Texas Driver Education
Classroom and In-car Instruction
Model Curriculum

Module Five

Information Processing:
Moderate Risk Environment

· PROCESSING INFORMATION
· INTERSECTIONS, CURVES, AND HILLS
· PASSING

GRADE HS
Module Five Introduction

Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.

**Topic 1 - Processing Information.** The student defines driver information processing and applies processing principles to establish roadway position, vehicle speed, and communicate with other roadway users. The student assesses moderate risk driving environments and applies space management concepts to establish roadway position, vehicle speed, and to communicate with other roadway users.

**Topic 2 - Intersections, Curves, and Hills.** The student utilizes basic space management concepts to adjust speed or the path of travel when approaching controlled and uncontrolled intersections, and curves and hills with line of sight or path of travel limitations.

**Topic 3 - Passing.** The student synthesizes information and applies critical thinking, decision making, and problem-solving skills to select and safely execute speed and position adjustments for passing another vehicle.

### Minimum Time Frames

**Module Five-2 Hours (Not a required program element by statute)**

<table>
<thead>
<tr>
<th>Module Five</th>
<th>Recommended Instructional Objective</th>
<th>Recommended Time Frames (Min)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Noncredit</td>
</tr>
<tr>
<td><strong>CLASSROOM INSTRUCTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic 1—Processing Information</td>
<td>Yes</td>
<td>45</td>
</tr>
<tr>
<td>Topic 2—Approaching Intersections</td>
<td>Yes</td>
<td>30</td>
</tr>
<tr>
<td>Topic 3—Passing</td>
<td>Yes</td>
<td>30</td>
</tr>
<tr>
<td>Instructional Breaks</td>
<td>No</td>
<td>15</td>
</tr>
<tr>
<td>Supplement—Parent/Homework Materials</td>
<td>No</td>
<td>60</td>
</tr>
</tbody>
</table>

| **IN-CAR INSTRUCTION (OPTION 1)** | | | |
|----------------------------------| | | |
| Behind the Wheel Instruction/Break | Yes | 60 | 60 | 60 |
| Observation | Yes | 60 | 60 | 60 |

| **IN-CAR INSTRUCTION MULTIPHASE (OPTION 2)** | | | |
|-----------------------------------------------| | | |
| Behind the Wheel Instruction/Break | Yes | 60 | 60 | 60 |
| Observation | Yes | 120 | 120 | 120 |
| Simulation | Yes | 120 | 120 | 120 |

| **PARENTAL INVOLVEMENT** | | | |
|--------------------------| | | |
| Parental Involvement | No | 60 | 60 | 60 |
**Module Five Prerequisites:**
Successful completion of Module 3 activities

**Topic Title:** Processing Information

<table>
<thead>
<tr>
<th>Topic 1 Time Frame:</th>
<th>17.0 Non-credit course (32 hrs)</th>
<th>20.0 Multiphase course (40 hrs)</th>
<th>20.0 Credit course (56 hrs/semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 minutes instructional time</td>
<td>35-40 minutes</td>
<td>15 minute (prior to lesson)</td>
<td>35-40 minutes</td>
</tr>
<tr>
<td>15 minutes discreional break time</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Module Five, Topic 1 is not a required approved program element.**

<table>
<thead>
<tr>
<th>Needed Resources</th>
<th>Instructor Activities</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparencies T-5.0, T-5.1, T-5.2, T-5.3, T-5.4, T-5.5, T-5.6, T-5.7, T-5.8, T-5.9, T-5.10, T-5.11, T-5.12, T-5.13, T-5.14, T-5.15, and T-5.16.</td>
<td>• Review Module Five, Topic 1 Transparencies provided: T-5.0, Module Five Introduction; T-5.1, Basic Requirements for Driving; T-5.2, Space Management Sys. Comp; T-5.3, Visual Fields; T-5.4, Search Practices; T-5.5, Communicating; T-5.6, Managing Visual Searches; T-5.7, Managing Visual Searches; T-5.8, Determining Following Intervals; T-5.9, Visual Search Categories; T-5.10, Highway Conditions; T-5.11, Traffic Controls; T-5.12, Motor Vehicles; T-5.13, Non Motorized Uses; T-5.14, Controlling Space in the Front; T-5.15, Make Space with Lane Position; T-5.16, Staggered Stops.</td>
<td>35-40 minutes</td>
</tr>
<tr>
<td>Worksheet W-5.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fact Sheets F-5.1, F-5.2, F-5.3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Module Assessments W-5.1, MA-5.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggested Media: Video “Using Your Eyes Effectively,” AAA Foundation; Video, “Following Time and Space,” Mottola IDS Video, “Teaching Your Teens to Drive,” AAA “Drive Right,” Ch. 1.4.10; “How to Drive,” Ch. 8.9.10; “Handbook Plus,” Ch. 10.11; “License To Drive,” Ch. 2.10; “Responsible Driving” Ch. 8,10,12</td>
<td>• Review Worksheet W-5.1, Using Information to Manage Space.</td>
<td>5-10 minutes</td>
</tr>
<tr>
<td>• Review Fact Sheets F-5.1, Space Management System. F-5.2, Lane Selection and Positioning F-5.3, Making Safe Lane Position Choices</td>
<td>For instructor use or additional information</td>
<td></td>
</tr>
<tr>
<td>• Module Assessments W-5.1, Using Information to Manage Space. MA-5.1, Module Five Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-car Laboratory BTW-5.1, BTW-5.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BTW, 30 minutes Observation for each**
Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
Moderate Risk Environment

A moderate risk environment is limited to speeds under 60 mph, having controlled intersections in urban, suburban, and rural settings. Traffic flow should be moderate, allowing time for the novice driver to identify risks through changes to line of sight or path of travel. Instructor should be able to control the level of risk regarding the traffic flow around the vehicle by changing speed or position. Two way, one way, and multi-lane roadways are recommended for use in moderate risk environments.

Space Management System

To this point, searching skills have been taught to assess the position of the vehicle in relation to fixed or moving objects. Further attention has been directed to the limitations of most drivers’ visual search patterns as a result of learned behaviors and misunderstandings of either vehicle or operator capabilities. In this unit, the instructor will emphasize where to search, how to search, and for what to search.

Emphasis should be placed on the importance of using central and fringe vision while adjusting to objects in or near the path of travel. Communication among drivers and how to group elements by category to gather information more efficiently when driving is also a focus in this section. To be effective, a space management system must be easy to use and apply to all highway situations.

The purpose of this lesson is to help students understand how they can control risk to the front by adjusting lane position, timing their arrival at a given point, placement of the vehicle when stopping, and controlling speed. Further, by identifying an alternate route of travel 12 to 15 seconds in advance, limitations to their projected path of travel need not cause an emergency.

Driver Requirements: Drivers need visibility, space, and time to perform all maneuvers in traffic whether crossing, turning, passing, or adjusting speed and/or position.

Vehicle Requirements: When performing any maneuvers with the vehicle, the vehicle needs the time to do it, the space to perform, and adequate traction to make the maneuver.

Search for objects or conditions: For instance, other roadway users or conditions in or adjacent to the projected path of travel that could limit the line of sight or the path the driver intends to travel.

Evaluate the projected path ahead for alternate paths of travel: Checks to sides and rear for speed and lane position options are required.

Prepare to make appropriate adjustment(s). The driver can change, change direction, or communicate.

Texas Essential Knowledge and Skills: § 110.42. English I (b) (4) The student uses writing as a tool for learning, (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
Visual Search Process

The first space management skill a driver must develop is an effective visual search.

**Where to search** involves moving the eyes from near, as close as the dashboard and mirrors, to 20 to 30 seconds ahead of the vehicle to identify objects or conditions that could increase the level of risk.

**When to search** involves timing and direction of the search pattern. When to search requires consciously looking to determine conditions all around the vehicle before initiating any maneuver.

