in making decisions regarding appropriate equipment and vehicle modifications based on individual requirements. Additionally, they often coordinate with multidisciplinary teams, including driver education providers, healthcare or

<sup>1</sup> Lane A, Green E, Dickerson AE, Davis ES, Rolland B, Stohler JT. Driver rehabilitation programs: defining program models, services, and expertise. Occup Ther Health Care. 2014 Apr;28(2):177-87. doi: 10.3109/07380577.2014.903582. PMID: 24754768

rehabilitation professionals, vehicle modification experts, community services, funding agencies, SDLA personnel, and caregiver support networks.

By combining their expertise and resources, driver rehabilitation providers aim to provide comprehensive support to individuals seeking to gain or maintain their driving independence while ensuring safety on the road.

The role of providers offering driver rehabilitation is to:

- 1. Navigate driver license compliance and basic eligibility through intake of driving and medical history.
- 2. Evaluate and interpret risks associated with changes in vision, cognition, and sensorymotor functions in the driving context by the medically trained provider.
- 3. Perform a comprehensive driving evaluation including clinical and behind the wheel assessments.
- 4. Advise client and caregivers about evaluation results, and provide resources, counseling, education, and/or an intervention plan.
- 5. Offer training with compensatory strategies, skills, and vehicle adaptations or modifications for drivers and passengers.
- 6. Advocate for clients in access to funding resources and/or reimbursement.
- 7. Provide documentation about fitness to drive to the physician and/or SDLA in compliance with regulations.
- 8. Prescribe equipment in compliance with State regulations and collaborate with a Mobility Equipment Dealer for fitting and training.
- 9. Present resources and options for continued community mobility if recommending driving cessation or transition from driving.
- 10. Follow the State licensing procedure for medical reporting and/or adaptive equipment licensing process.

Outcomes of a comprehensive driver evaluation for the client includes<sup>2</sup>:

- Fitness to drive (no evidence of risk for driving)
- Training or remediation, or
- Unfit to drive

Student drivers with disabilities that are unable to participate in traditional driver's education or whose disability may interfere with the ability to operate a motor vehicle ideally should be serviced by a driver rehabilitation specialist through a driver evaluation program. If deemed appropriate as evidenced by the comprehensive driver evaluation, behind the wheel training services may be provided by specialized driver education instructor according to an individualized driver plan designed by the specialist. Driver education programs that offer services for students with disabilities (e.g.: *attention deficit hyperactivity disorder, autism, anxiety, visual disturbances, hearing, communication, or physical impairments*), should work closely with the driver rehabilitation specialist who has performed the evaluation. Driver

<sup>&</sup>lt;sup>2</sup> The Role of Driver Rehabilitation in Determining Fitness to Drive: Recommendations for State Driver License Agencies (ADED, Inc.)

education programs that offer services to students with disabilities should ensure that qualified providers are available and that the programs can be tailored to the individual needs of the student. Intermittent progress checks and lesson observation by the specialist should be the standard of care for any medically at-risk student driver.

Students with limited accessibility or funding for specialized driver rehabilitation services, may require a collaborative service provision, guided by the specialist. This service model may be demonstrated by, but not limited to, the following service providers:

- 1. School-based or pediatric Occupational Therapist
- 2. Pediatric healthcare practitioner providing portions of the pre-driving assessment
- 3. Parent interview for driving readiness
- 4. Traditional driving instructor for individualized driver plan approach
- 5. Vocational rehabilitation counselor or other payor sources for funding for services
- 6. State Driver Licensing Agency

To enhance safety for both the consumer and the public, driver education programs should have procedures in place to make appropriate referrals to physicians and driver rehabilitation specialists when a student reports a medical condition, or when the instructor determines that specialized services would be more appropriate. Additionally, these programs should educate students about driving with medical conditions and provide general information and resources upon registration, while ensuring compliance with HIPAA and privacy regulations.

To mitigate potential liability risks, it is advisable for driver education programs to ensure that students sign a waiver acknowledging the legal, safety, liability, and risk implications of driving with undisclosed medical conditions. This extra step can provide an additional layer of protection for the school and instructors.

Moreover, in the interest of public and consumer safety, driver education programs, instructors, and specialists should be required to clearly define their educational background, experience, training, approach, certification, and licensure when working with special population drivers. This ensures transparency and allows students to make informed decisions when selecting professionals to assist them.

This addendum aims to clarify terminology and establish guidelines to ensure the safest outcomes and ethical scope of practice for professionals involved in driver education. By adhering to these practices, driver education programs can prioritize safety while providing effective support to students with disabilities or at-risk medical conditions.

**Traditional vs. Specialized:** The following section describes and defines the roles for providers working in traditional driver education programs as distinguished from those working with drivers who have disabilities and need specialized services.

- a. Driver Education Students
  - <u>Traditional</u>: students with no known medical condition, no suspected disability (*including learning, social, language, or behavioral*), and no prescription

medication or other factors (i.e., *cultural difference*) that could impair learning to drive using basic instruction methods.