**How to search** involves looking in a systematic pattern of far ahead to near, as well as to the left, right, and rear of the vehicle and making efficient use of both central and fringe vision.

**What to search** for requires forethought and planning. To be effective when searching the highway and traffic scene, the driver must be looking for specific kinds of information.

**Roadway features:** Road and lane width, lane markings, roadway surfaces, shoulder condition and slope, curb types and height, hills and curves, intersections and interchanges, areas of limited visibility, location and type of structures adjacent to the roadway must be analyzed.

**Signs, signals and markings:** Warning, regulatory, directional, and informational.

**Motorized vehicles:** Cars, trucks, tractor-trailer rigs, buses, motor homes, motorcycles, construction/farm tractors and other slow-moving equipment, and horse-drawn equipment.

**Non-motorized highway users:** Pedestrians, bicyclists, and animals

**Searching 20-30 seconds ahead:** By searching ahead 20 to 30 seconds and identifying an intended path of travel and possible alternative paths 12 to 15 seconds in advance, the driver has more time and space to exercise options.

**Searching 4-8 seconds ahead:** The 4 seconds ahead represent a following interval, and the 8 seconds provide a safe stopping zone under most conditions.

**Communicating Intent:**
- Signals - turning, backing, approaching hazards
- Headlights - visibility, approaching hazards
- Brake lights - slowing, stopping, turning
- Horn - warning, increased eye contact
- Hand signals - use only the legal ones
- Position of vehicle - space management, turning intent
- Speed - danger, hazards
- Driver actions - inattentive, confused, lost, talking

**Texas Essential Knowledge and Skills:** § 110.42. English I (b) (4) The student uses writing as a tool for learning, (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Knowledge and Skills
The Student is expected to:

(E) relate following interval concepts to driving practice and experience;

The Instructor:
. Shows Transparency T-5.6, “Managing Visual Searches,” to lead a discussion of the various search areas necessary for a space management system.

Explains why a 4 second following interval is preferred.
. 20-30 seconds
. 12-15 seconds

. Shows Transparency T-5.7, “Managing Visual Searches,” to lead a discussion of the various search areas necessary for a space management system. Explains why a 4 second following interval is preferred.
. 8-12 seconds
. 4-8 seconds

. Shows Transparency T-5.8, “Determining Following Intervals,” to lead a discussion of the various search areas necessary for a space management system. Explains why a 3-4 second following interval is preferred.
. stopping interval is more than 3 seconds

. Shows suggested video “Following Time and Distance” from Mottola IDS to illustrate the need for a 4 second following interval.
Managing Visibility, Time and Space

- 23-30 seconds ahead - identify potential problems; awareness.
- 12-15 seconds ahead - identify objects that require a change in speed or direction.
- 8-12 seconds ahead - identify alternate paths of travel and stopping zone.
- 4-8 seconds ahead - stopping zone and following interval.
- The 2-second following interval was designed for use if there was an alternate path into which one could steer. Stopping in this time frame is usually not possible unless the driver is searching well ahead for clues.

A safe following interval in Texas is defined as the distance that allows a person to stop before striking another vehicle. With this in mind it is critical that instructors do not use “one car length for every ten miles per hour” or the “two seconds” minimum following distance. Speeds above 30 mph require more than two seconds of space to stop the vehicle. Add weather or vehicle weight as other factors, and some vehicles would take longer than two seconds at speeds in excess of 20 mph to stop.

Video: “Teaching Your Teens to Drive” may be used to illustrate searching principles to students and parents alike.

Video: “Following Time and Distance” may be used to explain the need for a four second following interval.
Knowledge and Skills
The Student is expected to:

(i) explain how visual search fields impact the information processing task;

- Highway
- Traffic Controls
- Vehicles
- Nonmotorized

- Shows Transparency T-5.10, “Highway Conditions,” to lead a discussion of the elements to search for and how the number of items affects the information processing time:
  - Structure
  - Surface
  - Intersections
  - Atmosphere (Weather)
  - Features
  - Sensory Input

- Shows Transparency T-5.11, “Traffic Signals,” to lead a discussion of the elements in to search for and how the number of items affects the information processing time:
  - Signs
  - Signals
  - Roadway Markings
  - Marked/Unmarked Intersections
  - Interchanges
  - Sensory Input

The Instructor:
- Shows Transparency, T-5.9 “Visual Search Categories,” to start a discussion of the types of elements that drivers search for on the highway.
Visual Search Categories:

**Highway**

- Structure
- Surface
- Features
- Atmosphere
- Intersections
- Effects on Sensory Input

**Traffic controls**

- Signs
- Signals
- Marking
- Intersections/Interchanges
- Effects on Sensory Input

---

**Texas Essential Knowledge and Skills:** § 110.42. English I (b) (4) The student uses writing as a tool for learning, (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
Motor vehicles

- Type
- Handling Characteristics
- Effects on Sensory Input

Non-motorized Users

- Bicyclists
- Pedestrians
- Skaters, skateboarders
- Animals
- Effects on Sensory Input

Texas Essential Knowledge and Skills: § 110.42. English I (b) (4) The student uses writing as a tool for learning, (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Knowledge and Skills
The Student is expected to:

(G) list the methods to control space to the front of vehicle; and

(H) apply driver information processing skills to moderate risk environments.

The Instructor:

. Uses Transparency T-5.14, “Controlling Space to the Front” to lead a discussion of lane selection and positioning the vehicle within a lane.

. Timing Your Arrival
. Forward Placement at Intersection
. Following Interval

. Uses Transparencies T-5.15, “Make Space with Lane Position” to lead a discussion of lane selection and positioning.
  . Within Lane Positions
  . Straddling Lane Position

. The instructor will use Transparencies, T-5.16 “Staggered Stops” to lead a discussion of lane selection and positioning in the left lane at an intersection.
  . Stop Position
  . Position in Lane to Right

. Uses Fact Sheets F-5.2, “Lane Selection and Positioning” and F-5.3 “Making Safe Lane Position Choices” to support these materials

. Shows lessons 4 and 11 of suggested video “Teaching Your Teens to Drive” to support this section.

Controlling Space to the Front

Timing Your Arrival
Forward Placement
Following Interval

Transparency T-5.14
Controlling Space to Front

Make Space with Lane Position

F-5.2 “Lane Selection and Positioning”
F-5.3 “Making Safe Lane Position Choices”

Staggered Stops

Transparency T-5.15
Make Space with Lane Position

Transparency T-5.16
Staggered Stops
Video: Teaching Your Teens to Drive" - Lessons 4 and 11 may be used to demonstrate these concepts to students and parents.

**Controlling Space to the Front**

There are three ways to control space to the front. The driver can time his arrival at a given point by adjusting speed, placement of the vehicle when stopping, and controlling speed while in motion.

**Lane Selection and Positioning**

**Lane Positions**

- Lane positions 1, 2, and 3 are positions within a given travel lane.
- Lane positions 4 and 5 involve moving the vehicle so that the left or right wheels are straddling the lane line markers.
- Other options involve changing lanes or moving to the shoulder of the road.

**Staggered Stop Position**

By stopping 15 feet back from the intersection, pedestrian cross walk, curb line, and stop bar, the chance of conflict with a driver who cuts short on a left turn is substantially reduced. The importance of checking to the sides and rear any time there is a perceived need to adjust speed or position is covered. Adjusting speed and position as appropriate to maximize sight-line when approaching and driving over a hill or through a curve will also help control risk.

**Making Choices**

There are five choices for lane position without making a lane change. Most cars are less than six feet wide while highway lanes are 10 to 12 feet wide. This leaves four to six feet of space to the side without having to change lanes.

---

**Texas Essential Knowledge and Skills:** § 110.42. English I (b) (4) The student uses writing as a tool for learning. (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Module Five Topic 1 Resources

Module Five, Topic 1 Transparencies:
  T-5.0, Module Five Introduction;
  T-5.1, Basic Requirements for Driving;
  T-5.2, Space Management System Components;
  T-5.3, Visual Fields;
  T-5.4, Search Practices;
  T-5.5, Communicating;
  T-5.6, Managing Visual Searches;
  T-5.7, Managing Visual Searches;
  T-5.8, Determining Following Intervals;
  T-5.9, Visual Search Categories;
  T-5.10, Highway Conditions;
  T-5.11, Traffic Controls;
  T-5.12, Motor Vehicles;
  T-5.13, Non Motorized Uses;
  T-5.14, Controlling Space in the Front;
  T-5.15, Make Space with Lane Position;
  T-5.16, Staggered Stops.

Worksheets:
  W-5.1, Using Information to Manage Space

Fact Sheets:
  F-5.1, Space Management System.
  F-5.2, Lane Selection and Positioning
  F-5.3, Making Safe Lane Position Choices

Assessment:
  MA-5.1, Module Five Assessment;
  W-5.1, Using Information to Manage Space.

Suggested Media:
  Video, Using Your Eyes Effectively, AAA Foundation
  Video, Teaching Your Teens to Drive, AAA
  Video, Following Time and Space, Mottola IDS
  “Drive Right,” Ch. 1, 4, 10;
  “How to Drive,” Ch. 8, 9, 10;
  “Handbook Plus,” Ch. 10, 11;
  “License To Drive,” Ch. 2, 10;
  “Responsible Driving,” Ch. 8, 10, 12.
**Module Five Prerequisites:**
Successful completion of Module 3 activities

**Topic 2 Time Frame:**
- 30 minutes instructional time
- 0 minutes discretionary break time

**Module Five, Topic 2 is not a required approved program element.**

<table>
<thead>
<tr>
<th>Needed Resources</th>
<th>Instructor Activities</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Five, Topic 2. Transparencies T-5.17, T-5.18, T-5.19, T-5.20, T-5.21, and T-5.22.</td>
<td>• Review recommended Module Five: Topic 2.</td>
<td>15 minute (prior to lesson)</td>
</tr>
<tr>
<td>Worksheet W-5.2</td>
<td>• Review Module Five, Topic 2 Transparencies provided: T-5.17, Intersection Search Patterns; T-5.18, Lane Markings; T-5.19, Line of Sight Through Curve; T-5.20, Line of Sight Through Curve; T-5.21, Line of Sight Through Curve; T-5.22, Line of Sight Over Hill.</td>
<td>20-25 minutes</td>
</tr>
<tr>
<td>Fact Sheet F-5.4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Module Assessments W-5.2, MA-5.1</td>
<td>• Review Worksheet W-5.2, Approaching Curves and Hills</td>
<td>5-10 minutes</td>
</tr>
<tr>
<td>Suggested Media: Video “Approaching Curves,” Mottola IDS; Video: “Searching Intersections,” Mottola IDS; Video, “Teaching Your Teens to Drive,” AAA “Drive Right,” Ch. 1,4,10; “How to Drive,” Ch. 8,9,10; “Handbook Plus,” Ch. 10,11; “License To Drive,” Ch. 2,10; “Responsible Driving,” Ch. 8,10,12.</td>
<td>• Review Fact Sheet F-5.4, Techniques for Hills and Curves</td>
<td>For Instructor Information and Support</td>
</tr>
<tr>
<td>In-car Laboratory BTW-5.1, BTW-5.2</td>
<td>• Module Assessments W-5.2, Approaching Curves and Hills MA-5.1, Module Five Assessment</td>
<td>10-15 minutes</td>
</tr>
<tr>
<td></td>
<td>• In-car Laboratory BTW-5.1, BTW-5.2</td>
<td>30 minutes BTW 30 minutes Observation for each</td>
</tr>
</tbody>
</table>
The Student is expected to:

(A) appraise risk when approaching an intersection;

(B) describe searching patterns that utilize information processing tasks;

The Instructor:

- Distributes Worksheet W-5.2, “Approaching Higher Speed Intersections, Curves, and Hills.” as a classroom activity or a home with parent activity.

Worksheet W-5.2
“Approaching Higher Speed Intersections, Curves, and Hills”

- Shows Transparency T-5.17, “Intersection Search Patterns,” to discuss higher speed intersection searching patterns prior to access.

- Crossing and Joining Traffic

- Intersection Controlled by Traffic Signals

Intersection Search Patterns

Transparency T-5.17
Intersection Search Patterns

Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
Intersection Maneuvers

It is important that students understand the increased risk of joining and/or crossing multi-lane traffic traveling at speeds up to 60 m.p.h. at intersections controlled either by stop signs or traffic signals. While the procedures remain consistent, gap requirements, whether crossing or turning left or right, increase substantially. Multiple turn lanes with drivers cutting across lanes is another problem associated with traveling on multi-lane higher speed roadways to which new drivers must learn to be alert.

**Crossing and Joining Traffic at Intersection** - The procedures for crossing or joining traffic traveling at higher speeds on multi-lane roadways is similar to those employed for basic intersection maneuvers.

**Intersections Controlled by Traffic Signals** - Before entering a signalized intersection, check again for oncoming vehicles signaling a left turn and look for pedestrians in the crosswalk, bicyclists, and cross traffic to make sure that it is stopped before you start to move. Whether first in line or in a line of vehicles, try to develop the habit of checking traffic and counting to three (1-2-3) before moving. This provides some protection against drivers who fail to stop for the red signal or drivers ahead who suddenly brake to a stop. Do not move into the intersection until there is space in the next block. If turning right, yield right-of-way to pedestrians in the crosswalk. Where there is more than one right turn lane, exit and enter the corresponding lane and be alert for drivers crossing or drifting while making the turn. Remember when turning right on red, first stop and yield right-of-way to any vehicles, bicycles, or pedestrians in the intended path of travel. While many signalized intersections of multi-lane streets and faster moving traffic provide special left turn lanes and/or delayed or advanced left turn signal lights, such protection is not always available. When such protection is not provided, the risk associated with a left turn can increase sharply. In addition to the precautions listed for right turns, the driver must check for oncoming drivers signaling for either left or right turns, identify an adequate gap in oncoming through traffic, determine whether there is space available in the lane to be entered, and check for the presence of pedestrians in the crosswalk to the left.

Frequently a driver wishing to turn left will move into the intersection on a green signal light with left turn signal on and wheels pointed straight ahead only to find that it is necessary to wait until the signal light turns red before it is safe to make the turn. It is important to remember that prior to moving into a signalized intersection and stopping, the law requires that a driver wishing to make a left turn make

---

**Texas Essential Knowledge and Skills:** § 110.42. English I (b) (4) The student uses writing as a tool for learning. (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.

The Student is expected to:

(B) describe searching patterns that utilize information processing tasks;

The Instructor:

. Continues with Transparency T-5.17, “Intersection Search Patterns,” to discuss higher speed intersection searching patterns prior to access.

. Intersection Controlled by Signs

. Managing a Space Gap

. Mirror Usage Concepts

- Responding to LOS/POT restrictions

- When stopping

. Shows suggested video lesson 10 of “Teaching Your Teens to Drive” to support approaching an intersection at speeds up to 55 m.p.h.

. Uses suggested video entitled “Approaching Curves (and Hills)” from Mottola IDS as an introductory activity for the curves and hills approach using the entry apex, and exit skills.

Note: Optional Use of these videos for 32 hour program, but recommended use for extended classroom hour programs.
certain there is space available in the street to be entered. Failure to do so frequently results in being unable to clear the intersection, which may lead to a traffic citation for blocking traffic and what is commonly referred to as grid lock.