- <u>Specialized</u>: students with a known medical condition, known or suspected disability (i.e., *learning, social, language, behavioral*), prescription medication risk to driving, or other factors that requires a specialized approach to driver instruction.
- b. Driver Education Instruction
  - <u>Traditional</u>: program that serves traditional driver education students (i.e., *without any necessary modification or accommodation*) in both classroom and behind the wheel settings.
  - <u>Specialized</u>: program that can serve specialized population driver education students and meeting their distinct needs. This would include modifying language, content, or pace and approach, as well as providing adaptive equipment as necessary. Specialized driver education instruction should be provided by a specialized driving instructor or special education professional with the appropriate certification or credential.
- c. Driver Education Behind the Wheel Assessment and Instruction
  - <u>Traditional</u>: provided in a vehicle without modification, accommodation, or customization for the student. The assessment is designed to evaluate a traditional student's ability to pass a road test for licensure, while instruction is designed to teach skills to healthy drivers.
  - <u>Specialized</u>: requires either modification or accommodations to the vehicle, or customized lessons for the student. Specialized behind the wheel assessments and instruction should be completed by a driver rehabilitation specialist with credentials to offer behind the wheel services. This service may also be provided by a specialized driving instructor with the appropriate credentials. The program should provide a vehicle that meets the needs of drivers with disabilities, including capacity to properly stow a wheelchair or mobility device, and equipment appropriate to address the client's limitations (*such as hand controls, steering devices, and left foot accelerator*). This equipment should either be removable or capable of locking to avoid inadvertent, unsafe use.
- d. Driver Education Instructor
  - <u>Traditional</u>: meets the minimum State teaching requirements and is licensed in their jurisdiction for this purpose but has no other formal specialization or credential.
  - <u>Specialized</u>: meets the minimum State teaching requirements and is licensed in their jurisdiction for this purpose. The instructor shall also have formal training and/or credentials specific to teaching drivers with disabilities. As there are extensive differences between specialized instructors, it is important that instructors clarify to consumers their specific experience or training to ensure a good fit for the client needs. Specialized instructors shall also have knowledge of State laws regarding the use and allowances for vehicle modifications and adaptive driving equipment.

The driver rehabilitation program providing services for novice drivers with disabilities shall have a qualified driver rehabilitation specialist or other professional with appropriate credentials and experience<sup>3</sup>.

- 1. Credentials
  - a. Certified Driver Rehabilitation Specialist (CDRS) credentialled by ADED OR
    - i) In the absence of a CDRS, the recommended professional should:
      - (1) Possess the Driver Rehabilitation Professional (DRP) microcredential by ADED OR
      - (2) Be eligible to take the CDRS examination with the goal of obtaining the credential within one-year **OR**
      - (3) Actively working toward CDRS eligibility, under the mentorship of an active CDRS **OR**
      - (4) Possess a medically licensed degree (i.e., occupational therapy, physical therapy) along with documented training and experience working with drivers who have disabilities
  - b. And: Possess additional licenses as required by the State agencies (i.e., *certified driving instructor, licensed driving instructor, etc.*).
- 2. Experience & Training

In addition to credentials, the preferred provider shall also demonstrate experience and training in this specialized field. Experience and training may be demonstrated through a variety of methods including earning credentials specific to the field (*badge, microcredential, certification*), attestation Statement, or proof of post-graduate certificate.

- For clinical assessments of clients where cognition is a concern, the medically licensed provider should have experience evaluating and treating cognitive medical conditions.
- For evaluations in which mobility equipment is indicated, the CDRS® or DRP or driver rehabilitation specialist must be proficient in the application and operation of mobility equipment. The driver rehabilitation specialist should be selected based on their proficiency with the specific type(s) of equipment as defined in the Spectrum of Driver Services (basic, low tech, high tech).
- Professional development is expected through appropriate continuing education as well as adherence to the ADED Code of Ethics (or professional equivalency) and ADED's Guidelines for the Delivery of Driver Rehabilitation Services.

Driver rehabilitation specialists determine fitness to drive and/or provide rehabilitation services. These programs can be distinguished by the level of service provided:

- a. Basic: no adaptive equipment is available. Provides evaluation and training for clients with cognitive and/or visual deficits. A provider possessing the DRP or the CDRS credential may provide this service.
- b. Low tech: includes a vehicle with basic, mechanical adaptations for gas, brake, and steering. Typically, a client would have to be able to transfer independently into the

<sup>&</sup>lt;sup>3</sup> The Role of Driver Rehabilitation in Determining Fitness to Drive: Recommendations for State Driver License Agencies (ADED, Inc.)

driver seat to access this type of program. A provider possessing the DRP or the CDRS credential may provide this service.

c. High tech: includes a vehicle that can accommodate wheelchair users who are unable to independently access a driver seat as well as those who require electronic equipment or relocated gas/brake/steering for safe driving. These programs also have capacity to properly stow a wheelchair. A provider possessing the CDRS credential may provide this level of service.

References:

Spectrum of Driver Services and Driver Rehabilitation Programs. Occup Ther Health Care. 2014 Apr;28(2):177-87

The Role of Driver Rehabilitation in Determining Fitness to Drive; Recommendations for State Driver License Agencies (ADED)

Best Practice Guidelines for the Delivery of Driver Rehabilitation Services (ADED)

Code of Ethics (ADED)