**Intersections Controlled by Stop or Yield Signs** - Entering or crossing a multi-lane street with traffic traveling at higher speeds at an intersection controlled by a stop or yield sign requires critical time-space judgments. At a brisk rate of acceleration, crossing a two-lane roadway 30 feet wide requires a gap of about six or more seconds. For an approaching vehicle traveling 30 m.p.h., it is 264 feet, or about a half block. At 60 m.p.h., the same vehicle would travel 528 feet. If turning right into traffic traveling 30 m.p.h. a gap of about eight or more seconds, 352 feet, is needed to turn into the lane, accelerate to the speed of traffic while leaving the driver approaching from the left a following interval of four seconds. With traffic traveling at 55 m.p.h., a gap of about 11 seconds, about 880 feet, is needed.

Similar, but more complex problems exist relative to left turns. Since it is necessary to first cross the lanes of traffic traveling from left to right, the decision of when it is safe to go becomes more complex. Assuming no stop is required for a vehicle crossing the intersection from the opposite direction before merging with traffic closing from the right, a gap of three to four seconds to the left is needed. If traffic from the right is moving 30 m.p.h., a gap of 11 or more seconds, 484 feet, is needed to drive to and turn into the left lane. Accelerate to the speed of traffic while leaving the driver approaching from the right a following interval of four seconds. With traffic traveling at 55 m.p.h. a gap of 14 or more seconds, about 1130 feet is needed. When crossing a divided highway, it may be necessary to yield right-of-way before crossing both sets of roadway.

**Mirror Usage** - Anytime anything, object [i.e. traffic control device, vehicle, pedestrian] or condition [i.e. interchange, area of limited visibility, water on the roadway] in or adjacent to the path of travel indicates the possible need to adjust speed or position, the driver needs to be aware of the location, size, and speed of any vehicles to the sides and/or rear. It is equally important to remember that while a vehicle is in motion, mirror usage is intended to assist in detection and not intended for gathering detail. As indicated previously, drivers cannot afford to divert attention from the path ahead for more than a second at a time. Three quick mirror checks can answer the following questions: Are there vehicles present? If yes, where located?; If yes, big or little?; If yes, relative speed?

**When stopping** - Anytime a driver prepares to stop [i.e. traffic control device] before braking, the eyes should go to the rear view mirror. Flash the brake lights to alert any following driver. When stopping, stop back at least one car length from the stop bar or vehicle ahead. Direct attention to the rear view mirror until two cars or a truck have

---

**Texas Essential Knowledge and Skills**: § 110.42. English I (b) (4) The student uses writing as a tool for learning. (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
The Student is expected to:

- (B) describe searching patterns that utilize information processing tasks;

The Instructor:

- Continues with Transparency T-5.17, “Intersection Search Patterns,” to discuss higher speed intersection searching patterns.

- Mirror Usage Concepts
  - Usage when turning

- Continues with Transparency T-5.17, “Intersection Search Patterns,” to discuss mirror use and blind area checks based on content materials to the right.

- Shows Transparency T-5.18, “Lane Markings,” to discuss the type of lane markings found in special lanes and multiple use lanes.

- Shared Left Turns Markings

- Recommendations for lane use

---

**Knowledge and Skills**

**The Student is expected to:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) describe searching patterns that utilize information processing tasks;</td>
<td></td>
</tr>
</tbody>
</table>

---

**Intersection Search Patterns**

**Intersection Search Patterns**

**Lane Markings**

**Shared Left Turn Lane**

**Reversible Lanes**

---

**Module Five—Information Processing: Moderate Risk Driving Environment.** The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
stopped to the rear. Concentrating on the mirror and allowing extra space ahead increases ability to steer out of the lane if it becomes apparent that a vehicle closing from the rear is traveling too fast to stop in time. [Stopping when you can see the rear tires of the vehicle in front contact the road, provides room to steer around a stalled car]. Once stopped, vehicles that provide protection to the rear, should ease off the brake pedal and allow the vehicle to slowly move forward. If stopped behind another vehicle, retain the safe distance.

**Mirror Usage when Turning** - When a turn is anticipated, mirrors should be checked before any change of speed or position is made, to enable the driver to assess and control rear and side space. An update of space to the rear should be made as soon as the turn is completed and the space to the front has been reassessed.

**Checking Mirror Blind Zones** - Regular side view mirrors, even when angled out an additional 12 to 16 degrees, do not provide sufficient information to safely make a movement to the side without first making a mirror blindspot check. A mirror blindspot check involves making a quick eye check to the left or right in the direction of intended movement. A partial solution to the problem of restricted vision [mirror blind spots to the left and right] is the use of convex mirrors such as those found on the right outside of new cars. Due to their rounded surface, convex mirrors provide a much wider view. A problem associated with such mirrors, however, is that objects are much closer than they appear to be when viewed in the mirror. If details are recognized, [i.e. headlights or grill] when checking a convex mirror for objects to the left or right side and rear, the vehicle is generally too close to allow movement in that direction.

**Using A Shared Left Turn Lane To Enter A Driveway**

Shared left turn lanes are marked with solid and broken yellow lines on both sides of the lane and white turn arrows that indicate that drivers traveling in either direction can use the lane. Shared left turn lanes are intended only for vehicles making left turns. As a rule drivers should not travel more than about 200 feet while slowing to stop or turn across traffic or accelerating to enter traffic. When traffic is so heavy that a safe gap in oncoming traffic is not available, drivers can move out of the left travel lane, slow, or stop, if necessary, and then complete the left turn when there is a safe gap in traffic.

- When preparing to use a shared left turn lane to turn left from moving traffic, a driver must:
  - Check the shared left turn lane for vehicles already stopped waiting to turn from or onto the highway.
  - Check ahead on the right to see if anyone wanting to make a left turn onto the highway will be entering the shared left turn lane.
  - Check oncoming traffic for vehicles signaling a left turn.
  - Check the driveway to the left for any vehicle signaling a left turn with intentions of moving into the lane while waiting for a gap in traffic to the right.

**Texas Essential Knowledge and Skills:** § 110.42. English I (b) (4) The student uses writing as a tool for learning. (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Knowledge and Skills

The Student is expected to:

(C) understand and utilize lane markings to identify intersection turning situations;

The Instructor:

- Shows Transparency, T-5.18
  "LaneMarkings," to discuss the type of lane markings found in special lanes and dual use lanes.

- Shared Left Turns Markings

- Recommendations for lane use

- Lane flows and markings

- Shows suggested video lesson 10 of "Teaching Your Teens to Drive" to support approaching an intersection at speeds up to 55 m.p.h.
• Check traffic to the rear and signal intention to turn left.
• Adjust speed and enter lane.
• If an adequate gap is not available, brake to a stop.
• When oncoming traffic is clear, complete the turn.

**Using A Shared Left Turn Lane to Enter a Street from a Driveway**
- Signal a left turn and stop at edge of roadway.
- Check for drivers on the opposite side of the roadway waiting to turn left.
- Check for drivers approaching from the right signaling or waiting to turn left.
- Check for a safe gap in traffic to the left.
- If traffic is clear in both directions, enter the nearest through lane. Do not use the shared left turn lane.
- If there is a gap to the left but not to the right, turn into the shared left turn lane, stop, and apply the right turn indicator.
- When traffic in the lane to the right is clear, accelerate and steer into the nearest traffic lane.

While you should always apply **SEE IT** Space Management rules when driving, it is especially important when traveling in moderate to heavy traffic in a complex street grid.

**Move with the flow of traffic** - Try to keep speed the same as that of the surrounding vehicles. [Any speed more than five miles per hour slower or faster than the flow of traffic tends to cause disruption in the flow].

**Anticipate lane blockages and select the lane that allows movement with the least conflict** - A visual lead of one to one-and-a-half blocks [20 -30 seconds ahead] helps to identify the better lane. Identifying double parked vehicles or turning vehicles backed up in a lane due to pedestrian or oncoming traffic well in advance provides time to make a lane change if necessary.

**Sometimes there is no gap in which to make a lane change** - Do not just force it. Ask for permission to make the lane change by turning on the turn signal, position vehicle, and make eye contact. In short, ask the other driver to cooperate by helping to make a gap. Remember to return the courtesy when someone else needs help.

**Predict traffic stoppages that could cause an intersection trap** - As previously noted, position the vehicle so that a traffic search 20 to 30 seconds ahead enables the driver to spot conditions that determine whether an intersection can be cleared when a signal light turns red.

**Identify streets as one- or two-way** - One-way streets are usually marked with ar-
Knowledge and Skills
The Student is expected to:

(C) understand and utilize lane markings to identify intersection turning situations;

The Instructor:

- Shows Transparency T-5.18, “Lane Markings,” to discuss the type of lane markings found in special lanes and dual use lanes.
- Shared Left Turns Markings

- Recommendations for lane use
- Lane flows and markings

- Uses suggested video entitled, “Approaching Curves (and Hills)” from Mottola IDS as an introductory activity for the curves and hills approach using the entry apex and exit skills.

Note: Optional Use for 32 hour program but recommended use for extended classroom hour programs.
rows mounted on corner posts and close to the overhead signal light.

**Reversible Lanes** - In some large cities, during rush hours, additional lanes are designated for traffic traveling into or out of the city. Identified as reversible lanes, they are marked with special double yellow broken lane line markers. In addition, signs at the side of the road and overhead signals tell the driver which lanes can be used.

**Plan ahead for anticipated turns** - In heavy traffic, know where to turn. Since it is frequently difficult to change lanes, plan to get into the proper lane two or three blocks in advance.

**Using a shared left turn lane** - Shared left turn lanes are frequently found between intersections where a large number of vehicles turn left across a moderate to high volume of traffic that is traveling at higher rates of speed. Shared left turn lanes may be used by drivers turning from or onto a roadway. They are to be used only by drivers making a left turn.

**Yield to oncoming traffic and pedestrians in the crosswalk when turning left** - Finding a gap in oncoming traffic while at the same time yielding to pedestrians in the crosswalk can be very difficult when turning left at a major intersection.

**Frequently turns are allowed from more than one lane** - It is important to remember that regardless of the number of lanes from which turns can be made, the driver maintains lane position throughout the turn. Also, it is important to check traffic in the other turn lane(s) to be sure other drivers are not crossing into the lane being entered.

**Position within lane important on turns** - While it is always important to move well to the left or right when preparing to make a turn, it is especially important in heavy traffic when pedestrians in the crosswalk may cause a vehicle to stop. By moving as far left or right as possible, movement may be able continued.
## Knowledge and Skills

**The Student is expected to:**

- (D) describe curvature entry and exit techniques that utilize vision, motion, and steering controls as they relate to changing the path of travel and adjusting speed; and

<table>
<thead>
<tr>
<th>Topic Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Instructor:</td>
</tr>
<tr>
<td>. Uses Transparency T-5.19, “Line of Sight Through Curve,” to illustrate approach to curve:</td>
</tr>
<tr>
<td><img src="" alt="" /></td>
</tr>
</tbody>
</table>

- Establish LOS/POT
- Check to Rear
- Adjust Position
- Establish Target to Exit
- Adjust Speed and Position

<table>
<thead>
<tr>
<th>Topic Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Uses Transparency T-5.20, “Line of Sight Through Curve,” to illustrate approach to curve or hill to the right:</td>
</tr>
<tr>
<td><img src="" alt="" /></td>
</tr>
</tbody>
</table>

- Sightline
- Position to the left on entry (L.P. 2)
- Drive to Apex of curve (L.P. 3)
- Move back to center (L.P. 1)

<table>
<thead>
<tr>
<th>Topic Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Shows T-5.21, “Line of Sight Through Curve,” to illustrate approach to curve or hill to the left:</td>
</tr>
<tr>
<td><img src="" alt="" /></td>
</tr>
</tbody>
</table>

- Sightline
- Position to the left on entry (L.P. 3)
- Drive to Apex of curve (L.P. 2)
- Move back to center (L.P. 1)

---

Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
Driving Through Curves - Searching as far ahead as possible and identifying the existence of a curve provides more time to evaluate and control the level of risk.

- Does the roadway curve to the left or right?
- Can the exit of the curve be seen ahead?
- What is the sharpness of the curve?
- What is the lane width, shoulder conditions, posted speed, or traffic volume?
- Is the curve on grade... up or down hill?
- Is the field of view restricted?
- Can an apex point for exiting the curve be determined?

Answering these questions and checking traffic to the rear better enables a driver to determine the best speed and lane position for negotiating a curve. Also, this is one more situation where driving with headlights on during daylight hours helps manage the level of risk since doing so makes a vehicle more visible to oncoming drivers.

It is generally best to approach the curve in lane position 3, as far away as possible from oncoming traffic. This position also provides the best targeting point for the line of sight. On narrow rural roadways with limited traffic and limited visibility, curves to the right present special problems in that oncoming drivers are more apt to drive over the center line. Under such circumstances, with headlights on and after making appropriate speed adjustments, approach the curve in lane position 2 to maximize the probability of being seen by the oncoming driver and the ability to establish a line of sight and target line. Establish lane position 3 using the apex of the curve as the target and assess off road conditions if an escape path is required.

**Speed Control.** The driver should slow the vehicle on entry to the curve based on the ability to maintain the line of sight through the curve. The foot should squeeze the brake on entry and trail off the brake through the central part of curve until the apex or exit point is determined. Once the apex (the point that the car is closest to the inside of the curve line) is reached, light acceleration is used to pull the car out of the curve through the exit. The acceleration should be progressively firmer until adjusted to speed limit.

**Road Position.** The outside road position on entry to a curve allows for a longer braking effort on entry and a better chance to establish a sightline to the apex and exit of the curve. Entering from the outside, moving the late apex point, and then back out to the top of the curve allows the driver to maintain the best sightline and steer the least amount through the curve. Traction loss into a curve (understeer) is often caused by excessive speed, excessive braking, or excessive steering. Traction loss on the exit of a curve (over-steer) is often caused by excessive acceleration, sudden braking, or sudden steering efforts. The goal of positioning the vehicle is to reduce the amount or suddenness of brake, acceleration, or steering efforts.

**Texas Essential Knowledge and Skills:** § 110.42. English I (b) (4) The student uses writing as a tool for learning. (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
The Student is expected to:

(E) describe hill approach and exit techniques that utilize vision, motion, and steering control as they relate to changing the path of travel and adjusting speed.

The Instructor:

- Continues showing Transparency T-5.22, “Line of Sight Over Hill,” to discuss the similarity to handling curves and hills.

. Sightline Limitations
. Speed Adjustments
. Position Adjustments
. Restrictions are vertical rather than horizontal as in curve

. Uses suggested video entitled, “Approaching Curves (and Hills)” from Mottola IDS as a culmination activity for the curves and hills approach using the entry apex and exit skills.

. Collects Worksheet W-5.2, “Approaching Higher Speed Intersections, Curves, and Hills” as an assessment tool or for class discussion purposes.
Cresting Hills. Hillcrests on roadways with opposing traffic and limited sight lines should generally be approached in lane position 3 near the right edge of the roadway. Also, it is essential to check traffic to the rear and reduce speed prior to cresting the apex, to assure a better position for responding appropriately if some object is blocking the path of travel on the downgrade.

**Note:** Keep in mind that hills can be taught as vertical curves with all the same entry, apex, and exit rules of a curve.

Traveling Downgrade. When driving down long, steep grades [6 degrees or greater] it is important to control the vehicle’s speed and to check to the rear about every five seconds for the presence of large vehicles. Any rapidly approaching large vehicle, particularly one with white smoke boiling out from beneath the rig, is apt to be a run-away, generally one that has lost its brakes. Do not attempt to outrun the truck. Instead, pull off the road as far as possible to give the driver as much room as possible.

Lane Flows and Lane Markings
Module Five Topic 2 Resources

Module Five, Topic 2 Transparencies:
  T-5.17, Intersection Search Patterns;
  T-5.18, Lane Markings;
  T-5.19, Line of Sight Through Curve;
  T-5.20, Line of Sight Through Curve;
  T-5.21, Line of Sight Through Curve;
  T-5.22, Line of Sight Over Hill.

Worksheets:
  W-5.2, Approaching Higher Speed Intersections, Curves, and Hills.

Fact Sheets:
  F-5.4, Techniques for Hills and Curves.

Assessment
  MA-5.1, Module Five Assessments;
  W-5.2, Approaching Higher Speed Intersections, Curves, and Hills.

Suggested Media:

  Video: “Approaching Curves,” Mottola IDS;
  Video: “Searching Intersections,” Mottola IDS;
  Video: “Teaching Your Teens to Drive,” AAA;
  “Drive Right,” Ch. 1, 4, 10;
  “How to Drive,” Ch. 8, 9, 10;
  “Handbook Plus,” Ch. 10, 11;
  “License to Drive,” Ch. 2, 10;
  “Responsible Driving,” Ch. 8, 10, 12.
<table>
<thead>
<tr>
<th><strong>Module Five Prerequisites:</strong></th>
<th><strong>Topic Title:</strong> Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful completion of Module 3 activities</td>
<td></td>
</tr>
</tbody>
</table>

**Topic 3 Time Frame:**
- 30 minutes instructional time
- 0 minutes discretionary break time

**Module Five, Topic 3** is a required approved program element.

<table>
<thead>
<tr>
<th><strong>Needed Resources</strong></th>
<th><strong>Instructor Activities</strong></th>
<th><strong>Time Frame</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Five, Topic 3.</td>
<td>• Review recommended Module Five: Topic 3.</td>
<td>15 minutes (prior to lesson)</td>
</tr>
<tr>
<td>Transparencies T-5.23, T-5.24, T-5.25, T-5.26, T-5.27 and T-5.28</td>
<td>• Review Module Five, Topic 3 Transparencies provided: T-5.23, Determining Passing Time/Space Needs; T-5.24, Passing Needs; T-5.25, Passing Considerations; T-5.26, Passing Procedures; T-5.27, Passing Procedures; T-5.28, Module Five Closing Transparency</td>
<td>15-20 minutes (4-6 minutes)</td>
</tr>
<tr>
<td>Worksheet W-5.3</td>
<td>• Review Worksheet W-5.3, Passing Concepts</td>
<td>5-10 minutes</td>
</tr>
<tr>
<td>Fact Sheets F-5.5 and F-5.6</td>
<td>• Review Fact Sheets F-5.5, Determining Passing Laws; F-5.6, Related Passing Laws</td>
<td>For instructor use and support</td>
</tr>
<tr>
<td>Module Assessments W-5.3, MA-5.1</td>
<td>• Module Assessment W-5.3, Passing Concepts MA-5.1. Module Five Assessment</td>
<td>10-15 minutes</td>
</tr>
<tr>
<td>Suggested Media: Video, “Teaching Your Teens to Drive,” AAA; “Drive Right,” Ch. 1,4,10; “How to Drive,” Ch. 8,9,10; “Handbook Plus,” Ch. 10,11; “License To Drive” Ch. 2,10; “Responsible Driving,” Ch. 8,10,12.</td>
<td>• In-car Laboratory BTW-5.1, BTW-5.2</td>
<td>30 minutes BTW 30 minutes Observation for each</td>
</tr>
<tr>
<td>In-car Laboratory BTW-5.1, BTW-5.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**18.0 Non-credit course (32 hrs)**
**22.0 Multiphase course (40 hrs)**
**22.0 Credit course (56 hrs/semester)**
Knowledge and Skills
The Student is expected to:

(A) determine adequate passing time and space needs;

(B) recognize adequate passing time and space needs for oncoming vehicles, including large vehicles; and

The Instructor:

. Distributes Worksheet W-5.3, “Passing Concepts,” as a classroom assessment or a home activity

. Shows Transparency T-5.23, “Determining Passing Time/Space Needs” to lead a discussion on the consequences of poor judgment of time/space needs when passing.
  . Time
  . Space
  . Math

. Shows Transparency T-5.24, “Passing Needs” to lead a discussion on the consequences of poor judgment of time/space needs when passing.
  . Speed
  . Time
  . Space
  . Math

. Uses suggested video Lesson 12 in “Teaching Your Teen To Drive” and appropriate sections of Fact Sheet F-5.4 “Passing Rules and Laws” to lead a discussion on the laws which regulate the conditions under which one driver may pass another and requirements placed on both drivers.
Passing and Being Passed

Head-on collisions, typically involving a passing maneuver, annually account for approximately 8,000 or nearly 20% of all traffic fatalities. While some crashes occur due to impatience or illegal actions, many occur due to lack of knowledge regarding time/space gap requirements. The purpose of this lesson is to assist students in learning the passing laws and the legal responsibilities placed on both the driver doing the passing and the driver being passed. Emphasis is placed on developing the ability to determine a safe gap at various speeds.

Impatience, errors in timing, and poor judgment of space result in approximately 5,500 fatal crashes annually as a result of head-on collisions. There are a number of instances when it is illegal to pass. Passing is not permitted when the left lane marker is a solid yellow line, or a sign indicates a no passing zone. It is illegal to pass on a two-lane road when approaching a hill crest, curve, or intersection. It is also illegal to pass within 100 feet of bridges, tunnels, and railroad crossings where traffic is limited to one lane of travel in each direction.

**Learning to estimate passing gap needs.** A four-lane divided or undivided highway can also be used to practice identifying space gap needs when passing a vehicle on a two-lane roadway. A driver traveling 40 mph is going to make a flying pass of a vehicle traveling 30 mph. If the driver makes all of the visual checks, signals intentions, and starts the pass from an interval two seconds behind the vehicle ahead, it will take about 13 seconds to complete the pass (at 50 and 40 mph, about 16 seconds and at 60 and 50 mph, about 19 seconds). If the passing maneuver is started from three seconds back with both vehicles traveling the same speed, the passing driver will have to accelerate to a speed 15 m.p.h. faster than the vehicle to be passed to complete the pass in the same time limits.

To estimate the time and distance of an oncoming vehicle, begin counting one, 1,000; two, 1,000; etc. When an oncoming vehicle is seen, continue the count until the approaching vehicle is opposite. Keep trying until accuracy at estimating the passing time needed is achieved.

Passing is one more situation in which the use of headlights during daylight hours is critical. The combined distance traveled by the passing and oncoming vehicle at 60 m.p.h. is 38 seconds or 3,344 feet. Without headlights on, an approaching vehicle may not become visible until it is within 2,200 to 2,500 feet. This is in contrast to about 4,500 feet with headlights or daytime running lights illuminated. The difference in visibility can be critical.
The Instructor:

. Shows Transparency T-5.25 “Passing Considerations” to lead a discussion on consequences of poor judgment of time/space needs when passing.

. Larger vehicles
. Oncoming Vehicles
. Headlights

. Shows Transparency T-5.26, “Passing Procedures,” to lead a discussion on procedures to follow when preparing to pass and the time/space gaps necessary to complete a pass at various speeds.

. Position yourself
. Check Traffic Flow
. Check for Safe Passing Distance
. Signal your Intentions

. Shows Transparency T-5.27, “Passing Procedures,” to complete a discussion on procedures to follow when preparing to pass and the time/space gaps necessary to complete a pass at various speeds.

. Overtake the vehicle
. Return to Lane

. Distributes, collects and grades the MA-5.1, Module 5 Assessment and the Worksheet W-5.3, “Passing Concepts.”.

Passing Considerations

- Larger Vehicles
  - 24 seconds to pass tractor trailer rig (90 feet) traveling @ 50 mph, when passing @ 60 mph
  - 2160 feet needed to complete 24 second pass

- Oncoming Vehicles
  - Approaching vehicle travels 2160 feet @ 40 mph
  - Total clear distance needed to pass becomes 4320 feet when approaching vehicles exist

- Daylight Headlight Use Critical

Passing Procedures

Prepare to pass
- Position yourself two to three seconds behind the vehicle you want to pass
- Check mirrors and oncoming traffic
- Check ahead for safe passing distance
- Signal your intention

Overtake the ongoing car
- Signal your intention and accelerate into passing lane
- Accelerate quickly to an appropriate speed
- Concentrate on the path ahead
- Check your mirror for following cars
- Return to lane
- Check your rear-view mirror for the front of the car you are passing
- Signal your intention
- Change lanes and maintain speed
- Cancel turn signal

Passing Needs

- Daylight Headlight Use Critical

Transparency T-5.25
Passing Considerations

Transparency T-5.26
Passing Procedures

Transparency T-5.27
Passing Considerations
Demands are also placed on the driver of a vehicle being passed. The law specifically prohibits a driver who is being passed from increasing the speed of the vehicle. Further, upon audible signal, the driver of an overtaken vehicle shall give way [move] to the right in favor of the overtaking vehicle.

**Passing Procedures**

Prepare to pass:
- Position vehicle two to three seconds behind the vehicle to be passed.
- Check mirrors and oncoming traffic.
- Check ahead for safe passing distance.
- Signal intention.

Overtake the ongoing car:
- Signal intention and accelerate into passing lane.
- Accelerate quickly to an appropriate speed.
- Concentrate on the path ahead.
- Check the mirror for following cars.

Return to lane:
- Check the rear-view mirror for the front of the car being passed.
- Signal intention.
- Change lanes and maintain speed.
- Cancel turn signal.
Module Five Topic 3 Resources

Module Five, Topic 3 Transparencies:

T-5.23, Determining Passing Time/Space Needs;
T-5.24, Passing Needs;
T-5.25, Passing Considerations;
T-5.26, Passing Procedures;
T-5.27, Passing Procedures;
T-5.28, Module Five Closing Transparency

Worksheets:
W-5.3, Passing Concepts.

Fact Sheets:
F-5.5, Determining Passing Laws;
F-5.6, Related Passing Laws.

Assessment;
MA-5.1, Module Five Assessment;
W-5.3, Passing Concepts.

Suggested Media:

Video, “Teaching Your Teens to Drive,” AAA;
“Drive Right,” Ch. 1, 4, 10;
“How to Drive,” Ch. 8, 9, 10;
“How to Drive,” Ch. 8, 10, 12;
“License To Drive,” Ch. 2, 10;
“Responsible Driving,” Ch. 8, 10, 12.
### Module Five Prerequisites:
- Qualifies for Texas Driver Instructional Permit
- Total Parental Involvement: 7 hours

### Topic Title: Supplemental

<table>
<thead>
<tr>
<th>Topic</th>
<th>Time Frame:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td></td>
<td>Multiphase course (40 hrs)</td>
</tr>
<tr>
<td></td>
<td>Credit course (56 hrs/semester)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Needed Resources</th>
<th>Instructor Activities</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textbook Resources</td>
<td>Provides additional textbook resources for parental involvement.</td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Fact Sheet F-5.1</td>
<td>Provides Fact Sheets for home-based activities.</td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Fact Sheet F-5.2</td>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Fact Sheet F-5.3</td>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Fact Sheet F-5.4</td>
<td>Provides Worksheets for home-based activities.</td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Fact Sheet F-5.5</td>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Fact Sheet F-5.6</td>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Worksheet W-5.1</td>
<td>Provides copies of BTW lessons for parent-based follow up activities.</td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Worksheet W-5.2</td>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
<tr>
<td>Worksheet W-5.3</td>
<td></td>
<td>Non-credit course (32 hrs)</td>
</tr>
</tbody>
</table>

- Classroom Lab Activity
- Provides access to video and resource materials for vehicle readiness, driver preparation, vehicle controls, reference points, and targeting concepts.

Optional Videos:
- “Precision Turns,” IDS
- “Zone Control,” IDS
- “Searching Intersections”
- “Teaching Your Teens to Drive”
- “Managing Space and Time”
- “Developing Basic Vehicle Control”
Knowledge and Skills
The Student is expected to:

The Instructor:

Module Five—Information Processing: Moderate Risk Driving Environment. The student defines driver information processing; applies information processing principles; recognizes moderate risk driving environments; utilizes space management concepts to establish roadway position, vehicle speed, and communicate with other roadway users; synthesizes information from the driving environment; and applies critical thinking, decision-making, and problem-solving skills to select the appropriate intersection entry, curve management, hill management, and passing maneuvers for the given situation.
Texas Essential Knowledge and Skills: § 110.42. English I (b) (4) The student uses writing as a tool for learning. (B) to discover, organize, and support what is known and what needs to be learned. (14) The student listens attentively for a variety of purposes. (A) focus attention on speaker’s message.
Texas Driver Education
Classroom and In-car Instruction
Model Curriculum

Module Five

Information Processing:

Moderate Risk Environment

- PROCESSING INFORMATION
- INTERSECTIONS, CURVES, AND HILLS
- PASSING

IN-CAR LABORATORY SESSIONS
Module 5  Recommended Laboratory Session

Prerequisites: Classroom Module 4, BTW-4.1, and BTW-4.2

Learning Goals: The student should communicate with other users and responsibly execute lane changes in a higher volume traffic setting; and while performing speed and position changes, integrate experience and knowledge to avoid crisis situations.

Performances: During this session the student will:
- Use SEEiT space management system responses.
- Position the vehicle in a proper location for conflict avoidance.
- Demonstrate lane changes in traffic flow, merging, and exiting.
- Demonstrate speed and position changes in response to changes in space around vehicle at speeds up to 55 mph.

Assessment: Self-assessment of space/area management skills; teacher evaluations of procedures and techniques on the record forms.

<table>
<thead>
<tr>
<th>Instructor Activities</th>
<th>Ref</th>
<th>Student Activities</th>
<th>Materials Needed or Rear Driver Activities</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Review on-street route for changes or obstructions.</td>
<td>Mod 5</td>
<td>Group activity segment</td>
<td>Rear Seat Driver&lt;br&gt;• Shows permit at the start of lesson.&lt;br&gt;• Listens to review of procedures and zone control concepts.&lt;br&gt;• Asks questions regarding procedures.&lt;br&gt;• Verbally performs SEEiT procedures for driver and instructor.&lt;br&gt;• Verbally reviews lane change procedures while driver is making 1st lane change in each area.&lt;br&gt;• Charts changes in areas/ space and marks changes in speed/position.&lt;br&gt;• Prepares for driving sequence.</td>
<td></td>
</tr>
<tr>
<td>• Review objectives for lesson with drivers.</td>
<td>Mod 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prepare vehicle for lesson.</td>
<td>Mod 4</td>
<td>Session activity&lt;br&gt;• 1st driver performs pre-start, starting, and moving from curb procedures.&lt;br&gt;• Enters traffic flow with smooth and precise movements from curb.&lt;br&gt;• Reviews space control process.&lt;br&gt;• Hears example from rear seat driver and instructor.&lt;br&gt;• Responds vocally to high risk situations and changes to speed and position.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evaluate pre-start, start, and moving from curb procedures.</td>
<td>Mod 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Review SEEiT procedures with driver.</td>
<td>Mod 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Review lane change procedures and need for precision in performing task in high volume traffic flow.</td>
<td>Mod 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Involve rear seat driver in area control and lane changes procedures. Mark position changes and speed adjustments.</td>
<td>Mod 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Involve driver in a minimum of 3 lane changes in each of the following areas: traffic flow, merging, exiting roadway.</td>
<td>Mod 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evaluate speed and space changes in response to changes in space around vehicle at speeds up to 55 mph.</td>
<td>Mod 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evaluate stopping, securing procedures.</td>
<td>Assessment Student Record Form</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Repeat tasks with next driver.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**BTW-5.1 Diagrams & Procedures**

**Intersection Approach**
- Clear Area 1
- Clear Area 6
- Communication Needed?
- Check Open Area 2 or 3
- Check Changing Area 2 or 3
- Adjust Speed or Position

**Curvature or Hill Approach**
- Establish Travelpath/Sightline
- Adjust Veh. Position to 3
- Establish Target Area 1
- Adjust Speed (Brake)
- Establish Travelpath/Sightline
- Adjust Speed and Position

---

**Precision Task Concerns**

---

**Worksheet Page 44**
Module 5  
Recommended Laboratory Session  

Prerequisites:  
Classroom Module 4 and BTW-5.1

Learning Goals:  
The student should communicate with other users and responsibly execute lane changes in a higher volume traffic setting at speeds below 55 mph; and while performing speed and position changes, integrate experience and knowledge to avoid crisis situations.

Performances:  
During this session the student will:  
Use SEEiT system responses in negotiating hills, curvatures, intersections, narrow paved and unpaved roadways, bridges, approaching and traversing railroad crossings, and approaching and travelling through tunnels.

Assessment:  
Self-assessment of space/area management skills; teacher evaluations of procedures and techniques on the Records form.

---

<table>
<thead>
<tr>
<th>Instructor Activities</th>
<th>Ref</th>
<th>Student Activities</th>
<th>Materials Needed or Notes Rear Driver Activities</th>
</tr>
</thead>
</table>
| • Review on-street route for changes or obstructions.  
• Review objectives for lesson with drivers.  
• Prepare vehicle for lesson.  
• Evaluate pre-start, start, and moving from curb procedures.  
• Review SEEiT procedures with driver.  
• Review intersection, hill, and curvature approach in performing tasks in higher volume traffic flow.  
• Involve rear seat driver in area control approaching intersections. Mark position changes and speed adjustments.  
• Involve rear seat driver in area control approaching curves and hills. Mark position changes and speed adjustments.  
• Evaluate speed and space changes in response to changes in space around vehicle.  
• Evaluate stopping, securing procedures.  
• Repeat tasks with next driver. | Mod 5  
Group activity segment  
• Review objectives, show permit, ask questions regarding lesson activities.  
Session activity  
• 1st driver performs pre-start, starting, and moving from curb procedures.  
• Enters traffic flow with smooth and precise movements from curb.  
• Reviews area control process.  
• Hears example from rear seat driver and instructor.  
• Responds vocally to open and closed areas and changes to speed and position.  
• Performs 3 intersections in traffic flow as explained.  
• Performs 3 curvature approaches.  
• Performs 3 hill approaches.  
• Performs speed and position changes in response to approach to RR crossing.  
• Performs speed and position change in regard to changing pavement surface.  
• Performs speed and position changes in regard to bridge or tunnel.  
• Performs stopping, securing procedures.  
• Reviews and assesses tasks performed in lesson. | Rear Seat Driver  
• Shows permit at the start of lesson.  
• Listens to review of procedures and zone control concepts.  
• Asks questions regarding procedures.  
• Verbally performs SEEiT procedures for driver and instructor.  
• Verbally reviews intersection, curvature procedures while driver is making changes in each area.  
• Charts changes in areas/ space and marks changes in speed/ position.  
• Prepares for driving sequence. |
BTW-5.2 Diagrams and Procedures

1 Search
- Rear Mirror Search
- Side Mirror Search
- Side Area Visual Search
- Entry Area Visual Search

2 Communicate
- Lane change
- Device
- Stable steering
- Check Areas 4 or 5

3 Movement
- Travelpath/
- Sightline
- Target Area
- Speed Control

4 Vehicle Control
- Speed Adjust
- Position Adjust
- Open/Closed Areas

5 Lane Control
- Veh. Pos. 1
- Speed Adjust
- Open/Closed Areas

Precision Task Concerns

- steering control
  - hand position
  - stability
  - balance
- lane position
  - consistency
  - selection
  - balance
- lane changes
  - procedure
  - communication
  - smoothness
- lane selection
  - timing
  - response to zone
  - accuracy
- traffic flow adjustments
  - speed control
  - space management
  - communication
- oncoming traffic
  - lane position
  - space management
  - communication
- starting/stopping/securing procedures
  - accuracy
  - timing
  - communication
- vision
  - sightline/Travelpath
  - head checks
  - mirror checks
  - scanning
- passing
  - timing
  - communication
  - speed control
- being followed
  - space control
  - mirrors
  - speed
- passing
  - timing
  - communication
  - speed control
- speed and position changes
  - accuracy
  - timing
  - communication
- movement
  - Travelpath
  - Sightline
  - Target Area
- speed control
  - lane position
  - selection
  - balance
- lane changes
  - procedure
  - communication
  - smoothness
- lane selection
  - timing
  - response to zone
  - accuracy
- traffic flow adjustments
  - speed control
  - space management
  - communication
- oncoming traffic
  - lane position
  - space management
  - communication
- starting/stopping/securing procedures
  - accuracy
  - timing
  - communication
- vision
  - sightline/Travelpath
  - head checks
  - mirror checks
  - scanning
- passing
  - timing
  - communication
  - speed control

Open/Closed/Changing Areas

Area

Area

Area

Area

Area

Area

Area

Area

Speed Changes to Faster/Slower

Vehicle Lane Position Changes to 1,2,3,4,5

Rear Seat Tally Sheet

<table>
<thead>
<tr>
<th>Space Areas</th>
<th>Area 1</th>
<th>Area 2</th>
<th>Area 3</th>
<th>Area 5</th>
<th>Area 6</th>
<th>Area 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>C/Closed/Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O/Open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Speed Changes

Position Changes

Worksheet Page 46
**Suggested Titles:**
- “Good Driving Strategies”
- “Communications”
- “Understanding Intersections”
- “City Streets”

**Materials Needed**
- DORON Video or Laserdisc
- SSI Safe Driver Training Series

**Learning Goals:**
The simulation student demonstrates comprehension of speed control and vehicle positioning in lane which will increase student's ability to position vehicle for moderate risk vehicle maneuvers.

**Performances:**
Performances are based on simulation video used for this section. Demonstrate the correct position for vehicle control.

**Assessment:**
Instructor assessment of speed, positions, and techniques on the district on-street records form. Student assessment of simulation activities may be added to the student portfolio.

<table>
<thead>
<tr>
<th>Instructor Activities</th>
<th>Student Activities</th>
<th>Materials Needed and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Suggested Titles:  
“Stopping In Time” ... DORON Video or Laserdisc  
“Rural Roadways” ... DORON Video or Laserdisc  
“Handling Roadway Hazards” ... SSI Safe Driver Training Series  
“Expressways” ... SSI Safe Driver Training Series

Learning Goals:  
The simulation student demonstrates comprehension of speed control and vehicle positioning in lane which will increase student's ability to position vehicle for moderate risk vehicle maneuvers.

Performances:  
Performances are based on simulation video used for this section. Demonstrate the correct position for vehicle control.

Assessment:  
Instructor assessment of speed, positions, and techniques on the district on-street records form. Student assessment of simulation activities may be added to the student portfolio.